

# Religion and Sustainable Development: A Comparative Study of Buddhist and Christian Farmers' Contribution to the Environmental Protection in Taiwan

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**Abstract**—The *UN 2030 Agenda for Sustainable Development* claims to be a comprehensive and integrated plan of action for prosperity for people and the planet, including almost all dimensions of human existence. Nevertheless, the religious dimension of human existence has been kept away from development discussions. Care for the earth is one of the vital aspects of sustainable development. Farmers all over the world contribute much to environmental protection. Most farmers are religious believers and religious ideologies influence their agricultural practices. This nexus between faith and agriculture has forced policymakers to include religion in development discussions. This paper delves deeper into this religion and sustainable development connection. Buddhism and Christianity have contributed much to environmental protection in Taiwan. However, interviews conducted among 40 Taiwanese farmers (10 male and female farmers from Buddhism and Christianity) show that their faith experiences make them relate to the natural environment differently. Most of the Buddhist farmers interviewed admitted that they chose their religious adherence, while most of the Christian farmers inherited their faith. The in-depth analysis of the interview data collected underlines the close relationship between religion and sustainable development. More importantly, concerning their intention to care for the earth, farmers whose religious adherence is 'chosen' are self-motivated and more robust compared to those whose religious adherence is 'inherited'.

**Keywords**—Buddhism, Christianity, environmental protection, sustainable development.

## I. INTRODUCTION

THE term 'Sustainable Development' (SD) has emerged as the latest operative word of development after the United Nations (UN) World Commission on Environment and Development presented the report called *Our Common Future*, commonly known as the Brundtland Report, in 1987. The Brundtland commission defines SD as the development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" [1, ch.2, para.1]. SD aims to ensure the quality of life for the present and future generations. This definition has gained a robust following in recent years, and policy-making circles have accepted it as the preferred path for development. Since the introduction of the expression 'Sustainable Development,' this word has been used in varied ways in different circles –

academic, business, environmental, and policy-making.

The *UN 2030 Agenda* [2] for SD claims itself to be people-centered [2, §2, 27, 74], an *Agenda* of the people, by the people, and for the people [2, §52], and it includes all [2, §4], even the future generations [2, §18]. Referred to as an integrated and indivisible plan of action for prosperity for people and the planet, the *Agenda* mentions the development of almost all dimensions of human existence – cultural, economic, legal, political, scientific, social, and so on. Nevertheless, critics have pointed out the exclusion of ethical/moral and religious/spiritual dimensions [3], [13].

Religion has been kept out of development discussions for various reasons [3, p. 93] until recently. One of the main reasons is the assumption of secularization theory, which trumpets that "religion would be relegated from the center of society to the periphery; science would replace religious beliefs; religion would disappear from the public sphere and become primarily a private matter; religious associations and participation in religious ritual practices would decrease" [4, p.1]. However, many academic and research writings show a worldwide religious resurgence [5]-[8]. According to the Pew Research Center, more than eight-in-ten people identify with a religious group worldwide [9]. By 2050, about 87% of the planet's inhabitants will have a religious affiliation [10].

Another reason for the neglect of religion is that, over the years, many environmentalists have accused anthropocentric religious narratives/stories/ teachings of the current environmental crisis. Anthropocentrism is the idea that humans have intrinsic value and are unique and superior to nature. Nonhuman entities have only instrumental value and can be exploited for the benefit of humankind. "Instrumental values represent the value of ecosystems as merely means to an end and are often measured in monetary terms. By contrast, intrinsic values refer to the value of ecosystems as ends to themselves and are often represented as moral duties." [11] The best-known accusation came from the medieval historian Lynn White Jr. who accused Christianity of being anthropocentric, destroying pagan animism, establishing dualism of man and nature, and promoting an instrumental view of nature. Thus, Christianity is said to bear a 'huge burden of guilt' [12]. Some other scholars, such as Arnold Toynbee and ecofeminist theologian Sally

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McFague, have also voiced similar criticisms [13]. No doubt anthropocentrism [14, §115-36] and otherworldly eschatology have negatively affected Judeo-Christian religious tradition's attitudes towards nature. Buddhism and Hinduism, emphasizing liberation from the world of suffering, are also criticized. Although these accusations and criticisms are somewhat valid, this research highlights the impact of religious beliefs on Buddhist and Christian farmers who contribute much to environmental protection in Taiwan through their nature-friendly agricultural practices. They prove the secularization theories invalid and challenge those environmentalists' accusations. These farmers also make one point very clear: Since the SD is about people, excluding religious/spiritual dimensions, which are also foundational elements of being human, from SD discussions can be suicidal.

