Tibetan Buddhism and the environment: A case study of environmental sensitivity among Tibetan environmental professionals in Dharamsala, India

Megan Marie Shearer

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TIBETAN BUDDHISM AND THE ENVIRONMENT: A CASE STUDY OF ENVIRONMENTAL SENSITIVITY AMONG TIBETAN ENVIRONMENTAL PROFESSIONALS IN DHARAMSALA, INDIA

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts in Education:
Environmental Education

by
Meghan Marie Shearer
June 2005
TIBETAN BUDDHISM AND THE ENVIRONMENT: A CASE STUDY OF ENVIRONMENTAL SENSITIVITY AMONG TIBETAN ENVIRONMENTAL PROFESSIONALS IN DHARAMSALA, INDIA

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Approved by:

Dr. Darleen Stoner, First Reader

Dr. Robert London, Second Reader
ABSTRACT

The purpose of this study was to investigate environmental sensitivity among environmental professionals in a culture that is assumed to hold an ecocentric perspective. Nine Tibetan Buddhist environmental professionals were sampled in this study. A Tibetan environmental professional was defined as an individual who was born as a Tibetan, either inside Tibet or in an exile community, is Buddhist, currently resides in Dharamsala, India, and currently working in or has at least six months experience in an environmentally related position (such as education, planning, or research).

Based on an Environmental Sensitivity Profile Instrument, an environmental sensitivity profile for a Tibetan Buddhist environmental professional was created from the participants’ demographic and interview data. The most frequently defined variables were environmental destruction/development, education, and role models.

Environmental education implications were reviewed. Suggestions for future research based on cultural and spiritual worldviews were suggested.
ACKNOWLEDGMENTS

I would like to first acknowledge all of the Tibetans who helped and aided me through this project. In particular, Dolma Tsering, Tsering Namgyal, Tsering Topgyal, Geshe Dorji Damdul, and the Environmental Education Center of the Tibetan Welfare Office. It was through your combined openness, guidance and support that I was able to accomplish what I did in Dharamsala.

Secondly, I want to thank Dr. Darleen Stoner for her continual support, guidance, and patience in working with me over these past three years. In addition, I am thankful to Dr. Robert London for creating opportunities of study in the field of spirituality and education at CSUSB.

My heartfelt gratitude and appreciation is given to: Dr. Tara Doyle for allowing me the opportunity to return to Dharamsala with Emory University’s Tibetan Studies Program to conduct this research; my husband Andrew Shearer for everything; my mother Bonnie Snyder for everything else; Adrian Snyder; Veronique Rorive; Tara Plochocki; Ada Ramirez; CSUSB Office of Graduate Studies; and all of those who helped along the way to bring this project from its beginning to its conclusion.
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CHAPTER ONE
INTRODUCTION

Throughout the global world, there is growing concern over the posed human threat of an irreversible ecological catastrophe (Oskamp, 2002). The current ecological situation has been stated by Orr (1994) as being in "dire jeopardy" (p. 7). Advances in applied technology since World War II have lead to the rise of the nuclear age, petrochemical usage, overproduction and mass consumption (Gottlieb, 1992); resulting in loss of species' habitat, increase of endangered and extinct species, ruined land by nuclear spoilage, decrease in air quality, and an over-consumption of the Earth's natural resources (Worldwatch Institute, 2002).

Assuming that environmental degradation and devastation are strongly related to technoscientific-anthropocentric activities (Berry, 1999; Sessions, 1983; 1999; Wilson 2002), it is necessary to find sustainable pathways humans can adopt to modify their current behaviors by investigating alternatives offered by environmental education.

Environmental education is aimed at the acquisition of more responsible environmental behavior (Sia,
Hungerford, & Tomera, 1985/86; Stapp, 1969; Unesco, 1978). This behavioral change cannot be predicted from environmental knowledge alone (Hines, Hungerford, & Tomera, 1986/87; Sivek & Hungerford, 1989/90); when coupled with environmental sensitivity, skillful application of action strategies, and locus of control, researchers find that responsible environmental behavior among adults is more likely. Environmental sensitivity has been theorized as the first major entry-level variable leading to responsible citizenship behavior (Hungerford & Volk, 1990).

Environmental sensitivity has been defined to be: "A set of affective attributes which result in an individual viewing the environment from an empathetic perspective" (Peterson, 1982). Another definition offered by Volk (1997) stated: "Environmental sensitivity refers to an empathetic view of the environment and of its problems and issues. It is a view that respects ecological stability and promotes the idea that humans must live in harmony with the natural environment" (p. 48).

Volk's definition expanded beyond Peterson's by defining the empathetic view, thus incorporating an ecocentric perspective. Ecocentric, or simply Earth centered perspective, is the view that the environment
should be valued for its integral role in sustaining all life on Earth rather than solely for human use (Fox, 1993). As such, two dominant perspectives of the environment are ecocentric and anthropocentric.

The ecocentric perspective juxtaposed against the anthropocentric perspective provides two philosophical and sociological extremes of a linear spectrum defining human interactions and relations to the natural world. Positioned at a crossroads, George Session (1999) stated that one path (ecocentrism) follows the crucial philosophical and ecological insights of naturalists like Thoreau and Muir, in an attempt to find balance in this radically off-balanced world; the other path (anthropocentrism) is counterintuitive to the surmounting ecological evidence and traditional wisdom that will lead to an "inexorable, accelerating decline of Earth and all of its inhabitants" (Sessions, 1999, p. 149). In fact, many authors make a direct correlation between anthropocentrism and the "imminent demise of humankind" (Kastenholz & Erdmann, 1994, ¶ 11).

An ecocentric perspective is commonly identified with most hunting and gathering primal cultures with nature-centered religions (Sessions, 1999). Today it would be difficult to conduct a case study that determines the
influences of a nature-centered religion (ecocentric culture) on the environmental sensitivity among a primal culture. However, Sessions' postulated that many eastern cultures have retained an ecocentric perspective through seminal religious nature-based elements. This perspective enables the identification and study of environmental sensitivity related to an eastern culture that embraces an ecocentric perspective based on their religious and spiritual practices.

Considering Buddhist cultures to be ecocentric (see Badiner, 1990; Kaza & Kraft, 2000; Martin 1997; Tucker & Williams, 1997), it has been assumed that a Buddhist community structure will display environmental sensitivity and employ environmental sustainable practices. This assumption is based on the understanding that "religious worldviews propel communities into the world with fundamental predispositions toward [the world]" (Sullivan, 1997, p. xi). The proposed study will focus on the Buddhist worldview as related to the environmental sensitivity among Tibetans living in the exile community of Dharamsala, India.
The Tibetan Buddhist Community in Exile

In 1959, the Indian government, under the political leadership of Nehru, granted the Tibetan people political and cultural asylum in response to the communist Chinese takeover and occupation of Tibet (Methfessel, 1997). The Indian government granted His Holiness the 16th Dalai Lama, the political and religious head of Tibet, land in the northern Indian state of Himachal Pradesh. Today, this area, named Dharamsala, is home to over a thousand Tibetan refugees living in exile.

Dharamsala, commonly referred to as "Little Lhasa" (Lhasa is the capital city of Tibet), contains the main residence of the Dalai Lama in exile, the Central Tibet Administration (Tibetan Government in Exile), the headquarters of the Tibetan Children's Village, Men-Tse-Kang Medical and Astrological Institute, and the Tibetan Institute of Performing Arts. Dharamsala is one of 138 Tibetan communities in exile; however since it hosts both the Tibetan Government in Exile and the main residence of the Dalai Lama, it is viewed as the center of the Tibetan community in exile (The Office of Tibet, 2001). Therefore, Dharamsala is an appropriate place to study environmental sensitivity among a Buddhist culture.
In this study Tibetan Buddhist environmental professionals were sampled. The instrument used in this study is the Environmental Sensitivity Profile Instrument (ESPI), based on Sward’s (1997) modification of Peterson’s (1982) original ESPI. The instrument provided a means to access participants’ individual life experiences in a qualitative manner to determine sources of environmental sensitivity.

The following research questions were posed to guide this study:

1. What variables, if any, do Tibetan Buddhist environmental professionals perceive as being instrumental in their development of environmental sensitivity? Of these variables, which appear to often be associated with the Tibetan Buddhist environmental professional group?

2. How would the environmental sensitivity profile of a Tibetan Buddhist environmental professional living in the exile community of Dharamsala be described?
Outline of Chapters

The literature review in Chapter Two provides an overview of the following: environmental sensitivity research in environmental education, the application of environmental sensitivity today, environmental education in Dharamsala, and environmental sensitivity in the Tibetan Buddhist community. Chapter Three focuses specifically on the methodology that guided this study. The treatment, sampling background and procedure, data collection technique, and data analysis are explained in detailed. Chapter Four presents results of the study, implications, and recommendations for future research.

Definition of Terms

For the purpose of this thesis, the following terms and definitions are used:

Ecocentric Perspective - The view that the environment should be valued for its integral role in sustaining all life on Earth rather than solely for human use (Fox, 1993).

Environmental Education - “To develop a world population that is aware if, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivation and
commitment to work individually and collectively
towards solutions of current problems and the
prevention of new ones” (Unesco, 1972, p. 3).

Environmental Sensitivity - “A set of affective attributes
which result in an individual viewing the environment
from an empathetic perspective” (Peterson, 1982,
p. 5).

Ecological Spirituality - “The ethical, moral, or
religious tendencies that relate to ecological
issues” based on an implicit assumption (Kinsley,

Green Buddhism or Eco-Buddhism - The direct application of
Buddhist philosophy to the environment so as to help
define an ecological ethic (Badiner, 1990).

Technoscientific-Anthropogenic Paradigm - A contemporary
social view that “humans are the ultimate locus and
 arbiters of value in the universe” (Sessions, 1983,
p. 28).

Tibetan Buddhist Environmental Professional - An
individual who was born as a Tibetan, either inside
Tibet or in an exile community, is Buddhist,
currently resides in Dharamsala, India, and currently
working in or has at least six months experience in
an environmentally related position (such as education, planning, or research).
CHAPTER TWO
LITERATURE REVIEW

A literature review as it relates to this research is composed in two parts: 1) a history of environmental sensitivity research in terms of its development, research trends and suggested application today; and 2) an overview of religion, the environment, and the Tibetan exile community of Dharamsala.

The Development of Environmental Sensitivity Research in Environmental Education

The United Nations Educational, Scientific and Cultural Organization (UNESCO) held an international workshop on the environmental education in 1972, resulting in the Belgrade Charter. The Belgrade Charter defined the primary goal of environmental education as:

To develop a world population that is aware if, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivation and commitment to work individually and collectively towards solutions of current problems and the prevention of new ones. (Unesco, 1972, p. 3)
The six environmental education objectives of the Belgrade Charter are defined as awareness, knowledge, attitude, skills, evaluation ability and participation (Unesco, 1972). Within the objective of awareness, the Belgrade Charter established the link between environmental education and environmental sensitivity: "to help individuals and social groups acquire and awareness of and sensitivity to the total environment and its allied problems" (Unesco, 1972, p. 3).

The Tbilisi Declaration, a resulting document from UNESCO's first International Conference on Environmental Education, supported the Belgrade Charter by establishing environmental sensitivity as an aspect of awareness, one of five major environmental education objectives (Unesco, 1978). Additionally, a guiding principle of the Tbilisi Declaration declared environmental education to include "environmental sensitivity to the learner's own community in early years" (Unesco, 1978, p. 28).

The Belgrade Charter and the Tbilisi Declaration helped define the theoretical need to investigate life experiences as indicators for the development of environmental sensitivity (Peterson, 1982; Sward, 1997; Tanner, 1980). Tanner (1980) conducted the first study investigating life experiences of environmental
professionals titled "Significant Life Experiences." Within this study, Tanner argued that if the aim of environmental education is "the maintenance of a varied, beautiful, and resource-rich planet for future generations," (p. 20) then educators must dedicate themselves to "the creation of an informed citizenry which will work actively towards this ultimate goal" (p. 20). To achieve this, research in environmental education should be directed towards qualifying "the kinds of learning experiences which produce such persons" (p. 20).

Since no prior research existed to determine such learning experiences that yield an informed and active citizenry, Tanner (1980) designed the first environmental sensitivity study titled "Significant Life Experiences: A New Research Area in Environmental Education." Tanner conducted an open-ended survey on 45 conservation group leaders throughout the United States. Participants were questioned on life experiences perceived as critical in their developed commitment to work in the environmental conservation field. Tanner found the dominant influence to be childhood experiences in pristine environments (78%) and frequent contact of the outdoors (58%). Other impacting influences in descending order are: parental influences (47%), teachers (31%), books (29%), other
adults (27%), habitat alteration (24%), solitude (3%), and miscellaneous (31%). Tanner's approach asked participants to describe influences that led them to work in the conservation field; therefore, his investigation is limited by identifying only antecedents of action.

Interestingly enough, Tanner (1980) never used the word "sensitivity" in his writing. The first definition of environmental sensitivity came through Peterson's (1982) research: "a set of affective attributes which result in an individual viewing the environment from an empathetic perspective" (Peterson, 1982, p. 5). Peterson's (1982) study focused on 22 educators from a North American Association for Environmental Educators conference. Through open-ended survey research, she posed a distinction between environmental sensitivity, an intense emotional concern for the natural environment, and environmental ethic, the motivation to take action in order to bring about a harmonious life with nature. She stated:

Individuals sensitive to the environment possess a basic appreciation and concern for the natural environment, yet this appreciation and concern is not of enough intensity to motivate them to
alter their behavior in behalf of environmental quality. (p. 5)

Therefore, Peterson's environmental sensitivity research adds an important logical qualifier to the variable of environmental sensitivity: that a person can be environmentally sensitive without displaying or having environmentally responsible behavior. Later research confirmed this to be true (Hines, Hungerford, & Tomera, 1986/87; Sia, Hungerford, & Tomera, 1985/86; Sivek & Hungerford, 1989/90).

Distinguishing between environmental ethic and sensitivity, Peterson framed questions to draw responses to explore attitude, sensitivity, interest and dedication. Peterson's (1982) results shared a similar conclusion to those of Tanner (1980): outdoor experiences in childhood (91%), family influences (59%), study of natural systems (45%), love for area where raised (32%), professional responsibility (27%), habitat alteration (23%), environmental organization (18%), books (18%), and peer sensitivity (9%). The reoccurring antecedent categories of environmental sensitivity provided a framework for further research.
Overview of Environmental Sensitivity Research

Environmental sensitivity research generally followed the established trend of Tanner (1980) and Peterson (1982). However, most of the research following Peterson failed to keep a distinction between environmental sensitivity and environmental ethic or behavior (Chawla, 1998). Sample populations in the research are limited to individuals within environmental education or an environmentally related field (with the exception of studies by McKnight and Myers, cited in Chawla, 1998). Below is a chronological overview of environmental sensitivity research that followed Tanner and Peterson.

Votow (in Chawla, 1998) conducted an open-ended survey on eight summer interpreters at the Denali National Park in Alaska to identify common antecedents that contributed to individual attitudes of the environment. The most commonly referred to antecedents were the natural environment, stated by all eight participants, and an adult role model, stated by seven participants.

Scholl-Widler (in Chawla, 1998) used a check-list format to provide data on members of the Cincinnati Nature Center and the Miami, Ohio Sierra Club Chapter. Participants checked-off outdoor experiences as the major influence of participants, followed in rank order by
family, habitat alteration, school science or environmental education, teachers and other adults.

Sia (in Chawla, 1998) developed an environmental sensitivity questionnaire based off of Peterson’s (1982) to determine a rank-order for selected predictors of responsible environmental behavior. Sia compared results from 105 Sierra Club members to 66 Elder-hostel participants. Sia compiled the data to create a second distinct comparison: participants with self-reported high and low levels of environmental action. Among the first comparison group, he found that the most significant predictor of responsible environmental behavior was level of environmental sensitivity. In the second comparison group, he found the first-ranked predictor to be perceived skill in using environmental action strategies, followed by environmental sensitivity level and then environmental action strategy knowledge.

In a further study of selected predictors and responsible environmental behavior, Sia et al. (1985-86) provided a strong statistical foundation supporting environmental sensitivity as one of three main predictors of environmentally responsible behavior among adults. Based on Sia’s unpublished doctoral dissertation, this study focused on the comparison of high and low
environmental action among the 171 total sampled Sierra Club and Elder-hostel participants. Perceived skills in and understanding of environmental action strategies were found to be the other main predictors.

Peters-Grant (in Chawla, 1998), created a semi-structured open-interview to identify significant factors that contributed to the environmental interest of 18 female and 6 male New Hampshire marine docents. Her data show that childhood experiences in nature (88%) were the most cited factor named by participants. The remaining influences cited were: adult role models (58%, combined parents, other relatives, and teachers) and natural curiosity (15%). These research results were similar to those of Tanner (1980) and Peterson (1982).

