

## Chapter 9

# A Reconsideration of African Spirituality in Agricultural Development Projects

## *Traditional Ecological Knowledge from Dagara Elders in Koro, Ghana*

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Agriculture in Africa is a catalyst for economic, ecological, and ontological conflicts. Mainstream agricultural development programs in Africa commonly promise economic progress and reduction of poverty by pushing for agricultural modernization and intensification through new farming technologies, “improved” seed varieties and the widespread application of fertilizers and pesticides. At the same time, the modernist promise of industrialized agriculture has become increasingly challenged by African scholars and activists (Millar 2004; Malunga and Holcombe 2017). From an economic perspective, agricultural modernization often comes with benefits for large producers while outcompeting smallholder farmers or even dispossessing them of their land (Kachika 2017). From an ecological perspective, agricultural industrialization has not only led to serious environmental destruction but also harmed rural communities whose livelihoods depend on degraded or polluted ecosystems (Kelbessa 2012). From a sociological perspective, industrialized food production reproduces economic and environmental injustices by disproportionately affecting rural communities in the Global South (McMichael 2013). From an ontological perspective, the export of Western-type industrial agriculture to Africa has been challenged as a neocolonial practice of replacing

indigenous and sustainable relations to environments by assimilation into a mainstream neoliberal food production (Boogaard 2019).

Economic, environmental, and social shortcomings of agricultural modernization have become widely acknowledged and have given rise to frameworks of inclusive or sustainable development (Adesina 2007, Ahmed and Mlay 1998, Bugaje 2006). The groundbreaking Brundtland Report *Our Common Future* (Brundtland Commission 1987) can be seen as the basis for the current UN Sustainable Development Goals (UN 2020). Nowadays, many agricultural development programs aim to contribute to SDGs like zero hunger (SDG 2) and poverty reduction (SDG 1) in a sustainable manner by taking the environmental, social, and economic dimensions into account. In 1987 the Brundtland report already stated the importance of indigenous knowledge: “Tribal and indigenous peoples’ . . . lifestyles can offer modern societies many lessons in the management of resources in the complex forest, mountain, and dryland ecosystems” (Brundtland Commission 1987, 12). Yet, while the push for sustainability by Western development projects tends to acknowledge the importance of indigenous and other local forms of knowledge, it often operationalizes sustainability through academic frameworks that have little interest or sensitivity to indigenous perspectives of relations between humans and nonhumans. In this same line, mainstream agricultural development projects have a strong focus on food security (SDG 2), which is generally described as: “Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (World Food Summit 1996, in FAO Policy Brief, 2006). Although the concept of food security has evolved, it generally focuses on material needs, while there seems to be little attention to indigenous spiritual relations with food and the environment. As such, African forms of spirituality are a striking case as they constitute the foundation of indigenous engagement with environments but are at best politely ignored by development projects that aim to shape the path of the African continent into an economically just and sustainable future.

The absence of African spirituality<sup>1</sup> in African agricultural development projects is not a novel phenomenon but is rooted in the intellectual legacy of colonization, its epistemic oppression of indigenous ways of knowing (Mungwini 2017), and its ontological oppression of local ways of being in the world (Mafeje 2011). Christian missionary activities, as well as colonial science and technology (Mavhunga 2017), marginalized African spirituality as primitive and superstitious (Kimmerle 2006). Current developmental regimes in Africa often remain caught in this tradition of intellectual colonization by neglecting the relevance of African spirituality as an integral part of shaping relations with environments. Even where African spirituality is recognized

as a valuable part of African cultural heritage, it is often treated as separate from the rational planning of sustainable agriculture and conservation management.

African philosophy has emerged as an important challenger of this sharp divide between African spirituality and rational planning of sustainable development projects in Africa. Instead of accepting the dichotomy between African spirituality and Western rationality, African philosophers have emphasized the rationality of African thought (Oluwole 1992; Kimmerle 2006) and made a wider case for “conceptual decolonisation” (Wiredu 1995) that challenges the dominance of European metaphysical frameworks, indicating that they are based on the contingencies of the languages of the former colonizers (Jeffers 2013). More recently, African philosophers have turned to the intellectual, spiritual, and practical resources of African traditions in establishing respectful relations with environments (Eze 2017, Kelbessa 2015, Ramose 2004, Roothaan 2019, Ekwealo 2017, Mangena 2013).