### Research Rationale

SD envisaged by the UN, focuses on three primary objectives: economic development, environmental protection, and social development. Environment plays a crucial role in the UN's ideals of SD. The agricultural sector plays a vital role in the global economy, although it does not account for much of the global GDP. Approximately one-third of the world's population obtains their livelihood from agriculture (including forestry, fishery, and hunting) [15], [16]. Farmers worldwide contribute much to a materially sufficient, socially equitable, and environmentally friendly SD through their agricultural practices. We must always pay attention to the contributions of farmers around the world. Their environmental-friendly living conserves nature and natural resources. We slowly recognize the role of traditional knowledge and wisdom of local farmers in SD [17].

As mentioned already, more than eight-in-ten people identify with a religious group. Studies on farmers across the globe have shown us that the majority of farmers belong to particular religious groups, and religious narratives and teachings influence their agricultural practices [18]-[26].

This phased-out research project studies the impact of religious faith, narratives, and teachings on Buddhist, Christian, and Hindu farmers' agricultural practices in Taiwan and India. This particular paper focuses on Buddhist and Christian farmers in Taiwan.

## II. METHOD

This research employed qualitative research methods and analysis. Qualitative research is a broad approach to studying social phenomena, including thought processes, belief systems, behaviors, and practices. Thus, various genres of qualitative research are pragmatic, naturalistic, interpretive, and grounded in the context of the lived experiences of people. The principles of qualitative research emphasize the holistic nature of the social world. Thus, its methodology engages in a systematic reflection on the complex reasoning that is both emergent and evolving in the process of research and analysis [27], [28].

### Participants

The current study comprised 40 participants – 10 Buddhist female (hereafter BF – Table I) farmers aged between 51 and 65, 10 Buddhist male (hereafter BM – Table II) farmers aged between 40 and 66, 10 Christian female (hereafter CF – Table III) farmers aged between 48 and 67, and 10 Christian male (hereafter CM – Table IV) farmers aged between 37 and 76. These farmers live in different parts of Taiwan. BF farmers' agricultural experience ranged from two to 25 years, BM farmers from five to 31 years, CF farmers from ten to 55 years, and CM farmers from five to 50 years. All these farmers engaged in organic and/or Taiwan Good Agricultural Practice (TGAP).

### Procedure

Fu Jen Catholic University Institutional Review Board provided ethics approval for this study before proceeding with the interviews. Informed consent was obtained preceding the commencement of each interview. Informed consent consisted of the purpose and method of study, benefits and risks involved, and the explanation of participant anonymity in data analysis and in any possible oral or written presentations. Participants were also informed of their right to withdraw at any time from the interview.

We conducted semi-structured and in-depth individual interviews to collect data on whether or not religious narratives and teachings about the environment influence the agricultural practices of these farmers. Before conducting the formal study, a pilot interview with two farmers was conducted to clarify the appropriateness of questions, and the questions were revised accordingly.

TABLE I  
 BUDDHIST FEMALE (BF)

| Identification code | Age | Ethnicity | Religious faith                      | Inspiration behind the religious faith | Type of farming | Farming experience |
|---------------------|-----|-----------|--------------------------------------|--|-----------------|--------------------|
| BF 01               | 51  | Chinese   | Buddhism (inherited)                 | Buddhist Master, Scripture             | Organic         | 11 years           |
| BF 02               | 60  | Chinese   | Buddhism (chosen)                    | Buddhist community, Scripture          | Organic         | 07 years           |
| BF 03               | 56  | Chinese   | Buddhism (chosen)                    | Buddhist master, Scripture             | Organic         | 09 years           |
| BF 04               | 62  | Chinese   | Buddhism (chosen)                    | Buddhist community, Master, Scripture  | Organic         | years              |
| BF 05               | 60  | Chinese   | Buddhism (chosen)                    | Buddhist community, Master             | TGAP            | 08 years           |
| BF 06               | 58  | Chinese   | Buddhism (chosen)                    | Buddhist community, Master, Scripture  | TGAP            | 02 years           |
| BF 07               | 52  | Chinese   | Buddhism (chosen)                    | Buddhist Master                        | TGAP            | 21 years           |
| BF 08               | 57  | Chinese   | Undecided                            | Unclear                                | TGAP            | 23 years           |
| BF 09               | 65  | Chinese   | Buddhism (chosen/inherited? unclear) | Buddhist Master, Scripture             | Organic         | 25 years           |
| BF 10               | 59  | Chinese   | Buddhism (chosen)                    | Buddhist Master, Scripture             | Organic         | 15 years           |

