



The art of Buddhist connectivity: Organic rice farming in Thailand

Chanatporn Limprapoowiwattana^{1,2}

Accepted: 11 September 2022 / Published online: 29 December 2022
© The Author(s) 2022

Abstract

This article analyses the interplay between the International Federation of Organic Agriculture Movements (IFOAM) standard, Buddhist socio-economic imaginaries, and values within the global production network (GPN) of organic rice. It asks, “How do transnational standardisation and local values interact in the global production network of organic rice?” Little research has been conducted on the imaginaries and values embedded in the GPNs of organic food. This research aims to fill this gap by examining the transition to organic agriculture among two prominent organic rice farming communities in Thailand, namely the Naso Producer Group and the Ban Thap Thai Organic Agricultural Cooperative. The article draws on a combination of desk research; interviews with governmental and non-governmental officials, standard experts/certifiers, and representatives of the IFOAM; focus group discussions and photo-elicitation sessions with organic rice farmers; on-site observations; and participant observations of mindfulness meditation courses and interviews with Buddhist monks. The results show that Buddhist socio-economic imaginaries have informed the way in which Thai organic rice farmers reconnect to their arable land through an organic farming method, enabling them to live meaningfully and mindfully. This implies that the connectivity of the GPNs of organic rice is not created purely by standards and certifications formulated by transnational private actors; rather, it is also shaped to a large extent by community values and shifts in local mindsets. This article contributes to the literature on food philosophy in the developing world and the governance of the GPNs of organic rice.

Keywords Organic rice · Global production network(s) · Standardisation · Buddhist socioeconomic imaginaries · Values

Abbreviations

ACT	Organic Agriculture Certification Thailand
ADB	Asian Development Bank
GPN	Global production network
IFOAM/IFOAM - Organics International	The International Federation of Organic Agriculture Movements
LDD	Land Development Department

PGS

Participatory Guarantee Systems

TOAF

Thai Organic Agriculture Foundation

Introduction

I asked the Dalai Lama what it was like to wake up with joy, and he shared his experience each morning. “[...] Then I remember that everything is interrelated, the teaching of interdependence. So then I set my intention for the day: that this day should be meaningful. Meaningful means, if possible, serve and help others. If not possible, then at least not to harm others. That’s a meaningful day” (Lama et al. 2016, p. 64).

When the 14th Dalai Lama was asked about his secret to joyful living, he simply answered *living a meaningful life*. As quoted above, he emphasises the interconnectedness of being, serving others, and avoiding harmful acts. This philosophical knowledge is embedded in the Buddhist

✉ Chanatporn Limprapoowiwattana
chana.limpr@gmail.com

¹ Centre d’histoire Internationale et d’études Politiques de la Mondialisation (CRHIM), Faculté des Sciences Sociales et Politiques, Université de Lausanne, Géopolis, 1015 Lausanne, Switzerland

² Faculty of Liberal Arts, Thammasat University (Rangsit Campus), 99 M00 18, Paholyothin Rd, Khlong Nueng, Khlong Luang, Pathumthani 12121, Thailand

socio-economic imaginaries created by Thai rice farmers in the context of their shift towards organic farming, which is occurring amid an intensifying *global ecological crisis*. Greater self-awareness and a desire for improved well-being led to the initial change in farmers' attitudes towards the eco-friendly rice-producing method. This shift has far-reaching implications for global organic rice production networks and the power structure within the local production realm. Buddhism is thus having profound consequences for agri-food production and living, in addition to spiritual practices (Darlington 2019).

Many countries have adopted regulations and measures governing agricultural practices, intending to create more ecologically sound food production systems. Transnational private regulators have formulated a variety of organic standards, and they award certifications for food and agriculture. In 1980, the International Federation of Organic Agriculture Movements (IFOAM - Organics International) initiated the international private organic standard, serving as the model for subsequent organic standards (IOAS 2018; Schwindenhammer 2018). Thus, organic agriculture is increasingly practised in accordance with the normative values and core principles of "health, ecology, fairness, and care" (Luttikholt 2007). This means that standards, comprising rules and regulations along with normative values, *govern* the global food production system. In addition to the values attached to transnational standards, there is another set of *values* embedded within the producers' mindset. These values have their source in Buddhist teaching, and they largely shape the imaginaries of organic rice farmers.

This double system of values creates a situation whereby, on the one hand, the transnational private actor, or IFOAM - Organics International, exerts regulatory power in the local production space to stipulate what agricultural farming practices and materials can be used on farms (what farmers can/cannot do or use). On the other hand, the local community values help sustain such a process. This is evidence of the critical juncture between the normative values of standards, local community values, and farmers' imaginaries. These *standards*, *values*, and *imaginaries* must be studied together to produce an in-depth analysis of the complex power structure of the organic rice production network. To do so, this article asks: "*How do transnational standardisation and local values interact in the global production network of organic rice?*" The analysis herein focuses on two organic rice farming communities in Thailand, namely the Naso Producer Group in Yasothon Province and the Ban Thap Thai Organic Agricultural Cooperative in Surin Province, and it is argued that the standards, values, and imaginaries co-create connectivity in the global production network of organic rice. To undertake the analysis and access different data sources, this research adopted various data collection techniques, including desk research, photo elicitation

(focus group discussions), semi-structured in-depth interviews, on-site observations, and participant observations. This combined method helped to uncover novel data existing in written, visual, and verbal forms.

In order to address the research question, this article draws on the literature on "food philosophy" (Schösler et al. 2013). While Schösler et al. examine organic consumption patterns with an emphasis on "values, practices and beliefs", here the concept of food philosophy is applied to the analysis of the production system. "Ethical consumption" is another significant factor that influences the global production network (Hughes et al. 2008). The insights gleaned from the literature are employed to examine the production space and organic producers' collective values, allowing two gaps in the literature to be addressed: Firstly, few studies on the global production network of organic agriculture discuss the social values and imaginaries of the local agents, such as farmers; and secondly, little attention has been given to the food philosophy reflected in the organic food production network.

The remainder of this article is structured as follows. Firstly, the existing literature is reviewed, followed by the definitions of the key concepts used in the study, the chronological boundaries, and the research methodology. Then, the research results are discussed in three sub-sections, focusing on the historical background of each rice farming community, the transnational standardisation of the local food production space and power reconfiguration, and the socio-economic imaginaries of Buddhist farmers, respectively.

Literature review

Some argue that standards are created to serve marketing purposes. Daviron and Vagneron (2011, p. 106) suggest that "The commoditisation process of agricultural products may be traced back to the creation of standards, first in close relation with futures markets and later supported by national governments." In connection to this argument, it can be questioned whether the value of certified organic products is *merely* reducible to food commoditisation in the commercial market. In this article, the research findings suggest otherwise. Oftentimes, value systems, in conjunction with organic standards and certifications, shape the organic rice production processes, reinforce sustainability in organic farming practices, and sustain the connectivity of the global production network. Value systems thus play a greater role than is generally acknowledged.

Much research has focused on the factors that have influenced the development of organic farming in Thailand. These factors are linked to different types of values—economic values; environmental values; and social/normative values, which include those related to health and

well-being—that are integrated into organic production systems. With respect to the economic values relating to organic products, several studies have emphasised the commercial opportunities for Thai organic agriculture and the strategies used to enhance its competitiveness in both domestic and international trade (Ellis et al. 2006; Pipitkun 2020; Pitjaturat et al. 2021). While Yanakittkul and Aungvaravong (2020) use the theory of planned behaviour to analyse the decisions of organic farmers in Thailand, here the concept of Buddhist socio-economic imaginaries is integrated into the analysis. Thus, light is shed on Thai farmers' values, helping to explain the decisions that were made during the two critical transitional periods: the conversion to organic farming and the participation in the international organic certification schemes. This explanation serves as the basis for further discussion on power reconfiguration in the global production network.

In their quantitative research, Kaufman and Mock (2014) utilised the concept of “Buddhist eco-spiritual values” to analyse Thai organic farmers' perceptions and the benefits of employing the organic farming method. They conclude that “finances, health and well-being” are the key benefits of organic farming, and that farmers' values are grounded in spirituality. Their assertion that *spiritual values* have complemented and supported the shift to organic farming is consistent with the findings of this research. Nonetheless, given that the Thai organic rice sector is increasingly shaped by transnational standards and connected to the international market, it is important to expand the scope of study from the individual level (farmers' perceptions) to the global level. In doing so, this research examines how values influence the connectivity of the global production network of organic rice.

The discussion in the literature concerning values in the (global) agricultural sector is often centred on the concepts of sustainability, morality, beliefs, and culture (Meijboom and Brom 2012; Lincoln and Ardoin 2016; de Olde and Valentinov 2019). Czyżewski et al. (2021) uses “the value-oriented approach” and focuses on the agricultural policy structure to analyse the “environmental sustainable value”. In addition, research results confirm that morality and beliefs influence farmers' decisions regarding agricultural practices, and that both economics and values are crucial factors in decision-making (Schoon and Grotenhuis 2000). Moral sensibility not only impacts the decisions of producers but also plays an important role in organic consumers' choices. Since morals, culture and values together influence consumers' decisions (Schösler et al. 2013), “values-based labeling” (Barham 2002) can possibly be used as a mediating tool to make the social values of producers explicit to consumers.