Gunderson (in Chawla, 1998) conducted an interview on 12 elementary environmental education teachers in Montana, asking participants to identify significant experiences influencing their choice to become an environmental educator. The dominant experiences cited by her participants were time outdoors (83%) and former teachers (83%).

Utilizing Sia et al. (1985/86) instrument, Sivek and Hungerford (1989-90) investigated predictors of responsible environmental behavior among the following
Wisconsin conservation groups: 112 Trout Unlimited members, 66 Ducks Unlimited members, 103 Wisconsin Trappers’ Association members, and the combined result of the three mentioned organizations. The number one predictor of responsible environmental behavior found in Sivek & Hungerford’s study was perceived skill in environmental action strategies followed by locus of control. Environmental sensitivity was found to be the third most educationally significant factor. This research is the third study reporting environmental sensitivity as a top three ranked indicator of responsible environmental behavior.

McKnight (in Chawla, 1998) created a questionnaire aimed at comparing the environmental attitudes and background of 212 college seniors in three different majors: environmental studies, engineering, and business. Her questionnaire was limited by asking questions related directly to experiences in nature, thereby not providing participant data from other areas of experience known to influence an individuals’ environmental attitude. McKnight found that environmental science students were more likely to participate in environmental issues than the other majors. In addition, her research concluded that students in environmental science majors were more likely to have
enjoyed playing in nature areas alone as a child and they were more likely to have hiked and camped as a form of recreation in college. However, a number of business and engineering students responded positively to both of these categories.

Based on Tanner's (1980) methodology, Palmer (1993) conducted a mail survey of 238 members of the North American Environmental Education Association in the United Kingdom, of which 232 were returned and used in the study. The sample consisted mostly of citizens of the United Kingdom (225), with others from Greece (3), Germany (1), United States (1), Mexico (1), and Japan (1). Palmer established that her sample contained individuals who are considered to be active and informed citizens based on an environmental activity check-list. Palmer’s results on sources of environmental sensitivity showed time spent outdoors (91%) as the most cited category among. Other cited responses were education (59%), parents/close relatives (38%), and organizations (3%). However, of the 232 participants, only 80 provided a rank-order list of experiences leading to their development of environmental sensitivity. Of those that assigned rank to their experiences, the number one, topped-ranked influence leading to their concern for the environment was
experiences in the outdoors (29%). This category can be further reduced to find that 20% of all participants cited childhood experiences outdoors. Parents and close relatives (21%) was the second most ranked category.

James (in Chawla, 1998) interviewed 50 environmental educators from African American, Asian American, Latino, Native American and multicultural backgrounds regarding individual influences leading to environmental interest. Outdoor experiences (64%) rated the number one responses. Job opportunity (54%) received the second most responses followed by mentors (42%) including family, teachers, and coworkers. Other influences reported by James were a natural-born interest (36%), community concern (34%), knowledge of specific environmental issues (30%), science education (26%), spirituality (26%), personality trait (24%), reading (22%), and cultural identity (20%). James’s study is the first in environmental sensitivity research on specifically non-white populations in America.

Myers (in Chawla, 1998), whose study incorporated a fairly even distribution a sample of 25 minority and non-minority students, compared both environmental majors and non-majors. His findings conclude that both environmental majors and non-majors had positive childhood experiences in nature, negative feelings related to
environmental destruction, and that the shared feeling of the therapeutic benefits of nature. Myers suggested that these experiences alone do not predict an individual's commitment to an environmental career.

Sward (1997) was the first to conduct environmental sensitivity research on a solely non-European or non-American population. Sward sampled 17 El Salvadorian environmental professionals who worked in the following fields: environmental education, conservation planning, environmental action or research, and sustainable development. The most cited environmental sensitivity influence was outdoor experiences in natural or rural settings. The second most cited influence was environmental destruction, which is reflective of with El Salvador's political history of war and environmental ruin (Chawla, 1998). Other influences in descending order are: formal education, outdoor organizations, and employment. Sward used Peterson's environmental sensitivity profile instrument for her study, which was translated into Spanish.

Chawla (1999) conducted the first environmental sensitivity research comparing populations in two nations, the United States and Norway. Using a sample size of 56 participants from each country, the sample expanded beyond
the conservation and environmental education fields to include: recycling and waste management, pollution and radiation, transportation, land use planning, habitat and wildlife preservation, and the promotion of sustainable lifestyles. Chawla found the following experiences leading to an environmental commitment: experience of natural areas (77%), family role models (77%), organizations (55%), negative experiences related to the environment (destruction, radiation, pollution) (39%), education (38%), friends (32%), vocation (27%), sense of social justice (25%), book or author (20%), principles and/or religion (15%), and concerns for children and/or grandchildren (4%).

Chawla (1999) divided her research into age categories to determine what experiences are most influential at what time. Her results show that during childhood, natural areas, family members, organizations, and education were most influential; during university, education and friends were the most influential; and during adulthood, organization and employment were the most influential.

Metzger and McEwen (1999) examined the increase of environmental sensitivity through a pre and post analysis of 39 teenagers and their participation in a five-day
canoe environmental education trip. These researchers concluded that the attributed increase of environmental sensitivity to planned environmental education activities and total participant submersion into the natural world. Their evaluation tool was a self-designed Likert-type scale instrument. This research is the first to focus particularly on a population of youth.

Palmburg and Kuru (2000) published the second study that focused on the development of environmental sensitivity (as an aspect of environmental responsibility) among children. The research was based in Finland and focused on children’s participation in outdoor education and nature studies over a defined time period. The qualitative research was based on interviews, photographs, pictures, questionnaires, and observations. Palmburg and Kuru (2000) found that the children’s experiences in nature led to an increase in self-confidence and feelings of safety. This increase was linked to an increase of participation in outdoor activities, thereby leading to new personal meanings of nature. Students with prior experience in the outdoors showed a “strong, clearly definable empathetic relationship to nature” (p. 32).

Palmburg and Kuru (2000) concluded that for children to embody environmental responsibility, they must have
knowledge, values, and a sense of empowerment. Knowledge is that which "enables pupils to understand the dependence and interactive relations between man and nature" (Conclusion section, ¶ 2); while values "form a basis for the willingness to act" (Conclusion section, ¶ 2). Empowerment is "pupil's feelings of being capable of doing something important in order to save nature (in their own neighborhood)" (Conclusion section, ¶ 3).

Environmental Sensitivity Research Trends

Research in the field of environmental sensitivity has been conducted on the basis of various qualitative approaches, many of which are based on former research. Tanner's (1980) original instrument of significant life indicators was adopted and modified for Palmer's (1993) study. Peterson (1982) used Tanner's research as a basis for creating the Environmental Sensitivity Profile Instrument (ESPI), which was later adopted by Sward (1997). Peterson's ESPI contributed to the environmental sensitivity evaluation tool within Sia's (1984; Sia et al., 1985-86) investigation of environmental behavior.

The trend of environmental sensitivity research has been for individual research to rely on shared qualitative methods of examining environmental sensitivity, mainly
open-ended, semi-structured interviews, questionnaires and surveys based on autobiographical statements. Though many studies share similar data results, there is great need for researchers to explicitly define sample groups and key terms for statistical clarity to provide a precision in cross-comparison of research.

The approach to environmental sensitivity research has concentrated on sample groups that are determined to be environmentally informed and active citizens. Environmental sensitivity research has followed this trend on the theoretical basis that if environmental education is aimed to create an informed citizenry concerned and acting on behalf of the environment, then research should be directed at those individuals that embody the goal of environmental education (Tanner, 1980).

In the 1980s, research focused on individuals involved in environmental conservation nonprofits and those who were environmental educators. In the 1990s, new sampling trends were explored as people in environmentally related positions as well as children were included in research. Also, in this second decade of environmental sensitivity research, the first study was done comparing environmental majors to non-majors.
Another trend in existing environmental sensitivity research is the strong sampling bias of studies concentrated on developed, western nations (i.e., America, Norway, England, Canada, and Finland). With the exception of Sward’s (1997) study focusing on El Salvadorian environmental professionals, environmental sensitivity research lacks focus on populations living in less developed countries. To date, no research has focused solely on a culture or population in the east.

Suggested Application of Environmental Sensitivity Research Today

To discuss a suggested application of environmental sensitivity today, it is imperative to review the evolving definition of environmental sensitivity. Environmental sensitivity has been theorized to be a significant entry-level variable in developing environmentally responsible citizenship (Hungerford & Volk, 1990). Peterson’s definition of environmental sensitivity, though widely accepted, lacks concrete interpretation of the term empathy.

Empathy is defined in two ways: 1) “Identification with or vicarious experiencing of the feelings, thoughts, or attitudes of another” and 2) “Imaginative ascribing to an object of feelings or attitudes present in oneself”
(Webster's Encyclopedia Unabridged Dictionary, 1989, used in Chawla, 1998). The first definition ascribes to a view that the Earth is a sentient being (Badiner, 1990). This view holds consistent with native cultural traditions such as Australian Aborigines, Native Americans and spiritual traditions of Hinduism and Buddhism (Kinsley, 1995). The second definition ascribes to a Cartesian philosophy where nature is viewed as a mechanical system without intrinsic feelings (Bowler, 1992).

Due to the fundamental differences in these two views, there exist unresolved complications in environmental sensitivity, which environmental education research has not fully acknowledged, and has caused a division between environmental philosophers as well as educators (Chawla, 1998).

Furthermore, Palmer and Suggate's conclusion was cited by Chawla (1998) as suggesting that the myriad antecedents to environmental sensitivity "change as people, place, and cultural interpretations change" (p. 19). Therefore, it was recommended by Chawla to extend environmental sensitivity research to include wider contrasts.

A possible avenue to the traditional approach to environmental sensitivity is an expansion of research to
include research that specifically studies cultures with non-western worldviews and from a spiritual basis. Sward (1997) somewhat accomplished this by studying El Salvadorian environmental professionals; however, the study was not specifically aimed at investigating the environmental sensitivity of a culture as related to the dominate social paradigm or spirituality of that culture. Such a study would include a discussion on the New Environmental Paradigm (NEP) theory, which has been widely investigated since the late 1990s (Cordano, Welcomer, & Scherer, 2003).

The NEP is a social theory approach that centers on the human-environment relationship (Arcury, Johnson, & Scollay, 1986). The theoretical basis and approach of NEP parallels environmental sensitivity: NEP is “dedicated to examining our increasing sensitivity to environmental problems and our changing view between humans and the natural environment” (Cordano et al., p. 1); and antecedents of pro-environmental behavior is the focus of NEP research. Whereas environmental sensitivity was founded on the basis of investigating antecedents that lead to proper environmental behavior (Tanner, 1980); NEP focuses on the paradigmatic shift taking place in response
to society’s increased awareness of environmental issues and catastrophe (Arcury et al., 1986).

The principle research in NEP theory has been accredited to the social theory of Catton and Dunlap (in Arcury et al., 1986). Catton and Dunlap described the paradigmatic shift as one going away from the Dominant Social Paradigm (DSP) and the Dominant Western Worldview (DWW) toward the NEP. DSP is "the assumption of human separateness from and domination over nature" (Arcury et al., 1986, p. 36). DWW "extends this basic assumption to beliefs in the inevitability of human progress and in technology as the vehicle of that progress, as the key to human domination over nature and the mechanism of human salvation from natural catastrophes, even those catastrophes resulting from technology" (Arcury et al., 1986, p. 36).

Literature focused on NEP research has been centered around the NEP scale, which is used as an empirical tool to quantify dependent and independent variables determining a population’s shift towards the NEP and away from the DSP (Arcury et al., 1986).

As environmental worldview changes, greater attempts will be made to know and understand the limits of nature and the place of humans within
these limits...The NEP conceptualization also provides an alternative worldview about the environment and the place of humans within it. (Arcury et al., 1986, p. 39)

This theory suggests a transition from the anthropocentric (DEP) to ecocentric (NEP) worldview. This theory is similar to what is referred to by some eco-philosophers as the Great Turning (Macy & Young Brown, 1998) and the Great Work (Berry, 1999).

Macy and Young Brown (1998) described the Great Turning as a "transition from the Industrial Growth Society to a Life-sustaining Society." The Industrial Growth Society is one where the economic systems of a society depend on the increasing consumption of natural resources (Macy & Young Brown, 1998); whereas a Life-sustaining Society satisfies its needs without endanger future generations of life on Earth (Macy & Young Brown, 1998).

Berry’s (2002) concept of the Great Work referred to this shift of perception in humankind: "The Great Work now, as we move into a new millennium, is to carry out the transition from a period of human devastation of the Earth to a period when humans would be present to the planet in a mutually beneficial manner" (p. 3).
Assuming this shift is occurring and that a culture or community’s worldview is inextricable from its environmental orientation (anthropocentric or ecocentric) (Kinsley, 1995), it becomes of interest to investigate environmental sensitivity among an ecocentric culture. So far, traditional environmental sensitivity research has failed to provide studies directed at investigating the sources of environmental sensitivity among a cultural community self-identified as being ecocentric. This specific investigation focuses on the Tibetan Buddhist community of Dharamsala, which is self-identified as projecting an ecocentric empathetic perspective (Damdul, 2000).

Religion, the Environment, and Ecocentrism: Tibetan Buddhists in Exile

Current investigation into the environmental crisis of our time is linked not only to economic, political and social factors, but to factors of spirituality, morality and ethics as well (Tucker & Grim, 1997). In his historical essay “The Historical Root of our Ecological Crisis,” Lynn White (1967) stated:

What people do about their ecology depends on what they think about themselves in relations to things around them. Human ecology is deeply
conditioned by beliefs about out nature and destiny - that is, by religion. (p. 1204)
The emerging field of religion and ecology is not without methodological concerns (Tucker & Grim, 1997); however the aims are clear:

To identify and evaluate the distinctive ecological attitudes...describe and analyze the commonalities...identify the minimum common group on which to base constructive understanding...to articulate in clear and moving terms a desirable mode of human presence with the Earth...to outline the most significant areas, with regard to religion and ecology, in need of further study. (p. xxiii)

Since the 1960s, with the rise of the environmental movement in America, there has been a growing academic interest in publishing literature engaging in the dialogue of religion and the environment.

The correlation between a dominant religious worldviews and environmental impact was first put forth in the historical essay of Lynn White (1967). White argued that the anthropocentric Judeo-Christian worldview stripped away the sacredness of Earth and allowed for an exploitation and control of nature. White’s essay resulted
in a wellspring of dialogue and literature relating religious worldviews to the environment.

Contemporary American quests aimed at uncovering an alternative paradigm to the western anthropocentrism blamed for our current ecological devastation has resulted in the exploration of other cultures. Looking for solutions to our current global crisis, Americans have turned to traditional, indigenous cultures for guidance. Martin (1978), author of *Keepers of the Game: Indian-American Relationships and the Fur Trade*, stated:

*We [Americans] were told, the correct, or contemporary idiom, “ecological,” attitude is alien to the Western mind. The Jeremias of the movement directed us to our own past to confirm that pronouncement. Western man desperately needed a model, a hero, a guru to teach him: the American Indian, so it was decreed.* (p. 157)

From American Indians to Australian Aboriginals to Tibetan Buddhists, the west has produced soars of literature investigating the environmental worldviews of ‘other’ cultures as well as how the indigenous or ancient religions can be applied to create a new paradigm in the West.
One focus that has emerged from this field is the discourse centering on the distinctive philosophy of Buddhism and the environment (Badiner, 1990; Kaza & Kraft, 2000; Kinsley, 1995; Martin, 1997; Tucker & Williams, 1997). The exploration of Buddhism to the environment has two aspects: 1) the application of philosophical Buddhist teachings to support an ecocentric worldview; and 2) the theoretical importance of not portraying Buddhist cultures as having an inherently responsible environmental behavior quality.

Kinsley (1995, p. 85) suggested that two principles in Buddhism lead to an ecocentrism: 1) the cultivation of "empathy toward the suffering of others" by practicing non-harmful actions; and 2) that the "empathetic identification" should be applied universally toward all creatures. These observations have been substantiated in a plethora of literature (see Badiner, 1990; Kaza & Kraft, 2000; Kinsley, 1995; Martin, 1997; Tucker & Williams, 1997). A comprehensive discussion on Buddhism and the environment is beyond the scope of this paper.

It is important to note the existing skepticism and critique by Ian Harris on the contemporary American attempt to establish Buddhist doctrine as the grounds of an environmental ethic. Harris viewed the contemporary
American attempt to represent “a teleological transformation of traditional Buddhist cosmogony” (Swearer, 1997, p. 38). Clarke (1995) explained a proper framework to view this issue:

Cultural associations are part empirical and historical, part projection and idealization. Moreover, they change in relation to new ideology and circumstances, and by no means characteristic of ethnic groups or nationalities rather than other types of groupings of human beings. (p. 31)

To assume an intrinsic quality, be it positive or negative, of a culture or group of people is a form of racism; therefore, such conclusions need to be avoided at all costs.