TABLE II  
 BUDDHIST MALE (BM)

| Identification code | Age | Ethnicity | Religious faith      | Inspiration behind the religious faith       | Type of farming | Farming experience |
|---------------------|-----|-----------|----------------------|--|-----------------|--------------------|
| BM 01               | 65  | Chinese   | Buddhism (Chosen)    | Destiny                                      | Organic         | 05 years           |
| BM 02               | 65  | Chinese   | Buddhism (Chosen)    | Buddhist community, Master, Scripture        | Organic         | 15 years           |
| BM 03               | 60  | Chinese   | Buddhism (Chosen)    | Family (wife), Buddhist community, Scripture | Organic         | 10 years           |
| BM 04               | 62  | Chinese   | Buddhism (Chosen)    | Buddhist community, Master                   | Organic         | 08 years           |
| BM 05               | 66  | Chinese   | Buddhism (Chosen)    | Scripture, a teacher                         | Organic         | 31 years           |
| BM 06               | 57  | Chinese   | Buddhism (Chosen)    | Family (Mother)                              | TGAP            | 07 years           |
| BM 07               | 65  | Chinese   | Buddhism (Chosen)    | Buddhist community                           | Organic         | 08 years           |
| BM 08               | 40  | Chinese   | Buddhism (Inherited) | Scripture                                    | TGAP            | 10 years           |
| BM 09               | 59  | Chinese   | Buddhism (Chosen)    | Scripture                                    | TGAP            | 06 years           |
| BM 10               | 51  | Chinese   | Buddhist-Oriented    | Unclear                                      | Organic         | 06 years           |

TABLE III  
 CHRISTIAN FEMALE (CF)

| Identification code | Age | Ethnicity    | Religious faith          | Inspiration behind the religious faith | Type of farming | Farming experience |
|---------------------|-----|--------------|--------------------------|--|-----------------|--------------------|
| CF 01               | 50  | Taroko Tribe | Christianity (Inherited) | Family                                 | TGAP            | 10 years           |
| CF 02               | 50  | Zou Tribe    | Christianity (Inherited) | Family                                 | Organic         | 15 years           |
| CF 03               | 65  | Zou Tribe    | Christianity (Inherited) | Family                                 | TGAP            | 55 years           |
| CF 04               | 58  | Zou Tribe    | Christianity (Inherited) | Family/Church leaders                  | Organic         | 30 years           |
| CF 05               | 60  | Zou Tribe    | Christianity (Inherited) | Family/Church leaders                  | Organic         | 30 years           |
| CF 06               | 48  | Zou Tribe    | Christianity (Inherited) | Family                                 | Organic         | 15 years           |
| CF 07               | 48  | Zou Tribe    | Christianity (Inherited) | Family                                 | TGAP            | 15 years           |
| CF 08               | 56  | Zou Tribe    | Christianity (Inherited) | Family                                 | TGAP            | 30 years           |
| CF 09               | 67  | Amei Tribe   | Christianity (Inherited) | Family                                 | TGAP            | 40 years           |
| CF 10               |     | Zou Tribe    | Christianity (Chosen)    | Friend                                 | TGAP            | 32 years           |

TABLE IV  
 CHRISTIAN MALE (CM)

| Identification code | Age | Ethnicity    | Religious faith          | Inspiration behind the religious faith | Type of farming | Farming experience |
|---------------------|-----|--------------|--------------------------|--|-----------------|--------------------|
| CM 01               | 62  | Zou Tribe    | Christianity (Inherited) | Family                                 | Organic         | 30 years           |
| CM 02               | 60  | Zou Tribe    | Christianity (Inherited) | Family                                 | TGAP            | 10 years           |
| CM 03               | 61  | Amei Tribe   | Christianity (Inherited) | Family                                 | TGAP            | 06 years           |
| CM 04               | 50  | Amei Tribe   | Christianity (Inherited) | Family                                 | TGAP            | 25 years           |
| CM 05               | 66  | Amei Tribe   | Christianity (Inherited) | Family                                 | Organic/TGAP    | 40 years           |
| CM 06               | 65  | Amei Tribe   | Christianity (Inherited) | Family                                 | TGAP            | 05 years           |
| CM 07               | 76  | Amei Tribe   | Christianity (Inherited) | Family                                 | Organic         | 50 years           |
| CM 08               | 60  | Zou Tribe    | Christianity (Inherited) | Family                                 | TGAP            | 20 years           |
| CM 09               | 41  | Bunong Tribe | Christianity (Inherited) | Family/Church leaders                  | TGAP            | 20 years           |
| CM 10               | 37  | Bunong Tribe | Christianity (Inherited) | Family/Church leaders                  | TGAP            | 15 years           |

Interview questions included:

1. Describe your relationship with the natural environment.
2. Explain your religious background and its relation to the natural environment.
3. Narrate the relationship between your religious faith and your agricultural practices.
4. Do you understand what is meant by SD?
5. How do your agricultural practices contribute to SD?

Data collection included both onsite observation and semi-structured in-depth interviewing. The method of observation assumes that behavior is intentional and expressive of deeper values and beliefs. We visited the farmlands of the research participants, observed the participants' behaviors without predetermined categories, and systematically noted and recorded the relevant events and behaviors. Along with the onsite observations, this research project used in-depth interviewing as an extensive tool in data collection. Interviews ranged from 30 to 45 minutes. We conducted and recorded

these in-depth interviews based on the research assumptions and guided questions while helping the participants unfold their perspectives on the phenomenon of interest. The recorded interviews were transcribed verbatim and analyzed.