This chapter aims to mobilize this critical discourse in African philosophy to engage with the economic, environmental, and spiritual reality of agricultural development projects in Africa. In doing so, we demonstrate the material importance of the spiritual dimension of African agriculture in establishing and conserving sustainable relations with environments and the land. We show how the inclusion of the spiritual dimension in agricultural development projects can contribute to more respectful ecological relations between humans and nonhumans in agricultural practices, while at the same time responding to material livelihood needs. While this chapter is based on the critical intellectual discourse of African philosophy, it takes philosophical debates into the concrete context of agricultural practices in the Koro village in northwestern Ghana. Based on qualitative ethnographic research, we show how sustainable practices of the Dagara people are embedded and entangled with their wider cosmology and spiritual relations with the land. We present four case stories from elders in Koro that have been collected by the Centre for Indigenous Knowledge and Organisational Development (CIKOD). The four selected stories demonstrate how different practices are part of a holistic biocultural system that can lead to more respectful ecological relations between human and nonhuman nature in agricultural practices.<sup>2</sup>

The following sections set the intellectual stage for our case study by presenting the state of debates about spirituality and respectful ecological relations in African philosophy and wider debates about Traditional Ecological Knowledge (TEK). After briefly introducing the study site and methodology, we developed a qualitative account of material and spiritual relations between human and nonhuman nature in Koro, based on four selected case stories from village elders. The paper is concluded by addressing some implications for academically trained scholars who study, think about, work in, or teach

about agricultural development in Africa and want to move toward respectful relations between humans and nonhumans in agricultural development projects.<sup>3</sup>

## RESPECTFUL, ECOLOGICAL RELATIONS IN AFRICAN PHILOSOPHIES

Current debates in African philosophy emphasize the importance of African indigenous culture in shaping relations between human and nonhuman nature (Eze 2017) and commonly position these relations against “a materialist worldview which encouraged the subjection and destruction of the traditional African holistic and conservationist values and practices” (Tosam 2019, 174). Some scholars argue that the environmental problems that Africa faces today did not exist before colonialization because “traditional Africans had conservationist values, moral attitudes, practices, and ways of life” (Ikuenobe 2014, 2). While indigenous African relations with nature do not always align with conservationist values—as not all indigenous values and practices are beneficial for the environment (e.g., Ekwealo 2017)—this discourse highlights the entanglement of epistemological and political dominance of colonialism in Africa (Tosam 2019) and its continued coproduction of economic, epistemic, and environmental injustices (Ramose 2019).

In recent decades, African philosophers have increasingly turned to environmental philosophy (Eze 2017; Kelbessa 2015; Ikuenobe 2014; Tosam 2019; Chemhuru 2019; Roothaan 2019), including, for example, Oromo environmental ethics (Kelbessa 2015), Kom environmental ethics (Tosam 2019), Igbo environmental ethics (Ekwealo 2017), and ecology through *Ubuntu* (Ramose 1999). While it is important to recognize the diversity among African philosophies, this literature emphasizes shared characteristics in ecological relations. To start with, the African community consists of the living, the living-dead, and the yet to be born (Ramose 1999). The maxim *umuntu nugumuntu ngabantu* refers to the interrelatedness with other beings: a person is a person through other people (Ramose 1999; Eze 2017). Some authors argue that African ethics, therefore, has a humanist essence (e.g., Gyekye 2013) and are “indifferent to nonhuman animals and the natural world” (Kelbessa 2015, 391). From this position, African ontologies have sometimes been characterized as anthropocentric (Kelbessa 2015). For others, interrelatedness does not only refer to humans but also encompasses relations with nonhumans and nature (Eze 2017; Ramose 1999; Kelbessa 2015).

Such interrelations between humans and nonhumans are inherently material and spiritual as they involve a general spiritual commitment to a thinking and feeling universe in which all things in nature can have a soul. Spirits can

dwell in natural entities such as trees, rivers, rocks, plants, as well as animals, like lions and snakes (Kimmerle 2006; Tosam 2019). The environment is thus a spiritually active base, in which the material and spiritual world are not separated but fused (Ekwealo 2017; Eze 2017; Tosam 2019). Humans then are integral parts of nature through interactions and interrelations, where inter-relatedness is the main underlying principle (Ramose 1999; Chivaura 2007). As such, African ontologies are often non-anthropocentric and grounded in a holism where nature “defines the terms of the relationship between the human person and his or her environment” (Eze 2017, 627).