Alternatively, it is of critical importance to historically understand how such an identity can be established. The “greening” of the Tibetan cultural identity has been explored in length by Toni Huber (1995; 2001). Huber (1995) cited the cultural identity of the Tibetan Buddhist community as an environmentally harmonious culture has been the result of few institutions and exile elite in Dharamsala, India, establishing a Tibetan identity that is highly modernized, politicized,
and reflexive. The Tibetan identity has been modernized by the use of applying contemporary terminology related to ecology to the ancient teachings of Buddhism. It is politicized in the reporting of current environmental devastation in Tibet resulting from Chinese occupation. And it is reflexive in that it can be powerfully linked to the global discourse on environment and religion. Nevertheless, the established idea of "Green Tibetans is here to stay" (Huber, 1995, p. 114).

The modern Tibetan identity as projecting environmentalism has been strongly attributed to His Holiness the Dalai Lama Tenzin Gyatso (Norbu in Huber, 1995). Over the past two decades, His Holiness the Dalai Lama has become a leader in advocating environmental responsibility, and while doing so, has informed the larger global community of Tibet's struggle. Of much influence and recognition, His Holiness the Dalai Lama addressed the U.S. Congress in 1987 and revealed the acclaimed Five Point Peace Plan for Tibet. Point four of the plan relates directly to the environment:

Tibetans have a great respect for all forms of life. This inherit feeling is enhanced by the Buddhist faith, which prohibits the harming of all sentient beings, whether human or animal.
Prior to Chinese invasion, Tibet was an unspoiled, wilderness sanctuary in a unique natural environment. Sadly, in the past decades the wildlife and the forests of Tibet have been almost totally destroyed by the Chinese. The effects on Tibet's delicate environment have been devastating. What little is left in Tibet must be protected and efforts must be made to restore the environment to its balanced state.

(Gyatso, 1987, p. 141)

His Holiness the Dalai Lama Tenzin Gyatso was awarded the Nobel Peace Prize for the Five Point Peace Plan in 1989.

A majority of the literature written by Tibetans on the environment has validated a religious/cultural influence on perspective. Geshe Kelsang Damdul (2000) highly regarded the central role Buddhism has played in developing the Tibetan worldview of ecocentrism, a worldview "borne out of compassion toward all living creatures" (Damdul, 2000, p. 137). An informational document from the Central Tibet Administration’s Environment and Development Desk (1996) stated, "Guided by Buddhist beliefs in the interdependence of both living and non-living elements of the Earth, Tibetans lived in harmony with nature" (p. 2).
Throughout the literature, it has been suggested that Tibetans hold an empathetic perspective of nature that is derived from compassion towards the natural world (Atisha, 1996; Gyatso, 1996a; 1996b; 1997; Yeshi, 1996). His Holiness the Dalai Lama Tenzin Gyasto suggests that his own environmental sensitivity was established through Buddhist teachings:

As a boy studying Buddhism, I was taught the importance of a caring attitude toward the environment. Our practice of nonviolence applies not just to human beings but to all sentient beings - any living thing that has a mind. Where there is a mind, there are feelings such as pain, pleasure, and joy. No sentient being wants pain; all want happiness instead. I believe that all sentient beings share these feelings at some basic level. In Buddhist practice we get so used to this idea of nonviolence and the ending of all suffering that we become accustomed to not harming or destroying anything indiscriminately. Although we do not believe that trees or flowers have minds, we treat them with respect. Thus, we share a sense of universal responsibility for both mankind and nature. (Gyatso, 1997, p. vi)
Huber (1995) suggested that the associated link between Buddhism and the environment has been becoming apart of the modern self-image of young Tibetans in exile. There remains to be qualitative or quantitative research conducted on the exile population of Tibetan Buddhists to support the existence of an ecocentric worldview. As stated previously, such research would most likely include the NEP. However, establishing an environmental sensitivity profile of a Tibetan Buddhist community would provide an initial foundation identifying attributing factors linked to an environmental worldview.

An Introduction to the Tibetan Community in Exile

The Tibetan exile community is a result of a long sequence of harrowing events related to the political, cultural and religious overthrow of Tibet by Communist China beginning in 1949 (see Shakya, 1999). (It is not the intention of this paper to discount or ignore the history of the Tibetan peoples; however, an overview of these events is not within the scope of this paper).

Seeking religious freedom and safe haven, the 14th Dalai Lama fled Tibet in 1959 and was granted refuge in India under Prime Minister Jawaharlal Nehru (Methfessel, 1997). As the religious and political head of the Tibetan
people, 80,000 Tibetans followed the Dalai Lama’s lead that year. Prime Minister Nehru granted land to the Tibetan people and 35 Tibetan settlements were established in India, primarily in the south.

Each of these first generation exile Tibetans made the life-endangering journey over the Himalayans to reach freedom in Nepal, Bhutan, and India. Now, after 47 years in exile, there are second and third generation Tibetans who have never seen their homeland. Likewise, there continue to be first generation exile Tibetans today fleeing China for religious, cultural, and political freedom in exile.

Secularized education is the most important cultural changes that occurred in the exile community as compared to traditional Tibet (Methfessel, 1997). In 1960, His Holiness the Dalai Lama established the first Tibetan school for Tibetan refugee children (Nowak, 1984). In his 1962 autobiography, he stated:

It is even harder for children than for adults to be uprooted and taken suddenly to an entirely different environment...We had to do something drastic to preserve their health - and their education was also a matter of great importance. We know that our children in Tibet are being
snatched away from their parents and brought up as Chinese Communists, not as Tibetan Buddhists...So, in the next generation, the children in India may be a very important people, a nucleus of the peaceful religious life which we wish to regain. (in Nowak, 1984, p. 55)

Since their inception, Tibetan schools in exile serve the cultural need to maintain Tibetan identity through the teaching of the Tibetan language, music, performing arts, theater, opera, literature and Buddhist philosophy in addition to core curriculum modern classes such as science and math (T. Phuntsok, personal communication, April 16, 2004).

Dharamsala is viewed as the cultural, religious, and political center for the Tibetan community in exile (Office of Tibet, 2001). The bustling town is home to a majority of the political and religious institutions of the Tibetan exile community, including the following: the main residence of His Holiness the Dalai Lama, the Central Tibet Administration (Tibetan Government in Exile), the Tibetan Institute of Performing Arts, The Library of Tibetan Works and Archives, Tibetan Medical and Astrology Institute, the Tibetan Children’s Village, and a host of nunneries, monasteries, and Tibetan non-government
organizations. Geographically, Dharamsala is located in the northern Indian state of Himachal Pradesh, situated beside the Dhauladhar range of the Himalayas.

Dharamsala is home to a diverse population of native Ghadhi people, refugee Tibetans, Kashmirian merchants as well as foreign and domestic tourists (Tibetan Welfare Office, 2000). Due to the location and population stress, there is an array of environmental problems plaguing Dharamsala and the surrounding vicinity. These include: deforestation, erosion, uncontrolled development, forest fires, open slate mining, untreated and open sewage, dumping of solid waste, and drinking water contamination (Tibetan Welfare Office, 2000).

Environmental Education in Dharamsala

The development of environmental education is of recent origin in the Tibetan community of Dharamsala. The Central Tibet Administration established the Environment and Development Desk (EDD), a subset of the Department of Information and International Relations, in 1994 (Huber, 1995). The EDD research has concentrated on documenting and publishing current reports on the environmental degradation and its resulting effects, inside Tibet proper as a result of Chinese development practices (Department
Information and International Relations, 1992; Environment and Development Desk, 2000; 2003). Such Chinese development practices have resulted in EDD reports documenting pervasive deforestation, species extinction, oil drilling, nuclear waste dumping, mineral extraction, river damming, and forced agricultural practices.

In the beginning, the EDD developed and presented environmental education programs to visiting westerners and Tibetan Fulbright Scholars (Y. Tsering, personal communication, May 8, 2004). With the exception of a temporary public environmental education program in the mid 1990s aimed at raising awareness of environmental issues inside and outside of Tibet, Tibetans living in Dharamsala did not receive any environmental education from the EDD.

Tibetan children living and attending school in Dharamsala are not exposed to a formal environmental education curriculum; yet environmental topics are overviewed in social studies and science coursework (P. Tsering, personal communication, May 20, 2004). Environmental education at the Tibetan Children's Village is done by teachers who are willing to perform projects or classes related to this subject field. This is done at the primary level: teachers in the sciences and social
sciences bring environment into their lessons by studying the way beings interact with their environment (N. Dorjee, personal communication, May 20, 2004).

Ngawang Dorjee (personal communication, May 20, 2004), Educational Director of TCV Upper Dharamsala, explained that environmental behavior is built into the Tibetan culture:

Various Buddhist teachings talk about sentient beings and how the environment is important for them. We teach small kids in our homes not to kill bugs. We do not intellectually study environment, but we are imbied into it through our nature and culture. That is a very important statement to make in understanding Tibetan culture and understanding why we behave the way we do. In a school setting, we do not have people doing environmental landscape, we do everything ourselves, so the children plant trees and plant flowers.

A majority of the environmental education at TCV Upper Dharamsala resident is facilitated by the junior school head master and his teachers (P. Tsering, personal communication, May 20, 2004). The junior head master has made a personal concerted effort over the past 15 years to
inform his teachers and students about the importance of the environment through environmental art projects, focused writing on environmental devastation, and annual Earth Day celebrations.

In addition, as a result of foreign volunteer efforts, environmental education after-school programs have been initiated in several Tibetan schools in and around Dharamsala (P. Tsering, personal communication, May 20, 2004). However, at the time of this research, none of the programs were active. The Yong Ling Preschool in Dharamsala attempts to implement environmental education through a yearly play that centers on environmental themes such as recycling and planting trees. Outside of these few isolated efforts, schools and community members mostly depend on the public environmental education efforts of the Tibetan Welfare Office.

As environmental education programs are developed and integrated into the community, it is important to first establish a basic assessment of the awareness of the community: to develop an environmental sensitivity profile based on information collected from environmental professionals and the general population to understand how the environment is perceived among Tibetans living in Dharamsala and to identify what indicators in a person's
life result in "environmental sensitivity." This information can be used by environmental and education professionals to develop curriculum and programs that create such opportunities for Tibetan individuals to cultivate a sense of environmental sensitivity.
CHAPTER THREE

METHODOLOGY

This research serves as a study of the sources of environmental sensitivity among Tibetan Buddhist environmental professionals in Dharamsala, India. Environmental sensitivity was chosen as a subjective measurement tool to indicate the influences of an individual’s response and interaction with the natural world. The basis for the research methodology came from similar research conducted by Peterson (1982) and Sward (1997).

The research was composed of an interactive qualitative design that provided data collection through face-to-face interview situations. A semi-structured interview format provided a context for Tibetan Buddhist environmental professionals to respond in a way that allowed accurate responses from individual points of view to collect environmental sensitivity data.

Treatment

An Environmental Sensitivity Profile Instrument (ESPI) was developed based on Sward’s (1997) application of Peterson’s (1982) original Environmental Sensitivity Profile Instrument. The ESPI comprised of the three
sections: (1) demographic information questionnaire, (2) supplementary demographic information questionnaire, and (3) an environmental sensitivity interview. A complete copy ESPI is presented in Appendix A.

The instrumental validity of the original ESPI by Peterson (1982) was granted by a five member environmental and science education professional jury. Sward (1997) modified Peterson's ESPI by rewording a few questions in the original ESPI; however, the face validity of the original instrument was not compromised. Similarly, the modifications presented in the ESPI do not jeopardize the original instrumental validity. Initial permission to conduct the research on environmental sensitivity among Tibetan Buddhist environmental professionals in Dharamsala, India was given by the Institutional Research Board of California State University San Bernardino.

The ESPI used in this investigation was designed to specifically interview the research population of Tibetan Buddhist environmental professionals living in Dharamsala. A decision was made by the researcher and a consultant from the Tibetan Welfare Office not to translate the ESPI into Tibetan on the basis that all environmental professionals living in Dharamsala are fluent in the English language. The instrument was reviewed by the
Tibetan consultant who made suggestions in altering the sequencing of questions to increase clarity of the instrument. A final version of the ESPI was created based on the inputs of the Tibetan consultant.

The threats to the credibility of this study were in-part reduced by the use of direct quotations of the participants' responses as provided by the translator or participant themselves. All interviews were recorded, with permission, and paraphrasing hand notes were taken to ensure the accuracy of responses.

The demographic information covered in Section I of the ESPI asked participants questions regarding sex, age, place of birth, length of residence in Dharamsala, occupation, number of years in their environmental position, and professional responsibilities. In addition to providing basic demographic information, these questions are aimed at establishing participants as environmentally informed, committed, and active professionals. Section II of the ESPI asked for supplementary demographic information where by participants identified: (a) the period in their life when they began to care for the natural environment, (b) period when they decided to work in an environmentally related field, and (c) current and past avocational or
recreational activities. These questions provide a basic framework for individual environmental sensitivity.

In the final interview section of the ESPI, question 1 asked participants to rank their environmental sensitivity on a scale of one to ten, with ten being the highest and one being the lowest. This question permitted an assessment of the participants’ perceived environmental sensitivity and created a simple tool to assess the overall generalizability of their environmental sensitivity.

The remaining questions in Section III of ESPI comprised of questions 2 and 3. These questions provided response-generated information concerning the development of environmental sensitivity as well as career related questions. Participants’ responses were collected through open-ended questions to identify factors and experiences that influenced their individual environmental sensitivity. Question 2a-g was particularly aimed at drawing responses related to the development of environmental sensitivity while question 3 focused on the development of career interest. To provide the participant with an opportunity to inform the research about remaining information and experiences pertaining to environmental sensitivity, question 4 asked for additional responses.
Sample Background and Sampling Procedure

In consultation with the environmental professionals working at the Tibetan Welfare Office's Environmental Education Center, a total 10 people were identified in the Dharamsala community as a Tibetan Buddhist environmental professional. A Tibetan Buddhist environmental professional is defined as a person who was born as a Tibetan, either inside Tibet or in an exile community, is Buddhist, currently resides in Dharamsala, India and currently working in or has at least six months experience in an environmentally related position (such as education, planning, or research).

Given the small population, a quasi-comprehensive sampling strategy was used and nine out of the 10 identified Tibetan Buddhist environmental professionals were interviewed using the ESPI. The participants represented various government, nonprofit and education institutions in Dharamsala. It was assumed that the nine participant sample population possessed individual experiences and qualities that would generate proper indicators of environmental sensitivity among Tibetan Buddhist environmental professionals living in Dharamsala.
Data Collection

The dominate technique to collect data was a semi-structured interview methodology for the ESPI. The interviews took place during the months of April and May, 2004, in Dharamsala, India.

Interviews with Tibetan Buddhist environmental professionals were scheduled based on the availability of the participant. Each interview took place at the participant’s place of professional work. In all nine cases, the participant was seated as his/her own desk and the researcher sat in a chair across from them. Interviews usually lasted 45 minutes, but in some particular cases went as long as 90 minutes.

All interviews were recorded using a hand-held tape recorder while the researcher took hand-written notes concurrently. All interview transcriptions were compiled in English. Both the transcriptions and key phrases from hand-written notes were used in the analysis of the data.

Data Analysis

The ESPI was designed for participants to give two types of responses. In ESPI Sections I and II, with the exception of question 9, responses were pre-determined and participants choose the most appropriate response from a
provided list. When necessary, participants had the choice of "other" as a response. Section III of the ESPI contained semi-structured open-ended questions where participants where provided an opportunity to respond with subjective answers.

Demographic information was gathered from responses provided in ESPI Section I and II. From these particular sections, a response frequency was calculated for each selected participant response item in ESPI questions 1, 2, 3, 4, 5, 8, and 9. To avoid statistical confusion, given the small sample size of nine, a response percentage was not used to display results. ESPI questions 6 and 7 asked participants to rank order their responses; therefore, three response frequency tabulations were generated: 1) categories ranked as number one, 2) categories ranked in the top three, and 3) categories ranked as any number. Based on the three identified response categories, three frequency sets were created for questions 5 and 6 in Section II.

Question 1 in section III asked participants to rank order their individual environmental sensitivity on a scale of one to ten. Responses were tallied by frequency distribution.
Section III questions 2a-g and 3 were treated for their content through an organizing analysis system called coding. In coding, a classification system is used as a process to divide data into workable parts (McMillian & Schumacher, 2001). Categorized responses were based on interview answers. Response frequencies were determined for each question based on the number of participants responding to each post-determined category. Responses in which participants provided more than one citation in a given category were excluded from the analysis. Response frequencies were tallied based on the number of participants providing at least one citation per category.

The purpose of the research was to identify common patterns in the development and existence of environmental sensitivity among Tibetan environmental professionals living in Dharamsala. Experimental variables, defined from the demographic and interview questions, were used to create the environmental sensitivity profile of a Tibetan environmental professional living in Dharamsala, India.