We acknowledge the farmers' influence on data collection and data analysis. The final interpretation of the data will reflect the researchers' understanding of the participant's experiences and the construction of meaning concerning the influence of religious narratives and teachings on their agricultural practices.

### III. FINDINGS

#### A. Attitudes toward the Environment

Most of the farmers interviewed acknowledged the impact of religious beliefs on their attitude toward the natural environment. Buddhist and Christian interviewees strongly believed that the nonhuman world demands human care and respect. Although a few considered nature a source of income,

most of the farmers interviewed treated nature as a gift with a life of its own that is closely connected with humans (see Tables V and VI – Attitudes toward environment/Priority).

TABLE V  
BUDDHIST FEMALE – DATA ANALYSIS

| Participants | Attitude towards environment                                      |   |          |         | Attitude towards environmental protection |   |  |
|--------------|---|---|----------|---------|---|---|--|
|              | Doctrinal   | Personal                                      | Priority |         | Relevance                                 | Promotion   | Participation                          |
|              |   |   | Income   | Nature  |   |   |  |
| BF 01        | Co-existence  | Nature as mother                              | Second   | First   | Important                                 | Reduce waste and plastic use, use social media          | Visiting farms                         |
| BF 02        | Respect for life  | Unclear                                       | Second   | First   | Important                                 | Unclear   | Plant trees, clean roads               |
| BF 03        | Unclear   | Unclear                                       | Second   | First   | Important                                 | Encouraging others to do environmental-friendly farming | No                                     |
| BF 04        | The sacredness of life, compassion, non-killing, respect for life | Source of income                              | Second   | First   | Important                                 | Organic farming, sharing experiences                    | Unclear                                |
| BF 05        | Earth as mother, embracing all                                    | A gift  | Second   | First   | Important                                 | Sharing experiences                                     | Recycle                                |
| BF 06        | Unclear   | Nature is bigger than humans, it nurtures all | Second   | First   | Important                                 | Participating environmental activities                  | Clean beaches, release captive animals |
| BF 07        | Compassion  | Gratitude to nature                           | Second   | First   | Important                                 | Education   | Unclear                                |
| BF 08        | Interconnected-ness   | Source of income                              | Unclear  | Unclear | Important                                 | Unclear   | seldom                                 |
| BF 09        | The sacredness of life  | Nature as a source of income                  | Second   | First   | Important                                 | Protecting own land from pollution                      | Plant trees                            |
| BF 10        | Equality of creation, the sacredness of life                      | Nature as mother                              | Second   | First   | Important                                 | Education   | Plant trees                            |

TABLE VI  
BUDDHIST MALE – DATA ANALYSIS

| Participants | Attitude towards environment                              |                                       |          |         | Attitude towards environmental protection |   |   |
|--------------|---|---------------------------------------|----------|---------|---|---|---|
|              | Doctrinal   | Personal                              | Priority |         | Relevance                                 | Promotion                               | Participation                             |
|              |   |                                       | Income   | Nature  |   |   |   |
| BM 01        | The sacredness of nature, non-killing                     | Interconnectedness of everything      | Second   | First   | Important                                 | Sharing experience                      | No  |
| BM 02        | The sacredness of nature, respect for nature, non-killing | Unclear                               | Second   | First   | Important                                 | Creating awareness                      | Plant trees                               |
| BM 03        | The sacredness of nature                                  | Unclear                               | First    | Second  | Important                                 | Education, community college            | Cleaning beaches, release captive animals |
| BM 04        | Unclear   | Nature has emotions                   | Second   | First   | Important                                 | Environmental activities                | Plant trees                               |
| BM 05        | Respect for nature  | Earth as mother, emotional attachment | Second   | First   | Important                                 | Doing environmental-friendly activities | Visit farms                               |
| BM 06        | Equality of creation                                      | Unclear                               | Second   | First   | Important                                 | Sharing experiences                     | No  |
| BM 07        | The sacredness of nature                                  | Nature as source of income            | Unclear  | Unclear | Important                                 | Unclear                                 | Seldom                                    |
| BM 08        | Unclear   | Unclear                               | Second   | First   | Important                                 | Unclear                                 | seldom                                    |
| BM 09        | The sacredness of nature, compassion, interconnectedness  | Nature as a source of income          | Second   | First   | Important                                 | Organic/TGAP farming                    | No  |
| BM 10        | Equality of creation, respect for nature                  | Respect all living creatures          | Second   | First   | Important                                 | Education                               | No  |

### 1. Buddhist Farmers

Most Buddhist farmers interviewed voluntarily chose to be Buddhists (see Tables I and II - Religious faith). In getting to know more about their faith as adults, the Buddhist community, Masters, and Scriptures (see Tables I and II - Inspiration behind the religious faith) profoundly impacted their attitudes towards and relationship with the natural environment. For example:

BF 01 said: “Just like Master Jih-Chang of the Fuzhi [Cultural and Education Foundation], they give free lectures on *The Great Treatise on the Stages of the Path to Enlightenment* [hereafter *The Great Treatise*]. *The Great Treatise* is very profound, I cannot say that I understand everything, but I think its direction is to encourage people.” This participant indicates that the Master's lectures encourage her to work for enlightenment.

