The many meanings of organic farming: framing food security and food sovereignty in Indonesia

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Received: 20 September 2018 / Accepted: 3 December 2019 / Published online: 20 December 2019 © The Author(s) 2019

Abstract This paper contributes to the discourse on food policy, particularly in relation to organic farming in Indonesia. Organic farming was first adopted by nonstate actors in Indonesia, by faith-based organisations and then by small farmer associations, while the state support for organic agriculture followed at a later date. The three groups, represented in this study by three case studies, adopt different positions with regard to the definition of organic agriculture and its relevance to food self-sufficiency, food security and food sovereignty. For Bina Sarana Bhakti Foundation (BSB), organic farming is both a spiritual worldview and a practical philosophy. For the Indonesian Peasant Union (SPI), organic agriculture foremost is a political tool to resist global capitalist agriculture. Despite their very different outlooks, both these two civil society organisations see organic agriculture as a post-materialist enterprise directed towards explicitly social-political goals. By contrast, the government's engagement in organic agriculture, although laced with evocative phrases such as "back to nature", is driven primarily by visions of developing a new niche market for Indonesian exports. The Indonesian State adopts a one-dimensional

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productivist definition that excludes different meanings and traditions of organic farming. The reduction of the meaning of 'organic' to 'organically certified products' excludes farmers who consider that they are practicing organic agriculture. We conclude that there is a strong case to be made that the State should relax its regulatory grip on the organic sector, to create room for sorely needed innovation and cooperation among the different actors involved.

Keywords Indonesia \cdot Food security \cdot Food selfsufficiency \cdot Food sovereignty \cdot Governance \cdot Organic movement \cdot Movement \cdot Food policy \cdot Social movement \cdot State

Introduction

While throughout Indonesian history, state actors have pursued a state-centred, productivist approach to resolve issues of food (in) security; more recently, the engagement with organic farming has indicated increased willingness to consider the potential contribution of smallerscale, more sustainable form of production. This paper considers three important actors in organic farming in Indonesia and explores their perspectives based on different conceptualisations of food as a national task, a human need and political self-determination. By comparing their understanding of organic farming against the background of wider debates around food self-sufficiency, food security and food sovereignty, we reveal the many meanings of organic farming. The paper seeks to

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contribute to the discourse on food policy in general and in relation to organic farming in Indonesia in particular.

This research is part of the ongoing transdisciplinary research project IndORGANIC (Padmanabhan 2018).¹ Working in close collaboration with two Indonesian universities and the Indonesian Organic Alliance (Alliansi Organis Indonesia, IOA), IndORGANIC seeks to explore the status and transformatory potential of organic farming in Indonesia (IndORGANIC n.d.).

To set the scene for the analysis of the case studies, the following sections provide an overview of the development of organic farming in Indonesia and review the discourse, from an Indonesian perspective, on food (in) security and other related concepts.

The development of organic farming in Indonesia

The origins of the Indonesian organic farming movement can be traced back to the 1970s (Edwards 2013, p. 74), when it first emerged as a response to the social and environmental impacts of the so-called green revolution, implemented in Indonesia by the Soeharto government from the mid-1960s onwards with the goal of achieving national rice self-sufficiency (Li 2014; Tsing 1993). This goal was achieved in 1985 by forcing farmers to adopt high-yielding rice varieties, intensive farming technologies and synthetic fertilizers. However, agricultural intensification had a range of negative social and ecological repercussions for local people and their environments (e.g. Hefner 1990; Schiller 1980). Some farmers responded creatively to the top-down agricultural policies of the green revolution and successfully adapted to the modified farming environment (Winarto 1995). Others sought alternatives to the industrialized farming methods promoted by the government's productivist approach to agriculture.

Organic farming in Indonesia took off in1983 with the foundation of *Bina Sarana Bhakti* foundation (BSB) by Father Agatho, a Catholic priest in West Java. In the following years, grass-roots organizations promoting sustainable agricultural practices, including organic agriculture, sprang up across the archipelago (cf. David and Ardiansyah 2016 ; Edwards 2013, p. 74; Jahroh 2010, p. 2). Several of these, such as the Indian Peasant Union (Serikat Petani Indonesia; SPI), were inspired by the radical anti-capitalist ideas of the transnational peasant movement La Via Campesina (Peluso et al. 2008, p. 389). In 1990, an international seminar addressed the issue of soil degradation caused by agricultural intensification and resulted in the formation of Farmers' Association of World Food Day (SPTNHPS), as well as issuing the 'Ganjuran Declaration', calling for the adoption of sustainable farming practices (Tamtamo forthcoming). The Indonesian government's involvement in the organic farming sector dates back to 2001, with the launch of the 'Go Organic 2010 Programme' (Program Go Organik 2010), whose vision was to establish the country as a leading producer of organic food by 2010. This formal recognition of the organic sector was both a response to the growing number of organic agricultural organisations in the country and an attempt to take advantage of the growing international market for organic produce.

In part due to continued government support, the organic agricultural sector has grown significantly in recent years. By 2016, the Indonesian Organic Alliance (IOA), just one of several associations of organic farmers, had 117 members, including 80 organisations and 37 individuals located in 20 provinces (Indonesia Organic Alliance (IOA) 2016a, 2016b, p. XVII). According to data compiled by IOA, the area of land used for organic production (including aquaculture and the collection of forest products) was more than 261,000 ha in 2015 (Indonesia Organic Alliance (IOA) 2016a, 2016b, p. 8). However, this still represents less than 1% of total agricultural land in Indonesia; the vision of the 'Go Organic' programme was never achieved.

In the traditional agriculture sector, the triumph of the green revolution proved to be short-lived. Today, Indonesia's agricultural production is increasingly at risk due to a combination of socio-economic and environmental factors. In a sector increasingly dominated by transnational corporations, the country's predominantly smallholder farms operating with limited mechanization struggles to meet quality standards and compete on the world market (Manners 2014, p. 4). The adoption of intensive farming practices, together with impacts of climate change and unfavourable land-use policies, has led to shortages of both water and fertile land for agriculture (Peluso et al. 2008). Further, challenges arise from ongoing population growth and urbanization. As a consequence of these trends, the world's fourth most populated nation now struggles to feed its more than 250

¹ http://www.wiwi.uni-passau.de/en/development-economics/research/indorganic/

million people. According to the Food and Agriculture Organisation (FAO), 19.4 million Indonesians suffered from undernourishment between 2014 and 2016.