Yet, ethical decisions and ecological values can also be understood through a cultural and religious lens (Bilimoria 1998). While it is clear that religion affects food

consumption behaviors, its impact on production patterns has not been extensively and thoroughly studied (LeVasseur 2016). This article thus analyses the Buddhist values reflected in organic agricultural practices, intertwined with the normative values of the standards and regulations imposed by the IFOAM - Organics International. The dimension of values is explored by focusing on Buddhist socio-economic imaginaries in the case of Thai organic rice farmers, who consciously apply Buddhist teachings into their agricultural practices. It should be emphasised that this research does not narrowly interpret Buddhism as a religion, but rather as *a way of life* and *a path* for meaningful living. This means that the teachings of the Buddha are applicable and integrable to one's daily routine. Farmers do everyday farming in accordance with Buddhist principles, such as growing safe food (do no harm to living beings and ecology). Buddhist principles, hence, become a significant part of their farming activities and decision-making processes. Practising organic agriculture rooted in Buddhism, farmers discover a purpose and meaning in life through the contributions they make to society and the world.

Theoretical framework: Food philosophy and Buddhist socio-economic imaginaries

The global production network of organic rice has multiple threads, which have evolved through connecting and disconnecting processes. These threads exemplify the connections between the key institutions/actors at the local, national, and transnational levels and also show how local farmers disconnect from, and reconnect to, their production space. Because these connections have developed in different periods, it is important to analyse the historical and temporal dimensions of the network.

This article applies the concept of food philosophy (Schösler et al. 2013) as it relates to the farmers' attitudes towards farming practice in the analysis of the organic rice production network. Food philosophy pursued by individuals/groups can be explored in three main dimensions: “production, distribution, and consumption” (Kaplan 2020). This research specifically studies food philosophy from the production aspect. This helps to articulate how values, which are the foundations for organic standards (such as the IFOAM standard), along with the beliefs of local rice producers, have shaped the global production network of organic rice at different points in time. In this regard, food philosophy can be described as “[...] a cluster of practices, values and beliefs that evolves over a long period of time within a particular cultural context and is shared on a collective level” (Schösler et al. 2013, p. 440–441). In this research, food philosophy is thus based on one's interpretation of food production in accordance with their values and cultural backgrounds. It

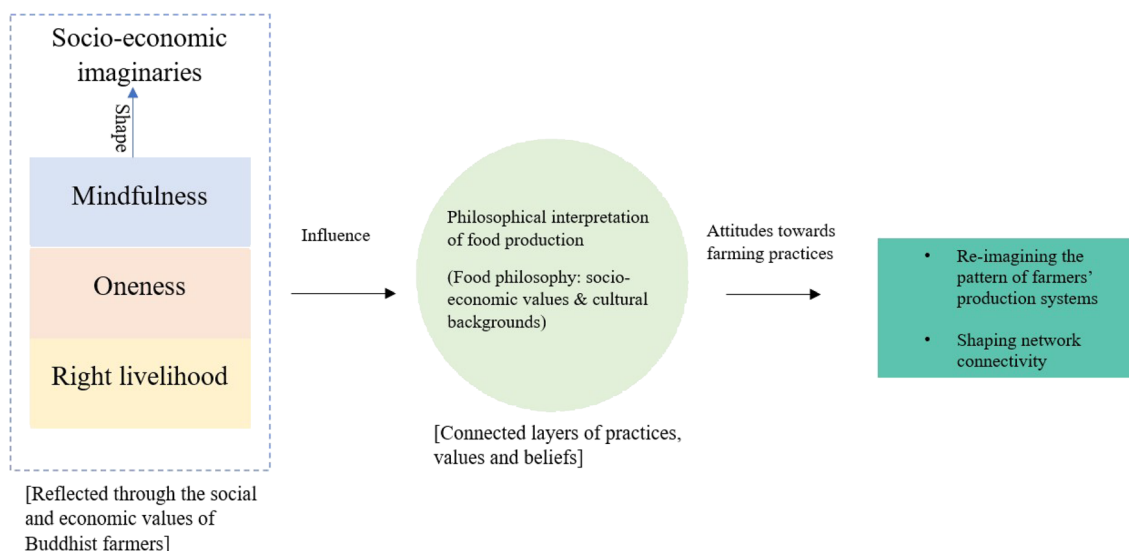


Fig. 1 The relationship between food philosophy and Buddhist socio-economic imaginaries

also conveys a sense of responsibility towards one's self, society, the environment, and the world. For this reason, food philosophy is fundamental for organic rice farmers, as it allows them to re-imagine the pattern of their production systems and construct a meaningful life.

In this research, the concept of *food philosophy* is merged with the *Buddhist socio-economic imaginaries*. The philosophical interpretation of food production is grounded in the three widely known Buddhist principles of *mindfulness*, *oneness*, and *right livelihood*. They are the fundamental elements constructing the socio-economic imaginaries of farmers. These principles influence the philosophical interpretation of farmers and help them achieve socio-economic equilibrium by balancing economic gains and community values.

Imaginary is a concept utilised by scholars in different contexts and through various approaches (Domingues 2016; Browne and Diehl 2019; Delanty 2021; Wiepke and Miklashevsky 2021). In this article, imaginary is conceptualised as a process of re-imagining a sustainable food production system based on the collective social and economic values of local communities. Organic farmers explained that Dharma (the teachings of the Buddha) has helped them make strategic and rational decisions on-farm. In this case, they specifically referred to the Buddhist principles of mindfulness, oneness, and right livelihood, which provide them direction on living a life in which they take responsibility for their actions. Since farmers imagine what they should or should not do based on these principles, Buddhist teaching influences the philosophy (core values) of farmers.

Therefore, one can gain an in-depth understanding of the values, beliefs, and practices (the significant elements of food philosophy) that have shaped network connectivity

by examining *Buddhist socio-economic imaginaries*. The link between food philosophy and Buddhist socioeconomic imaginaries is depicted in Fig. 1 (The relationship between food philosophy and Buddhist socio-economic imaginaries). It clarifies the components of the socio-economic imaginaries of farmers, how they influence the farmers' interpretation of food production, and how farmers' food philosophies are translated into practice (through imaginaries).

Mindfulness comes from a Pāli term “Sati”, which can be traced back to the beginnings of Buddhism (Bodhi 2011; Deroche 2021). Even though there is no precise or commonly agreed upon definition of mindfulness, it is often discussed together with the concepts “memory”, “awareness”, “recollection”, and “remembrance” (Xiao et al. 2017; Anālayo 2018; Sellman and Buttarazzi 2020). In this research, the meaning of mindfulness is based on the definition of “Sati”. To achieve a solid grasp of the multiple facets of mindfulness as practised by organic rice farmers, this research adopts the definition of Sati (mindfulness) put forth by Peacock (2014, p. 6):

[...] I would render *sati* as ‘present moment recollection’, as it captures some of the resonances of the Brahmanical Sanskrit usage. Nevertheless, it is often easy to overlook the fact that this form of recollection or remembrance also *learns*, as we shall see later, from past experience.

In reference to the explanation above, “present moment recollection” can be used to define and understand *mindfulness* as practised by the organic rice farmers. When farmers recalled that the “current state” of their well-being and the local natural resources has resulted from their farming choices (made at an earlier time), they decided to utilise

healthier and more ecologically friendly farming methods. This reveals an awareness of the present experience, which is the result of past decisions and actions (cause). Hence, Sati or being mindful of the present is an important process for critical analysis of current farming practice and its effects on farmers' way of life, environment, and the world.

Mindfulness is the key to developing a clear comprehension of the condition of oneness. Through the process of cultivating awareness, one gains a deeper understanding of *why* and *how* things are meaningfully connected. Oneness reflects the state of interdependence, which Thich Nhat Hanh describes as interbeing (Holst 2021). He compares this with the way in which garbage helps flowers grow: "But if you know how to look at things in the light of interbeing, you know that everything is linked to everything else and the garbage can always serve as the food for the growth of the flower" (Hanh 2001, p. 81).

The principle of oneness has great implications for the analysis of farmers' decisions. Farmers develop a sense of collective well-being (through their imaginaries) by establishing connections between their community, farming methods, and the natural world. Accordingly, a healthy farming community and a wholesome environment do not develop in isolation from their farming practices. Farmers' vision reflects farming with a sense of awareness. An awareness of oneness has contributed to the shift in farmers' mindset and their values regarding the production space. This Buddhist principle, along with mindfulness, offers essential guidance on *meaningful living* while also *earning a sufficient income*, defined by Thich Nhat Hanh as *right livelihood*:

To practice Right Livelihood (*samyag ajiva*), you have to find a way to earn your living without transgressing your ideals of love and compassion. The way you support yourself can be an expression of your deepest self, or it can be a source of suffering for you and others (Hanh 2008, p. 113).