African spiritual traditions involve spiritual relations with all elements on Earth—e.g., rivers, mountains, trees, plants, seas, the sun, moon, and stars. Various African philosophers stress the link between ontological and moral commitments by emphasizing that Mother Earth is sacred (Eze 2017; Ramose 1999; 2004). While there is also literature in which the sacrality of nature is not generally shared (see, e.g., Ibanga 2017), it is the shared view among the Dagara people in northern Ghana—that is, the context of the current study. The sacredness of Mother Earth should not be violated (Eze 2017; Ramose 1999; 2004). Instead, Mother Earth must be respected and non-injured (Ramose 2004). In this line, many African communities have environmental taboos to protect the natural environment, for example, sacred places, trees, and certain animal species, as “[i]t is believed that the violations of the prescriptions of taboos will have negative effects on both the offender and the society. They can be the causes of different problems including disease, drought, and death” (Kelbessa 2015, 401). As such, African spirituality is linked to the conservation of biodiversity. Intergenerational ethics play an important role in the sense that the living should thank the ancestors for leaving behind a healthy environment, and the living should leave behind a healthy environment—especially land—for the yet-to-be-born (Kelbessa 2015; Ramose 2014). This means that land—the source of life—is not a resource that can be exploited unlimitedly (Kelbessa 2002).

The sacredness of Mother Earth does not mean that the environment cannot be used by humans, for example, for food production, but the point is to maintain a certain balance with nature. African environmental ethics thus builds on an ontological and normative commitment that one should care for each other as well as nature (Ramose 1999). As Tosam (2019) explains: “abusing nature is tantamount to abusing the spiritual realm, and therefore an invitation for disharmony and disaster.” Thus, if disharmony or imbalance is triggered, for example, due to excessive exploitation of natural resources, harmony needs to be restored (Ramose 1999). Following Tosam (2019, 182), it is “harmony that helps maintain the physical and spiritual health of the universe.” It means that ethics of production go together with ethics of preservation in which “unnecessary use of resources is discouraged” (Kelbessa

2015, 402). African spirituality thus encourages the responsible use of natural resources (Kelbessa 2015). At the same time, not all indigenous practices are beneficial for the environment, such as slash and burn practices on farmlands (Kelbessa 2015), which means that there is a need for a critical examination of traditional African values, practices, and spirituality (Gyekye 1997). In this same line, Gyekye (1997) emphasizes that an over-appreciation of “the ancestors” is hampering Africa’s development, because people do not try out new things, since they fear the ancestors’ repercussion.

### TRADITIONAL ECOLOGICAL KNOWLEDGE AND SPIRITUALITY

Debates about environmental ethics in African philosophy converge with a wider body of literature on Traditional Ecological Knowledge (TEK) and its role in preserving biocultural diversity (Berkes 2018; Ludwig and Macnaghten 2020; Nelson and Shiling 2018; Whyte 2013). Indigenous and other local knowledge systems have become increasingly recognized in academic debates about biodiversity and sustainability. The increased recognition of TEK in environmental sciences reflects a large body of ethnobiological research on local nonacademic expertise about biota and environments. Indigenous and other local communities tend to be experts in the environments in which they live and to which their knowledge systems have adapted for many generations (Albuquerque et al. 2015). Often, local populations have a much more fine-grained understanding of environmental dynamics than academic researchers who are less familiar with the particularities of a local ecosystem. For example, TEK may provide detailed accounts of local population trends of an endangered species, medicinal uses of local plants, farming practices that avoid soil erosion, effects of climate change on local ecological dynamics, and so on (Albuquerque et al. 2020). This recognition of local expertise has put TEK at the center of debates about sustainable development and has been often framed in terms of a turn toward transdisciplinary research that brings different stakeholders with different forms of expertise together in addressing social and environmental change (Ludwig and El-Hani 2020).

While debates about TEK highlight the importance of local expertise (Byskov 2017), there has also been an increased concern about knowledge integration projects that treat TEK as an additional data source for interventions that remain fundamentally framed in terms of Western academic discourses. For example, Kimmerer (2012, 322) warns that decontextualized examples of TEK can “foster the practice of what I refer to as ‘knowledge mining.’ Knowledge mining or the extraction of useful facts from the body

of knowledge, without an exploration of the cultural context in which they belong, can do a disservice to the information as well as to the culture.”

Ludwig and El-Hani (2020) have argued that knowledge systems often overlap in ways that allow fruitful exchange between local communities and academic researchers but that this overlap remains partial in the light of different epistemologies, ontologies, and values (Ludwig 2016). The partiality of overlaps between knowledge systems is especially striking in the context of debates about spirituality. Indeed, TEK may come with convenient examples of expertise about ecosystems or practices that are immediately recognizable to academic researchers but substantial parts of TEK are entangled with wider ontologies that do not easily integrate with academic perspectives on biodiversity and sustainable development.

