Philosophy Study, Jan.-Feb. 2026, Vol. 16, No. 1, 45-57
doi: 10.17265/2159-5313/2026.01.004

Asia Pacific Hope for a Sustainable Future

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This paper expands Prasenjit Duara's proposal that Asian religions and philosophies offer hope for a sustainable future. After outlining Duara's sociology of history that describes the crisis of global modernity in terms of three global changes, namely the rise of non-western nations, the crisis of climate change, and the decline of religious or transcendent sources of authority, Duara proposes that grassroots organizations coupled with Asian religious and philosophical beliefs and practices offer different ways of understanding the relationship between the person and the environment, and between our universal-planetary interests and our national interests. Drawing from Asian and Pacific indigenous teachings, I propose a type of depth ecology called "existential parity" that all things and creatures have value, generating a moral corollary called the "existential commitment" that humans take responsibility for the environment and each other. The existential commitment offers an environmental ethics that promotes sustainable agriculture to feed the world's population. Pacific agroforestry practices can be implemented in urban settings to help mitigate climate change and food shortages.

Keywords: depth ecology, agroforestry, Asia Pacific, food ethics, sustainable future

> Land should not be seen as a space for conflict between urban forestry, urban agriculture, urban agroforestry and urban recreation but should rather be the space to create integrated opportunities for maximizing benefits to urban dwellers. (Borelli, Conigliaro, Quaglia, & Salbitano, 2017, p. 721)

Philosophy is a human attempt to understand our place in the natural environment.

When Max Weber coined the expression "the Protestant work ethic", he inadvertently identified a root of the environmental crisis, namely, an irrational expectation of continuous economic development through the exploitation of the Earth's resources based on the historical belief that those Christians who were prosperous in their lifetime would enjoy transcendent heavenly salvation in their afterlife. Expanding on Weber's historical sociology, Prasenjit Duara suggests that his sociology of history can replace Weber's Protestant work ethic and its climate change results with the hope of a viable foundation for sustainability found in the traditions of Asia, which offer alternative ways from those of the Abrahamic religions for understanding the relationship between the person and the environment, and between our universal-planetary and our national interests (Duara, 2015; Guo, 2017; Lawson, 2018; Mitra, 2016; Muscolino, 2017; Yanarella, 2017). We must study the Asian traditions through the ways they have historically circulated their dialogues, and how the ancient teachings converge with contemporary developments. For Duara, the opening decade of the 21st century is defined by the intersection of

Acknowledgments: *Si Yu'os ma'åse'* (thank you) to all traditional protectors and stewards of the ocean and land. I want to especially thank Harley I. Manner for providing important resources based on his extensive work in Pacific agroforestry. I thank Sharon Māhealani Rowe and Kirill O. Thompson for their helpful comments.

This paper was presented at the 12th East West Philosophy Conference on Trama and Healing at the East West Center, Honolulu, May 30, 2024.

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three global changes: the rise of non-western powers, the crisis of climate change or environmental sustainability, and the decline of authoritative sources of transcendence—the ideals, principles, and ethics once found in religious or political ideologies (Duara, 2015, pp. 7-10, 120-125). The physical restoration of the world is becoming—and must become—the ultimate goal of our times, and this goal must transcend national sovereignty. This paper expands on Prasenjit Duara's work in the sociology of history by including Pacific agricultural and food practices that complement the Asian values for a sustainable future.

How do we get subject matter experts of science, the public in general, and politicians as members of trans-cultural societies and international markets to expand their self-interests to include others and yield their reductionistic thinking to embrace the importance of relationality, the interconnected, interdependent, and interrelated character of our own human existence and of all that exists? How can we stop being "… immersed in the consumerist dream of endless abundance on a finite planet …" (Parkes, 2023, p. 40)? How do we stop thinking in terms of dualistic separation and other-worldly transcendence at the expense of the environment and our own detriment? How do we recognize the importance of our immanent-in-transcendent relationality? Duara rejects linear histories because they camouflage the crisis of modernity by presenting an overly simplistic interpretation of bounded time (Duara, 2015, pp. 55, 61, 108-109). Instead, he offers a valuable analysis of how Asian religions and philosophies offer optimism for a sustainable future that is both locally emplaced, and globally circulating on different levels (Yanarella, 2017, p. 57). In the conclusion to his book, Duara presents the hope for a sustainable future as follows:

> Hope as an essential ingredient of a transcendent force may allow for more dialogical and honest engagement with messy realities. Achievements, to be sure, are liable to be politically appropriated for some other sacred purpose such as the nation, but this may be a fight worth fighting. Indeed, the decentered, multiply ordered networks are already beginning to create new objects, spaces and flows of sacrality and inviolability founded on their hopes of a sustainable world. These spaces furnish them with autonomy required to launch resistance and regeneration. I refer not only to the commons of local communities protected—however weakly—by pan-Asian ideas of sacred forests, lands, and waters, or newer ideas of indigeneity and conservation, but also to the more authoritatively declared heritage zones to preserve natural and cultural diversity which we have encountered in several of the chapters. (Duara, 2015, p. 287)

Duara's Model

Despite the fact that John Tyndall discovered the detrimental effects of greenhouse gas emissions in 1859 (Parkes, 2021), and that environmentalists were proposing the need to control greenhouse gas emissions for decades to avert a climate change crisis, the need to control the greenhouse gases and improve sustainable agricultural practices is still being discussed with only a few promises to make changes (Mahaswal, Widhianto, & Hasanah, 2021; Ribeiro et al., 2023; Rockström et al., 2023). The desire to promote continuous quarterly corporate profits and individual personnel desire for comfort and ease in life coupled with nationalistic interests have contributed to the climate crisis by accepting and allowing private interest lobbying groups to either deny the climate crisis exists, or to promote false claims about the causes of the climate crisis, how to alleviate it, how to advance a sustainable future, and feed the world's population. We need to find alternative ways of living.

Given the threefold changes outlined by Duara, namely, the rise of non-western powers, the climate crisis, and the loss of authoritative religious or political sources of transcendence, Duara argues that there is hope for change (Duara, 2015). The rise of non-western political powers has intensified with the Russian and Chinese challenges to and attempts to restructure political and economic relations internationally, especially with the emerging markets in the global South, specifically Africa. Those changes in the geopolitical and global economy

have drawn greater attention to the cultural practices and beliefs of Asian and other indigenous groups. The environmental climate crisis has further exacerbated the need for change, the need to recontextualize and renew past traditional beliefs and practices that promoted both social and environmental codependent, interrelated, relationality that embraces the relative value of inorganic material and organic life. Duara argues that, especially in the Euro-American or Western cultures, the breakdown of religious and political beliefs in supernatural transcendence has left a void in people's lives that needs to be filled with the hope of a sustainable future that he proposes can be and is in fact being derived from Asian circulating, dialogical religious-philosophical teachings. The monotheistic, or for Duara the Abrahamic, religions are characterized by a concept of radical or dualistic transcendence, that is a belief in an other-worldly capstone for human life beyond this world, independent of our earthly existence, existing beyond the natural environment (Duara, 2015, pp. 120, 175; Muscolino, 2017, p. 376). For many people who truly believe that the ultimate meaning and value of human life is obtained in an after-life, the natural environment can and must be exploited to the point of exhaustion merely to serve a few immediate earthly desires. Duara shows that the circulatory and dialogical characteristics of Asian religious-philosophical teachings offer an alternative non-dual, correlative thinking, model that embodies the transcendent within the immanent. I want to include Indigenous Pacific religious-philosophical beliefs and cultural practices with his proposal; that is to say, the Pacific teachings and practices align with and support Duara's hope for a sustainable future. Duara's use of the concept of transcendence and how it draws on a non-worldly authority is not always clear (Lawson, 2018, p. 151). I propose that one way to grasp Duara's distinction between Abrahamic radical dualistic transcendence and Asian non-dual immanent-transcendence is a difference between supernatural other-worldly optimism versus natural this-worldly optimism. Dualistic transcendence requires that the soul leaves the body and the physical world, going to a paradise in heaven. Dualistic transcendence stands in contrast to Hindu, Jain, Buddhist, Daoist, Confucian, Kami no Michi (Shinto) this-worldly optimism which accepts that people can and do gain enlightenment, realizing the ultimate reality, in this life-time in this body. The numerous Asian religious-philosophies are complex, and they do contain various, even apparently inconsistent teachings to the extent that you can find dualistic notions of transcendence in them also. However, as Duara points out the dominate and persevering approach of the Asian teachings is their ability to converse and share ideas in a non-linear, circulatory manner that promotes a dialogical and non-dual shared understanding that the ultimate reality is fused with the contingent, transitory earthly existence, that is, immanent-transcendence in which the transcendent is embodied in the natural world. Where the Abrahamic teachings led to the exploitation of the environment and the climate crisis, the hope for a sustainable future is generated from grassroots, community, and non-government organizations pressuring their governments to control corporations from continuing to exploit the environment and to promote sustainable agricultural practices. Another important aspect of the Asian and Pacific teachings is the importance of mindfulness and meditation for controlling desires. Consumers' intentions to control their consumption based on mindfulness practices are another significant contribution to the hope for a sustainable future (Gupta, Lim, Verma, & Polonsky, 2023).