Based on the three aforementioned Buddhist principles, it can be seen that socio-economic imaginaries are vital for the operationalisation of *connectivity* and *re-connectivity* in organic farming, which leads to the (re)arrangement of the elements within the production network of organic rice.

Busch (2011, p. 13) claims that "[...] standards are means by which we construct realities". Based on this statement, it is argued that, *in practice, standards function together with imaginaries and values to co-create realities and network connectivity*. In the case of organic rice farming, the Buddhist socio-economic imaginaries and organic standards are the mediating channels through which local farmers create desirable realities (and preferable futures) on their farms. This socio-philosophical approach to farming has a considerable influence on the connectivity of the global production

network of organic rice at the local level, as well as sustaining transnational standardisation processes.

In this article, the connectivity between multiple spaces inside and outside the *individual self* is explored in two main dimensions: [1] (re)connecting to the *inner-self* through Buddhist values and organic farming practices; and [2] connecting to the world of standards to gain more economic and social opportunities. This article stresses that socio-economic imaginaries allow farmers to be in the present and give vision to the future, facilitating a reconnection with the way of life, culture, and memories of those who lived in the past (or their ancestors).

Methodology

This article focuses on organic agriculture in Thailand between the years 2008 and 2017. This was the period when the Thai government endeavoured to promote sustainable agriculture by including it in the Twelfth National Economic and Social Development Plan (2017–2021). Two long-established organic rice-producing communities—the Naso Producer Group in Yasothon and the Ban Thap Thai Organic Agricultural Cooperative in Surin—were selected for the case studies. Both communities have developed expertise in producing organic rice in accordance with international standards, such as the IFOAM standard. The rice production systems of both Naso and Ban Thap Thai have received third-party certification, while the latter's is also certified by Participatory Guarantee Systems (PGS). Examining the history of these two communities and their shift towards organic farming reveals the interrelationship between their temporal dynamics, collective well-being, and socio-economic and environmental values.

This research utilised five main data collection methods: desk research, interviews (semi-structured in-depth interviews), photo elicitation (focus group discussions), on-site observations, and participant observations. Since the analysis of the transnational standardisation of organic rice and its connectivity involves different types of knowledge, pertaining specifically to agriculture and standards and certifications, it was important to collect data from multiple sources and then discuss it with specialists and practitioners in different fields.¹ The

¹ Many thanks for the data and valuable support from the respondents from IFOAM - Organics International, Green Net, Organic Agriculture Certification Thailand (ACT), the Khaokwan Foundation and Learning Center, the Thai Organic Agriculture Foundation, the Asian Development Bank (ADB), the Land Development Department, Hei Thai PTE. Ltd., and Dhammapala Monastery. To protect respondents' confidentiality, the names of the interviewees have been anonymised.

interviewees² can be categorised into four main groups: the officials from governmental and non-governmental organisations and representatives of IFOAM - Organics International in Bonn, Germany; organic rice standard experts/certifiers; farmer leaders and influential members of the organic rice-producing communities in Yasothon and Surin; and Buddhist monks.

Semi-structured in-depth interviews were conducted to obtain the data from the interviewees in group 1, 2, and 4. The government and non-government officials, IFOAM representatives, and certifiers/experts (group 1 and 2) whose work involves the organic standardisation and certification processes were invited to share their views on organic standardisation and the operational functions that influence the socio-economic and environmental values in the global production network of organic agriculture. Furthermore, after participating in mindfulness meditation courses at Dhammapala, a Buddhist monastery in the Thai forest tradition in Kandersteg, Switzerland, the researcher invited the monks (group 4) for interviews and discussion. Based on their long experience in practising and teaching mindfulness meditation, they helped articulate the implications and significance of mindfulness (Sati) for designing and creating a meaningful life. In connection to this, they explained how mindfulness can provide a solid ground for developing right livelihood and building harmonious relationship with other beings and nature (oneness).

Mindfulness is a way to cultivate insight into interbeing and a core concept used in the analysis of values. Aware that one cannot clearly understand Buddhist practice through desk research, interviews, and discussion without obtaining direct experience, the researcher began a mindfulness practice, both through self-practice and attending meditation courses at Dhammapala. This was done to gain a better understanding of the Buddhist socio-economic imaginaries generated by the organic rice farmers. Epistemologically, Buddhist practice is a way to acquire inner knowledge, which is admittedly subjective in nature.

The preliminary research shows that visions and the group direction of organic rice farming communities are often initiated and driven by the farmer leaders and influential group members (group 3). Therefore, photo elicitation was used to collect the data from them. It is important to note that the participants varied in terms of age and gender, ranging from senior to young farmers and including both female and male participants. "Photo elicitation is based on the simple idea of inserting a photograph into a research interview" (Harper 2002, p. 13). The data on the historical background of each community gathered through desk research were utilised to



Fig. 2 A Buddhist temple



Fig. 3 A farmer and his paddy field

select the photos for the photo-elicitation sessions. Examples of these photos are shown in Fig. 2 (A Buddhist temple) and Fig. 3 (A farmer and his paddy field). The subjects of the photos used during the sessions were the standards and certification systems, farming equipment, farming materials/practices, and religious buildings.

Instead of directly applying the photo-elicitation method in the one-on-one interviews, this visual technique was adapted for focus group discussions in which the farmers were asked to interpret and associate the photos with their experiences and discuss/share their thoughts. At the end of each photo-elicitation session, farmers were requested to imagine and discuss their "ideal farming communit(ies)". They could express their thoughts and ideas through texts, words, or drawings. Those who were keen to draw were asked to additionally explain and summarise the essence of their visual presentation. Their reflections on ideal farming

² The researcher obtained verbal informed consent from all interviewees.

communit(ies) helped the researcher to better grasp the community's collective values—what is meaningful and important for their living and agri-food production. Imagining ideal farming communit(ies) helps farmers to establish a connection between the past, present, and future of organic rice farming communities. The researcher could thus explore the roles of culture and values in this visioning process.

During these photo-elicitation sessions, the researcher only observed and took notes. The discussions reflected their experiences with producing organic rice (in reference to the IFOAM standard), collective values, and socio-economic imaginaries (of the ideal organic rice farming communities). Since photo elicitation allows participants to express their ideas by talking, drawing, and writing, the farmers shared their thoughts in verbal, visual, and written form. Importantly, this visual method enabled the farmers to simplify their thoughts and minimised the difficulties when exchanging ideas on technical issues. Photo elicitation, thus, helps to circumvent the methodological boundaries of International Relations by integrating visual instruments into the data collection process. It also offers an alternative and creative way of knowledge production during focus group discussions.

The Naso Producer Group in Yasothon Province has around 265 members, while the Ban Thap Thai Organic Agricultural Cooperative in Surin Province has approximately 250 members.³ Among these, 10 farmers from the Naso Producer Group and 18 farmers from the Ban Thap Thai Organic Agricultural Cooperative participated in the photo-elicitation sessions. Two sessions were conducted at the Naso site. Meanwhile, since the Ban Thap Thai site represented a mixed case study of rice production systems certified under both third-party certification and PGS, four sessions with photo elicitation were conducted at this community.⁴ Nevertheless, in this article, only the data gathered from the first sessions at each site were included because it matched very well with the intended scope.

This research adapted and applied some elements of the qualitative method called thematic analysis, guided by Nowell et al. (2017), to this study. The data collected from the desk research, interviews, photo elicitation (focus group discussions), on-site observations, and participant observations went through the iterative coding process before being triangulated and analysed. In the coding process, the researcher drew out significant parts of data (from the written, verbal, and visual materials) that were related

to the research question. After that, these were grouped under different themes. This was an iterative process, as the researcher continued to revisit the data in order to shape the themes, find the suitable themes for each statement, and make connections between them. In the end, the data was organised into seven main themes (some statements fit under more than one theme): (1) social values and culture; (2) economic values; (3) Buddhist principles and practices; (4) farming practice and farmers' ways of life; (5) perceptions and experiences related to organic standardisation; (6) historical backgrounds and the agricultural transition; and (7) memories concerning the farming systems in association with their ancestors. Although theme six and seven were tangentially related to the research question, they contained historical data that was indispensable for gaining insight into farming culture and values, along with farmers' adoption of organic farming, standards, and certifications. As a result, they were included in the theme list.

There were two types of visual data: the drawings that the participants produced during photo-elicitation sessions and photos taken during field research. The drawings of the participants from photo-elicitation sessions were interpreted and analysed by coding and thematising the descriptions on the drawings and the explanations given by the participants (the summary of the meanings of the drawings). The visual data (photos) obtained from on-site observations, such as the farms and landscape, the condition of rice seeds, farming materials, and the function of the rice mills and packaging systems, also went through the coding and thematising processes. The researcher's interpretation (based on the research framework) was part of the analysis of the drawings and photos.

It is crucial to note that the experiences shared by the experts, governmental officials, and non-governmental staff helped clarify the overall political and social dynamics of the global production network of organic rice. This information was crucial for the analysis of visual data. To establish the credibility of the research findings, the data from official documents concerning organic food standards and certifications were compared with the farming practices being informed during interviews, photo-elicitation sessions (focus group discussions), and on-site observations.