In TEK, spiritual commitments to a thinking and feeling universe often provide the affective, normative, and ontological foundation of relations between humans and nonhumans (Bird-David 1999). Whether it is the conservation of soils, the moral order of hunting, practices of agroforestry, or the use of medicinal plants—practices of TEK are commonly motivated and justified by their wider position in a spirituality that sees human beings as part of a web of relations of the living. Academic research and development interventions that take the problem of convenient “knowledge mining” seriously, therefore, cannot sidestep the entanglement of knowledge and spirituality in TEK. As Berkes puts it:

Perhaps the most fundamental lesson of traditional ecological knowledge is that worldviews and beliefs do matter. Almost all traditional ecological knowledge systems may be characterised as a complex of knowledge, practice, and belief. Almost universally, one encounters an ethic of nondominant, respectful human-nature relationship, a sacred ecology, as part of the belief component of traditional ecological knowledge. This is true not only for the Cree people or Australian aborigines but for many other groups as well. For example, the Fijian expressions of spiritual affinity with land, *ne qau vanua* (“the land which supports me and to which I belong”) and *na vanua na tamatu* (“the people are the land”) . . . could have just as easily come from traditional peoples of the Americas, Africa, Australia, or New Guinea. (Berkes 2018, 252)

## RESEARCH APPROACH—FOUR CASE STORIES FROM KORO VILLAGE

This chapter aims to bring converging debates about spirituality in TEK and African philosophy together in a transdisciplinary research project on indigenous knowledge and agriculture in northwestern Ghana. To take these

philosophical debates into the concrete context of agricultural practices, we complement the literature with qualitative ethnographic research in the Koro village in northwestern Ghana. The Centre for Indigenous Knowledge and Organisational Development (CIKOD), a Ghanaian nongovernmental organization, carried out qualitative research in the Koro village near the border with Burkina Faso. Two authors of the current chapter (Bernard Guri and Daniel Banuoku) visited the Koro village and conducted a focus group interview with elders. In September 2018, the two researchers were in Koro village for three days to invite elders to join the focus group interview. It was rather challenging to find elders who were willing to speak about these topics, because this information is generally not shared with outsiders. The focus group consisted of six elders—who have a role as knowledge keepers—with different generational groups: there were some “young” elders (around the age of sixty) and some “old” elders. Unfortunately, there were no female elders who participated, even though they were invited. Among the Dagara people, women and men have separate meetings, sometimes depending on the issues discussed. In this case, there was no specific focus group with female elders, which can be considered a shortcoming of the current study.

The focus group interview took place on the third day of the visit and was held in the language of the Dagara people—which is also the mother tongue of both researchers. At the start, one of the researchers explained the aim of the meeting: “To explore if and how spirituality is important for their food system.” Subsequently, the elders were asked about rainmaking and seed practices. Elders then gave examples of what had happened in the community, like the market boycott and the role of land priests. Via this group conversation, several case stories were collected.

CIKOD has worked in the Koro village for several years and as such both researchers often visit the community, which allowed for participant observation. Through these more regular community visits, both researchers knew the community as well as many elders—also those who were not able to join the focus group meeting. For example, there was no *Tengan sob*—land priest—at the focus group interview, but the researchers frequently met land priests during other visits to the community. The first case story of the current research (story 9.1 on the creation of the universe) was told by one of the most respected elders in the community who passed in 2011. This story had been collected before the current research through conversations with this elder. Given the importance of this story to understand the role of land priests and spirituality more generally in agricultural practices, it was included in the current research.

The focus group interview and participant observation were carried out in the Dagara language, followed by reporting in English, which described several case stories in detail. Subsequently, four case stories have been selected



to develop a rich qualitative account of the entanglement between African spirituality and agricultural sustainability in the context of northern Ghana. In the next section, we present the four case stories: (1) *tengan dem* and the creation of the universe, (2) *bumbuure for bondiri*—seed for life, (3) a curse on illegal mining, and (4) market boycott for rains.

## FOUR CASE STORIES ILLUSTRATING AFRICAN SPIRITUALITY AND AGRICULTURE

### Story 1: “*Tengan Dem* and the Creation of the Universe”

This story is told by arguably the most respected elder in Koro, who passed in 2011.

In the beginning, God created the skies and clouds as a male. He then created the land as female (*tengan*) and allowed the two to start a relationship. The thunder rowed and sent down rain and lightning onto earth: out of this intercourse air, animals, plants, seeds (for life), rivers, mountains, and all that we see today emerged and began to thrive. Humans evolved as part of this co-creation between the skies and *tengan* with the promise that on their death humans are returned to mother earth in the natural form they emerged.