BF 05: “We have already been directly working with Tzu Chi

for 29 years.” She admits the impact of Master Cheng-Yen on her attitude toward nature.

BF 06 uses eco enzymes while farming. She got this farming idea from the Buddhist community in Thailand called ‘Pure Land Village’. She also acknowledges the influence of Theravada Master Ajahn Chah and his works. “I came into contact with this environmental enzyme from Thailand. Thailand has a Buddhist group called ‘Pure Land village’ that uses this method... I want to acknowledge the profound influence of Theravada Master Ajahn Chah and his writings on my life.”

BM 02: “After we started to do organic farming, we came in contact with Tse-Xin Organic Agriculture Foundation, which is a Buddhist organization; we went to attend lectures on *The Great Treatise*.”

Most Buddhist interviewees imbibed values of compassion,

co-existence, equality of creation, interconnectedness, nonkilling, respect for the nonhuman world, and the sacredness of life and nature (see Tables V and VI – Attitudes toward environment/Doctrinal) from their participation in Buddhist community activities, by paying heed to their Master’s exhortations and by attending classes on Scriptures.

As the interviews with the participants mentioned, these core values and the foundational principles of the Buddhist tradition motivated them to relate to the natural environment affectively (see Tables V and VI – Attitudes toward nature/Personal). For some interviewees, nature was like their mother; nature was a gift for some. Some farmers described their personal attitudes to nature as experiences of gratitude, interconnectedness, and respect for the nonhuman world. Some of the responses of the research participants are as the following.

BF 10: “I think the land is our mother who nurtures us, so we should love her.”

BM 05: “Being a farmer in the mountains ... that fruit tree is your parents who feed and clothe you. What actions will you do to your mother... How you protect your family, in the same manner, love your orange [trees]. As we mentioned about the land now, our earth is the mother.”

BF 01: “I think we all live and thrive together.”

BM 01: “I think we humans are in this environment; a

man cannot dominate this environment. We have creatures, as well as animals and various plants. Man is one of them in this environment. They coexist with him in this environment. In this way, they are mutually together in this environment.”

## 2. Christian Farmers

Of the 20 Christian farmers interviewed, 19 inherited their religious beliefs as infants (see Tables III and IV – Religious faith). The primary source of inspiration behind their religious faith was their own family people, although some of them expressed the influence of church leaders as well (see Tables III and IV – Inspiration behind the religious faith). These farmers were traditional and strong in their religious convictions. They had genuine love and deep reverence for the natural environment because most of them believed that God created everything (see Tables VII and VIII – Attitudes toward environment/Doctrinal).

This doctrinal understanding of creation – God is the creator – influenced their personal attitude toward the natural environment as well. Most of the Christian farmers interviewed believed that God the creator entrusted the world to humans as a gift (see Tables VII and VIII – Attitudes towards environment/Personal).

TABLE VII  
 CHRISTIAN FEMALE – DATA ANALYSIS

| Participants | Attitude towards environment |           |          |         | Attitude towards environmental protection |  |  |
|--------------|------------------------------|-----------|----------|---------|---|--|--|
|              | Doctrinal                    | Personal  | Priority |         | Relevance                                 | Promotion  | Participation  |
|              |                              |           | Income   | Nature  |   |  |  |
| CF 01        | God-given nature             | As a gift | Second   | First   | Important                                 | Sharing experience                                       | Organic farming sessions                                       |
| CF 02        | Unclear                      | As a gift | Second   | First   | Important                                 | Reducing consumption, stop polluting, clean surroundings | Seldom   |
| CF 03        | Unclear                      | As a gift | Second   | First   | Important                                 | Sharing experiences                                      | Seldom   |
| CF 04        | God-given nature             | As a gift | Second   | First   | Important                                 | Sharing experiences                                      | Seldom   |
| CF 05        | Unclear                      | As a gift | Second   | First   | Important                                 | Planting trees   | Seldom   |
| CF 06        | Unclear                      | As a gift | First    | Second  | Important                                 | Unclear  | No   |
| CF 07        | Respect/care for nature      | As a gift | Second   | First   | Important                                 | Influence others through own example                     | Walk the mountain trail, know nature, planting things together |
| CF 08        | Unclear                      | Unclear   | First    | Second  | Important                                 | Sharing experiences                                      | Planting trees   |
| CF 09        | God-given nature             | As a gift | Unclear  | Unclear | Important                                 | Does not know what to do                                 | Unclear  |
| CF 10        | God-given nature             | As a gift | Second   | First   | Important                                 | Sharing experiences                                      | No   |