In response to these challenges, Indonesia's current President Joko Widodo has reemphasized the government's support for organic agriculture. The 'Jokowi' national development agenda 'Nawa Cita'² incorporates the vision of Indonesia achieving food sovereignty (kedaulatan pangan) by becoming self-sufficient in five strategic commodities (rice, maize, soya, sugar and beef). As part of this strategy, in 2001, the Ministry of Agriculture (MoA) set up the '1000 Organic Agriculture Villages Programme' (Program 1000 Desa Pertanian Organik), which aims to spread organic agriculture across the archipelago and is due to run until the end of 2019. Overall, however, a state-controlled, productivist approach still holds sway in agricultural policy making. State support for organic agriculture stands out from other more conventional elements of agricultural policy, such as land reform (Reform Agraria), the rehabilitation of irrigation networks, control of food imports and the large-scale 'reclamation' of non-agricultural land. Figure 1 below depicts the important milestones in the development of organic farming in Indonesia.

The discourse on food (in) security, self-sufficiency and food sovereignty

As indicated by the brief summary in the previous section, the problem of food insecurity has never really gone away in modern Indonesia. This problem has dominated, and continues to dominate debates on agricultural policy, including the role and potential of organic food production (Warr 2011).

Food insecurity can be defined as a failure to provide sufficient and nutritious food for the country's citizens. However, it is recognized to be a complex phenomenon that varies from place to place and among generations (cf. Neilson and Wright 2017, p. 2, DKP,WFP 2015, Food and Agriculture Organisation 2015). In Indonesia as elsewhere, discussions about food security (*ketahanan pangan*) are intertwined with debates about the related yet different concepts of food self-sufficiency (*kemandirian pangan*) and food sovereignty (*kedalautan pangan*); moreover, all of these concepts are subject to contestation (e.g. Lassa and Shresta 2014; McCarthy and Zen 2013; McCarthy and Obidzinski 2015; Neilson and Arifin 2012; Neilson and Wright 2017; Vel et al. 2016).

In their analysis of the conflicted nature of food security policy in Indonesia, Vel et al. (2016) distinguish four approaches in academic debates over food security. The first paradigm frames the global food crisis as a problem of supply and demand both at the national and international level, adopting a productivist approach that stresses the need to increase production, particularly through high-modernist agricultural solutions (Jarosz 2014, p. 169). The second approach builds on the productionoriented paradigm, but advocates food self-sufficiency, since it is argued; otherwise, people will not have access to sufficient food and/or the state will become dependent on food imports. The third paradigm focuses on food security and draws on the ideas of Sen (1982). This approach argues that the ability of households to obtain sufficient food depends on their entitlements, and emphasizes the context-specific nature of food insecurity at the household level. The fourth paradigm, advanced by the transnational peasant movement La Via Campesina (and the SPI in Indonesia), advocates food sovereignty, a concept which includes not only people's ability to access sufficient food, but also the right of individuals to determine their own food and agricultural policies.

The Indonesian Food Law (18/2012) provides an important insight into the current food security discourse as articulated by state actors (Neilson and Wright 2017, p. 6). The law builds on three premises: First, food is the most essential human need and its fulfilment is part of the human rights guaranteed in the country's constitution of 1945. Second, the state has the obligation to ensure the availability and affordability of nutritionally balanced food, using local resources, institutions and culture. Third, since Indonesia is a country with vast natural resources, the state can fulfil the nation's demand for food in a sovereign and independent manner. Predicated on these considerations, the law stipulates food sovereignty, food self-sufficiency and food security as major principles in guiding the country's food policies. Food sovereignty is framed as the right of the Indonesian state and nation to develop a food policy in an independent manner. Food selfsufficiency (or literally food independence) is defined

² 'Nawacita' is a Sanscrit term translating as nine priorities, goals and ideals. The vision of achieving food sovereignty forms a sub-agenda of the policy goal of 'achieving economic independence by strengthening strategic sectors of domestic economy'.

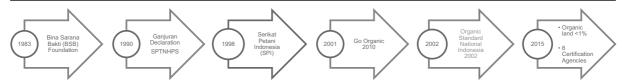


Fig. 1 Development of organic farming in Indonesia (Laksmana and Padmanabhan 2019 based on David and Ardiansyah 2016, Laksmana 2017, Indonesia Organic Alliance (IOA) 2016a, 2016b)

as the ability of the state and nation to produce sufficient food domestically in order to meet the needs of their citizens. Food security is framed as sufficient availability of food both in terms of its quantity and quality, in ways that are not conflict with religion, belief and culture. Little reference is made to food insecurity (*kerawanan pangan*), which is defined as a food shortage caused by poverty, natural disasters and geographical factors, to be resolved by government food aid.

While the Food Law borrows from the international discourse, recent analyses of Indonesian food policy have criticised the legislation for conflating incompatible, conflicting concepts (Lassa and Shresta 2014; Neilson and Wright 2017, p. 7; Vel et al. 2016, p. 239). In particular, the law foregrounds 'food availability' (ketersediaan pangan) and remains silent about the underlying structural politicaleconomic conditions shaping people's entitlements, i.e. access to food at the individual and household level (Neilson and Wright 2017, p. 7; Vel et al. 2016, p. 239). Moreover, as has been the case throughout Indonesian history, state actors continue to conflate food security with national food (i.e. rice) selfsufficiency (cf. Hadiprayitno 2010; Neilson and Arifin 2012; Neilson and Wright 2017) and, by extension, with national security. By linking food security to national security, the government legitimizes its own role in determining the country's food policies, and its definition of food sovereignty in terms of the rights of the state. However, measures taken to achieve food self-sufficient, such as protectionist trade policies and establishment of large-scale agricultural estates, frequently have detrimental effects on both local people and their environments. Hadiprayitno (2010, p. 128) concludes that by focusing on national self-sufficiency, the Indonesian government fails to tackle food insecurity at the household level, and thus fails to fulfil its obligation to guarantee the human rights to food. However, the negative effects of these policies have, to some extent, been offset by the implementation of pro-poor food programmes (cf. Neilson and Wright 2017, pp. 8–10) and promotion of locally-based sustainable food production systems, including organic farming.