Instrumentation and Categorical Coding

Appendix B provides detailed descriptions of the analysis and categorical coding used for each question of ESPI.
Environmental Sensitivity Profile Instrument as Related to Research Questions

Interview questions 2e-g and 3 in Section III of the ESPI provide support data based on the calculated response frequencies to provide an answer to Research Question One. Research Question One asked: What variables, if any, do Tibetan Buddhist environmental professionals perceive as being instrumental in their development of environmental sensitivity? Of these variables, which appear to often be associated with the Tibetan Buddhist environmental professionals group?

All questions presented in ESPI were used to provide an answer to Research Question Two. Research Question Two asked: How would the environmental sensitivity profile of a Tibetan Buddhist environmental professional living in the exile community of Dharamsala be described? A generated response consisting of the environmental sensitivity profile was gathered through the total analyzed data based on participant response frequencies and percentages of the questions.
CHAPTER FOUR
RESULTS AND DISCUSSION

The research presented was gathered through a qualitative process using an Environmental Sensitivity Profile Instrument, ESPI. The study investigated the life experiences of Tibetan Buddhist environmental professionals to determine what, if any, experiences and/or patterns of experiences had an influence in an individual's development of environmental sensitivity.

Responses reflect only the experiences and details cited by the participants during the interviews. The information collected was coded and categorized into specific fields as determined by the results of all the gathered data. Therefore, the data are presented in a quantitative form. Appendix B contains a comprehensive presentation of the qualitative and quantitative data as well as categorized coding.

All responses from the ESPI were included in the research analysis with the exception of ESPI section III question 2b. Question 2b provided data that was not meaningful and therefore was excluded entirely from the data analysis. Given the sample size of nine participants,
all results are presented by a frequency response tally and not a percentage.

Demographic Information of Environmental Sensitivity Profile Instrument Sample Population

Sections I and II, question eight excluded, and questions 3, 2a, and 2c in section III of the ESPI contained questions necessary to describe the sample population of Tibetan Buddhist environmental professionals in Dharamsala, India. Questions in Section I and II asked participants information concerning years in environmental position, gender, age, birth place, responsibilities in occupation, time period of developing environmental sensitivity, time period of commitment to work in environmental field, and current and past avocational activities.

Duration in Environmental Position

All participants were environmental professionals working and residing in Dharamsala. Table 1 presents a summary of participants’ duration in their current environmental position. For all participants, their current environmental position was the first position in an environmentally related field. Eight of the participants worked in an office related to the Central
Tibetan Administration, also known as the Tibetan Government in Exile. The remaining participant worked for a nonprofit agency in the Dharamsala community. Participants’ duration of work was separated into four ranges: one to three years, four to six years, seven to nine years, and ten or more. Eight of the participants have been in their position for less than 10 years (Table 1), reflective of the recent development of environmental professions in Dharamsala since the early 1990s.

Table 1. Summary of Participants’ Duration in Environmental Position

<table>
<thead>
<tr>
<th>Years in Position</th>
<th>1-3</th>
<th>4-6</th>
<th>7-9</th>
<th>10 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

\(N = 9\)

ESPI, Section I, Question 1

Gender and Age

The sample of nine Tibetan Buddhist environmental professional consisted on seven who were male and two females. The nine participants where selected from ten identified Tibetan Buddhist environmental professionals living in Dharamsala. This sample is skewed towards males, but given the small population, this sampling was unavoidable. The ages of participants were divided into
six age intervals: less than 21, 21 to 30, 31 to 40, 41 to 
50, 51 to 60, and over 60 years (see Table 2). The 
majority of the sample population fell into the ages of 31 
and 40 (four participants) and ages between 41 and 50 
(three participants). One participant was between the ages 
of 21-30 and another participant was between the ages of 
51 and 60. The single participant between the ages of 
51-60 years in the environmental field reflects the first 
generation of Tibetan refugees in Dharamsala participation 
in the environmental field.

Table 2. Summary of Participants’ Gender and Age

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Male</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Range</th>
<th>&lt;21</th>
<th>21-30</th>
<th>31-40</th>
<th>41-50</th>
<th>51-60</th>
<th>&gt;60</th>
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<td>In Years</td>
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<td>N</td>
<td>N</td>
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<td>N</td>
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<td></td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

(N = 9)

ESPI, Section I, Questions 2 and 3

Place of Birth

Participants were asked their place of birth as 
either in Tibet or in exile (see Table 3). One-third of 
the participants were born in Tibet, and two-thirds were 
born in areas outside of Tibet. Since many Tibetan
refugees are born outside of Tibet in places such as Nepal and India, participants were asked the number of years they have resided in Dharamsala. Responses were grouped into four categories: 10 years or less, 11 to 20 years, 21 to 30 years, and over 30 years. The data are compounded by the fact that only the participant’s duration in Dharamsala was considered, and does not include time in areas other than Dharamsala such as the United States, India, Norway, and Nepal. Most participants have lived in Dharamsala for over 10 years: three participants between 11-20 years, three participants between 21-30 years, and one participant over 30 years. The remaining two participants have resided in Dharamsala for 10 years or less.

Table 3. Summary of Participants’ Place of Birth and Years in Dharamsala, India

<table>
<thead>
<tr>
<th>Birth Place</th>
<th>Tibet N</th>
<th>Exile N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years in Dharamsala</th>
<th>&lt;11 N</th>
<th>11-20 N</th>
<th>21-30 N</th>
<th>&gt;30 N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

(N = 9)

ESPI, Section I, Questions 4 and 5
Occupational Background

Table 4 summarizes participants' degree of responsibility in their environmental occupation. This information is used to establish participants' involvement and responsibility in their respective environmental field. Responses were analyzed using three categories: number one responsibility, top three responsibilities, and responsibilities listed regardless of rank. Environmental education (three participants) and community awareness education (three participants) tied as the most frequently selected, number one ranked occupational responsibilities of participants. Overall, community awareness education (six participants) was cited most frequently among the top three occupational responsibilities.
Table 4. Participants' Degree of Responsibility in Occupation

<table>
<thead>
<tr>
<th>Occupational Responsibility</th>
<th>Cited as #1 N*</th>
<th>Cited in top 3 N*</th>
<th>Cited in any position N*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Education</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Science Education</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Conservation Education</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Social Studies Education</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Community Awareness Education</td>
<td>3</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Outdoor Education</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Outdoor Recreation</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Social/Political Awareness (Other Category)</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

(N = 9)
* Columns will exceed total number of sampled participants due to participants providing multiple responses

Table 5 presents data regarding participants' degree of responsibility in occupational duty assignments. Responses are analyzed in three categories: number one responsibility, top three responsibilities, and responsibilities listed regardless of rank. Administration (four participants) and research (three participants) are the most frequently selected, number one ranked responses
among participants. All participants cited administration as an occupational duty assignment.

Table 5. Participants’ Degree of Responsibility in Occupational Duty Assignments

<table>
<thead>
<tr>
<th>Occupational duty assignments</th>
<th>Cited as #1 N</th>
<th>Cited in top 3 N*</th>
<th>Cited in any position N*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Administration</td>
<td>4</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Curriculum Development</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Teaching Methods Classes</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Teaching Field Courses</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Promotion/Publicity</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Networking (Other Category)</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

(N = 9)
* Columns will exceed total number of sampled participants due to participants providing multiple responses
ESPI, Section I, Question 7

Table 6 describes the participants’ identified period in their individual lives to enter into an environmental work. Only one participant cited an early primary school interest to work in an environmental field. The remaining participants chose to enter into environmental work during college (two participants) or post-college (six participants).
Table 6. Identified Time of Participants’ Decision to Enter into Environmental Work

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Primary School N</th>
<th>Secondary School N</th>
<th>College N</th>
<th>Post College N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

(N = 9)
ESPI, Section II, Question 9

Identified Current and Past Avocational Activities

Table 7 identifies participants’ current and past avocational activities by stating an activity and listing as to whether they currently participate in the activity or whether it was an activity of the past. The data form a simplistic means to evaluate avocational activities of the participants. Participants were asked to note all activities engaged in currently or in the past; therefore, multiple activities could be selected. Overall, there is no difference between past and current activities. The most engaged in activity by participants, both current and past, is hiking (six participants), with next being gardening (four participants) and community clean-ups (four participants).
Table 7. Participants' Identified Current and Past Avocational Activities

<table>
<thead>
<tr>
<th>Avocational Activity</th>
<th>Current N*</th>
<th>Past N*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gardening</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Hiking</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Tree Planting</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Nature Reading</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Community Clean-ups</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

(N = 9)

* Columns will exceed total number of sampled participants due to participants providing multiple responses

ESPI, Section II, Question 10

Environments Lived in and Experienced

The environments lived in by participants during youth and adulthood were grouped into three categories: urban, suburban, and rural (see Table 8). Eight participants lived in rural environments during their youth. Only one participant lived in a suburban area. None of the participants lived in urban environments as adults or as a youth. All of the participants currently reside in the suburban environment of Dharamsala.
Table 8. Environments Lived in by Participants During Youth and Adulthood

<table>
<thead>
<tr>
<th>Environment</th>
<th>&lt;18 years of age N</th>
<th>&gt;18 years of age N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Suburban</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Urban</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

ESPI, Section III, Question 2a

Participants were asked to identify their interactions in nature throughout their lives (see Table 9). Multiple categories could be selected. Responses were grouped into three general age ranges: less than 18 years, representing youth; 18 to 22 years, representing time spent at a university; and more than 22 years, representing time after schooling. Each of the age groups were sub-grouped by the participants' interactions: alone, with family, and with friends. The resulting data are presented in Table 9. The results indicated that participants tended to interact with nature the most before the age of 18 (see Appendix C). Within this age category, experiences with friends were cited by each of the seven participants. During the ages of 18-22 and older than 22, three participants each cited experiences in these age categories.
Table 9. Interactions in Nature Throughout Participants' Lives

<table>
<thead>
<tr>
<th>Age</th>
<th>Alone N*</th>
<th>With Family N*</th>
<th>With Friends N*</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>18-22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>&gt;23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

(N=9)

* Columns will exceed total number of sampled participants due to participants providing multiple responses; likewise, rows detailing interactions will exceed value of N due to participants providing multiple responses.

ESPI, Section III, Question 2c

Participants identified their instrumental experiences that led them to develop their individual interest and/or dedication to an environmentally related field (see Table 10). The most often cited experience was the desire to work on behalf of the environment (four participants). The remaining participants cited job appointment (three participants) and education (two participants).
Table 10. Identified Instrumental Experiences in Participants' Development of Interest/Dedication to Environmentally Related Field

<table>
<thead>
<tr>
<th>Experience</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>2</td>
</tr>
<tr>
<td>Job Appointment</td>
<td>3</td>
</tr>
<tr>
<td>Desire to work on behalf of environment</td>
<td>4</td>
</tr>
</tbody>
</table>

ESPI, Section III, Question 3

Environmental Sensitivity Information of Environmental Sensitivity Profile Instrument Sample Population

Section II question 8 and Section III Questions 1 and 2d-g were meaningful questions used to describe the environmental sensitivity of the sample population of Tibetan Buddhist environmental professionals in Dharamsala, India. These particular interview questions pertained directly to the development and influence of the participant's environmental sensitivity on their lives and careers.

Participants were asked when they began to feel an interest, love or caring toward the natural environment based on four choices: primary school, secondary school, college, and post-college (see Table 11). Five of the participants cited primary school. One participant cited
college and three participants cited post-college as the time of development.

Table 11. Identified Time of Participants' Development of Interest, Love, or Caring toward Natural Environment

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Primary School</th>
<th>Secondary School</th>
<th>College</th>
<th>Post College</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

(N = 9)

ESPI, Section II, Question 8

Table 12 shows data related to participants' self-rating on of their perceived degree of environmental sensitivity. The average participant rating was 8.3 on a scale of 1 to 10 with 10 being the highest possible.

Table 12. Participants' Environmental Sensitivity (ES) Rating: Rated on a 1 to 10 Point Scale

<table>
<thead>
<tr>
<th>ES Rating</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

ESPI, Section III, Question 1

When participants were asked to cite their estimated age of developing environmental sensitivity; the results varied slightly from the data presented in Table 11, which represents the age participants' interest, love or caring
developed for the natural environment. Table 13 presents participants’ ages, which are divided into the following ranges: less than 6 years old, 6 to 10 years old, 11 to 15 years old, 16 to 20 and over 20 years old. The most often cited ages were between six and 10 years of age (three participants) and over 20 years of age (three participants). The remaining participants are spread evenly throughout the remaining age ranges.

Table 13. Estimated Age of Participants’ Development of Environmental Sensitivity

<table>
<thead>
<tr>
<th>Age Range In Years</th>
<th>&lt;6 N</th>
<th>6-10 N</th>
<th>11-15 N</th>
<th>16-20 N</th>
<th>&gt;20 N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

ESPI, Section III, Question 2d

Participants were asked to identify the instrumental attribute that led to their development of environmental sensitivity (see Table 14). Responses were grouped into two categories: personality and experience. The single participant citing personality stated: “I guess it is just a part of who I am. I have not met such a person who is not caring towards the environment.” Of the eight participants who cited experience, specific responses were further divided into three categories: environmental
(three participants), educational (three participants), and spiritual (two participants). Examples of the three different experience categories are as follows: "It was this experience I mentioned about the forests as a youth" (environmental); "I attribute it to my experience of studying abroad and the things I learned" (educational); and "Not sure, tough question, religion has a strong connection. I was intrigued by previous and future lives which relates to the environment" (spiritual).

Table 14. Identified Attribute of Experience Leading to the Development of Environmental Sensitivity

<table>
<thead>
<tr>
<th>Attribute</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality</td>
<td>1</td>
</tr>
<tr>
<td>Experience</td>
<td>8</td>
</tr>
<tr>
<td>Environmental</td>
<td>3</td>
</tr>
<tr>
<td>Educational</td>
<td>3</td>
</tr>
<tr>
<td>Spiritual</td>
<td>2</td>
</tr>
</tbody>
</table>

ESPI, Section III, Question 2f

Participants were asked to identify their number one life experience as well as other meaningful life experiences that led to their development of interest, love or caring toward the natural environment (see Table 15). The most commonly cited number one experience was
environmental destruction and/or development (three participants). Buddhist philosophy (two participants) was the next identified number one experience.

Of the experiences most often cited, environmental destruction and/or development (six participants) was the top categories cited. Buddhist philosophy (four participants) was cited the second most often. Formal education and natural feeling/belief was stated by two participants each, but was not represented as a number one response. Community education (one participant) was the least cited experience overall. The average number of experiences cited by a participant was 2 with a range from 1 to 4.
Table 15. Identified Instrumental Experiences in Participants' Development of Interest/Feelings of Appreciation/Caring toward the Natural World

<table>
<thead>
<tr>
<th>Experience</th>
<th>Cited as #1 N</th>
<th>Cited in any position N*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Belief/Feeling</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Buddhist Philosophy</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Formal Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Environmental Destruction/Development</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Community Education/Involvement</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

* Column will exceed total number of sampled participants due to participants providing multiple responses

Participants were asked to identify major role models that contributed to their individual development of environmental sensitivity (see Table 16). Participant responses were divided into two groups: familial and non-familial. Both familial and non-familial were frequently selected by participants. Among non-familial role models, the most frequently cited response was teachers.
Table 16. Participants' Identified Major Role Models in Development of Environmental Sensitivity (ES): All Rankings Included

<table>
<thead>
<tr>
<th>Influence/Role Model</th>
<th>Non-Familial N</th>
<th>Familial N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>

Non-Familial*

<table>
<thead>
<tr>
<th>Local non-profit leader</th>
<th>The Dalai Lama N</th>
<th>Tibetan Lamas N</th>
<th>Village Elders N</th>
<th>Teachers N</th>
<th>Env. Scholars N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

* Row will exceed total number of sampled participants due to participants providing multiple responses

ESPI, Section III, Question 2g

Results for Research Question One

Research question one asked: What variables, if any, do Tibetan Buddhist environmental professionals perceive as being instrumental in their development of environmental sensitivity? Of these variables, which appear to often be associated with the Tibetan Buddhist environmental professional group?

The applied methodology of the ESPI allows the sample population to establish variables that are not predetermined by the researcher; therefore, by reviewing the data presented in the ESPI, instrumental variables are defined by the results presented in Tables 10, 14, 15 and 16. From the questions asked in ESPI section III questions
2e-g and 3, participants provided information regarding their development of environmental sensitivity.

ESPI question 2f (see Table 14) asked participants to identify attributing variables leading to the development of environmental sensitivity. Variables cited were experience (eight participants) and personality (one participant). Experiences were further divided by participants to include the following in order of rank as cited by participants: environmental; and educational and spiritual (tied).

ESPI question 2e (see Table 15) provided an opportunity for participants to identify variables that led to their development of interest/feelings of appreciation/caring toward the natural world. The following variables were cited and are listed in rank order as defined by the sample population: environmental destruction/development; Buddhist philosophy; natural feeling and formal education (tied); and community education/involvement.