TABLE VIII  
 CHRISTIAN MALE – DATA ANALYSIS

| Participants | Attitude towards environment |                            |          |         | Attitude towards environmental protection |   |               |
|--------------|------------------------------|----------------------------|----------|---------|---|---|---------------|
|              | Doctrinal                    | Personal                   | Priority |         | Relevance                                 | Promotion                                 | Participation |
|              |                              |                            | Income   | Nature  |   |   |               |
| CM 01        | Unclear                      | As a gift                  | Second   | First   | Important                                 | Does not know how to do                   | No            |
| CM 02        | Unclear                      | As a source of income      | Second   | First   | Important                                 | Seldom                                    | No            |
| CM 03        | God-given nature             | As a gift                  | Second   | First   | Important                                 | Sharing experiences and motivating others | No            |
| CM 04        | God-given nature             | As a gift                  | Unclear  | Unclear | Important                                 | Sharing experiences                       | No            |
| CM 05        | God-given nature             | Unclear                    | Second   | First   | Important                                 | Unclear                                   | No            |
| CM 06        | God-given nature             | As a gift                  | First    | Second  | Important                                 | Promoting organic farming                 | Unclear       |
| CM 07        | Unclear                      | Nature as source of income | Second   | First   | Important                                 | Unclear                                   | No            |
| CM 08        | God-given nature             | As a gift                  | Second   | First   | Important                                 | Educating others                          | seldom        |
| CM 09        | God-given nature             | As a gift                  | First    | Second  | Important                                 | Does not know what to do                  | No            |
| CM 10        | God-given nature             | Both gift and resource     | Second   | First   | Important                                 | Plant trees, use less plastic             | No            |

### 3. Comparison

Both Buddhist and Christian farmers' attitudes reflected love and reverence for the natural world. They expressed that these attitudes motivated them to change from destructive and unhealthy agricultural practices to organic and TGAP (see Tables I-IV – Type of farming). Through these agricultural practices, they contribute much to environmental protection. They preferred nature to income.

However, Buddhist and Christian farmers differ in their attitudes to the environment. As we have already seen, since most of the Buddhist farmers 'chose' their faith as adults, they had to rely heavily on the Buddhist community, Masters, and Scriptures to acquire a deeper understanding of their religious tradition, which helped them to have solid doctrinal knowledge about how Buddhism understood and explained the human-nature relationship. The impact of this doctrinal knowledge is reflected in their personal attitude to the environment. Most Christian farmers 'inherited' their faith as infants. They grew up hearing narratives of their religion from their family people. Consequently, the Christian community, leaders, and Scriptures had less impact on their understanding of the human-nature relationship. Although most Christian farmers believed that God created the universe, they could not explain what their religion taught them about the human-nature relationship. In their personal attitude toward the environment, Christian farmers tend to be less emotionally attached to nature compared to their Buddhist counterparts. While Buddhist farmers spoke of the environment as a mother who demands our respect and gratitude, Christian farmers considered the environment as a gift given to them by God, the creator.

For Buddhist farmers, values such as equality of creation, the interconnectedness of everything, and the sacredness of life permeated their relationship with the nonhuman world. Christian farmers seldom mentioned these values in their relationship with nature.

#### *B. Attitude toward Environmental Protection*

Regardless of their religious adherence, most interviewees emphasized their commitment to environmental protection. All the farmers emphasized the importance of environmental protection (see Tables V-VIII – Attitudes toward environmental protection/Relevance), and most of them explained their ways of promoting it (see Tables V-VIII – Attitudes toward environmental protection/Promotion). Although most farmers interviewed were elderly and not highly educated, we could observe their willingness and enthusiasm. The majority used environmental-friendly farming practices and shared their experiences to motivate others to do the same. For example, BF 03 and CM 06 said they would encourage [others] to use more organic food and promote organic farming.

BM 06: "So how to promote, there are some organizations that have the ability to motivate people, but for us, we do not have that ability, so what we can do is share; what I do, I share." CF 01, 03, 04, 08, 10, CM 03, and CM 04 also shared similar views.

Other methods of promoting environmental protection included educating people through community colleges and

social media, actively participating in environmental protection activities, inviting people to visit their farms and thus create awareness, and protecting the land from pollution by reducing waste, recycling resources, and avoiding plastic. Most interviewees actively participated in environmental protection activities, including cleaning beaches and roads, planting trees, releasing captive animals, and visiting farms. For instance, BF 01 responded: "Other than what we do in our land, we post [environmental protection related] messages in Facebook and LINE. Sometimes we communicate with people; this way we spread this [environmental protection related] sort of information."

BF 01: "In addition to organic farming ... we reduce the use of plastic ... and eat vegetarian food."

BM 03 "Community Colleges invite us [to share our environmentally friendly farming practices], and we go and share. Also, some school teachers bring their students and we share our experiences with them."

As these excerpts suggest, the interview participants' methods of promoting environmental protection included educating people through community colleges and schools, using social media, encouraging people to visit their farms, and raising awareness of the visitors. They also use methods to protect the land from pollution by reducing waste, recycling resources, and avoiding using plastic materials.