In the end, the statements in each theme were interpreted and analysed within the research framework to respond to the research question. These statements were arranged and re-narrated, and they are discussed in three main sections: the historical transition of space(s) within the food production networks; the transnational standardisation of local production space and power re-configuration; and Buddhist socioeconomic imaginaries.

³ Photo-elicitation discussion with the Naso Producer Group, Yasothon, 11 December 2017. Photo-elicitation discussion with the producers in the Ban Thap Thai Organic Agricultural Cooperative, Surin, 20 December 2017.

⁴ Conducted two sessions with the PGS farmers and another two sessions with farmers who applied for both third-party certification and PGS.

Historical transition of space(s) within the food production networks

The Naso Producer Group in Yasothon and the Ban Thap Thai Organic Agricultural Cooperative in Surin are among the organic rice-producing communities that have adopted the IFOAM standard, allowing them to export their rice to the international market. However, the importance of rice production extends beyond the economic benefits; community well-being along with ethical and cultural values also play a role in driving these communities to produce organic rice in accordance with the principles of social and environmental responsibility.

The research findings suggest that health hazards were the initial impetus for the shift towards organic farming at both sites. This reveals the interdependence of well-being and livelihoods, which ignited the change in the food production systems of these communities. The conversion to organic agriculture has significantly altered the relationship between humans (farmers) and nature, bringing them into greater harmony. This exemplifies that the scope of the *meaning of value in the food production system* has expanded to take into account human and non-human relations. But this was not a simple change that occurred over a short period of time in that it required a transformation in the mindset of the farmers and the restructuring of the whole supply/value chains.

The Naso Producer Group, Yasothon Province

The Naso Producer Group is in Naso Subdistrict, Kudchum District, Yasothon Province. Before the shift to organic agriculture, many local farmers in Naso suffered from health problems, and some of them were diagnosed with cancer. The cause of their poor health was traced to their exposure to toxic chemicals while working on conventional farms; nonetheless, they were reliant on fertilisers, grassicides, and insecticides, which enabled them to achieve high productivity. To continue working, the farmers had to pay for polyparmacy, which helped them relieve their chronic symptoms such as back pain, nausea, and dizziness but became another fixed cost on top of their production costs.⁵ Chemical-intensive agriculture, hence, undermined the financial stability of small-scale farmers. These financial and health-related challenges perpetuated a vicious cycle of debt crises, turning into a hidden cost in global food production.

As many farmers had knowledge of traditional herbal medicines, they began to use them to treat their chronic illnesses, which helped to reduce their costs for medications.

In 1983, there was a cooperation between Luang Por Seeha (a respected Buddhist abbot), non-governmental organisations (NGOs), Kudchum Hospital, and community members to establish the Natural Medication and Herb Interest Group (Bureau of Technical Advisors 2018; Parnwell 2005). But they all soon realised that this herbal medicine project alone could not address the root cause of the health crisis; a more sustainable solution would be ceasing the use of chemical substances and converting to organic agriculture.

The farmers in Kudchum District had a chance to meet a master of natural farming, *Masanobu Fukuoka*—a farmer-philosopher who wrote one of the most influential books in the 1970s, *The One-Straw Revolution* (1975). The farmers were inspired by his farming method, with some of them going on to become the leaders of organic rice-producing groups. This paved the way for the first phase of the transition towards organic farming in the Naso community.

Rosana Tositrakul was again influential in this development. After spending a year in Japan studying with the guru of natural farming methods, Masanobu Fukuoka, she invited him to visit Thailand and Kut Chum District. His visit raised the profile of organic farming and stimulated enthusiasm to adopt chemical free (*khaaw plotsarn*) and organic (*khaaw insii*) rice farming methods (Parnwell 2005, p.12).

Armed with knowledge of natural farming received from Fukuoka, the farmers in Kudchum District started to implement this new farming technique through trial and error. The knowledge transfer from a Japanese agricultural guru thus facilitated the first wave of the transition to sustainable organic farming at Naso, a phenomenon that can be understood as *transnational connectivity between the two imagined farming spaces* in Thailand and Japan. This connectivity was guided by similar values concerning sustainability in food production and faith in nature. The first phase of the transition produced a flow of transnational knowledge, ideas, practices, and ideologies related to organic farming. Nonetheless, these were *not* directly applied to farming in Kudchum, but instead adjusted to fit the local context. It can thus be said that this transnational knowledge, localised through a non-chemical farming method and blended with local values, became part of the socio-economic imaginaries of Thai organic rice farmers.

Knowledge of proper organic farming techniques is important, but this alone was insufficient for a successful conversion to organic agriculture. The shift also required perseverance and community solidarity, as this enabled the farmers to overcome a variety of obstacles, such as low crop yields and financial debts. This was made apparent in a discussion during a photo-elicitation session:

⁵ Photo-elicitation discussion with the Naso Producer Group, Yasothon, 11 December 2017.



Fig. 4 The Rak Thammachart Club's rice mill

At the beginning stage, we faced many obstacles, such as financial difficulty. The crop yield diminished dramatically. Many times, we were desperate, crying, and (even) thought that we should quit this organic rice farming. Nonetheless, in the end, we agreed to fight together. Until now, we have successfully developed an organic rice farming community in our village. We can claim that we use community strengths to achieve our goal.⁶

The Naso Producer Group took a significant step by establishing the Rak Thammachart Club (Nature Conservation Club) in 1995, followed by a community rice mill collectively owned by the Naso farmer members.⁷ The photo of this rice mill and rice bags are presented in Fig. 4 (The Rak Thammachart Club's rice mill) and Fig. 5 (Organic rice stored in large bags). The creation of the rice mill enhanced the farmers' rice supply chain management. Importantly, they were able to cut out the middlemen and minimise milling costs:

Fig. 5 Organic rice stored in large bags



Tag (in English): Organic jasmine rice, stack 1
(IFOAM, EU, Canada)
Production year: 2017/2018

At the end of 1990, the Rak Thammachart Club's rice mill was established. This was considered the first mill owned by farmers, and aimed to purchase produce that benefitted growers, consumers, and the environment, and also to prevent exploitation by middlemen (Ellis et al. 2006, p. 69).

The Rak Thammachart Club's rice mill is an example of community self-empowerment. As the funding by a group of local producers for the early stage of construction was insufficient, other community members made additional financial contributions to the project, enabling its completion. In fact, the farmers had initiated this building project in around 1980, but political hurdles had delayed their plan; at that time, group meetings were prohibited and could be considered communist activities.⁸ The Rak Thammachart Club's rice mill thus symbolises the power of community unity during a time of political and financial instability. On top of that, the Naso Producer Group managed to get their products certified under international standards and joined a third-party certification scheme. This standardisation process was facilitated by Organic Agriculture Certification Thailand (ACT) and enabled them to start exporting their organic rice to the international market through the Green Net Cooperative. This marks the beginning of the connection between local organic rice products and international markets. Whilst the connection was established through the IFOAM standard and certification, ACT and Green Net were the key intermediaries in the connectivity process.

The Ban Thap Thai Organic Agricultural Cooperative, Surin Province

The Ban Thap Thai Organic Agricultural Cooperative (Ban Thap Thai Cooperative) and the Naso Producer Group share

⁶ Photo-elicitation discussion with the Naso Producer Group, Yasothon, 11 December 2017.

⁷ Photo-elicitation discussion with the Naso Producer Group, Yasothon, 11 December 2017.

⁸ Photo-elicitation discussion with the Naso Producer Group, Yasothon, 11 December 2017.

the experience of long-term health deterioration, financial stress, and poverty, along with a common view of the value of organic farming. Persistence in addressing these problems led to a cross-community collaboration in the shift towards organic farming. Between 1999 and 2000, the collaboration between Ban Thap Thai, which has a female leader (also the village chief), and Ban Khok Wat-Khok Thom villagers began at the sub-village level. This led to the creation of Ban Thap Thai Environmental Conservation and Alternative Occupations,⁹ which consisted of 15 people.¹⁰ Later, the Ban Thap Thai Cooperative was founded in around 2013. Female leaders have been in prominent positions throughout the development of the Ban Thap Thai Cooperative, and leadership by women can be observed at the decision-making and managerial levels. Women have played important roles in all dimensions, such as organic rice production, strategic planning and marketing. This cooperative is thus a unique organic rice farming community, especially in Thai society where the decision-making process and the direction of a group are generally dominated by men.

Nevertheless, the transition to organic farming was not a smooth process as the farmers had to struggle with various problems. In the beginning, organic farming was new to everyone, and some villagers did not believe in this farming technique. The farmers had to learn about organic farming from a local sage, *Por Samrit Boonsook*, while also receiving some training from the Net Foundation. After the reluctance of some farmers and the lack of knowledge were addressed, they still had to grapple with high production costs, as reported by a group of producers:

When we could successfully reach high productivity levels, we faced another problem concerning rice prices. The organic rice farming method was more complicated (in terms of method and financial investment) than that of conventional farming. However, we could merely sell it at the same price as conventional rice products. We, therefore, decided to join the Rice Fund Surin (RFS) Organic Agriculture Cooperative in 2001 and received the organic certification (the third-party certification provided by ACT). We then achieved the EU standard and sold our rice in the EU market.¹¹

However, exporting rice to the international market and financial profitability were not the farmers' sole purposes.

