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ORGANIC AGRICULTURE IN INDIA AND PARTICIPATORY GUARANTEE SYSTEMS (PGS): A CASE STUDY FROM WEST BENGAL

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An estimated two-thirds of a million farmers are currently practicing organic farming in India; a figure which does not include those farmers who are 'organic by default'. To improve sale of organic produce in domestic markets some form of certification is required and third-party certification is too costly for India's marginal and small farmers. Participatory Guarantee System (PGS) is designed to reduce costs to farmers and provide a satisfactory level of assurance to local consumers. In 2015 over 21,000 Indian farmers were certified organic under the PGS banner. This article presents a case study of Vikas Kendra, a project of Society for Equitable Voluntary Actions (SEVA), West Bengal. Vikas Kendra supports 57 PGS groups, each of six farmers. Interviews were undertaken with farmers and NGO staff members. The findings suggest that scaling up the total area under organic production remains a challenge as does creating linkages between rural farmers and urban markets.

Introduction

The term 'organic agriculture' is nowadays used to mean "any system that uses organic methods and is based on the Principles of Organic Agriculture", regardless of whether it's certified or not (IFOAM, 2015, p. 2). It can be distinguished from 'default organic' management which occurs when farmers, due to financial or other constraints, have no access to chemical inputs. From an organic perspective, conventional agriculture is seen to cause farmer dependence, poverty, soil erosion, decreased biodiversity, water pollution and health problems (Kaellander and Rundgren, 2008). In the 1960s and 1970s, at the onset of the Green Revolution in non-industrialised countries, awareness of the negative effects of industrialised agriculture became apparent in Europe and Northern America. Attention first focussed on chemical pesticides and fertilisers though later a more holistic view emerged criticising the entire modern/conventional production system (ibid.).

Globally, organic agriculture is gaining popularity both from farmers and consumers. The agricultural area under organic cultivation has almost quadrupled in the past 15-year period, from 11 million hectares in 1999 (Lernoud & Willer, 2016, p. 46) to an estimated 43.7 million hectares, including in-conversion areas, in

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2014 (Willer & Lernoud, 2016, p. 25). In 2014 most of Asia's producers (~650,000) resided in India where 0.72 million hectares of land was under organic agriculture (ibid., p. 27). As such, India had the most organic producers of any country worldwide, even though just 0.4 percent of its total agricultural land was organic (Lernoud & Willer, 2016, p. 44).

Of 172 countries covered in a survey by the Research Institute of Organic Agriculture (FiBL), 87 were having organic standards and another 18 were developing legislation (Willer & Lernoud, 2016, p. 30). 72 countries were using participatory guarantee systems (PGS), defined as "locally focused quality assurance systems certifying producers based on the active participation of stakeholders" (ibid., p. 30). Globally an estimated 123 PGS initiatives were established and another 110 under development. Besides non-government organisations (NGOs) and civil society groups, governments are increasingly supporting organic agriculture through a variety of programmes and policies, including PGS[1].

This article gives an overview of organic agriculture in India with a focus on participatory guarantee systems (PGS). It provides a case study from West Bengal, where the NGO SEVA has worked in organic agriculture since 1991, supporting PGS groups since 2005. Though its findings are tentative, the study suggests that PGS is a practical model for India's marginal farmers who wish to sell their produce beyond local markets. However it also shows that market linkages are the main bottleneck to increasing the area under organic cultivation.

Organic agriculture in India: An overview

India's organic production covers a number of sectors. One important non-food organic crop is cotton. 97 percent of the world's certified organic cotton comes from five countries, with India accounting for three-quarters of total production (Willer & Lernoud, 2016, p. 25).[2] The challenges for organic cotton include availability of quality non-genetically modified (GM) seed, and creation of robust certification systems (Truscott, Tan, & Emberson, 2016, p. 132).

[1] In Asia support to PGS is coming from the Indian, Mongolian and Bhutanese governments (Wai, 2016), and local or national governments in Lao, the Philippines and Thailand (Cornelia Kirchner, personal communication, August 11, 2016).

[2] In 2013-14, some 115,000 Indian farmers produced nearly 87,000 metric tonnes of organic cotton fibre on over 172,000 hectares of land (Truscott, Tan, & Emberson, 2016, p. 130); a 7 percent growth over the previous year.