#### Differences

Although both Buddhist and Christian farmers were enthusiastic about environmental protection, we could observe that Buddhist farmers were more passionate and self-motivated compared to their Christian counterparts. Buddhist tradition in Taiwan organizes many environmental-related activities, and most of the Buddhist farmers interviewed often participate in such activities. They acknowledged that their close connection with the Buddhist community, Masters, and Scriptural classes encouraged and motivated them to do so. Christian farmers acknowledged that Christian tradition in Taiwan seldom organized environmental-related activities and Church leaders rarely exhorted adherents constructively contribute to solving environmental issues. Hence, concerning the intention to care for the earth, Buddhist farmers had a more robust attitude than Christian farmers.

### IV. CONCLUSION

The primary purpose of this paper was to highlight the nexus between religion and SD by challenging the commonly accepted assumptions of secularization theories and the accusations that some environmentalists make against religion. As we have already seen, most of the farmers interviewed acknowledged the impact of religion on their lives, especially in the context of this paper, on their attitude toward the environment, environmental protection, and personal spirituality. Thus, they proved the secularization theories that trumpet the irrelevance of religion in the modern world wrong.

Many environmentalists have accused anthropocentric religious narratives that look at the nonhuman world only through an economic perspective as one of the main reasons for

the present environmental deterioration. We value their criticisms. However, in our study of these farmers, we found that most of them upheld the intrinsic value of the environment. Furthermore, their religious faith propels them to look beyond nature's intrinsic value and emphasize nature's divine/spiritual dimension. This awareness of the sacredness of nature motivates them to play a constructive role in protecting the environment and thus challenge those scholarly opinions that hold religions responsible for environmental degradation.

Today, scholars and policymakers accept that humanity's present environmental crises are cultural, economic, political, scientific/technological, moral, and spiritual. We require a broader understanding to find the right solutions; hence, many acknowledge the crucial role of religious/spiritual values and include them in development discussions [29, p.32]. Though some scholars argue "that not only can one be moral without religion, but that one should even give up religious beliefs to be truly righteous" [30, p.703], the farmers interviewed show us that we need to take religiosity as an essential determinant of ethical behavior, judgment, and practice.

The preliminary considerations presented in this paper are not comprehensive. However, these farmers show that spiritual practices and the practical intent of doing environmental-friendly agricultural practices can enhance one's spiritual experience and contribute to SD through environmental protection. They also warn us that policymakers and political entities' constant hesitancy, resistance, and unwillingness to join with faith-based entities could jeopardize the UN's determination to construct and sustain prosperity and peace for people and the planet. There are signs of hope. Today religious individuals and groups have begun to play a critical role in SD discussions [31]-[34].