The ideology of the Thap Thai organic rice producers is based on the core values of the community, which underpin the principle of *safe food* and *food accessibility*. In addition, the guiding vision of the farmer leaders was promoting the right to have access to safe food in their community. In the past, the price of organic rice was higher than that of conventional rice, making it unaffordable for the local people. Accordingly, farmers exported 90 percent of their organic rice products to foreign markets. The producers sought to solve this problem by applying for the PGS certification system, which allowed them to pay a lower certification fee (in comparison to the third-party certification) and sell organic rice at a more affordable price for people in their community. This was a strategic move that helped them reduce the certification cost and, at the same time, attracted new farmer members who wanted to be part of the PGS certification scheme.¹² As a result, the organic rice grown at this site can be certified under third-party certification, PGS, or both certification systems. For this reason, the Ban Thap Thai Cooperative is one of the production sites operated under a *hybrid certification system*. More importantly, the cooperative and local people have established an interdependent relationship. While the locals support the cooperative by purchasing their rice, the latter accepts late payments from them. Hence, the mission of the Ban Thap Thai Cooperative is not purely profit generation; instead, it is shaped by the value of connecting local villagers. Through this process, a sustainable food production system strengthens community solidarity.

Ban Thap Thai is one of the five communities that participate in the PGS project funded by the Asian Development Bank (ADB) and implemented by the Thai Organic Agriculture Foundation (TOAF). As part of this PGS initiative, the Ban Thap Thai Cooperative has become a mediating space that connects many public and private organisations, such as the Land Development Department; the Department of Agricultural Extension; the National Bureau of Agricultural Commodity and Food Standards; and Thammasat University.¹³

⁹ An English translation of กลุ่มอนุรักษ์สิ่งแวดล้อมและอาชีพทางเลือกบ้านทัพไทย.

¹⁰ Photo-elicitation discussion with the producers in the Ban Thap Thai Organic Agricultural Cooperative, Surin, 20 December 2017.

¹¹ Photo-elicitation discussion with the producers in the Ban Thap Thai Organic Agricultural Cooperative, Surin, 20 December 2017.

¹² Photo-elicitation discussion with the producers in the Ban Thap Thai Organic Agricultural Cooperative, Surin, 20 December 2017.

¹³ Photo-elicitation discussion with the producers in the Ban Thap Thai Organic Agricultural Cooperative, Surin, 20 December 2017.

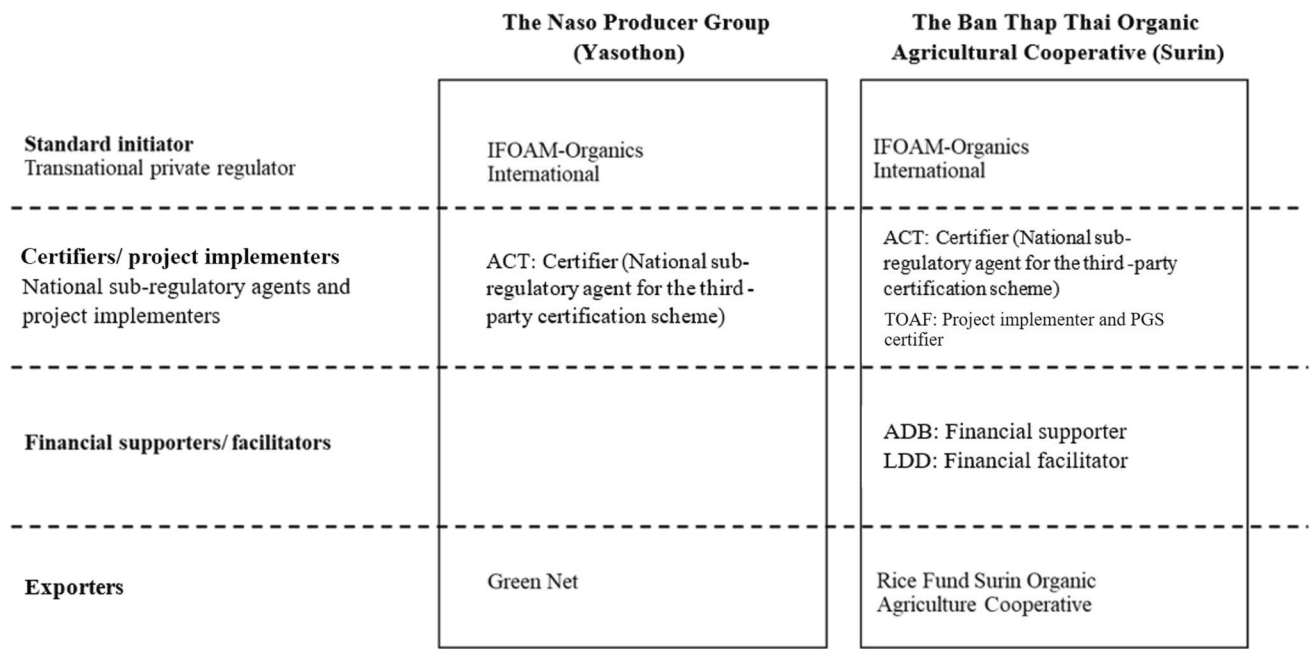


Fig. 6 The structure of the global production network of organic rice and the role of key actors

The transnational standardisation of local production space and power re-configuration

This section investigates how the space(s) within the global production network are increasingly interdependent and bound by a web of rules and standardisation processes across multiple time points. It explicates how transnational standardisation partially dissolves the boundaries between the space(s) located at the local, national, and transnational levels. This process also reshapes the relationships of key players and the power configuration in the organic rice production network.

As discussed in the previous section, two significant transitions served to reconfigure the power in the organic rice production network. At the first stage, when farmers stopped relying on expensive chemical products, power was diverted from the agrochemical companies towards the local farmers. Nonetheless, organic agriculture is an intensive farming system entailing high production costs. For this reason, farmers need access to domestic and international high-end organic food markets, where customers can afford and are willing to pay a premium price. To achieve this, farmers had to apply for organic certification schemes, which ensure the quality of their products and production systems on the labels. This led to the second period of the transition, which involved organic standardisation and participation in the organic certification schemes.

The global production network of organic rice is composed of three interconnected spaces—the transnational

regulatory space, the sub-regulatory space, and the cognitive space—linked through the transnational standardisation processes. This section focuses on the transnational regulatory space and sub-regulatory space situated at the transnational and national levels. The next section will discuss the cognitive space in more detail. Within the transnational regulatory space and sub-regulatory space, public and private actors at the transnational and national levels forged the network connections. As each key player engaged with these spaces through standardisation, their relational order was rearranged by the set of rules and regulations as well as values. Within this rearrangement process, these players co-created and disseminated the social value of organic rice products.

The findings reveal that the rearrangement of relational order within the global rice production network was initiated by *the transnational regulator-intermediary* (IFOAM - Organics International) and their agencies. These agencies include the sub-institutions at the international and national levels, namely the International Organic Accreditation Service (IOAS) and Organic Agriculture Certification Thailand (ACT). This underlines that transnational and national regulators function as both the regulating agencies and intermediaries (Loconto 2017), which is evident in the case of Naso and the Ban Thap Thai Cooperative. While the rice exporters such as Green Net and the Rice Fund Surin Organic Agriculture Cooperative facilitate the trading process, ACT issues third-party certification for farmers. This mark of quality on their labeling connects the local farmers and their organic rice supplies with the international market.

The rearrangement of the relational order in the production network created new structures in the global production network of organic rice, influencing the role of key actors as illustrated in Fig. 6 (The structure of the global production network of organic rice and the role of key actors). While IFOAM - Organics International and ACT are the main regulators in the third-party certification scheme for both the Naso Producer Group and the Ban Thap Thai Cooperative, national public and private agents also help facilitate the PGS project at Ban Thap Thai. When the Asian Development Bank (ADB) agreed to fund the PGS project at the Ban Thap Thai Cooperative, it required that the funding process be done within a framework of state-to-state cooperation (Expert interview Asian Development Bank, Bangkok, November 2017). As a result, the Land Development department (LDD) became the *public supporter-intermediary* playing the role of financial facilitator in the PGS project. In this case, LDD manages and distributes the funding from ADB to the PGS *project implementer-intermediary* or the Thai Organic Agriculture Foundation (TOAF). This demonstrates a shift in the role of state agencies, such as LDD, whose operational functions changed from the rule initiator and main regulator to a public supporter-intermediary. This funding process, therefore, reveals the transformation of regulatory power and the shift in the state's role.