Of course, all is not well in Asia or the Pacific. In the past Buddhism and Daoism did little to protect the environment (Muscolino, 2017, p. 376). And even today, despite China's President Xi Jinping citing classical texts promoting social harmony, the Chinese Communist Party has done little to protect the environment (Parkes, 2021; 2023). Moreover, in the Pacific, colonialism and other geoeconomic trade relations have adversely affected food production and consumption such that small island developing states have the highest global rates of obesity, diabetes, cancer, and other non-communicable chronic diseases (Guell et al., 2021). While facing the challenges

of modernity in Asia and the Pacific, civil, religious, non-governmental, and indigenous groups have been opposing governmental and corporate exploitation of their sacred lands and places. As Duara proposes, these groups have a claim to a higher truth, that is their appeal to a non-dual concept of a higher authority, a transcendent moral reality, that allows them to oppose corporations and their governments to reclaim their lands and ecological practices of agroforestry and gardening. I turn to a discussion of Pacific Island, Micronesian, depth ecology, promoting environmental sustainability, and food sovereignty (Abram, 2005; Chen, 2015; Snyder, 1990, p. 110). Rather than merely trying to reintroduce homegrown garden foods and agroforestry practices, the local strategies need to be recontextualized, explicitly promoting local produce as the acceptable, highly valued, and healthy food choice (Guell et al., 2021, pp. 7-8).

A Pacific Island, Micronesian, Context

Because the geographic labels Polynesia, Melanesia, and Micronesia are problematic, I prefer to use the term the Pacific Islands. The Pacific encompasses one-third of the Earth's surface. It is a large and complex cultural area. I only tentatively use the dated label "Micronesia" to refer to the island cultures and peoples located in the central to Western Pacific Ocean between 2°30' S to 20° N latitude, and 133°30' E to 176°54' E longitude, covering an area larger than the United States of America, but with a land mass of 3,144 square kilometers (1,214 square miles). We should not mistakenly think that there is a uniform culture across the diverse islands based on a general geographical label. The islands were settled by different navigation-cultures, at various times, by peoples who spoke different dialects or different languages altogether. The linguistic evidence supports this diversity of cultural migration into Micronesia (Linnekin & Power, 1990, pp. 1-16). "No fewer than ten distinct languages were spoken within Micronesia by the time of Magellan's arrival" (Hazel, 1983, p. 3). There are two distinct island types in Micronesia that impact the lifestyles and cultures. There are the so-called high islands composed of volcanic basalt and limestone rock, and the low-lying coral atolls. The cultures of Micronesia are various. Despite their relative isolation, the atolls and islands were connected by the canoe navigators, as ship and airplane navigators connect them today (Sellmann, 1994; 2021).

In Micronesia three major cultural spheres overlap. The first area in Western Micronesian is comprised of an arc of islands extending from just north of Indonesia to the south of Okinawa, namely the Palau-Yap-Mariana islands. These islands share important material goods and spiritual values. Through the alleged spiritual (magical) power of its religious leaders and the natural resources of Yap, the first cultural group trades goods and values eastward through the Caroline atolls with the second cultural area. The second area comprises the Chuuk-Pohnpei-Kosrae cultural complex. Modern research confirmed the long-standing cultural knowledge concerning Westward migrations out of Kosrae to Pohnpei with more migrations from Pohnpei further westward to Chuuk lagoon and into the Caroline atolls. The Chuuk-Pohnpei-Kosrae culture complex maintains relations with the Gilbert-Marshall Islands, marking the third sphere (Alkire, 1977; Oliver, 1989, Vol. 2, Ch. 18; Osborne, 1961, pp. 156-163). Although there is no underlying essence, or unifying definition, inevitably, the generalization "Micronesian culture" is employed as a heuristic shorthand.