ESPI question 2g (see Table 16) asked participants to identify major role models who influenced their development of environmental sensitivity. The variables identified by participants were familial and non-familial. Familial was further divided by participants to include
the following list presented in rank order as defined by participant responses: teachers; His Holiness the Dalai Lama and environmental scholars (tied); and Tibetan Lamas, Village elders, and local non-profit leaders (tied).

ESPI question 3 (see Table 10) asked participants to identify instrumental experiences in their development of interest/dedication to an environmentally related field. The variables identified by participants are provided in rank order as defined by participant responses: desire to work on behalf of the environment; job appointment; and education.

Results for Research Question Two

Research question two asked: How would the environmental sensitivity profile of a Tibetan Buddhist environmental professional living in the exile community of Dharamsala be described?

An environmental sensitivity profile of a Tibetan Buddhist environmental professional would most likely be described as a male between the ages of 31-40 who was born in exile and has been living in Dharamsala between 11-30 years. As a child, he lived in a rural community and enjoyed hiking, gardening, and participating in community clean-ups. As a young boy, he would often interact in nature with his friends or family. He likely made his
decision to enter into environmental work after college
and has now worked in his environmental job for an average
of 4-6 years. His education and desire to work on behalf
of the environment tended to be the major experiences that
lead him to the environmental field. At his work, he is
often responsible for community awareness education,
environmental education and conservation education. He is
most often occupied with administration and research at
his work. Currently he tends to enjoy hiking, gardening,
and participating in community clean-ups. He perceives
that his interest for the natural environment was during
primary school. He tends to view his experiences as
related to the environment as the key attributes leading
to his development of interest for the environment. He
attributes both familial and non-familial as major
influences on his development of environmental
sensitivity. Overall, he likely would rate himself between
7 and 10, with an average of 8.3, on the environmental
sensitivity scale, with 10 being the highest rank. Table
17 provides an overview of the most common responses
provided by the sample population of Tibetan Buddhist
environmental professionals in Dharamsala, India.
Table 17. Common Results of Environmental Sensitivity Profile Instrument among Tibetan Buddhist Environmental Professionals in Dharamsala, India

<table>
<thead>
<tr>
<th>ESPI I</th>
<th>N of total participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>7</td>
</tr>
<tr>
<td>Age Medium</td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td>4</td>
</tr>
<tr>
<td>Birth Place</td>
<td></td>
</tr>
<tr>
<td>Exile</td>
<td>6</td>
</tr>
<tr>
<td>Medium Years</td>
<td></td>
</tr>
<tr>
<td>in D'sala</td>
<td>3</td>
</tr>
<tr>
<td>11-20</td>
<td></td>
</tr>
</tbody>
</table>

Environmental Sensitivity Rating
Mean = 8.3

Age of Environmental Sensitivity Development
Mean = 11-15

Major Environmental Sensitivity Developing Experiences
- Natural Feeling: 5
- Env. Destruction/Development: 5
- Buddhist Philosophy: 4

Role Models
- Familial: 5
- Non-Familial: 8
Discussion of Findings

The results presented through the research have a varying degree of similarity and difference compared to previous studies conducted in environmental sensitivity. Firstly, environmental destruction/development was the most cited variable leading to a Tibetan Buddhist environmental professional's development or interest/feelings of appreciation/caring towards the natural world. The variable of environmental destruction/development was also cited in studies by Sward (1997) and Tanner (1980). Of the six participants who cited this category, only one spoke of the environmental destruction and development of Tibet. The remaining participants mentioned either Dharamsala or a Tibetan settlement in India.

Similar to Sward's (1997) research, participants indicated that education had an instrumental influence on their environmental sensitivity by providing a means to understanding the environment and natural systems. A common theme among Tibetan Buddhist environmental professional participants was that education served to reinforced Buddhist teachings on respecting and valuing the natural world. One participant stated,
In the spring when the green grass was coming up, I would try to pluck it. My father would scold me saying that the grass has a life, that is why it comes up and then dies back down. It was not until 30 years later that I read about Buddhism and the environment, heard His Holiness the Dalai Lama speak on the environment, and worked in agriculture that I realized that the advice my father had told me was correct.

Another participant stated:

My parents' love of Buddhism had a strong influence on my respect and caring for the natural world. But once you get into the formal education system, like science, then you go back to what your parents taught you and you see that it makes sense.

Like environmental destruction/development and education, role models were another commonly shared variable among this research and previous environmental sensitivity studies.

Both non-familial and familial role models were mentioned by Tibetan Buddhist environmental professionals as contributing variables to their development of environmental sensitivity. Role models were characterized
as individuals who were knowledgeable about the environment and helped the participant form a relationship with the natural world. Tanner (1980), Peterson (1992), and Sward (1997) also found role models to be a significant influence as defined by participants.

One distinct difference between this research and previous research on environmental sensitivity is the variable of time spent outside as a child. Previous research (Tanner, 1980; Peterson, 1982; Sward; 1997) suggested outdoor experiences in nature were essential in an individual’s development of environmental sensitivity. Though many participants cited experiences in nature when asked directly, outdoor experiences were not mentioned as a variable when asked to identify instrumental experiences in personal development of interest/feelings of appreciation/caring toward the natural world.

In Sward’s (1997) research, she pointed out that the civil war in El Salvador played a role as a contributing factor to an El Salvadorian environmental professional’s environmental sensitivity. Interestingly, though Tibetans are living in an exile situation as a result of the Chinese occupation of Tibet, only three Tibetan Buddhist environmental professional participants mentioned Tibet in their interviews.
Previous studies in environmental sensitivity do not focus on a society’s infrastructure for environmentally related career opportunities or a culture’s view of environmentally related work. This study is not different; however, when asked about interest in environmentally related position, the second most common variable among Tibetan Buddhist environmental professionals was job appointment. One participant noted, “I was transferred here. I could easily be transferred from here to the Office of Security.” Although a thorough analysis on environmentally related job positions in the exile community is beyond the scope of this paper, it is worthwhile to consider that Dharamsala has only been inhibited by Tibetans since 1959. One participant stated as an additional comment the following:

Some of the Tibetan children are pursuing jobs in the environment, but the Tibetan community cannot give them a job in the area of environment, these jobs are very limited. So if they want to work within Tibet or the Tibetan community, environmental studies does not permit this kind of work so they choose another field of study.
This comment suggests that Tibetan exile community currently seems to lack the proper support to offer more professionals in an environmentally related field.

Throughout the interviews, various participants mentioned cultural obstacles in the perception of environmentally related work. One participant noted:

When I talk to my friends about the environment, they make fun of what I do because they do not understand it. It is a cultural belief that, especially here in Dharamsala, people think that the word environment is only the word for garbage.

Further discussion on the subject of cultural views of the environment professions in exile is of interest but beyond the scope of this paper.

It is important to reiterate the difference between the focus of this research and previous studies among sample populations in environmental sensitivity. This research served as a preliminary investigation into the environmental sensitivity and awareness of an ecocentric community culture. The results do not generate a direct bearing on ecocentric worldviews except on the gross level that this study has been purposefully constructed around the presumed ecocentric-ness of the Tibetan Buddhist
community of Dharamsala (see Badiner, 1990; Kaza & Kraft, 2000; Martin 1997; Tucker & Williams, 1997).

Limitations of the Study

The study has the following limitations:

1. The study is limited to Tibetan Buddhist environmental professionals who participated in this study. The environmental professionals were selected in consultation with the Tibetan Welfare Office.

2. This study is limited only to those variables generated through the interview questions. Furthermore, this study does not include participants' educational background or academic training within the scope of the ESPI.

3. This study is limited in the use of the participants' native language of Tibetan.

4. This study does not directly access participant's environmental worldview; instead it is limited only to antecedents of environmental sensitivity.

Implications of the Study

The results of this study indicate implications that could result in a significant impact on the development of
environmental education in Dharamsala. Simultaneously, the results of this study have an impact on the research of environmental sensitivity and the study of environmental worldviews.

1. The results of this study show that among Tibetan Buddhist environmental professionals there is a relationship indicating that education reinforces Buddhist teachings that relate to the environment. Given this relationship, it would appear to be worthwhile for environmental education programs in the Tibetan community to provide education that links Buddhist teachings to the environment. Such programs would likely aid in the development of the Tibetan cultural identity as mentioned by Huber (1995).

2. Several participants mentioned environmental destruction/development as a major variable contributing to their environmental sensitivity. These participants experienced environmental destruction/development as related to the Tibetan settlements in India and Tibet. It appears to be worthwhile to focus environmental education programs in the Tibetan community on
environmental destruction and development as related directly to Tibet and the Tibetan settlements in India. Such environmental education programs could focus on the environmental issues in relation to players, positions, and solutions.

3. Role models were mentioned by all participants as having influenced their environmental sensitivity. It appears to be worthwhile for environmental education programs to create opportunities for students to work with or learn from environmentally knowledgeable individuals.

4. This study creates a cross-cultural referencing that is seemingly imperative for an objective understanding of environmental sensitivity variables among cultures that hold different worldviews.

Suggestions for Further Research

This research has contributed an essential layer to the study of environmental sensitivity among non-western cultures. As a result, recommendations for further research needs and possibilities have emerged:
1. Environmental sensitivity is still a convoluted field of study lacking concrete definitions and measurement tools. Currently, the definition of environmental sensitivity can be interpreted as either anthropocentric or ecocentric. It is necessary to conduct further research to establish defining differences and definitions for the two interpretations of environmental sensitivity.

2. Exploratory research needs to be conducted investigating the relationship between religious and spiritual orientation and environmental sensitivity.

3. It is crucial that environmental sensitivity instruments be developed that are inclusive of accessing individuals' orientation to the environment (i.e., anthropocentric, ecocentric) as well as the extent of an individuals' environmental sensitivity.

4. It is of interest to conduct an exploration of the social constructs as related to Tibetans' view of and relationship to the environment in exile and environmentally related work. Such research would answer the following questions:
What is the commonly held view of the environment in exile? How is the Tibetan relationship to the environment defined? How does this view and relationship relate to an individuals’ environmental sensitivity? What are the barriers preventing more Tibetans from entering into environmentally related positions?

5. Presently, there are no other studies of environmental sensitivity among an identified ecocentric culture. Further studies would provide a more comprehensive perspective in this area of research.

Summary

The research presented in this thesis is a preliminary step in a foreseeable long-chain of exploratory research directed at exploring human-land relationship among a considered ecocentric culture. This research is the second study aimed at identifying variables leading to environmental sensitivity among developing nations; however, it is the first to focus on a refugee population. This research provides another layer to the formation of environmental sensitivity; however,
more research is needed to define and refine the theory of environmental sensitivity among ecocentric communities.
APPENDIX A

ENVIRONMENTAL SENSITIVITY PROFILE INSTRUMENT
Environmental Sensitivity Profile Instrument

Section I: Demographic Information

Name (Optional) ____________________________________________________________

(last) (first) (middle)

Institutional Address: _______________________________________________________

Position: ___________________________________________________________________

1. Number of years in this position: _____

2. Sex: Male ____; Female _____

3. Age: Under 21 ____; 21-30 ____; 31-40 ____; 41-50 ____; 51-60 ____;
   Over 60 _____

4. Were you born in Tibet? Yes ____; No _____

5. Number of years living in Dharamsala: _____

6. Please list, in rank order, the degree of responsibility you have in each of the
   following fields. Number one would reflect your greatest responsibility, number two
   the next greatest, etc. Disregard any that do not apply to your situation. Feel free to add
   categories where important to your situation.

   ___ Environmental Education   ___ Outdoor Recreation
   ___ Science Education        ___ Community Awareness Education
   ___ Conservation Education   ___ Other (specify) _______________________
   ___ Social Studies Education ___ Other (specify) _______________________
   ___ Outdoor Education        ___ Other (specify) _______________________

7. Please list in rank order your job responsibilities. Number one would reflect your
   greatest responsibility, number two the next greatest, etc. Again, feel free to add
   categories that apply to your situation and disregard any that do not apply.

   ___ Research                  ___ Promotion/Publicity
   ___ Administration           ___ Other (specify) _______________________
   ___ Curriculum Development   ___ Other (specify) _______________________
   ___ Teaching Methods Classes ___ Other (specify) _______________________
   ___ Teaching Direct Field    ___ Other (specify) _______________________
II. Supplementary Demographic Information

8. At what time in your life did you begin to feel an interest, love or caring toward the natural environment? (Please check one)

   Primary School ____ Secondary School ____
   During college ____ Post college ____

9. During what time in your life did you decide to work in education, environmental education or related environmental field? (Please check one)

   Primary School ____ Secondary School ____
   College ____ Post college ____

10. What avocational or recreational environmental interests would you perceive as of major importance in your life today and/or in earlier years? Please list your interests and place a check under either or both of the “current” or “past” columns.

   EXAMPLES:
   
<table>
<thead>
<tr>
<th>Interest</th>
<th>Current</th>
<th>Past</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Bird Watching</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>B. Hiking</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>C. Gardening</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

   Complete as directed:

   _____________________________  __________  __________

   _____________________________  __________  __________

   _____________________________

Section III: THE INTERVIEW

Please answer the following questions as specifically as possible. Take all the time you need to think your answers through. These are difficult questions.

1. Environmental Sensitivity Rating

   Environmental sensitivity can be defined as a personal caring or valuing of the natural environment. An environmentally sensitive person is one who is empathetic toward nature, and who feels a caring connection between him/herself and nature. For example, a person who is sensitive to the environment would feel personal sadness, dismay or pain when witnessing someone needlessly throwing rubbish onto the hillsides, purposefully destroying natural vegetation and wildlife, or polluting water. Likewise, a person who is sensitive to the environment would feel personal joy and pleasure when witnessing trees being planted or hillsides being cleaned.
On a scale of 1 to 10, with 10 being the highest, how would you rate your degree of environmental sensitivity? (Probe: Describe why you chose that particular number rating).

2. Development of Environmental Sensitivity

a. What environments have you lived in, and for how long, in term of rural (village), suburban (town), or urban (city) environments?

b. When you lived in such environments, did you frequent any other types of environments? If so, what were they and how often did you visit them?

c. Throughout your life, have you spent time alone in natural undeveloped areas or with family and/or friends? If so, at what ages, how often, and what was the reason?

d. At what age or period in your life do you believe you began to develop sensitivity to the natural environment?

e. What factors or experiences do you feel were instrumental in developing your interest or feelings of appreciation or caring toward the natural environment? (Explain the qualities of these interactions or experiences that made you respond to the natural world in the way that you did). If there is more than one factor, try to rank order them by the influence these factors or experiences had on you.

f. What was there about the particular experience that caused you to develop an appreciation and caring; yet, others who may have participated in similar experiences may have not developed feelings of appreciation and caring for the natural environment?

g. Was there one or perhaps several individuals whom you believe had a major influence on your development of caring for and understanding of the natural world? (Probe: Tell me about him or her).

3. Development of Career Interest

The following question is very similar to the second major question, however, this time the variable being asked is the development of your career interest.

What prior experiences, if any, do you feel were instrumental in developing your interest in and/or dedication to the field of environmental education, education or related environmental field? Again, if there is more than one variable try to rank order them.
4. Additional Responses

This ends the interview section. Are there any other variables you feel would be important to me as far as developing your environmental sensitivity or career interest that you have not mentioned?
APPENDIX B

INSTRUMENT PROCEDURE
ESPI Section I Question #1:
Number of years in this position?
Each participant identified the number of years s/he had been in her/his current environmentally-related career post. Responses were grouped into four categories: 1-3 years; 4-6 years; 7-9 years; and 10 or more years. The number of individuals qualifying for each category was calculated; thereby providing a response frequency distribution.

ESPI Section I Question #2:
Sex: Male____; Female____
Each participant marked one of the above given categories. A response frequency distribution was tabulated from the total number of respondents checking each of the categories.

ESPI Section I Question #3:
Age: Under 21 ____; 22-30 ____; 31-40 ____; 41-50 ____; 51-60 ____; Over 60 ____
Each participant marked one of the above provided categories. A response frequency distribution was tabulated from the total number of respondents checking each of the categories.

ESPI Section I Question #4:
Were you born in Tibet? Yes ____; No____
Each participant identified whether or not they were born in Tibet. Each participant marked one of the above provided categories. A response frequency distribution was tabulated from the total number of respondents checking each of the categories.

ESPI Section I Question #5:
Number of years living in Dharamsala: ____
Each participant identified the number of years s/he had been living in Dharamsala. Responses were grouped into four categories: 1-10 years; 11-20 years; 21-30 years; and over 30 years. The number of individuals qualifying for each category was calculated; thereby providing a response frequency distribution.

ESPI Section I Question #6:
Please list, in rank order, the degree of responsibility you have in each of the following fields. Number one would reflect your greatest responsibility, number two the next greatest, etc. Disregard any that do not apply to your situation. Feel free to add categories where important to your situation.