Prior to the transnational standardisation of the local rice production system, the *traditional* pattern of power configuration in the production network was mainly influenced by state power. The state was the most powerful actor that shaped the spatio-economic pattern of the agricultural production system in Thailand. Farming methods, product prices, and subsidies were mainly determined by state policies and government-level decisions. The inclusion of *sustainable agriculture* in the Eighth National Economic and Social Development Plan was one of the most important historical events that reflected the government's intention to drive Thailand's agricultural system towards sustainability.

The emergence of transnational private actors and their agencies, such as IFOAM - Organics International and ACT, has altered the power landscape in the organic rice production network at the local, national, and international levels. The establishment of ACT was a stepping stone for the development of organic agriculture in Thailand. Founded by diverse actors, including farmers, non-governmental organisations, environmental conservationists, media and consumers, the agency disseminates knowledge on alternative agriculture to farmers. In order to create a broader and greater impact on environmental protection, ACT later changed its institutional role and status from a foundation to a certification body of IFOAM - Organics International. It was therefore authorised to provide certification services and facilitate organic standardisation in Thailand and other

countries in the region (Expert interview Organic Agriculture Certification Thailand, Bangkok, January 2018).

Even though ACT is institutionally situated at the national level, it is accredited by IFOAM - Organics International and recognised by various international organisations (Ellis et al. 2006). This, however, does not literally mean that power has been completely transferred from state to private regulators; rather, it is suggested that regulatory power has been distributed and shared between the public and private sectors in the context of transnational food governance. This phenomenon reveals the rearrangement of the relational order in the global production network of organic rice, which, in turn, impacts the power dynamics and network connectivity at the transnational, national, and local levels.

Although the third-party certification system is a mediating tool enabling organic rice products to enter foreign markets, there are some concerns about its cost (Banjara 2015) and the centralisation of the power of the certifying body. In comparison to third-party certification, the PGS scheme has a lower certification cost, making it an "alternative" certification system that "complements" third-party certification (IFOAM - Organics International 2021a) and promotes knowledge circulation and organic farming networks. The voluntary participation of many stakeholders—customers, academics, and the staffs of governmental and non-governmental organisations—in the certification process of the PGS scheme at the Ban Thap Thai Cooperative has led to the decentralisation of power and its distribution across different sectors.

Buddhist socioeconomic imaginaries

As we have seen in the previous section, transnational and national (public and private) actors at the regulatory and sub-regulatory levels have the power to regulate the production space through standards and certifications. Interestingly, the findings of this research suggest that the *mental space* is also a fundamental source of power helping to maintain network connectivity at the local level. In other words, socio-economic imaginaries have been generated from the mental space of organic rice farmers, sustaining the power of standards and organic rice network connectivity. In the case of Thailand, these imaginaries reflect the Buddhist values of *mindfulness*; *oneness*; and *right livelihood*, which are embedded within the local rice production space. At the operational stage, the philosophy of sufficiency economy harmonises with these three values. My analysis shows that these Buddhist values also resonate with those of IFOAM, keeping the imaginaries of farmers grounded in both economic and social values.

In the pre-transitional stage, farmers were *aware* that sound agricultural practices are a way to build community

well-being and resilience. Self-reflection or **mindfulness contemplation** led to the change in the collective mindset of local farmers and the *gradual* transition to organic farming. For this reason, agricultural practices can be viewed as (both) a means for living and a type of spiritual practice. Organic rice farms function as a food growing space and a place for cultivating the seeds of values and beliefs. Consequently, the Buddhist socioeconomic imaginaries help create a desirable organic rice-producing community as well as sustain the standardised organic rice production network.

An awareness of the collective well-being in their communities enabled the farmers to develop a sense of inter-being or **oneness**. They realised that, in the end, agricultural materials being used on farms go into the water, air, and soil, which means that their farming practices impact the health of the community members. In reference to the principle of oneness, organic rice farmers underline that organic farming has ecological value to both human and non-human beings (as they are interrelated). When the farmers adopted the IFOAM standard, they found this Buddhist principle accorded very well with the “principle of health” emphasised by IFOAM - Organics International (2021b), which states that “Organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible” (IFOAM -Organics International 2021b). Organic agriculture helps nourish farmers’ well-being and the environment. When it comes to organic agriculture, careful and responsible decision making in adopting technologies is a significant issue. Farmers ensure that farming technologies do not negatively impact humans and the environment. This reflects the collective values of organic rice farmers that shape the local production systems, ones that are in consonance with the “principle of care” promoted by IFOAM - Organics International (IFOAM - Organics International 2021b). These complementary aspects drive the production systems that prioritise the well-being and good health of producers, consumers, and the environment. As a result, they help establish and sustain network connectivity at the local and international levels.

In addition, farmers not only associate their farmland with economic value, but also embrace a spiritual connection to the land, society, and the natural surroundings. Land, thence, becomes a space for self-reflection. When they became cognisant of how humans and nature are interrelated, farmers started to question: *what is important and meaningful for their lives, their community, society, and the world at large*. This contemplative process is part of the socio-economic imaginaries of organic rice farmers, which reflects a vision of healthier farming communities and environmental stewardship. At a practical level, well-being is more than just general physical comfort—it is essentially about how humans seek equilibrium in life through balancing *body, mind, and soul*, as Cloninger (2008, p.7) explains:

The requirements for well-being can be fully understood by going beyond both the individual and the societal levels of observation. Recent work emphasizes the sense that human well-being requires a coherent spiritual perspective. Specifically, the foundation for personal well-being is the self-awareness that each being is an inseparable part of a universal unity of being.

The key to moving towards oneness is *connectivity* or multiple forms of connection that maintain the structure of the global production network. Focusing on the principle of oneness, farmers not only connect with their surroundings, but also with consumers. Farmers encourage their customers to engage with their production space through various events, such as farm visits and Producers Meet Consumers events. These events attract both domestic and international customers and entrepreneurs to local farms, where they can order organic rice supplies. This, in effect, brings the purchasers closer to the producers and reduces the distance between the international and local space/levels. Moreover, a mindful approach allows the farmers to have a clear understanding of the ecological cycle and adopt agricultural practices that promote diversity on their farms. Such an approach is essential as it influences the choices made at each step of the food production process. This can be viewed as a manifestation of Buddhist wisdom applied to earning a living, and it is in line with what the farmers shared:

During the time that we farmed conventionally, we didn’t feel connected with nature. When we focused too much on the economic gain and outputs, we lost our living competency or a sense of proximity to nature. We even avoided walking barefoot through our rice fields because of a fear of chemicals.

The chemicals not only wiped out insect pests and weeds but also kills animals and good insects in our fields. In fact, we did not have to do that. Nature has its own managing mechanisms, which naturally balance the numbers of animals such as insects, snakes, fish, rats, and frogs, on farms.¹⁴

Because the farmers perceive organic farming as a *way* to make a meaningful living, they interpret the act of practising organic agriculture as a type of **right livelihood**. This also resonates with IFOAM’s “principle of fairness”, which asserts that “Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities” (IFOAM - Organics International 2021b). Farmers underlined that organic

¹⁴ Photo-elicitation discussion with the Naso Producer Group, Yasothon, 11 December 2017.

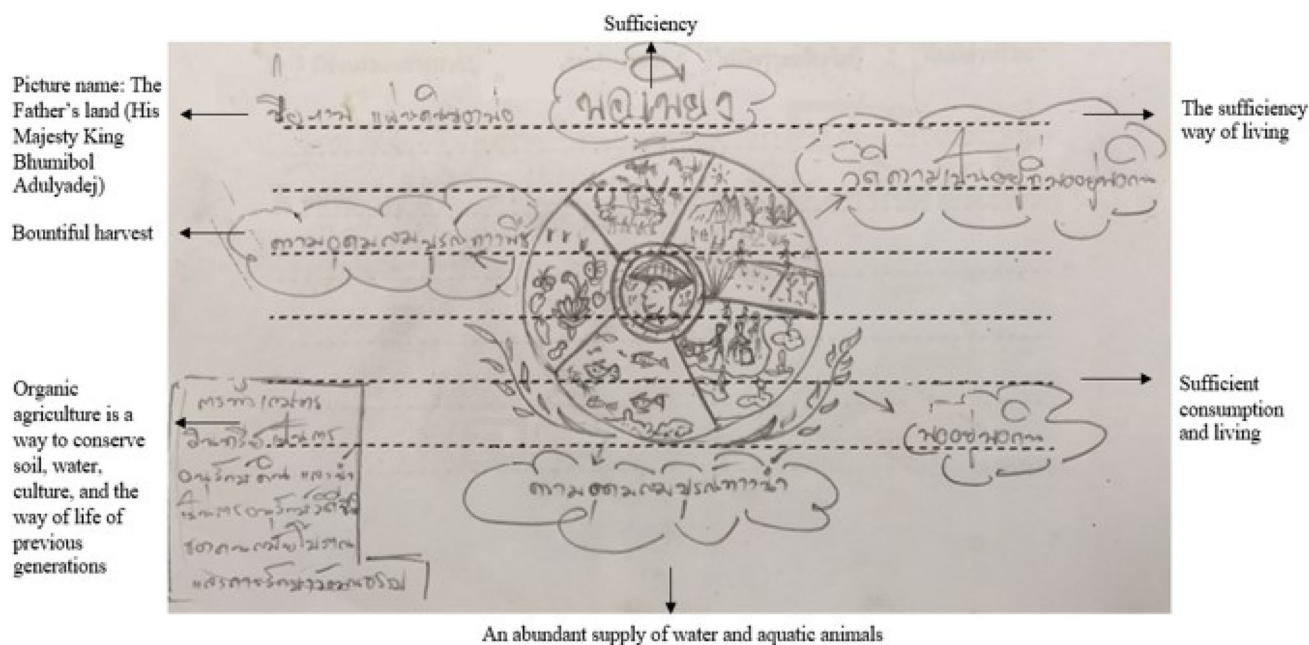


Fig. 7 Visual representation of the socio-economic imaginaries of Buddhist farmers