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#### REFERENCES

- [1] UN World Commission on Environment and Development, *Our Common Future*, 1987. <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>
- [2] UN, *Transforming Our World: The 2030 Agenda for Sustainable Development*. <https://sdgs.un.org/2030agenda>
- [3] K. Glaab and D. Fuchs, "Green Faith? The Role of Faith-Based Actors in Global Sustainable Development Discourse," *Environmental Values* 27, 2018, pp. 289-312.
- [4] M. Riesebrodt, "Religion in the Modern World: Between Secularization and Resurgence," Max Weber Lecture No. 2014/01, 2014, pp. 1-8 [https://cadmus.eui.eu/bitstream/handle/1814/29698/MWP\\_LS\\_2014\\_01\\_Riesebrodt.pdf](https://cadmus.eui.eu/bitstream/handle/1814/29698/MWP_LS_2014_01_Riesebrodt.pdf)
- [5] D. Derezotes, "Religious Resurgence, Human Survival, and Global Religious Social Work," *Journal of Religion & Spirituality in Social Work: Social Thought* 28, 2009, pp. 63-81.
- [6] P. Repstad, ed., *Political Religion, Everyday Religion: Sociological Trends*. Leiden, Boston: Brill, 2019.
- [7] R.W. Hefner, "Religious Resurgence in Contemporary Asia: Southeast Asian Perspectives on Capitalism, the State, and the New Piety," *The Journal of Asian Studies*, Vol. 69, No. 4 (November), 2010, pp. 1031-1047.
- [8] W.H. Swatos Jr. and K.J. Christiano, "Secularization Theory: The Course of a Concept," *Sociology of Religion*, Vol. 60, No. 3 (Autumn), 1999, pp. 209-228.
- [9] Pew Research Center, "The Global Religious Landscape," 2012 <https://www.pewresearch.org/religion/2012/12/18/global-religious-landscape-exec/>
- [10] Pew Research Center, "The Future of World Religions: Population Growth Projections, 2010-2050," 2015. <https://www.pewresearch.org/religion/2015/04/02/religious-projections-2010-2050/>
- [11] P. Arias-Arévalo, B. Martín-López and E. Gómez-Baggethun, "Exploring Intrinsic, Instrumental, and Relational Values for Sustainable Management of Social-Ecological Systems," *Ecology and Society* 22 (4): 43, 2017. <https://doi.org/10.5751/ES-09812-220443>.
- [12] L. White Jr., "The Historical Roots of Our Ecologic Crisis," *Science* 155, no. 3767, 1967, pp. 1203-1207.
- [13] M.A. Sayem, "Environmental Crisis as a Religious Issue: Assessing Some Relevant Works in the Field," *Asia Journal of Theology*, vol. 33.1 (April), 2019, pp. 127-147.
- [14] Francis, *Laudato Si': Encyclical Letter on Care for Our Common Home*, 2015. [https://www.vatican.va/content/francesco/en/encyclicals/documents/pap-a-francesco\\_20150524\\_enciclica-laudato-si.pdf](https://www.vatican.va/content/francesco/en/encyclicals/documents/pap-a-francesco_20150524_enciclica-laudato-si.pdf)
- [15] FAO, *World Food and Agriculture: Statistical Yearbook 2021*. Rome, 2021. <https://www.fao.org/documents/card/en/c/cb4477en/>
- [16] M. Alston and P.G. Pardey, "Agriculture and Global Economy," *The Journal of Economic Perspectives*, Winter, Vol. 28, No. 1 (Winter), 2014, pp. 121-146.
- [17] UN Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007). [https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP\\_E\\_web.pdf](https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf)
- [18] C.G. Okpalike and N.J. Obiekwe, "Faith in a Fourth Religion as Intrinsic in the Sustainable Socio-Economic Development of Nigeria," *American International Journal of Contemporary Research*, Vol. 5, No. 1 (February), 2015, pp. 82-90.
- [19] C.J. Rademaker and H. Jochemsen, "Faith in International Agricultural Development: Conservation Agriculture in Sub-Saharan Africa," *Agriculture and Human Values* 36, 2019, pp. 199-212.
- [20] J. Ogbonnaya, "Religion and Sustainable Development in Africa: The Case of Nigeria," *International Journal of African Catholicism*, Vol. 3, No. 2, 2012, pp. 1-22.
- [21] K.A. Hiagbe, "The Church and Sustainable Development in Sub-Saharan Africa," *Studia Historiae Ecclesasticae*, Vol. 41, No. 2, 2015, pp. 164-179.
- [22] L.K. On and J. Pugh-Kitingan, "The Impact of Christianity on Traditional Agricultural Practices and Beliefs among the Kimaragang of Sabah: A Preliminary Study," *Asian Ethnology*, Vol. 74, No. 2, 2015, pp. 401-424.
- [23] R. Isanezhad, S. Zarifian, H. Raheli, H. Kouhestani and S. B. Nahand, "Investigating the Relationship Between Religious Beliefs and Participation in Programs of Agricultural Development in Iran (A case Study of Villages Located in Yakanat Plain of East Azerbaijan Province)," *Scholarly Research Exchange*, Vol. 4 (2), 2015, pp. 522-527.
- [24] S.M. Abdulrachman, "Integrating Spiritual Dimension in Sustainable Development Strategy an Islamic Perspective," *OIDA International Journal of Sustainable Development* 02:11, 2011, pp. 51-64.
- [25] T. Zimmerman-Liu, "The Development and Dissemination of Pro-Environmental Dharma among Taiwan's Humanistic Buddhists," *Religions* 14 (2) 273, 2023. <https://doi.org/10.3390/rel14020273>
- [26] W.T. Fang, U. Kaplan, Y.T. Chiang, C.T. Cheng, 2020. "Is Religiosity Related to Environmentally-Protective Behaviors Among Taiwanese Christians? A Structural Equation Modeling Study," *Sustainability* 12 (21), 8999, 2020. <https://doi.org/10.3390/su12218999>
- [27] C. Marshall and G.B. Rossman, *Designing Qualitative Research (4th ed.)*. Thousand Oaks, CA: Sage Publications, 2006.
- [28] J. Corbin and A. Strauss, *Basics of Qualitative Research (3rd ed.)*. Thousand Oaks, CA: Sage Publications, 2008.
- [29] K. Beek, "Spirituality: A Development Taboo," *Development in Practice* 10.1 (Feb), 2000, pp. 31-43.
- [30] S. Sia, "Ethics and Religion," *New Blackfriars* 89. 1024 (November), 2008, pp. 702-709.
- [31] B. Taylor, "A Green Future for Religion," *Futures* 36, 2004, pp. 991-1008.
- [32] J. Lunn, "The Role of Religion, Spirituality and Faith in Development: A Critical Theory Approach," *Third World Quarterly*, Vol. 30, No. 5, 2009, pp. 937-951.
- [33] K. Marshall, "Development and Religion: A Different Lens on

Development Debates,” *Peabody Journal of Education*, Vol. 76, No. 3/4, 2001, pp. 339–375.

- [34] M.E. Tucker, “World Religions, the Earth Charter, and Sustainability,” *Worldviews*, Vol. 12, No. 2/3, 2008, pp. 115–128.