Research methods

In order to understand the diversity of interpretations of organic farming in relation to the ongoing debate on food politics, we selected the following three actors as case studies:

- Case 1. Pioneering civil society organisation: BSB (*Bina Sarana Bhakti*, founded in 1984
- Case 2. National peasant alliance: SPI (Serikat Petani Indonesia), founded in 1998
- Case 3. State actor: Government involvement since 2001

Three research interests guided the selection of the case studies. First, we aimed to capture the diversity of conceptualisations of organic farming, including philosophical (BSB), political (SPI) and state-led regulatory approaches. Second, we were interested on how approaches towards the promotion of organic farming, including through certification, were related to the scale of operation; specifically, we contrast the approaches of a placed-based organisation (BSB), an umbrella organisation (SPI) dedicated primarily to outreach and the state's focus on institutionalisation through the promulgation of laws and decrees. Third, we wanted to see if the three organisations' perceptions of organic farming were influenced by the chronology of their initial involvement in shaping organic farming in Indonesia; specifically, we contrast the motivations of pioneers in the 1980s (BSB), emerging movements in the 1990s (SPI) and state actors in the early 2000s.

Data on the history and perspectives of the civil society organisations were obtained through interviews (face-to-face or via video link) and interactions with members during workshops held in 2017. These were

complemented by content analysis of the organisations' publications and internal documents. Data on the state were obtained by reviewing official documents and relevant academic literature.

The remainder of the paper is structured as follows. In the "Results" section, we present detailed analyses of each of the three case studies. This is followed by the "Discussion" section and a concluding "Outlook" section that briefly consider possible future pathways of development for the Indonesian organic farming sector.

Results

Case 1: organic farming as practical philosophy: BSB

In 1983, Swiss Pater Agatho founded Bina Sarana Bhakti (BSB, BSB n.d.) as a critical response to the development path taken by the Soeharto government (BSB Agatho). Agatho began to promote natural farming methods-which he referred to as 'pertanian organis'-with the aim of empowering farmers by reducing their dependence on fertilizer use. For Agatho, organic agriculture does not simply describe a farming method, but is a philosophy, in which farmers 'live in harmony with fellow beings, nature, and God' (BSB; trans. VS). Humans, animals, plants, soils and the climate are regarded as interdependent 'organs' which operate in harmony with each other and form a single entity or 'organism'. Farmers are thus seen as 'part of nature' (bagi dari alam) who, if they are true to their vocation, view plants as part of total life rather than as commodity. Accordingly, the primary obligation of farmers is not to produce high yields or gain financial returns, but rather to protect nature (menjaga alam) in order to guarantee that sufficient healthy food can be produced in a sustainable manner (BSB). This further implies that local food self-sufficiency should take priority over surplus production for the market, in order to guarantee food security in the long run.

Dissolving the nature-culture dichotomy of western Cartesian thinking, *pertanian organis* represents both a highly integrated and, at the same time, post-materialist approach (Inglehart and Abramson 1999) to farming that is derived from Asian agrophilosophy. Agatho's holistic approach to farming was inspired by the influential Japanese agriculturalist Masanobu Fukuoka. In his book 'The One-Straw Revolution: An Introduction to Natural Farming' (1972), Fukuoka advocates the principle of 'do-nothing', meaning that farmers shall neither plough nor till the soil nor shall they apply chemical inputs (Korn and Aggarwal 2014, p. xxvi, cited in Bopp 2016, p. 74). Fukuoka's agrophilosophy is also reminiscent of Rudolf Steiner's anthroposophical philosophy of farming, developed in the early twentieth century. Steiner viewed each farm as a unique organism composed of different organs-humans, animals, plants and soil-that are interdependent and ideally form a closed material cycle (Demeter). To demonstrate the practical application of its philosophy, BSB operates a 15 ha farm in Cirsarua, West Java, where 120 staff and 12 partner farmers cultivate 80 varieties of fruit and vegetables. These are packaged on the farm for delivery to distributors, agents and 50 consumer groups, mainly in Jakarta. They are able to meet only 60% of the demand for their produce, as are unable to expand the farm due to competition for land from the tourism industry. BSB's post-materialist approach to organic agriculture does not prevent the organisation from selling a part of its produce for export (cf. Edwards 2013: 76). However, according to BSB staff, the organisation's overseas business partners shares BSB's values (Laksmana 2017).

BSB also engages in outreach activities and provides training to farmers in cropping and marketing. Pak Daryanto, the current head of BSB (Interview 18.04.2017 Cirsarua), considers that there is a need for improved skills in building partnerships and implementation of monitoring and control systems. He highlights the need for participatory guarantee schemes for smallholder farmers, building on trust and peer-group assessment as a viable alternative to government certification. BSB itself is officially certified under the government certification scheme Organik Indonesia, and its products display the requisite Indonesian National Standard (SNI) certification number (see below). However, it also uses two more organic labels of own creation: One displays the portrait of Father Agato from around the 1980s, his signature, a leaf with a drop of water and the slogan "the organic way, everything in harmony". Another label "Agatho Organis" highlights the historical role of BSB as a "pioneer in organics"; it depicts a pink heart merging with a blue dotevoking the globe-with a green leaf at the intersection. Thus, in the packaging of its organic vegetables, BSB not only gives evidence of its adherence to national standards for organic food, but evokes the personal aura of the founder and his vision of creating harmony on Earth through organic food production and consumption.