agriculture allows them to financially support themselves and their families, harmoniously co-exist with nature, and produce healthy food for society. Hence, they not only see themselves as simple *food growers*, but also as *the creators* of responsible, healthy food systems. While transnational standardisation connects organic rice producers and their products with premium markets, the Buddhist socio-economic imaginaries help forge the linkage between the inner-self (the world within) and outer-self (the world out there). Even though the conversion to organic agriculture and joining the certification systems required high *financial* investment and *social* capital, farmers saw the advantages of joining the organic standardisation schemes. They adapted the guidelines of the IFOAM standard to the local context and expanded their farming networks, thereby increasing their knowledge of organic farming.

The complementary aspects of the three Buddhist principles (mindfulness; oneness; and right livelihood) and the philosophy of sufficiency economy can also be observed in both the mindsets of the farmers and at a practical level. Sufficiency economy was introduced by His Majesty King Bhumibol Adulyadej to the Thai people. The philosophy emphasises five key concepts: “moderation, reasonableness, self-immunity, wisdom and integrity” (Essen 2010, p. 71). In the eyes of organic rice farmers, sufficiency economy is the *guiding knowledge* that enables them to live a balanced life. In turning this knowledge into practice, they became more aware of their capacity for self-reliance in food production (food self-sufficiency), as well as the importance of harmonising with nature and producing safe food for consumers.

For this reason, their livelihoods are grounded in the concept of *self-sufficiency*, which implies the ability to live sustainably in a holistic manner.

The question of what is sufficient—not merely to sustain life but to give a sense of wellbeing—is to be continually re-evaluated by each individual at different levels of spiritual attainment. The aim, though, is to consume less (Essen 2010, p. 76).

Figure 7 (Visual representation of the socio-economic imaginaries of Buddhist farmers) is an output from a photo-elicitation session conducted at the Naso community. It presents an example of the socio-economic imaginaries of the Buddhist farmers that reflects their farming practices and the values and beliefs being formed (at different points in time) in the realm of organic agriculture.

A young farmer used the drawing above (Fig. 7) to tell the story of his dream organic rice farming community¹⁵ (English descriptions are presented at the end of the arrows). Interestingly, he further compared this ideal community with his organic rice farming community. He placed a *sufficiency economy* at the heart of sustainable community development. He concluded that *sufficiency*, or *por-piang* (พอเพียง) in Thai, is a fundamental principle shaping the past, present and future of his community. In this case, self-sufficiency should be applied to both the production and consumption

¹⁵ Photo-elicitation discussion with the Naso Producer Group, Yasothon, 11 December 2017.

levels. In the context of organic agriculture and the production system that sustains it, this influences the way farmers give meaning to a notion of right livelihood that also involves respecting natural resources, such as soil, water, plants, and animals. In other words, organic agriculture is a production system that both allows farmers to practise the Buddhist principle of right livelihood and preserves natural resources.

In his visual narration and verbal explanation, the farmer associated the *fertile land* with people's way of living, traditional farming knowledge (farming without chemicals), cultural conservation, and the wisdom of his ancestors. He stressed that he valued the farming method practised by his ancestors as it adopted the pace of nature, required perseverance, and respected the environment. Similar values are reflected in the "principle of ecology" (IFOAM - Organics International 2021b). The socio-economic imaginaries thus provide access to past knowledge and connect the farming culture and the values of past generations with those of the present generation, as well as the values of the IFOAM standard.

Conclusion

Socio-economic imaginaries and food philosophy, as applied in this research, inform the complex dynamics and connectivity of the global production network of organic rice. The collective mindsets and social values of organic rice farming communities complement the philosophy of the sufficiency economy and the values being disseminated through the IFOAM standard. This consistency helps support the standardised production network and sustain network connectivity.

Historically, the conversion to organic agriculture and farmers' participation in the standardisation processes were the two major milestones that caused the dramatic shift in the local production space, reshaped the form of network connectivity, and altered the power configuration. Hence, the global production network of organic rice is characterised by a process of dis-connecting and re-connecting to various measures, materials, knowledge, skills, and values. In the standardisation realm, the IFOAM standard and certifications are the essential mediating instruments facilitating the collaboration between the local farmers and key regulators at the transnational and national levels. Adding to this, the standard and certifications connect local organic rice products with domestic and international consumers. This signifies that the state is no longer the only actor with managing and controlling power over the agricultural production methods, materials, practices, and flow of products. On top of that, the standard and certification schemes offer better economic and social opportunities to local producers. There

is, nonetheless, a tradeoff between absorbing the certification fees and the long-term economic gains.

In addition, one significant insight that emerged from the results of this research is that farmers embrace a set of Buddhist values that guide them on a path of a meaningful and sufficient life (right livelihood). For organic rice farmers, living a meaningful life signifies being sentient food producers who earn their living while learning to co-exist and connect with both human and non-human creatures in a contributory way (oneness). In the eyes of local farmers, organic farming helps them re-connect to their farmland in a more mindful way (mindfulness) and drives their rice farming communities towards a sustainable future. This vision also manifests in Thai organic rice farmers' socio-economic imaginaries; these are not just the fragments of imagination, but rather the reflection of the connected layers of social and economic values. Photo-elicitation is clearly an alternative visual method for examining these values and imaginaries, and it can be useful for future studies. However, there were some methodological limitations that need to be noted. Interpreting and blending visual data into the analysis was a time-consuming process, and on some occasions, additional data on the historical backgrounds related to the subjects of study was required for the validating process.

Theoretically speaking, certifications can be understood as a communicating tool ensuring the organic quality of products. But, in practice, certifications are a carrier of the important social values of the local producing communities, namely *honesty*, *sincerity*, *responsibility*, and *respect*. Farmers collaborate with both the national and transnational, public and private actors to transfer these values and their community values to organic rice consumers. In their view, organic rice is not merely food or a commodity; it is also a mediating channel through which they share their beliefs and rice farming culture with Thai society and the world at large. Rice is part of the participants' imaginaries and vivid memories of their ancestors who were farmers and practised a natural farming method; as such, organic rice cultivation helps bridge the present and previous generations. The findings can make significant empirical and conceptual contributions to future research. Since the findings highlight the importance of taking into account the local values and imaginaries in the study of organic standardisation/ certifications and global production networks, this article contributes to the broader study of organic food production/ consumption and the global governance of complex agricultural global production networks.

Acknowledgements This article (The art of Buddhist connectivity: Organic rice farming in Thailand) is based on my Ph.D. research project on Transnational Standardisation and the Global Production Network of Organic Rice: A Case Study of Thai Buddhist Connectivity, and supervised by Prof. Dr. Jean-Christophe Graz at Faculté des Sciences Sociales et Politiques, Université de Lausanne, Switzerland.

Upon the completion of my thesis, I would like to thank Mr. Suriyan Vjitlekarn, who generously shared with me his insight and put me in touch with the experts and practitioners in the networks of organic rice. I also deeply appreciate the timeless teachings and training of Phra Ajahn Khemasiri, Phra Ajahn Abhinando, and Phra Ajahn Sumedho. I owe a debt of gratitude to my parents and I am thankful for the unwavering support of my siblings. My profound gratitude is furthermore extended to the local farmers and governmental and non-governmental organisations that dedicated their time to share their experiences in organic rice farming with me. I would like to express my sincere thanks to the editor and the three anonymous reviewers for their valuable comments and useful suggestions. Lastly, I am thankful for the substantial support and encouragement from Dr. Rahel Kunz at Université de Lausanne; her constructive comments were crucial to the development and writing of this article.

Funding Open access funding provided by University of Lausanne. I would like to acknowledge that this article is part of the Ph.D. research project funded by the Swiss Government Excellence Scholarships for Foreign Scholars and Artists (2016–2020) through the State Secretariat for Education, Research and Innovation (SERI). Additional financial support came from Fondation pour l'Université de Lausanne, Fondation Erna Hamburger, Société Académique Vaudoise (SAV), Centre d'histoire internationale et d'études politiques de la mondialisation (CRHIM) (Université de Lausanne), and L'Institut d'études politiques (IEP) (Université de Lausanne). This article is made freely available online by funding from Université de Lausanne.