---

Environmental Education  Outdoor Recreation
Science Education  Community Awareness Education
Conservation Education  Other (specify)______________
Social Studies Education  Other (specify)______________
Each participant rank-ordered their responses in the above provided categories. Calculated from given responses, there were three different sets of data formed from this question: number of times a category was ranked as position one, number of times a category was ranked in the first three positions, and number of times a category was ranked in any position. Frequency distribution was tallied from the data in all of the three different data sets.

ESPI Section I Question #7:
Please list in rank order your job responsibilities. Number one would reflect your greatest responsibility, number two the next greatest, etc. Again, feel free to add categories that apply to your situation and disregard any that do not apply.

___Research ___Promotion/Publicity
___Administration ___Other (specify) _____
___Curriculum Development ___Other (specify) _____
___Teaching Methods Classes ___Other (specify) _____
___Taking Continuing Education Courses

Each participant rank-ordered their responses in the above provided categories. Calculated from given responses, three different data sets formed from this question: number of times a category was ranked as position one, number of times a category was ranked in the first three positions, and number of times a category was ranked in any position. Frequency distributions were tallied from the data in all of the three different data sets.

ESPI Section II Question #8:
At what time in your life did you begin to feel an interest, love or caring toward the natural environment? (Please check one)

Primary School ____ Secondary School ____
During college ____ Post college ____

Each participant marked one of the above given categories. A response frequency distribution was tabulated from the total number of respondents checking each of the categories.

ESPI Section II Question #9:
During what time in your life did you decide to work in education, environmental education or related environmental field? (Please check one)

Primary School ____ Secondary School ____
During college ____ Post college ____
Each participant marked one of the above given categories. A response frequency distribution was tabulated from the total number of respondents checking each of the categories.

ESPI Section II Question #10:

What avocational or recreational environmental interests would you perceive as of major importance in your life today and/or in earlier years? Please list your interests and place a check under either or both of the “current” or “past” columns.

**EXAMPLES:**

<table>
<thead>
<tr>
<th>Interest</th>
<th>Current</th>
<th>Past</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Bird Watching</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>B. Hiking</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>C. Gardening</td>
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Complete as directed:

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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Each participant noted their current and past interests as cited above. Participant responses were categorized by similarities and key words. Current and past interests were calculated separately. From the provided responses, frequency distributions were calculated for each of the two data sets for the current and past activities.

ESPI Section III Question #1:

Environmental Sensitivity Rating: On a scale of 1 to 10, with 10 being the highest, how would you rate your degree of environmental sensitivity?

Participants rated themselves on the degree of their perceived individual environmental sensitivity. In individual cases where participants responded with a range of scores, the lower score was used in the data analysis. A response frequency distribution was tabulated from the total number of respondents checking each of the categories.

ESPI Section III Question #2a:

What environments have you lived in, and for how long, in term of rural (village), suburban (town), or urban (city) environments?

Participants responded by citing one of the three categories rural, suburban, or urban with a number of years that they spent in that particular environment. Response frequency distribution was calculated for each of the three listed environments. Two data sets were created: environments lived in during youth (18 years of age and younger) and environmental lived in during adulthood (ages after 18).
ESPI Section III Question #2b:
When you lived in such environments, did you frequent any other types of environments? If so, what were they and how often did you visit them?

Participants responded by citing events in their past in which the visited other environments. The data did not provide meaningful results; therefore, no analysis was performed.

ESPI Section III Question #2c:
Throughout your life, have you spent time alone in natural undeveloped areas or with family and/or friends? If so, at what ages, how often, and what was the reason?

Participants listed times in their life that they have spent time in natural areas. Responses were grouped into four data sets: 1) total number of participants citing category by age of time in nature; 2) time alone in nature, 3) time with family in nature, and 4) time with friends in nature. Frequency of times in nature was neglected in this study and only affirmative responses were noted. Each data set was subdivided to show the age of participant during their interactions with nature. Three age ranges were used: less than 18 years, 18-22, and 23 years and older.

Defining Term:
Nature – any area that is not developed by human activity or that has been developed for the sake of facilitating human experiences of the environment such as hiking trails. Areas considered nature are those away from a participant’s home that can be accessed on foot, by bike or car.

ESPI Section III Question #2d:
At what age or period in your life do you believe you began to develop a sensitivity to the natural environment?

Participants listed ages in their life that they began to develop a caring of the natural environment. Age range categories were determined from participant responses. Participants who provided a range of ages as a response, the lesser ages were used in the calculations. Responses were grouped into four categories: less than 6 years; 6-10 years; 11-15 years; 16-20 years; and over 21 years. The number of individuals qualifying for each category was calculated; thereby providing a response frequency distribution.

ESPI Section III Question #2e:
What factors or experiences do you feel were instrumental in developing your interest or feelings of appreciation or caring toward the natural environment? If there is more than one factor, try to rank order them by the influence these factors or experiences had on you.
Participants provided a rank order list of factors or experiences which contributed to their development of environmental sensitivity. From the responses, the following categories were created: Natural feeling, Buddhist philosophy, formal education, environmental destruction and/or development, and community education/involvement. Each response from participants was placed into a category based on individually expressed key words. Two data sets consisting of two sets of response frequencies were calculated. The first data set is based on the number one ranked response by participants. Within this set, individuals listing a particular category as rank one divided by the total number of sampled individuals provided a set response frequency. The second set of response frequency calculations was determined by the number of citations listed for a particular category divided by the number of total provided citations.

The second data set underwent the same two sets of response frequency calculations as data set one; however the rank-order of experience or factors was neglected in the data set and all cited experiences and factors were included in the analysis. This second set of data provided a generalized interpretation of the participant responses as related to environmental sensitivity.

Defining Terms:
Natural Feeling – the idea that the participant was born with a natural affinity or caring or appreciation for the natural world.
Buddhist Philosophy – Buddhist teachings given by the Dalai Lama, other Tibetan lamas, village elders, and/or parents.
Formal Education – education that took place within an institution such as a school, university, or college.
Environmental Destruction and/or Development – the destruction or development of a natural environment as a result of human activity, such as deforestation for agricultural land, and natural activity, such as floods.
Community Education/Involvement – informal education on or involvement in the local environment, mainly done on behalf of the Tibetan Welfare Office’s Clean Up Upper Dharamsala campaign and area clean-ups.

ESPI Section III Question #2f:
What was there about the particular experience that caused you to develop an appreciation and caring; yet, others who may have participated in similar experiences may have not developed feelings of appreciation and caring for the natural environment?

Participant responses were categorized as to whether their development of environmental sensitivity was dependent experiences or personality. Experiences were further divided into three subcategories: environmental, educational, and spiritual. A response frequency was calculated based on the number of participants indicating each category and subcategory.
Defining Terms:
Experiences – events in a persons life that lead to the developing or caring of the environment; excludes experiences that arise out of a participants’ personality.
Personality – those attributes of appreciation or caring that appear to be innate or natural in a participants’ understanding of how they understand or relate to the natural world; excludes emotions related to a particular event or experience.
Environmental – those experiences that arose from a direct interaction with the environment causing a participant to develop a caring or appreciation of the environment.
Educational - those experiences that arose from formal and informal education causing a participant to develop a caring or appreciation of the environment.
Spiritual - those experiences that arose from religious teachings and spiritual realizations causing a participant to develop a caring or appreciation of the environment.

ESPI Section III Question #2g:
Was there one or perhaps several individuals whom you believe had a major influence on your development of caring for and understanding of the natural world?

The participants identified one or more individuals who contributed to their environmental sensitivity. Responses were divided into two categories: familial and non-familial. Non-familial was further divided into the following categories: The Dalai Lama, other Tibetan lamas, village elders, teachers (western), local nonprofit leaders, and environmental scholars. Two response and percentage frequency calculations were calculated for the familial and subdivided non-familial categories. The first calculations were based on the total number of sampled participants citing a particular category divided by the total number of sampled participants. The second calculations were based on the total number of citations per category given by all sampled participants divided by the total number of provided citations by sampled participants.

Defining Terms:
Familial - family members, includes both immediate and extended family.
Non-familial – any influencing person who is not related to the participant.
Dalai Lama – the religious and political head of the Tibetan people.
Tibetan lamas – any other Tibetan monk or teacher that is not the Dalai Lama.
Village elders – older people in a participant’s community that performed divinations and performed religious ceremonies who do not belong to the monastic community.
Local non-profit leaders – those individuals, particularly Dawa Tsering the former head of the Tibetan Welfare Office, that conducted community education focused on the environment.
Environmental scholars – individuals outside of the Tibetan community knowledgeable in environmental issues and practices, particularly Vandana Shiva and David Suzuki.

ESPI Section III Question #3:
What prior experiences, if any, do you feel were instrumental in developing your interest in and/or dedication to the field of environmental education, education or related environmental field? Again, if there is more than one variable try to rank order them.

Participants provided a rank order list of factors or experiences which were instrumental in their development of career interest or dedication to the environmental field. From the responses, the following categories were created: Education, relationship, professional experience, job appointment, and desire to work on behalf of the environment. Each ranked one response from participants was placed into a category based on individually expressed key words. Two sets of response frequencies were calculated based on the provided responses. Individuals listing a particular category as rank one divided by the total number of sampled individuals provided one set response and percentage frequency. The second set of response frequency calculations was determined by the number of citations listed for a particular category divided by the number of total provided citations.

Defining Terms:
Education – any formal educational experience; with a participant emphasis on higher education.
Job appointment – professional placement, either by a government head or political election, into an environmental position.
Desire to work on behalf of the environment – personal feeling arising out of life experiences that lead a participant to choose to work in an environmentally related position.
APPENDIX C

ENVIRONMENTAL SENSITIVITY PROFILE

INSTRUMENT COMPiled DATA
<table>
<thead>
<tr>
<th>#</th>
<th>SEX</th>
<th>AGE</th>
<th>TIME IN JOB</th>
<th>BORN IN TIBET</th>
<th>BORN IN EXILE</th>
<th>YEARS IN DSALA</th>
<th>RANK ORDER</th>
<th>DEGREE OF RESPONSIBILITY</th>
<th>RANK ORDER</th>
<th>JOB RESPONSIBILITY</th>
<th>7) TIME OF ES</th>
<th>8) TIME COMMIT TO ENV/ED WORK</th>
<th>9) ENV INTEREST</th>
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</thead>
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<td>F</td>
<td>31-40</td>
<td>1-3</td>
<td>x</td>
<td>&lt;11</td>
<td>1. Other - social and political awareness</td>
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<td>During College (Graduate)</td>
<td>Kitchen Gardening (CP)</td>
<td>Hiking (CP)</td>
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<td></td>
</tr>
<tr>
<td>2</td>
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<td>51-60</td>
<td>7-9</td>
<td>X</td>
<td>&gt;30</td>
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<td>1. Research</td>
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<td>Post College</td>
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<td>11-20</td>
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<td>1. Administration</td>
<td>Primary School</td>
<td>Post College</td>
<td>Tree Planting (CP)</td>
<td>Gardening (P)</td>
<td></td>
<td></td>
</tr>
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<td>4-6</td>
<td>x</td>
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<td>1. Environmental Education</td>
<td>1. Administration</td>
<td>Post College</td>
<td>Post College</td>
<td>Hiking (CP)</td>
<td>Clean-Ups (CP)</td>
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</tr>
<tr>
<td>5</td>
<td>M</td>
<td>31-40</td>
<td>4-6</td>
<td>x Mustang</td>
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<td>1. Community Awareness Education</td>
<td>1. Administration</td>
<td>Primary School</td>
<td>Post College</td>
<td>Hiking (CP)</td>
<td>Clean-Ups (CP)</td>
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</tr>
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<td>41-50</td>
<td>1-3</td>
<td>X</td>
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<td>1. Community Awareness Education</td>
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<td>Secondary School</td>
<td>Gardening (CP)</td>
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<td>M</td>
<td>41-50</td>
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<td>X</td>
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<td>Environmental Education</td>
<td>1. Environmental Education</td>
<td>1. Administration</td>
<td>Post College</td>
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<td>Hiking (CP)</td>
<td>Clean-Ups (CP)</td>
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<td>M</td>
<td>31-40</td>
<td>1-3</td>
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<td>1. Environmental Education</td>
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<td>Post College</td>
<td>Post College</td>
<td>Hiking (CP)</td>
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<tr>
<td>9</td>
<td>M</td>
<td>31-40</td>
<td>4-5</td>
<td>x</td>
<td>&lt;11</td>
<td>Environmental Education</td>
<td>1. Research</td>
<td>Primary School</td>
<td>During College</td>
<td>Gardening (CP)</td>
<td>Clean-Ups (CP)</td>
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### III. The Interview

<table>
<thead>
<tr>
<th>1) ES RATING</th>
<th>2a) WHAT ENV LIVED IN (Y=Youth; A=Adult)</th>
<th>2b) TIME IN UNDEVELOPED AREAS (A=0-17; B=18-22; C=23 and over)</th>
<th>2d) AGE OF ES</th>
<th>2e) INFLUENCING FACTORS</th>
<th># OF INFLUENCING FACTORS</th>
<th>2f) QUALITY OF INDIVIDUAL EXPERIENCE</th>
<th>2g) INFLUENCING PEOPLE</th>
<th>3) EXPERIENCES LEADING TO CAREER</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Y=Rural A=Suburban</td>
<td>A=Family; Friends B=None C=None</td>
<td>6-10</td>
<td>1) natural belief</td>
<td>1</td>
<td>Personality</td>
<td>1) non-familial - teacher</td>
<td>Education</td>
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<tr>
<td>8 Y=Rural A=Suburban</td>
<td>A=Family; Friends B=Alone C=Alone; Friends</td>
<td>&gt;20</td>
<td>1) Buddhist philosophy 2) environmental destruction/development</td>
<td>2</td>
<td>experience - educational</td>
<td>1) non-familial - environmental scholar (David Suzuki)</td>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>8 Y=Rural A=Suburban</td>
<td>A=Family; Friends B=Alone C=Alone; Friends</td>
<td>11-15</td>
<td>1) environmental destruction/development</td>
<td>3</td>
<td>experience - environmental</td>
<td>1) non-familial - Local non-profit leader</td>
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<td></td>
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<tr>
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<td>A=Family; Friends B=None C=None</td>
<td>16-20</td>
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<td>1</td>
<td>experience - environmental</td>
<td>1) non-familial - spiritual</td>
<td>Desire to work on behalf of the environment</td>
<td></td>
</tr>
<tr>
<td>10 Y=Rural A=Suburban</td>
<td>A=Family; Friends B=None C=None</td>
<td>6-10</td>
<td>1) environmental destruction/development</td>
<td>1</td>
<td>experience - environmental</td>
<td>1) Non-familial - Tibetan Lama</td>
<td>Job Appointment</td>
<td></td>
</tr>
<tr>
<td>7 Y=Rural A=Suburban</td>
<td>A=Family; Friends B=None C=Alone</td>
<td>&lt;6</td>
<td>1) natural feeling 2) environmental destruction/development 3) Formal education 4) Buddhist philosophy</td>
<td>4</td>
<td>experience - educational</td>
<td>1) Family</td>
<td>Job Appointment</td>
<td></td>
</tr>
<tr>
<td>10 Y=Rural A=Suburban</td>
<td>A=Family; Friends B=None C=None</td>
<td>&gt;20</td>
<td>1) Buddhist Philosophy 2) environmental destruction/development</td>
<td>2</td>
<td>Experience - spiritual</td>
<td>1) Non-familial - teacher (western)</td>
<td>Job Appointment</td>
<td></td>
</tr>
<tr>
<td>8 Y=Suburban A=Suburban</td>
<td>A=Friends B=Alone C=Alone</td>
<td>&gt;20</td>
<td>1) formal education</td>
<td>1</td>
<td>experience - educational</td>
<td>1) non-familial - teacher (western)</td>
<td>Job Appointment</td>
<td></td>
</tr>
<tr>
<td>7 Y=Rural A=Suburban</td>
<td>A=Alone; Friends B=Alone C=Alone</td>
<td>6-10</td>
<td>1) environmental destruction/development</td>
<td>2</td>
<td>experience - spiritual</td>
<td>1) Non-familial - Tibetan Lama 2) Familial 3) Non-familial - Village Elders</td>
<td>Desire to work on behalf of the environment</td>
<td></td>
</tr>
</tbody>
</table>
Interview 1

1. Environmental Sensitivity Rating: 7
   “Seven. Environmental sensitivity is inborn. In Tibetan Buddhism we believe that trees have a life and it is painful for the trees if you cut them down.”

Development of Environmental Sensitivity

2a. Environments lived in: Youth = Rural; Adult = Suburban
   “I lived in a rural Tibetan settlement growing up and now I live here in Dharamsala.”