According to the FAO, in 2014 India had the largest area under cereals in the world (99.2 million ha). Yet little or no land use and crop detail data was provided to the Research Institute of Organic Agriculture's (FiBL) for its survey, and therefore the statistics for the area under organic wheat, rice, millet, maize etc are probably under-estimates (Lernoud & Willer, 2016, p. 86). Similarly, for organic vegetable production, and for citrus, temperate fruit, and tropical fruit production, India did not provide data (ibid., p. 96, 114). For pulses too, no current data was available from India, even though it was the largest grower of dried pulses in the world (ibid., p. 96). 0.5 percent of India's oilseed production (130,000 ha) was classified organic (ibid., p. 110).

In 2015 India experienced good growth in the organic business sector, with exports reportedly growing between 25 and 30 percent, and domestic markets growing at about 40 percent (Wai, 2016, p. 176). Two initiatives were launched by India's central government: allocation of 100 *crore* rupees for organic market development in the Northeast; and launch of the government's PGS programme with a pledge of 300 *crore* rupees for 2015-16 (Wai, 2016; OFAI, 2016a). The state of Sikkim aims to become 100 percent organic, and Meghalaya has committed to certifying as organic 200,000 hectares of land by 2020, starting with 40,000 hectares in 2015. However there is concern that India's central and state governments "may be too exuberant with market expectations and output target, and may not have fully realised the complexities of implementation" (Wai, 2016, p. 176).

Organic Agriculture: Marketing and Certification

Market development, especially of domestic markets, continues to be one of the biggest challenges facing organic agriculture in many countries. Creation of producer-consumer relationships is an important strategy to generate farmer profits and broad public interest. However lack of supply and a narrow product variety leads to lack of interest by actors throughout the supply chain, inhibiting consumer demand, and creating an obstacle to procurement by public and private institutions. High consumer prices may also limit consumer interest (Kaellander & Rundgren, 2008). Few urban consumers appreciate the importance of sustainable agriculture, though many are concerned about harmful effects of toxic chemicals and would like to have a guarantee that the products they purchase are not sprayed (Khosla, 2006).

Unification of the organic concept under one standard, applied by all organic producers, helps build trust in organic agriculture, In the mid-1970s the first organic seals were born in the USA, while in the late 1970s and early 1980s certification organisations were developed across the world. The International Federation of Organic Agriculture Movements (IFOAM)'s Organic Standards were first published in 1980; the IFOAM Basic Standards and IFOAM Accreditation Programme are respected international guidelines upon which national standards and inspection systems are built. The other international standard is the Codex Alimentarius, a joint FAO/WHO commission for food standards adopted in 1999 (Kaellander & Rundgren, 2008). By the end of the 1990s, due in part to the efforts of IFOAM–Organics International, a broad global agreement was reached as to what constitutes organic food production and processing (ibid.). In 2008 roughly 70 countries had some kind of official standards, and another 100 had private sector standards, most of which were quite similar. Indian regulation was almost identical to the IFOAM standards of 2002 (ibid.). Through its Agriculture and Processed Food Products Export Development Authority (APEDA), India harmonised with EU Organic Standards, which helped it to expand its export market (Khosla, 2006).

Foreign bodies most often provide third-party certification services to organic farmers for export markets. According to Khosla (2006, p. 7), third-party certification stifled the organic movement in India, because it required auditing which involves a lot of paperwork and heavy expenses. For a small farm, certification may cost more per acre than the sale of the crops (ibid.). For these reasons, farmers growing for export markets adopted systems of group certification, by forming groups of what are known as 'internal control systems' (ICS).[3] Yet ICS is still a paperwork based auditing system that necessitates outside facilitation. Moreover it has a 'common point of sale clause', which forbids farmers from selling their crop where they want to. ICS can also unintentionally discourage small-scale diversified production because it focuses on a single crop rather than a whole farm. A corporation mono-cropping 4000 ha would have less paperwork than a family farming 4 ha with 20 crops (Khosla, 2006).

[3] ICS is mainly geared towards specific commodities such as coffee, produced for export (May, 2008). ICS is not formally recognised in most regulations though it has gained global de facto acceptance. As a group certification system, the external certifier's main role is not to inspect farms but rather to verify that the ICS is functioning (Kaellander & Rundgren, 2008). ICS rarely involves consumers or buyers, and the ICS certificate is owned by the group/trader, not the farmer (May, 2008).

Local certification programmes and bodies are therefore required for the development of domestic organic markets. Several alternatives to third-party certification exist such as community supported agriculture (CSA), where consumers have direct contact with producers and do not require formal certification. In Europe, CSA is defined as "a partnership between a farm and consumers where the risks and rewards of farming are shared" (Bashford et al., 2013, p. 6), and has four fundamental principles: partnership between consumer and farmer, local with the aim of re-localising the economy, solidarity by sharing risk and benefits, and relationships based on trust with no hierarchy (ibid.). Another alternative for organic farmers is simply not to market their products as organic. Yet another option is participatory guarantee system (PGS).