The peoples of the Pacific, and Micronesia in particular, construct a worldview or philosophy based on their experience of living on the edge between conflict and harmony with their environment (Hena & Anschuetz, 2000; Mollison, 1988). The various philosophies of Micronesia are primarily environmental philosophies. They are concrete, pragmatic philosophies, not speculative philosophies concerned with the characteristics of abstract, eternal, unchanging substances, or ideas. The philosophies of Micronesia, like other ancient philosophies,

develop out of human experiences with the forces of nature. People are living both in harmony with and struggling against the forces of nature (fire, air, earth, water, wind, sun, moon, stars, mountain and beach, rivers, reefs, the ocean, its currents, and so on). The people are living with and making use of animals (dolphins, turtles, fish, birds, rats, bats, and so on) and plants (varieties of citrus, life-giving coconuts, breadfruit, bananas, mango, soursop, tubers, taro (Cyrtos Perma and Colocasia taros), medicinal and other herbs, trees, shrubs some have ritual or ceremonial uses, and so on), using home gardens and agroforestry (Clarke & Thaman, 1993, p. 128; Manner, 2008; Sellmann, 1994; 2021; Sellmann & Andreas, 2012).

The subsistence lifestyle keeps people in contact with the natural environment. As such Pacific islanders, and Micronesians describe their world in dynamic terms. The environment is changing, and impermanence is the constant. As such it is their resilience in the face of impermanence that creates lasting or persevering practices. Their world is hylozoistic; phenomenologically perceived to be a living, growing, transforming, synergistic, and self-regulating system long before James Lovelock's Gaia hypothesis. The living character of the world is evidenced in the volcanic islands in the form of the volcano goddess. The volcano is alive; it grows, breathes, moves, becomes rigid, and dies, to be reborn again. On the atolls, the top of the island consists of what was living coral; it appears that the atoll grew out of the ocean. Various myths and legends from Micronesia, especially in Palau, describe the islands as the remains of a primordial giant; other narratives, especially from Chuuk, describe how culture heroes fished the islands out of the sea, or especially in Pohnpei, they claim that their ancestors built the island on top of a submerged reef (Lessa, 1987; Poignant, 1967, pp. 70-82). The hylozoistic world is full of creative energy, life power, nature-spirit power, and ancestor spirits. This kind of philosophy views the world itself as the ultimate reality, fusing the transcendent moral authority with the immanent, contingent world. This marks an important difference from the reductionistic, bifurcated view imposed by both modern sciences, and dualistic religious-philosophical thinking. Similar to the Asian teachings, the Pacific Island teachings extend the relationality of the extended family to all of nature; clans have totem-sibling relations with other animals, and the cultural practices, prohibitions, or taboos are constructed on an understanding of relationality that all things and people are interrelated, codependent, and connected. Their understanding of relationality and the practices that support it yield a sense of resilience in permanence.

Similar to the Sino-Japanese concept of *qi* (Jp: *ki* 氣), Micronesian languages have their respective terms that denote concepts similar to the Polynesian term *mana* (the life-force or power that permeates the universe and links living people to their ancestors, other creatures, and the land). The CHamorus call it *aniti*. In Pohnpei and Chuuk the life-force is termed *manaman*. In Yapese, the power is labeled *kael*. These terms denote the creative, life sustaining power of nature. The life-force consists of a balance of two opposing yet interrelated, correlative energies or forces, such as male/female, light/dark, right/left, life/death, and so on. In Chinese philosophies, the two interrelated correlative concepts are named *yin-yang* (陰陽). The interaction or interpenetration of the two forces gives birth to the creatures, plants, and things of the world. Depending on the amount of life power (*manaman*) perceived or believed to be dwelling in the person, creature, plant, or thing places that person or thing in a hierarchical order granting them a superior or inferior position in relation to each other. In human society, the perceived amount of the life power in people dictates the social, economic, and political power and position of the upper caste (chiefs, navigators, warriors) over the commoners. This worldview of relationality places all things, creatures, and people on an ontological spectrum of value in which everyone and everything matter to a greater or lesser extent but nothing and no one is expendable. Relationality establishes an existential parity obtaining among us.