2c. Time spent in natural areas:
   18-22 = alone; >23 = alone
   “When I came here to Dharamsala I started going into the mountains alone. This started in Norway when I was in college. I love nature, it is so beautiful and clean.”

2d. Age of development of environmental sensitivity: 6-10
   “When I was younger, about 7 or 8.”

2e. Factors or experiences:
   1) Natural feeling
      “It was more of a natural feeling than an experience I had.”

2f. Quality of individual experience:
   Personality
      “I guess it is just a part of who I am. I have not met such a person that is not caring towards the environment.”

2g. Role model(s):
   1) Non-familial – teacher
      “I was always encouraged by my teachers to care for the environment.”

3. Development of career interest:
   Education
      “I have the environmental background so I have a natural inclination towards working for the environment.”

4. Additional Comments:
   “Many Tibetans think that when we talk about the environment, we are only telling them to pick up the garbage, they equalize environment and garbage. In this way we have to talk to people and let them know that it is everyone’s responsibility to keep the local environment clean. It is not just the job of those working at the environment office. The environment is everyone’s job and it begins with you.”


Interview 2

1. Environmental Sensitivity Rating: 8

“Eight. I think we should work with nature and not against nature. We should not despise nature. People say that we are thankful to some other country or people, but people forget to be thankful to nature, like the sun and the moon, the air and the environment.”

Development of Environmental Sensitivity

2a. Environments lived in:
Youth = Rural; Adult = Suburban

“I’ve lived in Dharamsala for about 7 years not. The rest of my studies I did in rural areas. I was born and spent the first six years of my life in rural Tibet, and then was raised in a Tibetan settlement in the south.”

2c. Time spent in natural areas:
<18 = alone, family, friends; 18-22 = alone, friends; >23 = alone, friends

“Yes, when I was young I spent time playing in the fields with my brothers, sisters, friends, and sometimes by myself. Throughout my life I’ve always enjoyed spending time outdoors in nature with friends or by myself.”

2d. Age of development of environmental sensitivity: >20

“When I was about 40. My sensitivity did not come out when I was younger.”

2e. Factors or experiences:
1) Buddhist philosophy; 2) environmental destruction/development

“Later in life I started reading about Buddhism and the environment and hearing the Dalai Lama speak on the subject. It was through these experiences that I realized that the advice my father gave me as a child was correct. He always told me not to hurt any living being, but as a child I did not listen. Also, we Tibetans learned a lot from our friends from the east (China) when they came crashing into Tibet and the first thing they began to do was make roads across the rough terrain. This caused many problems in the environment. Worst than that, 2,500 square kilometers of trees were fallen indiscriminately and ended in flooding of five major rivers of Tibet. Mother nature taught us a lesson.”

2f. Quality of individual experience:
Experience - education

“By knowing what I know about history and the environment. In Tibet, starting from our history, which today is 2131 years, Tibet never faced any famine. We worked with nature, we sustained whatever nature produced, we did our work. I realized that when we were able to sustain our soil fertility for over 2000 years and now here in exile soil fertility is declining because we are not able to be sustainable in our agriculture.”
2g. Role model(s):
1) Familial – father; 2) Non-familial – The Dalai Lama; 3) Non-familial – environmental scholar (Vandana Shiva)

“My father was the first person to tell me how to treat the environment properly by not harming living things. His Holiness the Dalai Lama has written that relates Buddhism to the environment. Also Dr. Vandana Shiva is my mentor and has taught me a lot on sustainable agriculture.”

3. Development of career interest:
Education

“I studied in Norway for five years, and two and half of these years were focused on agriculture. I studied more about agriculture when I began working for the Tibetan Agricultural Division. In the 12th Tibetan Cabinet they began talking about organic and sustainable agriculture. At that time I started studying under Dr. Vandana Shiva. After that I began to understand the importance of working with nature and not against it.”

4. Additional Comments:

“People think that when people are educated they are highly wise, yet they think nothing of nature. But there has not been a scientist in this world to create a natural leaf; only nature does this. People do plantations. That is good; this is environmentally good; and spiritually so nice. Lord Buddha was born under a tree, he gained enlightenment under a tree, so trees are so important for spirituality. If you see here in Dharamsala where His Holiness lives there are many trees, on the opposite side there are no trees. This is because His Holiness says that we should not cut the trees. He says that the real owner of this land is the trees.”

“In the spring when the green grass was coming up, I would try to pluck it. My father would scold me saying that the grass has a life, that is why it comes up and then dies back down. It was not until 30 years later that I read about Buddhism and the environment, heard His Holiness the Dalai Lama speak on the environment, and worked in agriculture that I realized that the advice my father had told me was correct.”
### Interview 3

1. Environmental Sensitivity Rating: 8  
   “Eight. Because of the amount of my concern and involvement I graded myself this way.”

#### Development of Environmental Sensitivity

<table>
<thead>
<tr>
<th>2a. Environments lived in:</th>
<th>2b. Time spent in natural areas:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth = Rural; Adult = Suburban</td>
<td>“I have lived in the Dharamsala for 20 years. I lived in rural northern India growing up.”</td>
</tr>
<tr>
<td></td>
<td>“Throughout my life I have spent time camping and hiking in the woods. When I was a child, I</td>
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<tr>
<td></td>
<td>always was with my family and friends in nature. I went though a period as a young adult when I</td>
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<td></td>
<td>only spent time by myself in nature. Now I often either go by myself or with friends hiking and</td>
</tr>
<tr>
<td></td>
<td>camping.”</td>
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<tr>
<td>2c. Age of development of environmental sensitivity: 11-15</td>
<td>“When I was school, so I was about 12 or so.”</td>
</tr>
<tr>
<td>2d. Factors or experiences:</td>
<td>“My family and I would go south in the summer and it used to be a massive forest. Each Tibetan</td>
</tr>
<tr>
<td>1) environmental destruction/development</td>
<td>family depends on the land, so forests were cleared</td>
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<td></td>
<td>to make farm land. Then the area began to have</td>
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<td></td>
<td>water problems. It was at that time that I realized</td>
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<td></td>
<td>that because of the massive deforestation</td>
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<tr>
<td></td>
<td>happening in the area is what led to the water</td>
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<tr>
<td></td>
<td>problems. The land used to contain leopards, tigers</td>
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<tr>
<td></td>
<td>and elephants, but all of these animals were lost</td>
</tr>
<tr>
<td></td>
<td>due to the cutting down of trees.”</td>
</tr>
<tr>
<td>2f. Quality of individual experience:</td>
<td>“It was this experience I mentioned about the forests as a youth. When I was in school no one</td>
</tr>
<tr>
<td>Experience - environment</td>
<td>talked about the environment. Today, children are</td>
</tr>
<tr>
<td></td>
<td>being taught about the environment.”</td>
</tr>
<tr>
<td>2g. Role model(s):</td>
<td>“I met David Suzuki at the 1992 Earth Summit. He</td>
</tr>
<tr>
<td>1) Non-familial – environmental scholar (David Suzuki)</td>
<td>inspired me to work with children and teach them</td>
</tr>
<tr>
<td></td>
<td>about the environment.”</td>
</tr>
<tr>
<td>3. Development of career interest:</td>
<td>“I developed my interest on my own. My schooling did not have an influence on me.”</td>
</tr>
<tr>
<td>Desire to work on behalf of the environment</td>
<td></td>
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<tr>
<td></td>
<td>“Some of the Tibetan children are pursuing jobs in the environment, but the Tibetan community</td>
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<tr>
<td></td>
<td>cannot give them a job in the area of environment, these jobs are very limited. So if they</td>
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<td></td>
<td>want to work within Tibet or the Tibetan community, environmental studies does not permit</td>
</tr>
<tr>
<td></td>
<td>this kind of work so they choose another field of study.”</td>
</tr>
</tbody>
</table>
Interview 4

1. Environmental Sensitivity Rating: 10
   “Ten. When I see rubbish in the market, it makes me feel bad. Also, because I was born here I feel it is important to keep some sense of identity as a Tibetan also.”

Development of Environmental Sensitivity

2a. Environments lived in:
   Youth = Suburban; Adult = Suburban
   “I have lived in Dharamsala my entire life, so I guess suburban.”

2c. Time spent in natural areas:
   “No, not really.”

2d. Age of development of environmental sensitivity: 16-20
   “20 – Before that time I did not know anything.”

2e. Factors or experiences:
   1) community education
   “I heard Dawa Tsering of the Tibetan Welfare Office speak to the public on World Environment Day about the environment and I realized what garbage was, I used to think that garbage was just garbage. His talk sparked something in my mind.”

2f. Quality of individual experience:
   experience - environmental
   “When I was in school we had clean-ups, but it was forced work not coming from a willingness to do it. It was really my experience with Dawa Tsering of hearing him speak and understanding the environment in a new way.”

2g. Role model(s):
   1) Non-familial – local non-profit leader
   “Only Dawa Tsering. Afterwards, even when I watched television, I would see the garbage. I saw it before but never noticed it. It is kind of like learning a new word.”

3. Development of career interest:
   Desire to work on behalf of the environment
   “After hearing Dawa speak, I came to the Tibetan Welfare Office and asked for a job with the greenworkers. The person told me to wait one month because someone was leaving. I went to Dawa and told him I would do anything. I began as environmental assistant coordinator and now I am project coordinator.”

4. Additional Comments:
   “When I talk to my friends about the environment, they make fun of what I do because they do not understand it. It is a cultural belief that, especially here in Dharamsala, people think that the word environment is only the word for garbage. Culturally, people look down on people who work with the garbage because it is dirty. Also, there is a dependency on the greenworkers because people think they can throw the garbage anywhere and have someone else pick it up.”
## Interview 5

1. Environmental Sensitivity Rating: 10
   
   “Ten. I feel very much concerned and connected to the environment.”

### Development of Environmental Sensitivity

2a. Environments lived in:
   Youth = Rural; Adult = Suburban
   
   “I grew up in totally remote environments; there were not many roads or anything in Mustang. There was a lot of beauty; but no electricity or running water. We had a happy life and there was not this kind of work. Here in Dharamsala where I live now, you cannot find true happiness because you always have to work.”

2c. Time spent in natural areas:
   <18 = family, friends
   
   “Growing up I was always in nature with my friends and family. Since then, I have not really spent any time in areas like that.”

2d. Age of development of environmental sensitivity: 6-10
   
   “At about 6 years old.”

2e. Factors or experiences:
   1) environmental destruction/development
   
   “When I was young I had to watch the sheep and cows. I had to go up on the mountain and watch the herds. We used to find nests and I never disturbed them. For my whole life I have appreciated natural beauty. Here in Dharamsala, in the 70s and 80s, it was a beautiful place; but with more and more people coming the environment is becoming destroyed.”

2f. Quality of individual experience:
   experience - environment
   
   “Because I grew up in a totally remote and beautiful place.”

2g. Role model(s):
   1) Familial
   
   “My mother taught me not to pluck flowers because they have life. She was a good teacher.”

3. Development of career interest:
   Desire to work on behalf of the environment
   
   “When I heard about the development of the Tibetan Welfare Office, it included the preservation of the environment and I wanted to be a part of it. I wanted to work with the government and I thought this would be the best job.”

4. Additional Comments:
   
   “School did not really influence me so much as working now for the Tibetan Welfare Office. We had a green team in our school and we planted gardens and trees.”
Interview 6

1. Environmental Sensitivity Rating: 7

"Seven. I feel strongly towards the environment. I am a great lover of plants."

Development of Environmental Sensitivity

2a. Environments lived in:
Youth = Rural; Adult = Suburban

"I was born in Tibet and lived there for four years. Then I lived in a Tibetan settlement community in south India for 15 years. I've been in Dharamsala for 27 years now."

2c. Time spent in natural areas:
<18 = family, friends; >23 = alone

"Living in the settlement I would play in the streams and forests with my brother and my friends. Now I tend to go on walks by myself."

2d. Age of development of environmental sensitivity: <6

"At the age of 5 – that is the time when you begin to understand and appreciate life."

2e. Factors or experiences:
1) natural feeling; 2) environmental destruction/development; 3) Formal education; 4) Buddhist philosophy

"When I was young and would go to a place full of greeneries and mountains, I would naturally think 'how beautiful' and think that the area should stay like this. As I grew older and saw how much deforestation has occurred in Tibet, I naturally wanted to help. Most Tibetans would have a natural belief system that taught them how to respect nature, but it really depends on the education you have growing up. What our parents taught us on don’t pick flowers, don’t harm, this remains with us. My formal education in science helped me understand that what my parents said is true."

2f. Quality of individual experience:
Experience - education

"As I said, the seed was influenced by my parents and their love of religion. But once you get into a formal education system, like science, then you go back to what your parents taught you and you see that it makes sense."

2g. Role model(s):
1) Familial; 2) Non-familial – teachers

"My parents and then learning from my teachers. My teachers give the lessons, but it depends on the student’s upbringing if they actually take to the teachings."

3. Development of career interest:
Job Appointment

"I was appointed to this position by an election of the people."

4. Additional Comments:
Interview 7

1. Environmental Sensitivity Rating: 10
   “Ten. Because I do not have a big knowledge, but I have a great sensitivity to the environment. For example, it bothers me when people leave the faucet dripping.”

Development of Environmental Sensitivity

2a. Environments lived in: Youth = Rural; Adult = Suburban
   “Mostly rural areas, except for living here in Dharamsala where it is quite built up.”

2c. Time spent in natural areas: <18 = family, friends
   “No, not really. As a child I would play outdoors with my family and sometimes with my friends.”

2d. Age of development of environmental sensitivity: >20
   “It was at the age of 37.”

2e. Factors or experiences:
   1) Buddhist Philosophy; 2) environmental destruction/development
   “His Holiness the Dalai Lama was talking about the importance of the environment, and I was finding that there was a lot of garbage in the McLeod area. The Dalai Lama was receiving a lot of criticism from visiting tourists. I felt that I must do something before the garbage affects the water, forests, soil, and land.”

2f. Quality of individual experience:
   Experience - Spiritual
   “First, it came from the teachings of the Dalai Lama. Second, my heart was pinched and I tried to look for solutions to rid myself of the pain. In that way I developed knowledge and caring for the environment.”

2g. Role model(s):
   1) Familial; 2) Non-familial - The Dalai Lama; 3) Non-familial - Teachers
   “My mother, my guru His Holiness the Dalai Lama, and those older teachers had influence on me. Not the teachers today, but the older teachers who were closer to the vision of the Dalai Lama.”

3. Development of career interest:
   Job Appointment
   “People came to know me through my social work in the community with the Tibetan Youth Congress and the kindergarten I started. The people elected me as the Tibetan Welfare Officer.”

4. Additional Comments:
   “Every individual in this world community are working in isolation and not together. They are not working or talking from their hearts. All the world communities need to come together and work together from our hearts for the future generations and this environment. The environment is a problem of all the human beings, it is all of our...
problems. The people who really want to work for the future of the world from their hearts, not for fame or for material gain, but from their hearts, they should come together and really do something for the benefit of the world. After that, naturally people will join one by one and will work from their hearts as well. People are working now for the temporary, it might help today, but it is less beneficial than working for the future. Don’t work for the attention of the government or high teachers, you just do it from your heart.”
Interview 8

1. Environmental Sensitivity Rating: 8

“Eight. The trash and the development in McLeod Ganj, with all the buildings going up and the consumption patterns surging, it is becoming the way of life. If Tibetans living in settlements looked at the Tibetans here, they would see a different kind of Tibetan settlement because here there is so much consumerism. There are not too many economic activities going on there as you find here.”

Development of Environmental Sensitivity

2a. Environments lived in:
Youth = Rural; Adult = Suburban

“I spent a lot of time in the forests at the first settlement, after that I went to TCV in Moussouri, which is a hill station. After college I came here to Dharamsala. In those days, this town was okay and not as bad as it is now. When I was in school I used to come here and visit relatives for a month or two. When I moved here, I thought I was going back to the Dharamsala that I knew, but it is completely different. This is a very small place.”

2c. Time spent in natural areas:
<18 = Friends

“I won’t say alone, but with friends yes. I was brought up on a settlement that was basically forest. There were times when we had 5 or 6 cycles together where we cycled 8km to school and that was through the forest. Due to a cyclone in 1996, most of the trees have been destroyed. I feel that I have lost some of my old friends. Memories are no longer the same thing. It is a strange experience going by there now. Natural disasters are something that we cannot avoid, although I hope it was not caused by global warming. But this is an impermanent world.”

2d. Age of development of environmental sensitivity: >20

“After my studies abroad and when I came back to CTA.”

2e. Factors or experiences:
1) formal education

“I had the opportunity to study these topics abroad. When I was in the states I wrote a paper on Drok-tso, a lake in Tibet. I wrote how the Chinese were using the lake to create electricity. This sacred lake is shaped more like a lock between huge mountains. They are destroying it now, and if we are not able to go back it will be destroyed. They are developing so much construction around it. This has had a very strong impact on me. There is not much I can do about that.”