Land in *Dagara* culture remains the most sacred of all things because it is the embodiment of God’s creation. God gave humans the responsibility to manage *tengan* as a resource for agriculture. Even after death, humans still have the responsibility to ensure the “sustainable”<sup>4</sup> use of these resources. The ancestors, as part of this responsibility, therefore, appointed the *tengan dem* to watch over these natural resources and to give rules to guide their use. For example, the *tengan dem* have the responsibility to punish wrongdoers through appropriate punishment systems.

*Tengan dem* are custodians of the land among the *Dagara* people (Tengan 2000). Note that *tengan dem* is plural, whereas *tengan sob* is singular. The story of the *tengan dem* illustrates how respectful relationships with the land are motivated and justified by the cosmogony of the *Dagara* people. Furthermore, this cosmogony does not only establish the need for respect toward the land but also provides more general lessons about the interconnectedness of the land, the sky, and everyone (humans and nonhumans) in between.<sup>5</sup> This interconnectedness is not merely an abstract metaphysical claim but becomes materialized through cultural and social practices that are guided by the *tengan dem* as the custodians and mediators of respectful relations with the environment. At the same time, the cosmogony does not put the sole responsibility in the hands of the *tengan dem*. Instead, it is a call to

every member of the community. Every human being is part of this interconnected system that relates the skies and the land and the air, animals, plants, seeds, rivers, and mountains. Very much in line with indigenous holism in other parts of the world (Cajete 2000), this emphasis on universal interconnectedness provides the metaphysical foundation of the moral order between humans and nonhumans. As the following stories illustrate, the cosmology also guides more specific social and environmental practices that ensure sustainable engagement with the environment in Koro.

### Story 2: “Bumbuure for Bondiri—Seed for Life”

In Koro we have “bumbuure for bondiri” (seed for food/life) and for “bumbuure for bondi-fogle” (seed for commerce). Seed is “bumbuure.” Bumbuure for bondiri includes crops grown for the sustenance of the populations of the present, the past (ancestors) and the future. They include sorghum, millet, Bambara beans, cowpea and yam. So, when people grew up and met their ancestors, what they knew as food, was what they were first introduced to. That is also guided by a ritual. Before these crops can be harvested, special rituals have to be performed by the *tengan dem*. Each of these crops has a role to play in the traditional ceremony. It is a serious taboo and a cultural offence for any indigene of Koro to eat any of these crops before the *tengan dem* perform the necessary rituals. And then there is the second category of crops classified as “bumbuure for bondi-fogle.” These are just for material needs and are often food for children or finger food, which is usually not eaten as a main meal. This set of food includes crops such as maize, rice, sweet potatoes, groundnuts and others. These are considered as hunger crops and good for only commerce, but not for the ancestors.

Indigenous classifications of plants and animals have been widely studied in ethnobiology as expressions of local knowledge and practices (Hunn and Brown 2011; Ludwig 2018; Si 2016). The distinction between *bumbuure for bondire* and *bumbuure for bondi-fogle* is deeply embedded in the cosmogony of the Dagara people as it groups together crops that are not just a commodity but also provide the basis of the community’s relation to its ancestors and cosmogony as told in the first story. Each of the *bumbuure for bondiri* (sorghum, millet, Bambara beans, cowpea, and yam) has been handed down by the ancestors and has a special role to play in ritual, social life, and traditional medicine. These *bumbuure for bondiri* also play an important role in traditional ceremonies such as funerals. When the remains of the deceased are presented on the *paala*—palanquin in English—for a display to mourners, it is a first requirement for the family to produce a *kagvin*. *Kagvin* is sorghum that has been prepared for storage in the traditional barn, the *bogrr*, by tying

them as a bundle. Failure to present a *kagyin* is seen by the community as a symbol of abject poverty and the family is exposed to ridicule by community members. In contrast, the *bumbuure for bondi-fogli* have no business in ritual—the ancestors do not recognize them.

A similar distinction is made regarding animals. There are animals called *donsebla*, which in Dagara language literally means “black animal” (*sebla* means black). This meaning has nothing to do with the skin color of the animal but black symbolizes respect. *Donsebla*, like local chickens, sheep, or a cow, can be used for consultation with the ancestors. When a chicken of a local breed is slaughtered, the actions of the chicken are read to consult the ancestors. Some animals are not *donsebla*, these are called *dung*, such as goats and pigs. *Dung* are only used for consumption and cannot be used for consultation rituals as they have no connection to the ancestors. However, goats can be used to honor someone dead. Animals can thus be used for consultation or for honoring the ancestors, depending on their relationship with the ancestors. It is widely known that in many African cultures, livestock is used to honor and communicate with the ancestors (see, e.g., Boogaard and Moyo 2015). However, many such studies categorize livestock on basis of “functionalities” in which rituals are grouped under “cultural aspects” of livestock (see e.g., Otte et al. FAO 2012). This Western development-based way of categorizing livestock does not recognize the distinction between the animals’ relationship—or the absence thereof—with the community’s ancestors. The current story suggests that it is important to make the difference between *donsebla* and *dung*, just like it is important to make a difference between *bumbuure for bondiri* and *bumbuure for bondi-fogli*.