Environmental Philosophy

Pacific Island environmental philosophy is derived from peoples' experience of both living in harmony with and living in conflict with the forces of nature. Generally speaking, the belief systems propose that ideally the peoples' mores, totems, taboos, the medicine woman's skills, and the medicine man's skills maintain a balance and harmony among the forces of nature, a balance between those forces of nature and the community, and harmony within the community. For any number of reasons (broken taboos, the medicine man's lack of skill, angry ancestors, and other unseen or not understood reasons) or for no apparent reason at all, Pacific islanders find themselves trying to live, while they perceive or believe that they are being threatened by the forces of nature, a nature spirit, or an ancestor. For example, they need fish but do not catch any; they seek a certain current, wind, or star for navigation but cannot find it; their crops need rain, but drought persists; they are threatened by storms, typhoons, waves, relentless wind, and rain, and so on. Trying to balance between harmony and conflict with the natural environment, Pacific peoples shape their lives and their worldview. Their cosmology is value laden. There are no bare facts separated from their value. Things have intrinsic value. Ideally, people want to live in harmony with the forces of nature to enjoy eating and cohabitating at leisure. But they may find themselves struggling to stay alive, starving without fish or fruit, drowning in the ocean, being blown off course, or adrift without a breeze, and so on. When the forces of nature are in balance with each other and when humans abide by the taboos, then harmony prevails. When the forces of nature are out of balance or when human needs or desires are out of balance with the forces of nature, then conflict is apt to arise (Sellmann, 1994; 2021).

The CHamoru expression *inafa'maolek* ("making it good for each other", "interdependence", or "mutual cooperation") is a core value around which a constellation of other values takes shape. *Inafa'maolek* understood to mean "interdependence" shows us that the central value of the CHamoru worldview was and is kinship relations—the extended family, clan, and totem sib-relations. Two other important related concepts are *inadahi* (respect and compassion for others) and *inagoflie* (caring for the environment, community, and oneself). The ancient CHamoru did not live in an isolated mechanistic world, but rather their world was a living world (hylozoistic). The person's identity is defined by her interrelationships with other members of the community. These relationships were not limited to one's living relatives and neighbors. The CHamoru ancestors (*anti* or *aniti*, *nimas* or spirits, later they are referred to as *taotaomona*, people from the time before) are considered to be part of the living community. The natural environment is also understood to be part of one's "living family" relations (Cunningham, 1992; Fritz, 1984; Haverlandt, 1970s; Topping, Ogo, & Dungca, 1975; Underwood, 1979). Relationality and interdependence meant that people must keep their obligations to the environment, the ancestors, and their distant and immediate relatives to maintain harmony.

A life of harmony was and still is understood to be the highest form of human achievement. Harmony within the community, with the ancestors, and with the natural environment was and is recognized to be the most important aspect of a meaningful adult life. Harmony was and is valued more than being right or even correcting a wrongdoing (Cunningham, 1992; Underwood, 1979).

Other concepts that help give shape to the constellation of ancient CHamoru cultural and philosophical values are reciprocity, positive forms of reciprocity are *chenchule'* (gifts of money or food) and *ayudu* (physical labor to assist someone), and negative forms entail *emmok* (revenge). Consensus (*todu manatungo'*), primarily among clan leaders, plays a significant role in the decision-making process. Social position, rank, and senior age are necessary for maintaining social order and cooperation. *Mamahlao* (humility, a sense of shame, behaving

with respect and deference) is highly prized; one of the worst things a person can do is to publicly ridicule or shame another person. Thus, the competition (*champtda*) for rank and social status were socially controlled. The *gupot* (party, celebration, feast, fiesta) plays a vital role in maintaining family and community solidarity. Because the world itself is seen as a living world that is also replete with ancestral spirits, we should expect that the ancient CHamoru believed that they were intertwined with the land and ocean; humans were another part of nature not something separated from it. So, the ancient CHamoru would be inclined not to exploit the natural environment too much. Their food, medicine, tools, and livelihood come from their immediate surroundings; we can safely say that they hold an advanced ecological outlook (Amesbury, 2013; Amesbury & Hunter-Anderson, 2008; Demeulenaere et al., 2021; Moore, 2005; Sellmann, 1994). They promoted a depth ecology approach long before the term was coined (Abram, 2005; Chen, 2015; Snyder, 1990, p. 110).