2f. Quality of individual experience:

“I attribute it to my experience of studying abroad
experience - educational

2g. Role model(s):
   1) non-familial - teacher (western)

3. Development of career interest:
   Job Appointment

4. Additional Comments:

   "My professor in America who taught applied ecology, which was basically a new subject."

   "I was transferred here. I could easily be transferred from here to the Office of Security."

   "Personally I really don't think that this land is something we use and not care about what happens to it. Even if you get the chance to go back to Tibet, but you are used to your attitude here where you can use the land and it is not yours to care for, then the consequences is that the attitude will be taken back to Tibet. If a certain attitude is developed through your lifespan, you can not get rid of it in a couple of years. It becomes a way of life in such a way that your practices in Tibet will be the same as here in India. Look at the general Tibetans attitude, you cannot say that they have this use and throw attitude. They are conscious at least. People do not seem to have the time or consciousness to think deeply about these issues. If Tibetans want to build a hotel here, and I say it is not good for sustainable development, they would respond that it doesn't matter because it is good for them economically."
### Interview 9

1. Environmental Sensitivity Rating: 7
   “Seven. I am pro-environment.”

#### Development of Environmental Sensitivity

<table>
<thead>
<tr>
<th>Role model(s):</th>
<th>Non-familial - Tibetan Lama; 2) Familial; 3) Non-familial - Village Elders</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a. Environments lived in:</td>
<td>The village I grew up in was rural and the Tibetans cultivate land, mostly cotton. The settlement was created through the clearing of the forests. Now I live in Dharamsala.</td>
</tr>
<tr>
<td>Youth = Rural; Adult = Suburban</td>
<td></td>
</tr>
<tr>
<td>2c. Time spent in natural areas:</td>
<td>Yes, I loved to go to the forest to collect firewood. It was far away and my parents did not want me to do, but I did. I also heard cows, which was done in rotation. I love the forest, eating wild berries, watching the small animals. I went once a month by myself or with friends.</td>
</tr>
<tr>
<td>&lt;18 = Alone; Friends</td>
<td></td>
</tr>
<tr>
<td>2d. Age of development of environmental sensitivity: 6-10</td>
<td>Interested from when I was kid. Maybe about 7 or 8. During the monsoons, I would take plants from the gullies and take them to my place and put them in the vegetable garden.</td>
</tr>
<tr>
<td>2e. Factors or experiences:</td>
<td>Growing up, we had a bad crop for a few years, and the Tibetans tend to believe it is because the local gods are not happy, but I was reading and realized the importance of forests and we cleared all of the forests and then took firewood from the forest. These difficulties influenced me.</td>
</tr>
<tr>
<td>1) Buddhist philosophy; 2) environmental destruction/development</td>
<td></td>
</tr>
<tr>
<td>2f. Quality of individual experience:</td>
<td>Not sure, tough question, religion has a strong connection. I was intrigued by previous and future lives which relates to the environment. Once I plucked a sandalwood tree and brought it home and my mother was upset because it was a sacred tree. These are the kind of experiences I had.</td>
</tr>
<tr>
<td>experience - spiritual</td>
<td></td>
</tr>
<tr>
<td>3. Development of career interest:</td>
<td>The environmental piece has always been close to my heart. After school I went to see a Tibetan</td>
</tr>
</tbody>
</table>
lama who does divinations, we do not have counselors to help us with our schooling and careers, so we go and have divinations done. For me I had three options: science, law and business. In business you have to cheat people and in law you have to lie, so the elder said that science was good for me. I went and got my MBA because that was the in thing to do at that time. As I read more about Tibet, I got really interested in environmental and development issues in Tibet. A group from Australia came to the CTA and did a workshop and this got me really interested.”

“'It is important for Tibetan society to have someone who knows something and is able to lead the people. There are environmental issues that need attention, like the pesticide use in the southern settlements, but the people do not know the negative effects of these things. We need someone who will collect the data and then present it to the people.”
APPENDIX F

SWARD'S ENVIRONMENTAL SENSITIVITY PROFILE INSTRUMENT
SWARD’S ENVIRONMENTAL SENSITIVITY PROFILE INSTRUMENT

Section I: Demographic Information

Name (Optional) ________________________________________________________________
(last) (first) (middle)

Institutional Address: ________________________________________________________

Position: __________________________________________________________________

1. Number of years in this position: ______  2. Sex: Male____; Female____.

3. Age: Under 21 _____; 22-30 _____; 31-40 _____; 41-50 _____; 51-60 _____;
   Over 60 ______

4. Please list, in rank order, the degree of responsibility you have in each of the
   following fields. Number one would reflect your greatest responsibility, number two
   the next greatest, etc. Disregard any that do not apply to your situation. Feel free to add
   categories where important to your situation.

   _ Nature Interpretation __ Institutional Camping
   _ Professional Naturalist __ Outdoor Education
   _ Conservation Education __ Outdoor Recreation
   _ Environmental Education __ Other (specify) __________________________
   _ Science Education __ Other (specify) __________________________
   _ Social Studies __ Other (specify) __________________________

5. Please list in rank order your job responsibilities. Number one would reflect your
   greatest responsibility, number two the next greatest, etc. Again, feel free to add
   categories that apply to your situation and disregard any that do not apply.

   _ Research __ Promotion/Publicity
   _ Administration __ Other (specify) __________________________
   _ Curriculum Development __ Other (specify) __________________________
   _ Teaching Methods Classes __ Teaching Direct Field

6. In analyzing your entire career in environmental education or a related
   environmental field, what job responsibilities do you feel you have engaged in most
   often?
Section II: Supplementary Demographic Information

7. At what time in your life did you feel an interest/felt love toward the natural environment? (please check one)
   
   Primary School ____  Secondary School ____
   During college ____  Post college ____

8. At what time in your life did you decide to work in environmental education or related environmental field? (please check one)
   
   During primary School ____  During secondary School ____
   During college ____  Post college ____

9. What avocational or recreational environmental interests would you perceive as of major importance in your life today and/or in earlier years? Please list your interests and place a check under either or both of the “current” or “past” columns.

   EXAMPLES:
   Interest  Current Interest  Past Interest
   A. Photography  X  
   B. Hiking  X  
   C. Gardening  X  X
   Complete as directed:
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

10. What professional journals or related publications do you currently read and/or subscribe to?

Section III: THE INTERVIEW

Please answer the following questions as specifically as possible. Take all the time you need to think your answers through. These are difficult questions.

1. Environmental Sensitivity Rating

   Environmental sensitivity is a personal caring or valuing of the natural environment. It is a person who is empathetic toward nature. A person who feels a caring connection between him/herself and nature. For example, a person who is sensitive to the environment would feel personal sadness, dismay or pain when witnessing someone needlessly cutting down a tree, purposefully destroying wildlife, polluting water, or polluting the air.
On a scale of 1 to 10, with 10 being the highest, how would you rate your degree of environmental sensitivity? (Probe: Describe why you chose that particular number rating).

2. Development of Environmental Sensitivity

   a. What factors or experiences do you feel were instrumental in developing your interest or feeling of appreciation or caring toward the natural environment? For example, if you tell me things like childhood experiences, parental role models, outdoor activities, farming or friendships, explain to me the qualities of these interactions that made you respond to the environment in the way you did. If there is more than one factor, try to rank order them.

   b. Did you spend time alone in the woods (or other natural area cited by participant) or with family and/or friends? If so, at what age and how often?

   c. Was there one or perhaps several individual whom you believe had a major influence on your development of environmental sensitivity? (Probe: Tell me about him or her)

   d. To what do you attribute the development of your feelings of appreciation and caring for the natural environment? For example, was it more of a function of the experiences or relationships you had or would say it was more of a function of your particular personality?

   e. At what age or period in your life do you believe you developed a sensitivity to the natural environment? Why at that time? What was happening?

   f. What was there about the particular experience that caused you to develop an appreciation and caring and yet others who participated in similar kinds of experiences did not develop feelings of appreciation and caring for the natural environment?

   g. What environments have you lived in and for how long, in term of rural, suburban or urban environments?

   h. When you lived in such environments, did you frequent any other types of environments? If so, what were they and how often did you visit them?

3. Generalizability of environmental sensitivity to other El Salvadoran environmental professionals

   a. How many people do you know that are working in environmental positions like yours?

   b. How many people that you know, have had life experience like yours?
c. How many people do you believe, feel the same way you do about the environment in El Salvador?

4. Development of Career Interest

The following question is very similar to the second major question, however, this time the variable being asked is the development of your career interest.

What prior experiences, if any, do you feel were instrumental in developing your interest in and/or dedication to environmental education or related environmental field? For example, if you tell me things such as work in an environmentally related job, experiences in the outdoors, or participation in a professional organization, please specify the exact job, outdoor experience, or organizational experience. Again, if there is more than one variable try to rank order them.

5. Career Entry

What event or chain of events occurred to place you in your first environmental position?

6. Additional Responses

This ends the interview section. Are there any other variables you feel would be important to me as far as developing your environmental sensitivity or career interest that you have not mentioned?
APPENDIX G

PETERSON’S ENVIRONMENTAL SENSITIVITY PROFILE INSTRUMENT
Peterson's Environmental Sensitivity Profile Instrument

Section I: Demographic Information

Name (Optional) _______________________________________________________________
(last) (first) (middle)

Institutional Address: __________________________________________________________
____________________________________________________________________________

Position: _________________________________________________________________

1. Number of years in this position: _____ 

2. Sex: Male _____; Female _____.

3. Age: Under 21 _____; 22-30 _____; 31-40 _____; 41-50 _____; 51-60 _____; 
   Over 60 _____

4. Please list, in rank order, the degree of responsibility you have in each of the 
   following fields. Number one would reflect your greatest responsibility, number two 
   the next greatest, etc. Disregard any that do not apply to your situation. Feel free to add 
   categories where important to your situation.

   ___ Nature Interpretation ___ Institutional Camping
   ___ Professional Naturalist ___ Outdoor Education
   ___ Conservation Education ___ Outdoor Recreation
   ___ Environmental Education ___ Other (specify) ______________________
   ___ Science Education ___ Other (specify) ______________________
   ___ Social Studies ___ Other (specify) ______________________

5. Please list in rank order your job responsibilities. Number one would reflect your 
   greatest responsibility, number two the next greatest, etc. Again, feel free to add 
   categories that apply to your situation and disregard any that do not apply.

   ___ Research ___ Promotion/Publicity
   ___ Administration ___ Other (specify) ______________________
   ___ Curriculum Development ___ Other (specify) ______________________
   ___ Teaching Methods Classes ___ Other (specify) ______________________
   ___ Teaching Direct Field ___

6. In analyzing your entire career in EE or in an environmentally related field, what job 
   responsibilities do you feel you have engaged in most often?
Section II: Ancillary Demographic Information

7. At what time in your life did you decide to become committed to the environment? (please check one)

- Pre-college____
- During college ___
- Post-college ___

8. At what time in your life did you decide to enter the field of EE (or related field)? (please check one)

- Pre-college____
- During college ___
- Post-college ___

9. What avocational or recreational environmental interests would you perceive as of major importance in your life today and/or in earlier years? Please list your interests and place a check under either or both of the “Current” or “Past” columns.

**EXAMPLES:**

<table>
<thead>
<tr>
<th>Interest</th>
<th>Current Interest</th>
<th>Past Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Photography</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B. Hiking</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>C. Gardening</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Complete as directed:

- ____________________________
- ____________________________
- ____________________________
- ____________________________

10. What professional journals or related publications do you currently read and/or subscribe to? (Please check those that pertain)

- ___ Journal of Environmental Education
- ___ Audubon
- ___ National Wildlife
- ___ International Wildlife
- ___ Duck Unlimited
- ___ National History
- ___ National Geographic
- ___ EE Report
- ___ Wilderness Report
- ___ Nature Conservancy News
- ___ UNESCO EE Newsletter
- ___ National Association for EE Newsletter
- ___ CEA Newsletter
- ___ Conservation Foundation Newsletter
- ___ Weekly Announcements – DOE
Section III: The Interview

Please answer the following questions as specifically as possible. Take all the time you need to think through your answers. These are difficult questions.

1. (Environmental Sensitivity Rating)

On a scale of 1 to 10, with 10 being the highest, how would you rate your degree of environmental sensitivity?

2. (Development of Environmental Sensitivity)

   a. What factors or experiences do you feel were instrumental in developing your attitude toward the natural environment? For example, if you tell me things like childhood experiences, parental role models, outdoor activities, farming or friendships, explain to me the qualities that these interactions had that made you respond to the environment in the way you did. If there is more than one factor, try to rank order them.

   b. Did you spend time alone in the woods (or other natural area cited by participant) or with family and/or friends? If so, at what age?

   c. Was there one or perhaps several individuals you would say had a major influence on your development of environmental attitude?

   d. Was the development of your attitude more of a function of the experiences or relationships you had or would say it was more of a function of your particular personality?

   e. At what age did you develop a sensitivity to the natural environment?

   f. How do you feel _____ (cite the predominant sensitivity developing factor given by the respondent) differed from a similar kind of experience, yet these involved did not develop any environmental sensitivity?

If the question is not understood ask: What was there about the particular experience that caused you to develop environmental sensitivity and yet others who participated in similar kinds of experiences did not develop a sensitivity to the natural environment?

   g. What environments have you lived in and for how long, in term of rural, suburban, or urban environments?

   h. When you lived in such environments, did you frequent any other types of environments? If so, what were they and how often did you visit them?
3. (Development of Career Interest)

The following question is very similar to the last major question, however, this time the variable being asked is the development of your career interest.

What prior experiences, if any, do you feel were instrumental in developing your interest in and/or dedication to the field of environmental education? For example, if you tell me things such as work in an environmentally related job, experiences in the outdoors, or participation in a professional organization, please specify the exact job, outdoor experience, or organizational experience. Again, if there is more than one variable try to rank order them.

4. (Career Entry)

What event or chain of events occurred to place you in your first environmental position?

5. (Additional Responses)

This ends the interview section. Are there any other variables you feel would be important to me as far as developing your environmental sensitivity or career interest that you have not mentioned?
APPENDIX H

SHEARER’S INFORMED CONSENT FORM
INFORMED CONSENT

The study in which you are being asked to participate is designed to investigate environmental and cultural aspects of the Tibetan community in Dharmasala, India. The study focuses on two aspects: 1) individual sources of environmental sensitivity, which is defined as an empathetic view a person has towards his/her environment, among Tibetans in Dharmasala; and, 2) the development of environmental education in Dharmasala. This study is being conducted by Meghan Shearer under the supervision of Dr. Darleen Stoner, Professor of Environmental Education at California State University, San Bernardino, USA. This study has been approved by the Institutional Review Board, California State University, San Bernardino.

In this study you will be interviewed and asked to respond to several questions regarding environmental sensitivity and environmental education. The interview should take about 30 to 45 minutes to complete and will be recorded on a Dictaphone to ensure reporting accuracy. If you do not wish to be recorded, please let the interviewer know and responses will be collected using paper and pencil. Your name will not be reported in any publications that come from this research project. Results on environmental sensitivity will be presented in group form in the final project, ensuring participant confidentiality. You may receive the group results of this study upon completion in the Winter Quarter of 2004 at the following location: Environmental Education Resource Center, California State University San Bernardino, 5500 University Parkway, San Bernardino, CA 92407 USA.

Your participation in this study is totally voluntary. You are free not to answer any questions and withdraw at any time during this study without penalty. When you have completed the interview you will receive a debriefing statement describing the study in more detail. In order to ensure to validity of the study, we ask that you not discuss the environmental sensitivity aspect of this study with other participants.

If you have any questions or concerns about this study, please feel free to contact me, Dr. Darleen Stoner, in the United States at (909) 880-5640.

By placing a check mark in the box below, I acknowledge that I have been informed of, and that I understand, the nature and purpose of this study, and I freely consent to participate. I also acknowledge that I am at least 18 years of age.

Place a check mark here □

Today’s date:_________
APPENDIX I

SHEARER DEBRIEFING STATEMENT
Study of Environmental Education and Environmental Sensitivity

Debriefing Statement

This interview you have just completed was designed to investigate individual sources of environmental sensitivity among Tibetans living in Dharamsala and the affect of this sensitivity the development of environmental education in Dharamsala. The open-ended structured questions allow the participant to answer questions without limiting the range of responses; thereby allowing the researcher to understand the range of cultural influences impacting environmental sensitivity and environmental education. All responses to interview questions will be reported in an anonymous manner. The researcher is particularly interested in investigating the cultural and spiritual influences of Buddhism on Tibetans’ relationship with their environment in exile and its resulting effect on education.

Thank you for your participation and for not discussing the contents of the decision question with other participants. If you have any questions about the study, please feel free to contact Meghan Shearer or Professor Darleen Stoner in the United States at (909) 880-5640. If you would like to obtain a copy of the group results of this study, please contact Professor Darleen Stoner at (909) 880-5640 the end of Winter Quarter of 2004.
REFERENCES