BSB's vision for the future development of organic farming includes the integration of livestock production, and diversification, including the production high-value crops. On a normative and political level, Pak Daryanto's vision for BSB involves a shift from its traditional identification with food-sufficiency concerns towards a new focus that "will link organic farming to food sovereignty (ibid)". This implies placing increased emphasis on issues such social and political aspects of food production, including access to land, in addition to its long-standing concern for the dignity of small-scale farmers.

Case 2: organic farming as resistance: SPI

The peasant union Serikat Petani Indonesia (SPI) was officially founded as a federation of eleven regional peasant unions in 1998; SPI became a unitary organisation with individual members in 2007 (Peluso et al. 2008, p. 392, Serikat Petani Indonesia 2008). Reflecting its close affiliation with the world's most influential transnational peasant movement La Via Campesina (ibid, 389), SPI embeds organic agriculture within an anti-neoliberal discourse of food sovereignty. At the heart of its activism are calls for far-reaching land reform, food sovereignty, peasant rights and organic agriculture. SPI uses the term 'organic agriculture' interchangeably with sustainable agriculture (Serikat Petani Indonesia 2017) to describe sustainable farming that protects the environment and yields both economic and social benefits to peasant farmers, their families and the wider public. The SPI emphasises that organic/ sustainable agriculture derives from the 'tradition of family farming that values, guarantees and protects the sustainability of nature' (SPI; trans. VS). Accordingly, it rejects any orientation of organic agriculture towards agribusiness; the aim is to liberate farmers from dependence on external inputs and the market forces that currently determine the allocation of agricultural resources (Tamtomo 2019). In line with the organisation's anti-neoliberal stance, SPI sees organic agriculture is seen as 'a form of resistance to the [dominant] agricultural system that is oppressive, destroys the environment, impoverishes biodiversity and excludes local knowledge' (SPI; trans. VS). In this respect, its views are similar to those of other Indonesian organic organisations that consider conventional agriculture as a 'modern form of colonialization' which forces farmers to become dependent on external inputs produced by multinational companies (Jahroh 2010, p. 8).

To promote organic farming methods, SPI publishes intensively about the topic and has established six learning centres for organic agriculture (*Pusat Pendidikan dan Pelatihan Pertanian Organik*, PUSDIKLAT) for its members in Java, Sumatra and Eastern Indonesia.

In line with its opposition towards any involvement in agribusiness by organic agriculture, the SPI believes that organic products should be labelled by means of an honour system, enabling farmers to build on their established relations of trust with consumers, instead of a legally enforceable third-party certification (TPC) scheme as promoted by the SNI (Risnandar 2005, cited in Edwards 2013, p. 77). To this end, SPI promotes participatory guarantee schemes (PGS), which, it claims, provide a range of benefits, including empowerment of smallholder farmers, farmer-to-farmer learning and enhanced food security and sovereignty (Kaufmann and Vogl 2018). The SPI's first learning centre, set up in Bogor (Java) in 2005, developed the label Patani Organik, which is used to market organic produce locally (Edwards 2013, p. 77). The label consists of the word Patani (Farmer) on a red backgroundwith the letter 'p' in the form of a leaf—surrounded by a green circle with the word 'organik' spelled out in yellow letters. Placing the farmer at the centre of the label reflects the SPI's view that the peasant as a social category constitutes the anthropocentric centre of the agricultural system, while the means of production (in this case is organic) is a secondary concern.

For SPI, organic/sustainable agriculture forms 'the backbone of food sovereignty' (SPI; trans. VS). In line with its anti-neoliberal stance, SPI rejects the food security concept of the FAO, since this proposes using biotechnical solutions and free trade to tackle food insecurity.³ Instead, the organisation promotes the food sovereignty concept advanced by La Via Campesina, which SPI defines as 'the right of each nation and person to produce food in an independent manner and the right to adopt their chosen agricultural system (...) without subordinating themselves to the power of the international market' (ibid; trans. VS). To achieve food sovereignty, the organization calls not only for smallholders

³ see Bernstein 2014 for a critical analysis of the food sovereignty concept.

to play a role formulating agricultural policies, but also for rejection of free trade of agricultural produce in favour of a trade policy that protects domestic food production (ibid). Concretely, SPI demands removal of Indonesian agriculture from the jurisdiction of the WTO, enforcement of domestic market controls, the ending of subsidies for agribusinesses, abolition of incentives for export-oriented agriculture, implementation of far-reaching land reform and the development of a local food economy based on sustainable agriculture and family-based production (ibid).

Case 3: governing organic farming in the name of food sovereignty: state

While the vision of 'Go Organic 2010' of establishing Indonesia as one of major producers of organic food in the world by 2010 was never realized, the programme nevertheless acted as a trigger for a gradual institutionalization of the country's organic farming sector, and thus marks a shift from mere civil society action to increased state regulation (Edwards 2013, p. 76).

In 2003, the Ministry of Agriculture created the centre for standardization and accreditation as competent authority in organic farming (OKPO) in order to oversee the Indonesian National Standard (SNI) for organic food (MoA Decision No. 432/Kpts/OT.130/9/2003). OKPO has the three main responsibilities, namely to formulate policies for overseeing and developing the organic food system, to design guidelines for certification bodies and to verify privately and state-run certification schemes. In order to carry out its mandate, OKPO coordinates with actors involved in the development of organic food system, including private companies, consumers, civil society organisations, government bodies and academics. In 2009, the National Standardization Agency (Badan Standardisasi Nasional, BSN) finally granted seven institutions the right to certify products for the organic market in accordance with the guidelines of the SNI (Edwards 2013, p. 76).⁴ According to the SNI (2002), p. v) the term 'organic' is 'a label that declares that a product has been produced according to the organic product standard and is certified by an authority or official certification body'. Consequently, the logo and the terms 'organic', 'organis' or anything with a similar meaning may not be used for products that have not been accredited by an organic certification body (*Lembaga Sertifikasi Organik*, LSO).