In addition, the case of *bumbuure for bondiri* illustrates the crucial role of spirituality concerning food security and—as we will explain—even more so in food sovereignty. The cosmology and its ceremonial requirements demand the production of *bumbuure for bondiri*. Someone who does not grow these crops is simply not a farmer. While *bumbuure for bondiri* is rich in spiritual meaning, its spiritual importance is interwoven with social and material importance for local livelihoods. First, *bumbuure for bondiri* ensures the preservation of cultural heritage. While agricultural development programs may introduce novel crops in the area, such crops will be treated as *bumbuure for bondi-fogli* in Dagara cosmology. Even though such crops may contribute to material needs, farmers will not throw away their own seeds—*bumbuure for bondiri*—because they are ritually demanded. Second, the spiritual and social dimensions directly link to material concerns about food security and nutritional diversity. *Bumbuure for bondiri* ensures that there is food on the table independently of market fluctuations of *bumbuure for bondi-fogli* cash crops. The composition of *bumbuure for bondiri* (sorghum, millet, Bambara

beans, cowpea, and yam) also ensures nutritional diversity rather than making the community dependent on one dominant crop that is produced for commerce, which may not provide an adequate nutritional basis in times of economic and environmental turbulence.

The case of *bumbuure for bondiri* demonstrates the entanglement of the spirituality and livelihoods of the Dagara people. Seeds and crops are not just economic commodities but fulfill important spiritual meanings in Dagara cosmology. The story showed that *bumbuure for bondi-fogli* only contributes to material needs, while *bumbuure for bondiri* also maintains the spiritual relationships which lead to diversity in food and seeds. As such, *bumbuure for bondiri* directly contributes to food security. Nowadays, many agricultural development projects aim to contribute to food security. In such food security projects, food is largely seen as a commercial commodity which mainly fulfills material needs (McMichael 2016). Such food security projects tend to disconnect food production and consumption from its spiritual dimensions. However, the current story showed that agricultural practices cannot be disassociated from the cosmogony of *tengan* that provides the intellectual and spiritual anchor for building and maintaining relations with the land. It is precisely these relations that ensure cultural self-determination, food security, and nutritional diversity.

### Story 3: “A Curse on Illegal Mining”

In 2011 the Koro community was invaded by illegal miners (galamsey). The miners took over portions of land and started mining for gold against the will of the people. The *tengan sob*, on realising that miners would not heed to the pleas of the people to stop the practice, called all the *tengan dem* together and put a curse that anybody engaging in mining in the village be struck by *tengan*. The miners, out of fear of the wrath of *tengan* packed their machines and left and have not returned up to date.

Our third story illustrates the role of the *tengan sob* as the custodian of the land that is embedded in the wider cosmology and environmental ethics of the Dagara people. According to the *tengan dem*, mining is a misuse of the land. The land is meant to feed and support the life of animals, humans, and plants. It is not meant to be harmed through mineral extraction. If miners dig too deep, they begin to dig the belly of the earth, which causes material and spiritual harm. The interconnectedness of humans and the land plays a crucial role in the moral order, as harming the land ultimately means that miners are also inflecting harm onto themselves.

The case of the curse on mining illustrates how the cosmology of the Dagara people is entangled with local practices of sustainable land use. Destructive forms of natural resource use are not merely against the self-interest of the community, but they are moral and spiritual wrongs. Furthermore, the case also demonstrates how the cosmology confers spiritual and social authority to the *tengan dem*. Although the authority and power of *tengan dem* may be under pressure in today's African context, even the illegal miners—who acted against the will of the community—did not deny the power of *tengan* and took the curse seriously enough to stop their mining activities. The cosmology of the *tengan* is, therefore, not merely a repository of knowledge for sustainable land use, it is also a social system that provides resources to establish and enforce norms.

#### Story 4: “Market Boycott for Rain”

This year the rain stopped after a few showers of rain and all the crops began to dry up. It got to a point where there was the danger that if nothing was done there would be famine this year. The people, therefore, approached the *tengan dem* and asked them to intercede with the ancestors on their behalf, as they believe this was a reflection of some wrongdoings in the village. The head *tengan sob* did an initial consultation at the *tengan tuu* (sacred grove) to find out what should be done. He then called a gathering of the elders and told them the instruction was that the Babile market should be boycotted immediately by all indigenes as well as foreign traders. On the next market day, the *tengan sob* went early to the market square to carry out some rituals and sent out information that the boycott was on. Information was passed around and the market session was effectively boycotted. By the evening of that day, a heavy downpour resulted, to the joy of all in and around Koro. Since then it has been raining consistently and the people are expecting a bumper harvest.