Pacific Island environmental philosophy implies an environmental ethic. In living on the edge between harmony and conflict, a person can move in either direction. There is an ethic to promote balance and harmony within the forces of nature and within human interactions with nature and especially within society. This is an ideal Pacific Island environmental ethic. However, there is also a practical Pacific environmental ethic that is exhibited when people find the forces of nature or the human interaction with nature are out of sorts such that imbalance and conflict arise. This practical ethic pits humans against the forces of nature. It may well explain why some contemporary people embrace an anthropocentric view of nature and the self-interest benefits of capitalism. When environmentally minded scientists or eco-tourists discover that Pacific Island property holders want to build hotels, oil refineries, or processing plants for the fishing industry despite the environmental degradation that will result, they may be mystified because they may think that the only cultural value is harmony. The experience of conflict and colonial-capitalism, however, give credence to another value of domination and exploitation which is anthropocentric. Islanders living on the edge between harmony and conflict with nature are currently shaping and re-shaping their cultural oceanscape and landscape.

William Clarke outlines a way to contextualize the agroforestry practices of a Paleolithic agricultural technology (paleotechnic) to inform modern neotechnic agriculture to establish healthy human ecological practices within a "bound life-time". Clarke proposes that the paleo-technology provides a structure of permanence-as-resilience by relying on the regenerative forces of the forest. Following Roy Rappoport's study of the Maring, Clarke spent time with a subgroup known as the Bomagai-Angoiang people in Papua New Guinea in the 1960s. The seven principles that he outlines "… gives their ecosystem the property of resilient permanence …" derived from the structure and function of their use of the forest (Clarke, 1979, p. 372).

The following are Clarke's seven principles. First, their paleotechnic agricultural strategy is "…not dependent on an energy subsidy or extra-system nutrient sources …" by using the forest to maintain fertility, soil structure, and to control weeds (Clarke, 1979, p. 372). Second, their "… agricultural behavior is not self-poisoning" (Clarke, 1979, p. 373). Third, their net agricultural energy yields are positive, that is, for every calorie spent farming they yield 18-20 calories. Neotechnic agriculture expends 5-10 calories of fuel-supplied energy to produce one calorie (Clarke, 1979, p. 373). Fourth, their paleotechnic agricultural practices preserve the least expense of energy by "utilizing the products of bound time … within the scale of a human life … within the absorptive capacity of the existing ecosystem" (Clarke, 1979, p. 374). The ongoing environmental crisis is due to the unabsorbable byproducts of time caused by the use of fossil-fuel technology (Clarke, 1979, p. 374). Fifth, "the energy moving through the Bomagai-Angoiang ecosystem is fairly evenly spread among the human population" (Clarke, 1979,

p. 374). Interestingly this type of resilient permanence promotes the long-term survival of democratic societies because all adult community members participate. Sixth, they promote the regrowth of the forest, considering "… their resources as productive capital to be preserved" especially before the contact with Europeans (Clarke, 1979, p. 375). Seventh, their subsistence agriculture is based on a diversity of plants (poly-culture) (Clarke, 1979, p. 376). Clarke builds a case that modern agricultural strategies can be impacted by paleotechnic methods.

Clarke warns against romanticizing paleotechnic life which was certainly filled with its own hardships. However, he extracts seven advantages that can be deployed today. He notes the following:

- One, a lower material standard of living than that of industrial nations. Of course, less neotechnic production means a higher standard of living in terms of unpolluted food, air and water (Clarke, 1979, p. 381).
- Two, a slower rate of technological change, which implies a lowered energy need as well as offering several other advantages.
- Three, decentralization of power and production and formation of smaller communities. Opinions vary as to optimum size of communities … but most authorities would agree with Rappaport (1971, p. 131) that small autonomous systems are more sensitive to ecological problems than larger, more complex organizations.
- Four, changed education to develop a changed relation between man-man and man-nature. … from an exploitative I-it (subject-object) relationship to an I-thou reciprocal relationship, that is, a change from man in unilinear control of nature to man within an ecosystem.
- Five, limitation on population growth.
- Six, move in the direction of paleotechnic agriculture; for example: less intensive agriculture technology, poly-culture, more diversified cropping patterns, substitution of land for artificial fertilizer, more organic fertilizer, acceptance of lower yields per unit of land, more of a live-and-let-live relationship with insects…
- Seven, maintenance and deliberate creation of varied environments. … need for a honeycomb of exploited and protected areas… (Clarke, 1979, p. 382).