In contrast to its market-oriented definition of the term 'organic', the SNI (2002), p. v) defines organic agriculture as a 'holistic production management system that increases and develops the health of the agroecosystem ...', 'is based on minimal external input, and avoids the use of synthetic fertilizer and pesticides' and that applies site-specific management practices adapted to local environmental conditions. This vision is reflected in the label denoting officially accredited organic products, which consist of red letters ORGANIK over the white INDONESIA above green rolling hills; a leaf along with symbolised roots adorns the typo G, evoking a genealogy with origins in past history.

Based on the above definition, the SNI's mission is defined as being to ensure the quality standard of organic produce in order to protect consumers and producers (SNI 2002). The more detailed description of the SNI's role, however, focuses on its regulatory functions. Specifically, its stated role is to provide a guarantee system for the organic value chain, and develop nationally and internationally recognized certification schemes for export and import purposes, in addition to contributing to environmental protection efforts at local level (ibid).

Building on this institutional framework, the national development plan for the period 2015–2019 envisages the spread of organic farming across the country as part of the state's efforts to achieve food sovereignty (BAPPENAS 2015a, p. 149). The '1000 Organic Agriculture Villages Programme' set up by the MoA aims to support the introduction of organic farming on 20 ha plots in 1000 villages by 2019, and to establish organic agriculture in another 1000 villages by 2024. The sum of IDR 584.6 billion (about USD 43,880,000) is allocated for the establishment of organic agriculture villages (BAPPENAS 2015b), a little under 6% of the total budget for achieving food sovereignty.

An organic agriculture village is defined as a '[v] illage, in which one or more pieces of land has been set aside for organic agriculture or which applies the organic agricultural system, which is demonstrated by the granting of organic certification by an Organic Certification Body (LSO) recognized by the government' (Ditjen PPHP Kementan 2015; transl. VS). The definition emphasizes market-oriented and institutional aspects of organic farming; this emphasis is confirmed by Agriculture Minister Amran Sulaiman's comments

 $[\]frac{1}{4}$ The SNI does not comprise a fixed set of guidelines, but constantly undergoes revisions with changes made in 2002, 2010 and 2013 (Laksmana 2017).

that the government's promotion of organic farming highlighted is primarily in response to the growing market for organic products (Parfitt 2017). This market-oriented approach is reflected in the government's technical instructions for the introduction of organic agriculture across the archipelago (Sudaryanto 2015). While the programme covers four commodity sectors (food crops, garden crops, plantation crops and animal husbandry), the main focus of the programme is the production of organic food crops. This is also in line with the government's vision of becoming selfsufficient in rice, maize, soya and sugar by 2019.

While the government's interest in organic farming seems to be mainly driven by ideas of market expansion, the state's discourse nevertheless borrows from international environmental, development and food sovereignty discourses to justify its engagement (Hanggarawati 2014; Ito et al. 2014; Syailendra 2017). For example, the MoA notes that the spread of organic agriculture provides 'a good opportunity to improve the critical condition of the country's agricultural soil and make farmers independent', recalling that all inputs for organic agriculture are 'based on local knowledge' (DitJen Perk Kementan 2016, p. 1; transl. VS). In similar vein, the government draws on the Millennium Development Goals and the concept of sustainable development to promote organic farming as 'agriculture that goes back to nature' and 'protects agricultural soils, which form the source of people's staple food' (DitJen TP Kementan 2015 p. 2; transl. VS).

Discussion

Organic farming was first adopted by non-state actors in Indonesia, first of all by faith-based organisations and then by small farmer associations, while the state support for organic agriculture followed at a later date. The three groups, represented in this study by the three case studies, adopt different positions with regard to the definition of organic agriculture and its relevance to the three central concepts within food policy discourse, i.e. food self-sufficiency, food security and food sovereignty.

For BSB, organic farming describes a worldview that draws on Asian agrophilosophy and the Franciscan conceptualisation of humans and nature as God's creation, in which the human and non-human are parts of a single organism. This connection between religious beliefs and environmentalism is by no means unique to BSB. As Spaling and Vander Kooy (2019, p. 411) observe in their research on the "Farming God's Way" movement in Kenya, cultural realities for the smallholding farmer in Sub-Saharan Africa include a religious dimension that, when appealed to, is a powerful driver of the transformation of farming practices and the adoption of conservation agriculture. Großmann (2019) points out that Muslim eco-theology also inspires many Indonesians to become actively involved in environmental protection. However, challenges by adherents of 'green Islam' to the government's extractivist and productivist development agenda are, like those of Christian organisations, largely ignored by the state.

BSB has maintained spiritual value orientation but, over the years, has attached increasing importance to self-determination and political participation, moving from initial concerns about food sufficiency and ecology towards a more outspoken engagement with food sovereignty discourse. The integration of faith and agriculture results in distinctive principles based on the application of spiritual values, land and food policy, sustainable agriculture, food justice and farming practices (Spaling 2003).

For SPI, by contrast, organic agriculture is first and foremost a political issue: organic farming is inseparable from political resistance. Specifically, adoption of organic agriculture is one way to resist global agribusiness and part of the wider struggle for peasants' rights, environmental justice and food sovereignty. SPI agrees with the government's focus on (national) self-sufficiency and the use of protectionist trade policies to achieve this goal. However, it disagrees with the state's productivist conceptualization of food sovereignty, arguing that sovereignty over agricultural and food policies needs to be placed in the hands of farmers in order to tackle food insecurity effectively. SPI also rejects the idea of organic agricultural production for the export market and, drawing on ideas from international discourse on food sovereignty advocates, 'sustainable agriculture based on family farming' (SPI).

SPI's stance on certification is consistent with its anticapitalist perspective. Self-certification, which also appears to be supported in principle by BSB, and participatory guarantee schemes (PGS) could be a viable alternative to conventional certification schemes in situations where producer–consumer relations are very close, for example, when products are sold at the farm gate. Supporters of this approach argue that it fosters knowledge exchange and builds on a foundation of trust, based on the direct engagement of actors (Källander 2008). On the other hand, it is claimed that conflict avoidance, free riding and partiality, as well as time constraints, can threaten the sustainability of PGS schemes (Home et al. 2017).