Participatory Guarantee Systems (PGS)

The term PGS was coined in a conference held by IFOAM and the Latin American Agroecology Movement (MAELA), attended by representatives from over 20 countries, in Brazil in 2004. Various certification systems were brought together, for the first time, under the umbrella term 'PGS' (Khosla, 2006). PGS are defined as "quality assurance initiatives that are locally relevant, emphasize the participation of stakeholders, including producers and consumers and operate outside the frame of third party certification" (May, 2008, p. v). The IFOAM definition adds that they "certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange" (D'Amico & Castro, 2016, p. 147). PGS are an affordable alternative to third-party certification, particularly for small-scale farmers who wish to access local/domestic markets for organically produced food. In 2015, India had 21,240 PGS-certified farmers organically managing a total of 9,442 hectares (D'Amico & Castro, 2016, p. 150)[4]; an average of 0.44 ha (~1 acre) per farmer.

The PGS certification process is more than just a technical process; rather it involves imbibing a certain philosophy. May (2008, p. 6-8) elaborates a number of basic elements central to PGS: participatory approach and collective responsibility, transparency,

[4] The Global PGS Survey conducted in 2015 estimated that across the world some 109,317 small operators in 72 countries were involved in PGS, and that in India an estimated 23,317 producers were involved. As 2015 saw the emergence of a number of new PGS schemes, this data includes both certified farmers and those under transition (which can take up to three years). Thus in 2015, 46,945 farmers globally and 21,240 farmers in India were certified through PGS.

trust, and horizontality, and a shared vision to guide the standards of production, including social justice, fair trade, respect for ecosystems, and respect for the autonomy of local communities and cultural differences. In PGS the members themselves conduct peer reviews of one another's farms to check their compliance to organic standards. Group members agree in advance upon the consequences for non-compliance. For example, if a farmer is found to have used prohibited inputs she/he may be fined or thrown out of the group. Although PGS groups do not have 'external mediators', NGOs and/or consumers are often involved in coordinating or advising PGS groups.

PGS groups face several challenges: farmers may be distant from one another and their market; infrastructure may be under-developed; and governmental regulations may not recognise PGS or over-bureaucratise the conditions for their recognition. Perhaps the most significant challenge is lack of consumer awareness, which limits market opportunities for PGS groups (D'Amico & Castro, 2016, p. 147).

Participatory Guarantee Systems (PGS) in India

In India the drive for PGS came from NGOs. By the time a technical cooperation programme to promote organic agriculture was undertaken by the Ministry of Agriculture (MoA), Government of India, and the Food and Agriculture Organization of the United Nations (FAO) in 2005-06 (Khosla, 2006), several NGOs were already pioneering work in the field of organic agriculture. These included the Institute for Integrated Rural Development (IIRD), Maharashtra, which had started assisting farmers in organic agriculture back in 1993 (IIRD, no date), the Keystone Foundation, Tamil Nadu, which had already made efforts to pilot PGS (Khosla, 2006), and the Organic Farming Association of India (OFAI), set up in 2002 and formally registered in 2006 (OFAI, 2016b). One important component of the MoA and FAO's programme was to develop participatory guarantee systems as a means of guarantee for organic products produced and consumed in domestic markets in India (Khosla, 2006).[5] The programme concluded with 14 organisations volunteering to trial PGS in their respective working areas (ibid.).

[5] In June 2006 consultations were made with stakeholders across India to better understand the status of organic farming and to get feedback on a draft PGS report. After improving the draft plan, in September 2006 a three-day workshop was held in Goa organised by OFAI and IFOAM.

Several points drove these non-governmental organisations' efforts to promote PGS in India (Khosla, 2006). Firstly, PGS should be low cost such that subsistence farming families could sell small amounts of their products. Secondly, it should require minimal paperwork, for paperwork is a burden on the farmer, and anyway a dishonest farmer simply wouldn't record their cheating. Thirdly, it should be regionally appropriate, fourthly, involve peer appraisals rather than third-party inspections, and fifthly, be based on horizontal networks without hierarchies. To build the organic movement, PGS was to be seen as complementary to and not competing with third-party certification schemes. As it was recognised that cheating cannot be stopped simply by applying a system, the idea was that farmers should have a solid support network for information and problem solving. It was also hoped that a single, strongly supported PGS label at the national level could aid India's organic movement as a whole. Full details of the 'steps to certification' in Indian PGS are found in Khosla (2006), which also lists the summary of Organic Standards (summarised in Box 1), organic farmers' pledge, peer inspection worksheet, and non-compliance guidelines (catalogue of sanctions) in its appendices.