The seven advantages are built on relationality and the need to reacknowledge that human life depends on the diversity of the nonhuman biosphere. Clarke concludes that we can learn from the paleotechnic to avert becoming victims of our own progress (Clarke, 1979, p. 383).

Parity and the Existential Commitment

Climate change and the environmental crisis call for actions to change the way people live and think (Duara, 2015). What is needed is a worldview in which self-interests and other interests are mutually determined and co-terminus. Constructive concepts, ways of thinking, and practices of Pacific Island Indigenous philosophy can offer hope for promoting a sustainable future. The organismic elements found in Pacific Island and ancient Chinese Indigenous philosophies coupled with Kantian and Rawlsian respect for persons and justice could provide such a world view (Kant, 1965; Rawls, 1971). In the Indigenous world, each person or thing exists on an existential parity with everything else. Existential parity is a temporal concept in which the relative value of things and people change over time. As different as they are, because of their temporal interaction with each other, particulars both ameliorate and simultaneously enhance those differences in a dynamic, dialectic harmony of interrelatedness. Parity does not mean identical sameness; it means that each, person, creature, or thing contributes its uniqueness, but the particulars are not mathematically equivalent. Parity does not imply an equal opportunity because some people will naturally take advantage of opportunities more skillfully than others, and

they may become leaders and rulers. Existential parity provides a phenomenological perspective from which equal consideration of interests could be reconceived and defended.

The concept of existential parity develops a moral corollary—the existential commitment. The existential commitment is the moral practice of responsibility and obligation to show concern and provide care for the life of others. The ontological and cosmological understanding of the interrelatedness of particulars leads people to acknowledge their moral obligation to promote the interests of other people. Within the perspective of existential parity, the value of others must be understood as having significance for oneself. The notion of an existential commitment is similar to other traditional philosophical positions claiming that people have a basic responsibility for others, for example, the Hindu, Jain, and Buddhist concept of *dharma* (social responsibility), or the Hebrew-Christian-Muslim concept of the brother's keeper. The existential commitment is informed by the respect for persons concept developed from Imanuel Kant through Ronald Dworkin—one of the most basic forms of social responsibility is to respect others (Dworkin, 1986; Kant, 1965). The existential commitment is a stronger position. It is not merely a social convention, agreement, or a theoretical starting point. The existential commitment is a fundamental moral characteristic of existing in a world of relationships. Given the importance of relationality for the existential commitment, we need both interspecies and intergenerational forms of morality and justice. We must adhere to safe and just Earth system boundaries (ESBs). As Rockström et al. note:

> Nothing less than a just global transformation across all ESBs is required to ensure human well-being. Such transformations must be systemic across energy, food, urban and other sectors, addressing the economic, technological, political and other drivers of Earth system change, and ensure access for the poor through reductions and reallocation of resource use. All evidence suggests this will not be a linear journey; it requires a leap in our understanding of how justice, economics, technology and global cooperation can be furthered in the service of a safe and just future. (Rockström et al., 2023, p. 109)

When local non-governmental agencies promote moral values, such as *inafa'maolek*, *inadahi*, *inagoflie*, and the existential commitment, to safeguard food sovereignty and food ethics, there is hope for a sustainable future (Duara, 2015).

The existential commitment is put into practice in Pohnpei philosophy known by the expression *tiahk en sahpw*, that is "the custom of the land", which defines life on Pohnpei. The practice of the existential commitment is also found in the manner in which the Nahnmwariki, the traditional chiefs of Pohnpei, designate who may fish. This cultural practice allows only a few people to fish. Thus, it promotes social reciprocity in sharing the fish, and it promotes environmental protection by limiting the amount of fish caught. Pohnpeian environmental philosophy provides a worldview and a way of life that can be coupled with democratic concepts and practices to create and maintain social and ecological harmony as humanity attempts to live on the edge of planet Earth (Sellmann & Andreas, 2012).