The SPI's conception of organic farming differs from other definitions in that it uses the term as a synonym for 'sustainable farming'. However, the term 'sustainable' is known to be inseparable from the questions 'for whom?' and 'in which context' (Nightinggale 2019); thus, the SPI's framing appears to deviate from orthodox definitions of 'organic' (Subandi 2019). The questionable conflation of 'organic' and 'sustainable' agriculture could make it more difficult for the SPI to form alliances with other peasant-based organic farming movements. The SPI's focus on the 'family farm' could also be criticized for ignoring important questions relating to gender equity (Großmann et al. 2017).

The two civil society organisations thus define organic agriculture very differently and draw inspiration from different philosophical, political and socialcultural traditions. However, both see organic agriculture as a post-materialist enterprise directed towards explicitly social-political goals. By contrast, the government's engagement in organic agriculture, although laced with evocative buzz words such as "back to nature", "holistic" and "local knowledge", seems to be driven primarily by visions of developing a new niche market for Indonesian exports.

Over the years, the state has adopted a contradictory approach, making connections between organic farming and both self-sufficiency and food sovereignty. This conceptual confusion makes it difficult for governments to frame consistent strategies to support organic agriculture. For example, policy measures make provision for training of government staff in organic techniques, while still keeping crop yields as the main benchmark. On paper, the state appears to be open to alternative visions of organic agriculture, but in reality, the productivist and export orientation dominates the policy framework (Aspinall 2016) and leaves little room for constructive engagement with non-state actors and their evolving ideas about the meaning of organic agriculture. The blended definitions of the state and the borrowings from different discourses cannot disguise the state's all-encompassing interest in maintaining control over the still-evolving organic sector.

Outlook

The different positions adopted by prominent actors in the organic farming movement will influence the future development of organic farming in Indonesia. The Indonesian state has the power to define organic agriculture in legal and regulatory terms (Otoritas Kompeten Pangan Organik n.d.). A one-dimensional productivist definition excludes the different meanings and traditions of organic farming identified in our case studies. Specifically, the reduction of the meaning of 'organic' to 'organically certified products' excludes many farmers who consider they are practicing organic agriculture and makes it illegal for them to claim to be doing so. It also discriminates those farming organically by default, such as the occupants of upland swidden farms in remote areas of Indonesia who do not possess the financial means to obtain synthetic fertilizers (Schreer 2016).

However, as the Indonesian state attempts to tighten its grip on organic agriculture by issuing more and detailed regulations and forming more government bodies to ensure they are complied with, civil society institutions are demarcating their positions ever more clearly from the government agenda (Tamtomo 2018). Smallscale farmers or peasants whose ideas about organic agriculture are diametrically opposed to exportoriented vision of the state and state-supported agribusiness might be engage, in the most extreme scenario, to engage in unauthorized 'guerrilla organic farming' in order to stay with their conviction in practices of farming in an organic way.

Here, the many meanings of sovereignty come into play. As the sovereign authority, the state asserts its right to define the content of organic agriculture, demarcate its boundaries and decide on the rationale for supporting it. By doing so from a privileged position of power, the state calls into question and undermines different understandings of organic farming and its role in food policy and wider policy fields. In response, civil society actors are adopting an alternative interpretation of sovereignty as vested in the voices and interests of small organic farmers. Inspired by spiritual and humanist values, this involves a shift in perspective away from purely ecological considerations towards a vision of organic agriculture as an expression of peasant sovereignty, inseparable from struggles for access to land, markets and dignified living and working conditions.

We consider that there is a strong case to be made that the state should relax its grip on the organic sector. Allowing for openness and diversity would create room for sorely needed innovation and cooperation among the different actors involved. The state would display true sovereignty by enabling an open and inclusive debate on the way forward for organic agriculture in Indonesia.

On the ground, we do observe cooperation, exchange and entanglements when BSB provides trainings for the food security agencies of local governments. While regency and district level policies are much more flexible to accommodate local requests for support of organic agriculture, their room of manoeuvre is restricted by the overall contradictory agricultural and food policy of the Indonesian state. Instead of reconciling the tension within the different framings around organic agriculture, the state may productively work with this friction resulting from the legitimate diversity of meanings attached to organic agriculture.

In the same vain, we propose further research into promising platforms for debate and discourse on the future of organic farming in Indonesia, tying in agribusiness as well as social movements and smaller deviant, both possibly very influential, innovative and powerful groups and organisation. The conversation on how to create a diverse and localised version of organic value constellations must in our opinion include motivations and sense making beyond the market perspective. Thinking beyond utilitarian and economic perspectives does challenge the outlook on development by the Indonesian state, but might offer new alliances and strategies in the situation of obvious planetary boundaries. The nevertheless existing political will to promote organic farming is a promising entry point.

Acknowledgments The time and effort of the interview partners are highly appreciated as well as language editing by Andrew Halliday. We thank the participants at the 2nd IndORGANIC Workshop "Promises and challenges of organic farming in Java, October 4–5, 2018 in Bogor, especially Robert Markus for their critical comments as well as two anonymous reviewers.

Funding information The authors acknowledge the generous funding of the German Federal Ministry for Research and Education. Grant no 031B0233, Research for Sustainable Development, funding line "Bioeconomy as societal transformation".