Ludwig and Poliseli (2018) have argued that indigenous and other local communities are often experts in complex ecological dynamics and causal factors in local environments. While TEK about complex ecological dynamics can inform transdisciplinary collaborations with academic researchers, the story of a market boycott demonstrates that spiritual practices cannot be understood exclusively in causal terms. Hence, it would be a misunderstanding to simply ask whether the boycott caused the rain and to disqualify the practice because such a connection cannot be established based on Western scientific logic. It is a misunderstanding to think that only Western science can uncover causal relations and that TEK is restricted to broad holistic associations (see also Chimakonam 2012; Mavhunga 2017).

As our work with the community of Koro shows, market boycotts are embedded in much more complex practices that are themselves an integral part of indigenous environmental ethics. Markets are places where many agents—human and nonhuman—come together and meet. There are spirits at the market. There are gods at the market. There are ancestors at the market. Markets are therefore ritual centers in which economic, social, and spiritual activities of the community flow together. If the order is disturbed, the market needs to get a break. Shutting down the market is not just a symbolic but highly disruptive event. A market boycott is a very important ritual that forces the entire community to make a sacrifice and reflect on disturbances. Just as in the case of the mining curse, the market boycott, therefore, illustrates how the *tengan dem* not only have the knowledge about sustainable practices but also have the spiritual and social authority to intervene in the community and its practices.

This case story thus shows that markets are spiritual places. This is particularly relevant for projects working on food security because this concept is largely based on Western, market-led thinking, in which markets are largely seen as trade centers that follow neoliberal market logic (McMichael 2016). However, markets are not just structured by relations between salespeople and consumers—there are also nonhumans and spiritual relations. Failing to recognize the market as a spiritual place, leads to a limited and insufficient understanding of how markets work.

### **TOWARD RESPECTFUL RELATIONS BETWEEN HUMANS AND NONHUMAN NATURE: SOME IMPLICATIONS FOR AGRICULTURAL DEVELOPMENT PROJECTS**

This chapter emphasized the need for doing justice to African ontologies and epistemologies by demonstrating the importance of the spiritual dimension in agricultural development through case stories from the Dagara people in Koro village. Although there is a large diversity of spiritual traditions across the African continent and one should be careful in generalizing, our findings in Koro reflect wider dynamics in agricultural practices in various parts of Africa. In this section, we, therefore, relate our findings to debates about “epistemologies of the south” that challenge the epistemological and ontological marginalization of intellectual traditions in the Global South (e.g., Ramose 2016; Mungwini 2017). In connection with these debates, we explore three implications for academically trained people who study, think about, work in, or teach about agricultural development in Africa and who want to move toward respectful relations between humans and nonhumans

in agricultural development projects: (a) a shift from food security to food sovereignty, (b) a call for epistemic and ontological diversity in agricultural education, (c) the need to learn from approaches in the field of intercultural philosophy.

### **From Food Security to Food Sovereignty**

Although the concept of food security is widely used in agricultural development projects by focusing largely on the material and economic aspects of food production and consumption, the concept seems to exclude indigenous ways of knowing from the outset. In this line, the concept is also criticized as being part of a Western-based “agribusiness project” that promotes neoliberal capitalist market ideologies (McMichael 2016). By contrast, our case story shows that in the Dagara, worldview markets are much more than economic trade centers—they are sacred places. The case stories from Koro village thus illustrate that food production and consumption integrate material and spiritual dimensions. These findings show that failing to acknowledge African spirituality can lead to misunderstandings of how rural African people see and use their natural environment. This has been observed in earlier studies (Tiemersma 1998).

Instead, the concept of food sovereignty may offer more space to take spiritual relations in agriculture and food into account, as it calls for people’s right to their sources and ways of producing and using food (Worku 2019). Food sovereignty is about “new politics of food and ecology” that provides an alternative vision in contrast to neoliberal capitalist institutions and policies (McMichael 2016). As such, food sovereignty can create space for including African spirituality and moving toward respectful ecological relations in agriculture, while at the same time responding to the demands of society for its material needs for food and livelihoods. We, therefore, argue that if African spirituality is to be taken seriously in agricultural development, it may require a shift from food security to food sovereignty. The Alliance for Food Sovereignty in Africa (AFSA) is an interesting example here because it aims to move away from industrialization and commodification of Africa’s agricultural production and instead focuses on food sovereignty and agroecology (AFSA 2020). Currently, there is an increasing interest in agroecological approaches, and although agroecology seems to be more closely related to African worldviews than industrialized agriculture (Boogaard 2019), it rarely includes explicitly a spiritual dimension.