The existential commitment is practiced in Yap by maintaining balance, harmony, and sustainable food practices in agroforestry and acquiring fish in association with their ecological and spiritual knowledge (Addison, Ono, & Morrison, 2013). Traditional Yapese environmental philosophy under the subsistence economy was based on a way of life that entails an environmental ethics, promoting sustainable food production in agroforestry and fishing. Land is one of the most valued possessions in Yap or any island. The island mountain ecosystem is a vibrant place where the wind, rain, trees, and the ascent of the mountain create fertile niches for life to thrive. The island mountain valleys provide very fertile habitats for crops to grow and where people can live-well. The

traditional practice of food and plant cultivation is a type of agroforestry, allowing cultivation of multiple food crops in a limited land area. Such crops include but are not limited to fruit-bearing plants such as breadfruit, coconut, papaya, banana, and root crop cultivars such as yam and dry-land taro. Such farming techniques existed before modern agriculture came to name them agroforestry (Falanruw, 1994; Manner, 2008).

Catching fish on the tidal reef flat employing the *aech* was implemented using Yapese ecological knowledge of the marine environment, in association with ancient cultural practices, as shown to them by their ancestors or the spirit world. These practices contributed to achieving a sustainable food source in balanced harmony with the natural and the spiritual world. Modern fishing techniques have created social conflict, and they are proven not to be sustainable. In recent years, Marine Protected Areas have been declared at the village level, with state and federal government support to incorporate traditional ecological knowledge for their management. These protected areas provide a relatively innovative approach for conservation with community collaboration, which is now expanding across Oceania (Jeffery & Sellmann, 2021).

The existential commitment is a fundamental moral characteristic of existing in a world of interrelationships. When local non-governmental agencies promote moral values, such as *inafa'maolek*, *inadahi*, *inagoflie*, and the existential commitment, to safeguard food sovereignty and food ethics, there is hope for a sustainable future (Duara, 2015).

Discussion: Evidence for Success

Modern agriculture is not sustainable. It is well known that before the advent of modern agriculture the various forms of traditional agroforestry systems were commonplace, globally. The mixed forest and tree garden or agroforestry approach was and still is a very cost-effective means to produce sustainable food. Evidence that agroforestry as a system of livelihood has been successful is the fact that it has been practiced for millennia. As noted above, modern agriculture requires more energy than it produces in that 5-10 calories of fuel energy are needed to produce one calorie of food. Modern agriculture is not only costly and wasteful, but also it poisons people and the environment by using pesticides and artificial fertilizers, and it is a major contributor to climate change by producing greenhouse gasses.

Clarke's seven points are antithetical to the social changes that occurred after the 1980s. The technological changes with the advent of the personnel computer, the internet, and the smart device or iPhone changed the economy, improved the standard of living for some, and helped increase the human population. These changes slowed the use of community or urban agroforestry. Despite the setbacks community agroforestry is slowly being implemented across the globe in Sub-Saharan Africa, Southeast Asia, Europe, especially Germany, North Asia, and North America. Algeria, Egypt, Iran, Jordan, Morocco, Oman, Saudi Arabia, Sudan, Tunisia, the United Arab Emirates, and Yemen are reusing wastewater to irrigate greenbelts. The Ulu Cooperative in Hawaii is restoring breadfruit agroforestry.

Education is required to enculturate people to embrace a depth ecology based on the existential commitment. Given that it took centuries and the Industrial Revolution to fully manifest Weber's "Protestant work ethic", it will take some time to change the way people live and take responsibility for the environment. Despite the fact that the value of agroforestry has been in discussion since the 1950s, "[h]owever, research on implementation, success factors, and supportive entrepreneurial ecosystem functions for sustainable food forest enterprises is still at a nascent stage" (Wiek & Albrecht, 2022). It is also clear that people cannot expect businesses simply to do the right thing (Wiek & Albrecht, 2022). Therefore, a slow, gradual process of cultural change will continue until

the climate crisis forces people to accelerate their embrace of an existential commitment and change the way they live, grow, and obtain food.

Conclusion

The Pacific Island cultural environmental philosophy attempts to live on the twofold edge of trying to live in harmony with the forces of nature and to balance a sustainable lifestyle on the edge of permaculture niches. Drawing from traditional practices and beliefs, Pacific Island agriculture and fishing practices were introduced. From these practices and beliefs, an environmental philosophy based on relationality, mutual benefit and cooperation was extracted. An environmental philosophy founded on a moral principle of showing concern for and providing care for the lives of others both human and other animals can provide hope for a sustainable future.

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