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References

- Aspinall E (2016) The new nationalism in Indonesia. Asia Pac Policy Stud 3(1):72–82. https://doi.org/10.1002/app5.111
- Badan Perencanaan Pembangunan Nasional (BAPPENAS) (2015a) Lampiran Peraturan Presiden Republik Indonesia Nomor 2 Tahun 2015 Tentang Rencana Pembangunan Jangka Menengah Nasional 2015-2019. Buku I: Agenda Pembangunan Nasional. Jakarta: BAPPENAS. bappeda. kepriprov.go.id/data/RPJMN/BUKU_I_RPJMN_2015-2019.pdf Accessed 01 August 2017
- Badan Perencanaan Pembangunan Nasional (BAPPENAS) (2015b) Lampiran Bahan Rapat multilateral Meeting. https://www.bappenas.go.id/files/5014/2769/7191/lampiranbahan-rapat-multilateral-meeting.xlsx Accessed 16 June 2017
- Bernstein H (2014) Food sovereignty via the 'peasant way': a sceptical view. J Peasant Stud 41(6):1031–1063. https://doi.org/10.1080/03066150.2013.852082
- Bina Sarana Bhakti Foundation (BSB) http://www.bsb-agatho. org/ Accessed several times in 2017
- Bopp J (2016) New momentum to Bangkok's organic food movement: interspersed scenes led by mindful pioneers. Dissertation. University of Cologne
- David W, Ardiansyah (2016) Organic agriculture in Indonesia: challenges and opportunities. Org Agric 7:329–338. https://doi.org/10.1007/s13165-016-0160-8
- Direktorat Jenderal Pengolahan dan Pemasaran Hasil Pertanian Kementerian Pertanian (DitJen PPHP Kementan) (2015) Fokus Program dan Kegiatan Tahun 2016 untuk Pengolahan dan Pemasaran Hasil Pertanian dalam Peningkatan Nilai Tambah dan Daya Saing (NTDS) Produk Hasil Pertanian. Presentation at Musyawarah Perencanaan dan Pembangunan Pertanian Jakarta: Auditorium Kementerian Pertanian, 3–4 June 2015
- Direktorat Jenderal Perkebunan Kementerian Pertanian (DitJen Perk Kementan) (2016) Dukungan Perlindungan Perkebunan. Pedoman Teknis Pengembangan Desa Organik Berbasis Komoditas Perkebunan Tahun 2016. Kementerian Pertanian, Jakarta
- Direktorat Jenderal Tanaman Pangan Kementerian Pertanian (DitJen TP Kementan) (2015) Petunjuk Teknis: Pengembangan Desa Pertanian Organik Padi 2016. Kementerian Pertanian, Jakarta
- DKP, WFP (2015) Indonesia food security and vulnerability atlas 2015. Dewan Ketahanan Pangan (DKP) of the Republic of Indonesia and the World Food Programme (WFP) of the United Nations, Jakarta
- Edwards N (2013) Values and the institutionalization of Indonesia's organic agriculture movement. In: Ford M (ed)

Social activism in Southeast Asia. Routledge, New York, pp 72-88

- Food and Agriculture Organisation (FAO) The state of food insecurity in the world 2015. http://www.fao.org/hunger/en/ Accessed 04 August 2017
- Fukuoka M (1972) The one-straw revolution: an introduction to natural farming. New York Review Books, New York
- Großmann, K (2019) Green Islam': Islamic environmentalism in Indonesia. Between socio-ecological projects and a toothless tiger. New mandala. New perspectives on Southeast Asia. https://www.newmandala.org/green-islam/ 28 Aug, 2019. Accessed 19 Sept 2019
- Großmann K, Padmanabhan M, Afiff S (2017) Gender, ethnicity, and environmental transformations in Indonesia and beyond. A Sea S 10(1):1–10
- Hadiprayitno II (2010) Food security and human rights in Indonesia. Dev Pract 20(1):122–130
- Hanggarawati PS (2014) From seed sovereignty to food sovereignty in Indonesia's future. Jakarta Globe 30 July 2014. http://jakartaglobe.id/business/seed-sovereignty-foodsovereignty-indonesias-future/ accessed 04 august 2017
- Hefner RW (1990) The political economy of mountain Java: an interpretive history. University of California Press, Berkeley and Los Angeles
- Home R, Bouagnimbeck H, Ugas R, Arbenz M, Stolze M (2017) Participatory guarantee systems: organic certification to empower farmers and strengthen communities. Agroecol Sustain Food Syst 41:1–20
- Indonesia Organic Alliance (IOA) (2016a) Statistik Pertanian Organik Indonesia 2015. Indonesia Organic Alliance, Bogor
- Indonesia Organic Alliance (IOA) (2016b) Statistik Pertanian Organik 2015. In-donesia Organic Alliance, Bogor
- IndORGANIC 2018 Briefing notes 1-7. Promises & Challenges of Organic Farming in Java 2nd IndORGANIC Workshop 'Conditions of Organic Farming on Java', Bogor, 4–5 October 2018. https://www.uni-passau. de/en/indorganic/publications/briefing-notes/
- IndORGANIC https://www.uni-passau.de/en/indorganic/ (accessed 19.09.2019)
- Inglehart R, Abramson PR (1999) Measuring postmaterialism. Am Polit Sci Rev 93:665–677
- Ito T, Rachman NF, Savitri LA (2014) Power to make land dispossession acceptable: a policy discourse analysis of the Merauke integrated food and energy estate (MIFEE), Papua, Indonesia. J Peasant Stud 41(1):29–50
- Jahroh S (2010) Organic farming development in Indonesia: lessons learned from organic farming in West Java and North Sumatra. Paper presented at ISDA 2010, Montpellier, 28-30 June 2010. http://hal.cirad.fr/hal-00521832/ accessed 02 august 2017
- Jarosz L (2014) Comparing food security and food sovereignty discourses. Dialogues Hum Geogr 4(2):168–181
- Källander I (2008) Participatory guarantee systems-PGS. Swedish Society for Nature Conservation, Stockholm
- Kaufmann S, Vogl CR (2018) Participatory Guarantee Systems (PGS) in Mexico: a theoretic ideal or everyday practice? Agric Hum Values 35:457–472. https://doi.org/10.1007 /s10460-017-9844-2
- Korn L, Aggarwal, P (2014) The one-straw revolution. An introduction to natural farming. Other India Press, Mapusa