## **Epistemic and Ontological Diversity in Agricultural Education**

Many conventional agricultural extension and education programs are based on a Eurocentric epistemological paradigm (Boogaard 2019). Eurocentrism is “part of a system that teaches the superiority of white European people, culture, history, and ideas over everything and everybody else” (Dei 2009, 21). Eurocentric education maintains and reinforces epistemic injustice in which other ways of knowing and thinking are not recognized or even destructed (Ramose 1999; Santos 2014; Miller 2011). This means that decades of Western-based agricultural extension, training and education in Africa resulted in agricultural scientists and practitioners who do not take African spiritual traditions seriously in their work. Until today, African spirituality is generally not part of agricultural education and training programs—neither at the practical level nor at the academic level. Even though the concept of spirituality is part of a worldview that is often difficult to understand for a Western-educated person (Dei 2002), the current study showed that such epistemic and ontological diversity in agricultural education is urgently needed. It means that agricultural curricula should become less Eurocentric and more open to including traditional ecological knowledge and African spirituality. We need a new generation of agricultural professionals who recognizes and understands the value of indigenous African spirituality, practices, and knowledge while at the same time combining these with Western conventional science.

## **Learning from Approaches in Intercultural Philosophy**

While there have been many attempts to integrate Traditional Ecological Knowledge (TEK) in the sustainable management of natural resources, we have argued that the integration of TEK in development projects often fails to engage with wider debates about “epistemologies of the south” and their diverse ontological foundations. Rather than rethinking development through the lens of African intellectual traditions, the integration of TEK in agricultural development programs often amounts to “knowledge mining” (Kimmerer 2012, 322) in the sense of selective adoption of knowledge that fits exogenous mainstream development and sustainability frameworks.

In moving beyond such selective knowledge mining of TEK, African spirituality is a hard case as it situates agricultural practices in ontologies and cosmologies that strongly diverge from the perspectives of Western academically trained development researchers and practitioners. As our case study in Koro demonstrates, however, the cosmology of the Dagara people cannot be disassociated from their agricultural practices and ways of relating to



environments. The cosmology of *tengan dem* provides the spiritual and moral foundation for relating to the land and developing sustainable practices from ensuring agricultural biodiversity to resisting destructive resource extraction. While our work in Koro, therefore, illustrates the importance of ontological difference, recognition of African spirituality does not imply a clash of incommensurable worlds without any prospects of mutually respectful intercultural dialogues. On the contrary, our case stories from Koro also demonstrate that ontological difference remains partial (Ludwig and Weiskopf 2019) in the sense that it does not lead to a complete breakdown of communication between incommensurable worlds but also creates opportunities for mutual understanding through shared ontological assumptions and concerns.

From approaches in intercultural philosophy, we can learn that mutually respectful intercultural dialogues ask academically trained scholars to open their Western thought to other ways of knowing based on the primacy of listening (Kimmerle 2012). At the same time, there are also limitations to an intercultural dialogical approach—especially in a context where European and other foreign, neocolonial organizations have taken the right to “develop” Africa’s agriculture (Boogaard 2019). In such a context, it might be needed to first renegotiate space for indigenous cosmologies before entering into a dialogue with Western thought (Mungwini 2018; Roothaan 2019).

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## NOTES

1. It should be noted that the influence of Christianity and Islam on the African continent resulted in a mixture of religions and beliefs, which cannot be entirely disentangled from African spirituality.

2. Two authors of the current article (Bern Guri and Daniel Banouku) conducted group conversations with elders. They have informed participants about the research and use of data. All participants have given their oral consent.

3. We hope our study is of value for scholars from various academic disciplines—e.g., philosophy, development studies, and agricultural sciences; diverse geographical backgrounds—e.g., on the African continent and beyond, as well as for practitioners, development workers, and educators in agriculture.

4. The original Dagara word was *Zumε*, which cannot be literally translated into English but means something like conscious of others' needs. It means that one is not only concerned with needs in the present but also takes the past and future into account. For example, if one uses land, the past generations should be thanked and the land should be preserved for future generations. Due to this emphasis on maintaining resources for future generations, *Zumε* can be translated with the English word “sustainable” even though In Dagara language there is no specific word for sustainable.

5. Cosmogony refers more narrowly to the origin of the cosmos—the history of how it was created. Cosmology refers more broadly to the structure of the universe.

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