Declarations

Informed consent Verbal informed consent was obtained from all participants prior to the interview.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Anālayo, B. 2018. Once again on mindfulness and memory in early Buddhism. *Mindfulness* 9 (1): 1–6.
- Banjara, R.K. 2015. Participatory Guarantee Systems (PGS) as alternative to third party organic certification for smallholder farmers in Nepal. *The International Journal of Humanities & Social Studies* 3 (8): 16–22.
- Barham, E. 2002. Towards a theory of values-based labeling. *Agriculture and Human Values* 19 (4): 349–360.
- Bilimoria, P. 1998. Indian religious traditions. In *Spirit of the environment: Religion, value and environmental concern*, eds. D.E. Cooper and J.A. Palmer, 1–13. London: Routledge.
- Bodhi, B. 2011. What does mindfulness really mean? A canonical perspective. *Contemporary Buddhism* 12 (1): 19–39.
- Browne, C., and P. Diehl. 2019. Conceptualising the political imaginary: An introduction to the special issue. *Social Epistemology* 33 (5): 393–397.
- Bureau of Technical Advisors. 2018. The Rak Thammachart Club's rice mill, Kudchum District, Yasothon Province. <http://advisor.anamai.moph.go.th/main.php?filename=mitre01>. Accessed 20 August 2018.
- Busch, L. 2011. *Standards: Recipes for reality*. MIT Press.
- Cloninger, C.R. 2008. On well-being: Current research trends and future directions. *Mens Sana Monographs* 6 (1): 3–9.
- Czyżewski, B., A. Matuszczak, A. Grzelak, M. Guth, and A. Majchrzak. 2021. Environmental sustainable value in agriculture revisited: How does Common Agricultural Policy contribute to eco-efficiency? *Sustainability Science* 16 (1): 137–152.
- Darlington, S.M. 2019. Buddhist integration of forest and farm in northern Thailand. *Religions* 10 (9): 521.
- Daviron, B., and I. Vagneron. 2011. From commoditisation to de-commoditisation ... and back again: Discussing the role of sustainability standards for agricultural products. *Development Policy Review* 29 (1): 91–113.
- Delanty, G. 2021. Futures of sustainability: Perspectives on social imaginaries and social transformation. A comment on Frank Adloff and Sighard Neckel's research program. *Social Science Information* 60 (2): 285–294.
- de Olde, E.M., and V. Valentinov. 2019. The moral complexity of agriculture: A challenge for corporate social responsibility. *Journal of Agricultural and Environmental Ethics* 32 (3): 413–430.
- Deroche, M-H. 2021. Mindful wisdom: The path integrating memory, judgment, and attention. *Asian Philosophy* 31 (1): 19–32.
- Domingues, J.M. 2016. The imaginary and politics in modernity: The trajectory of Peronism. *Thesis Eleven* 133 (1): 19–37.
- Ellis, W., V. Panyakul, D. Vildozo, and A. Kasterine. 2006. Strengthening the export capacity of Thailand's organic agriculture. Semantic scholar. <https://www.semanticscholar.org/paper/Strengthening-the-Export-Capacity-of-Thailand's-Ellis-Panyakul/8381949ed96a4ad1651c17c484398131c6f5b6c8?sort=levance&pdf=true>. Accessed 31 October 2021.
- Essen, J. 2010. Sufficiency economy and Santi Asoke: Buddhist economic ethics for a just and sustainable world. *Journal of Buddhist Ethics* 17: 70–99.
- Hanh, T.N. 2001. *All in one, one in all: The nature of interbeing*. Singapore: Kong Meng San Phor Kark See Monastery.
- Hanh, T.N. 2008. *The heart of the Buddha's teaching*. London: Ebury Publishing.
- Harper, D. 2002. Talking about pictures: A case for photo elicitation. *Visual Studies* 17 (1): 13–26.
- Holst, M.A. 2021. “To be is to inter-be”: Thich Nhat Hanh on interdependent arising. *Journal of World Philosophies* 6 (2): 17–30.
- Hughes, A., N. Wrigley, and M. Buttle. 2008. Global production networks, ethical campaigning, and the embeddedness of responsible governance. *Journal of Economic Geography* 8 (3): 345–367.
- IFOAM - Organics International. 2021a. Participatory Guarantee Systems (PGS). <https://www.ifoam.bio/our-work/how/standards-certification/participatory-guarantee-systems>. Accessed 4 Sept 2022.
- IFOAM - Organics International. 2021b. The four principles of organic agriculture: Health, ecology, fairness, and care. <https://ifoam.bio/why-organic/shaping-agriculture/four-principles-organic>. Accessed 15 Sept 2021.
- IOAS. 2018. Organic agriculture: IFOAM accreditation. <https://ioas.org/services/organic-agriculture/ifoam-accreditation/>. Accessed 2 June 2021.
- Kaplan, D.M. 2020. *Food philosophy: An introduction*. New York: Columbia University Press.

- Kaufman, A.H., and J. Mock. 2014. Cultivating greater well-being: The benefits Thai organic farmers experience from adopting Buddhist eco-spirituality. *Journal of Agricultural and Environmental Ethics* 27 (6): 871–893.
- Lama, D., D. Tutu, and D. Abrams. 2016. *The book of joy: Lasting happiness in a changing world*. London: Penguin Random House.
- LeVasseur, T. 2016. Introduction: Religion, agriculture, and sustainability. In *Religion and sustainable agriculture: World spiritual traditions and food ethics*, eds. T. LeVasseur, P. Parajuli, and N. Wirzba, 1–24. University Press of Kentucky.
- Lincoln, N.K., and N.M. Ardoin. 2016. Cultivating values: Environmental values and sense of place as correlates of sustainable agricultural practices. *Agriculture and Human Values* 33 (2): 389–401.
- Loconto, A.M. 2017. Models of assurance: Diversity and standardization of modes of intermediation. *The Annals of the American Academy of Political and Social Science* 670 (1): 112–132.
- Luttikholt, L.W.M. 2007. Principles of organic agriculture as formulated by the International Federation of Organic Agriculture Movements. *NJAS - Wageningen Journal of Life Sciences* 54 (4): 347–360.
- Meijboom, F.L.B., and F.W.A. Brom. 2012. Ethics and sustainability: Guest or guide? On sustainability as a moral ideal. *Journal of Agricultural and Environmental Ethics* 25 (2): 117–121.
- Nowell, L.S., J.M. Norris, D.E. White, and N.J. Moules. 2017. Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods* 16 (1): 1–13.
- Parnwell, M.J.G. 2005. The power to change: Rebuilding sustainable livelihoods in North-East Thailand. *The Journal of Transdisciplinary Environmental Studies* 4 (2): 1–21.
- Peacock, J. 2014. Sati or mindfulness? Bridging the divide. In *After mindfulness: New perspectives on psychology and meditation*, ed. M. Bazzano, 3–22. London, UK: Palgrave Macmillan.
- Pipitkun, K. 2020. Organic agriculture, way to sustainable agricultural society: Organic rice development strategy. *NEU Academic and Research Journal* 10 (1): 116–130.
- Pitjatturat, P., S. Utamart, and S. Pimpan. 2021. Value addition of organic products: A case study of Jaruwat garden, Karasin province. *KKU Research Journal of Humanities and Social Sciences (Graduate Studies)* 9 (1): 130–146.
- Schoon, B., and R.t. Grotenhuis. 2000. Values of farmers, sustainability and agricultural policy. *Journal of Agricultural and Environmental Ethics* 12 (1): 17–27.
- Schösler, H., J.d. Boer, and J.J. Boersema. 2013. The organic food philosophy: A qualitative exploration of the practices, values, and beliefs of Dutch organic consumers within a cultural–historical frame. *Journal of Agricultural and Environmental Ethics* 26 (2): 439–460.
- Schwindenhammer, S. 2018. The new regionalism in global organic agricultural governance through standards: A cross-regional comparison. *Global Environmental Politics* 18 (3): 86–105.
- Sellman, E.M., and G.F. Buttarazzi. 2020. Adding lemon juice to poison - Raising critical questions about the oxymoronic nature of mindfulness in education and its future direction. *British Journal of Educational Studies* 68 (1): 61–78.
- Wiepke, A., and A. Miklashevsky. 2021. Imaginary worlds and their borders: An opinion article. *Frontiers in Psychology* 12: 1–2.
- Xiao, Q., C. Yue, W. He, and J-y. Yu. 2017. The mindful self: A mindfulness-enlightened self-view. *Frontiers in Psychology* 8: 1–10.
- Yanakittkul, P., and C. Aungvaravong. 2020. A model of farmers intentions towards organic farming: A case study on rice farming in Thailand. *Heliyon* 6 (1): 1–9.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Chanatporn Limprapoowiwattana received funding from the Swiss Government to complete her Ph.D. in Political Science at Université de Lausanne in Switzerland. She is currently an associate member of Centre d'histoire internationale et d'études politiques de la mondialisation (CRHIM), Faculté des Sciences Sociales et Politiques, Université de Lausanne. In addition, she is a part-time adjunct lecturer at the Faculty of Liberal Arts, Thammasat University, Bangkok, Thailand. She is primarily interested in investigating how humans and nature interact within the context of political ecology and global food governance.