- Laksmana DD (2017) Institutional analysis of organic farming in Indonesia. Paper presented at OrgaTrop – international conference on organic agriculture in the tropics. Yogyakarta: Gadjah Mada University, 20-24 August 2017
- Laksmana DD, Padmanabhan M (2019) Institutional arrangement of organic farming in Indonesia based on net-map and SNA. Paper presented at Neue Institutionen Ökonomie workshop. University of Kassel, Witzenhausen 14.15 February 2019
- Lassa JA, Shresta M (2014). Food sovereignty discourse in Southeast Asia: helpful or disruptive? RSIS Commentary https://www.rsis.edu.sg/rsis-publication/nts/co14231-foodsovereignty-discourse-in-southeast-asia-helpful-ordisruptive/#.WYXVx4ppxAY Accessed 10 April 2017
- Li T (2014) Involution's dynamic others. J R Anthropol Inst 20: 276–292
- Manners A (2014) Indonesia in 2020: future challenges for the new president. Strategic analysis paper. Future directions international. http://www.futuredirections.org. au/publications/indian-ocean/1788-indonesia-in-2020future-challenges-for-the-new-president.html#_ftn1 accessed 10 April 2017
- McCarthy JF, Obidzinski K (2015) Responding to food security and land questions: policy principles and policy choices in Kalimantan, Indonesia. Paper presented at land grabbing, conflict and agrarian – environmental transformations: perspectives from East and Southeast Asia. An international academic conference 5-6 June 2015, Chiang Mai University. http://www.iss.nl/fileadmin/ASSETS/iss/Research_ and_projects/Research_networks/LDPI/CMCP_47-McCarthy__Obidzinski.pdf accessed 10 may 2017
- McCarthy JF, Zen Z (2013) Food security in Indonesia. Inside Indonesia 114 http://www.insideindonesia.org/foodsecurityin-indonesia-2 Accessed 10 June 2017
- Minister of Agriculture (MoA) Decision no. 432/Kpts/OT.130/9/ 2003 about the appointment of the centre for standardization and accreditation as competent authority in organic farming. perundangan.pertanian.go.id/admin/k_mentan/SK-432-03. pdf Accessed 30 July 2017
- Neilson J, Arifin B (2012) Food security and the deagrarianization of the Indonesian economy. In: Rosin C, Stock P, Campbell H (eds) Food systems failure: the global food crisis and the future of agriculture. Earthscan/Routledge, London, pp 147–165
- Neilson J, Wright J (2017) The state and food security discourses of Indonesia: feeding the bangsa. Geogr Res 55:131–143. https://doi.org/10.1111/1745-5871.12210
- Nightinggale A (ed) (2019) Environment and sustainability in a globalising world. Routledge, Oxon
- Otoritas Kompeten Pangan Organik (OKPO) (n.d.) Lembar Informasi. Halaman belakang. Jakarta: Sekretariat OKPO Direktorat Mutu dan Standarisasi Ditjen PPHP
- Padmanabhan M (ed) (2018) Transdisciplinarity for sustainability. Transdisciplinary research and sustainability: collaboration, innovation and transformation. Routledge, London
- Parfitt J (2017) School dropout becomes Indonesia's most 'prestigious farmer'. The Jakarta Post 27 February 2017 http://www.thejakartapost.com/life/2017/02/27/schooldropout-becomes-indonesias-most-prestigious-farmer.html Accessed 01 August 2017

- Peluso NL, Afiff S, Rachman NF (2008) Claiming the grounds for reform: agrarian and environmental movements in Indonesia. J Agrar Chang 8(2–3):377–407
- Schiller BLM (1980) The 'green revolution' in Java: ecological, socio-economic and historical perspectives. Prisma 18:71–93
- Schreer V (2016) Longing for prosperity in Indonesian Borneo. Dissertation. University of Kent
- Sen AK (1982) Poverty and famines: an essay on entitlement and deprivation. Clarendon Press Oxford University Press, Oxford
- Serikat Petani Indonesia (SPI) (2008) Pandangan dan Sikap SPI tentang kedaulatan pangan. http://www.spi.or.id/329/ Accessed 02 August 2017
- Serikat Petani Indonesia (SPI) http://www.spi.or.id/ Accessed several times in 2017
- Spaling H (2003) Enabling creation's praise: lessons in agricultural stewardship from Africa. In: Evans D, Vos R, Wright K (eds) Biblical holism and agriculture: cultivating our roots. William Carey, Pasadena, pp 99–119
- Spaling H, Vander Kooy K (2019) Farming God's way: agronomy and faith contested. Agric Hum Values 36:411–426. https://doi.org/10.1007/s10460-019-09925-2
- Standar Nasional Indonesia (SNI) (2002) Sistem Pangan Organik. Badan Standardisasi Nasional, Jakarta
- Subandi, N (2019) Framing the sustainability of organic farming: the case in Yogyakarta. Paper presented at EUROSEAS. Humboldt Universität zu Berlin. 10–13 September.2019
- Sudaryanto T (2015) Strategies for facilitating structural transformation of smallholder farms in Indonesia. Indonesian Center for Agriculture Socio-Economic and Policy Studies, Ministry

of Agriculture http://ap.fftc.agnet.org/ap_db.php?id=564 Accessed 27 June 2017

- Syailendra EA (2017) In the name of food security. Inside Indonesia http://www.insideindonesia.org/in-the-name-offood-security Accessed 05 May 2017
- Tamtomo, K (2018). From movement to market: A case study of the discourse on organic agriculture in three social movement groups in Yogyakarta, Indonesia.Paper presented at the 11th International Indonesia Forum Conference, Universitas Kristen Satya Wacana, Salatiga, 16 July
- Tamtomo, K (2019) Styles of organic agriculture intellectuals in Yogyakarta, Indonesia. Paper presented at EUROSEAS. Humboldt Universität zu Berlin. 10–13 September.2019
- Tsing AL (1993) In the realm of the diamond queen. Princeton University Press, Princeton
- Vel JAC, McCarthy JF, Zen Z (2016) The conflicted nature of food security policy: balancing rice, sugar, and palm oil in Indonesia. Anthropol Forum 26(3):233–247
- Warr, P (2011) Food security vs. food self-sufficiency: the Indonesian case. Crawford School Research Paper No. 2011/04 https://doi.org/10.2139/ssrn.1910356 Accessed 05 May 2017
- Winarto YT (1995) State intervention and farmer creativity: integrated pest management among rice farmers in Subang, West Java. Agric Hum Values 12(4):47–57

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