Box 1: Summary of Organic Standards, based on the Indian National Standards for Organic Products

1. Synthetic chemical fertilisers are prohibited
2. Only organic fertilisers may be used
3. Synthetic chemical pesticides and herbicides are prohibited
4. The use of botanical pesticides is allowed
5. Farming equipment used for conventional farming must be cleaned before use
6. Bags used to harvest produce must be clearly labelled
7. All GMOs are prohibited
8. Farmers should have measures in place to check erosion
9. Burning of green material and crop residues should be minimised
10. Livestock must be treated in a humane way
11. Conversion period to full organic is 36 months; other farms may be certified 'transitional'
12. Each farmer must regularly attend in the PGS meetings of their local group
13. Each farmer must take an organic pledge
14. Each farmer must have completed a peer-appraisal of another farm; and have had a successful peer review of their own farm

Source: Adapted from Khosla, 2006, p. 21

Following a consultation process in 2006, the PGS Organic India Council was set up as an informal coalition of NGOs committed to the promotion of organic food production for domestic consumption in India. In 2011 it was registered as the Participatory Guarantee Systems Organic Council (PGSOC, 2014, p. 2). Currently PGSOC's website lists 14 organisations as having agreed to facilitate the implementation of PGS in their respective regions (PGSOC, 2016).[6]

As mentioned above, in 2015 the Indian government launched two initiatives: a programme for organic market development in India's Northeast; and a PGS programme for other states (Wai, 2016; OFAI, 2016a). The Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Cooperation, launched a website (www.pgsindia-ncof.gov.in, accessed in July 2016) which provides details of various councils and PGS groups. Most of the PGS groups listed have 50 members. For example, for West Bengal the portal lists fifteen PGS groups of about 50 farmers each (~750 farmers in total), spread across six districts, all organised by Jalpaiguri Vivekanand Education Society (JVES) (GOI, 2016a). I now turn to the case study of an organic agriculture project run by the Society for Equitable Voluntary Action (SEVA) in West Bengal.

Methodology

This study uses a qualitative research strategy. The study was conceived while the author was volunteering at IFOAM's head office in Bonn, Germany. A literature review was conducted to understand the extent of organic agriculture in India and the institutional arrangements that support organic farming. The IFOAM database, which includes the records of all PGS groups registered with PGSOC, was searched and later SEVA's project selected.[7] The field research used a representative case study design[8]. The research, conducted

[6] This list contains six of the 14 organisations that volunteered to pilot PGS following the 2006 Goa workshop: the IIRD, Keystone Foundation, the OFAI, Chetas Vikas in Maharashtra, Timbaktu Collective in Andhra Pradesh, and the Covenant Centre for Development in Tamil Nadu. In 2014 PGSOC reported that its 13 partners work in 12 Indian states, with over 616 small farmer groups, composed of 6234 farming families, cultivating over 16,000 acres of land under organic practices (PGSOC, 2014, p. 2).

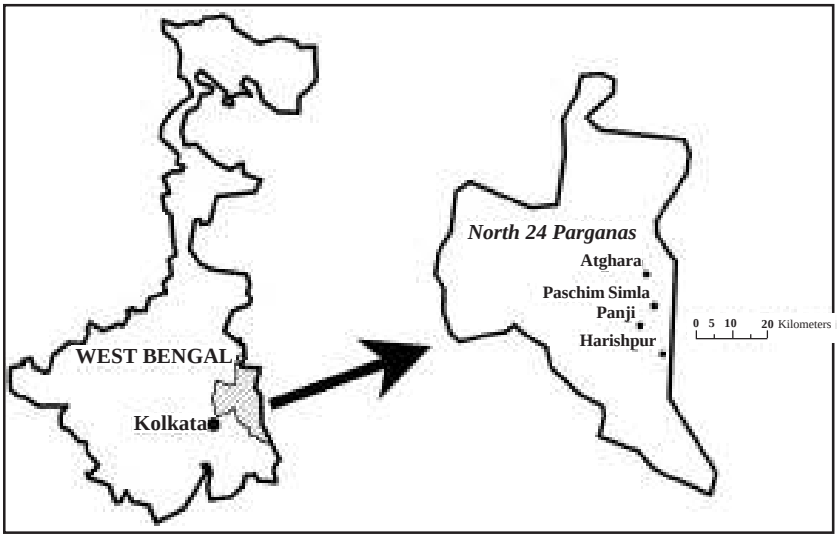
[7] Under IIRD's name, 53 PGS groups, comprising 318 farming families, were listed for West Bengal. On further enquiry IIRD's Joy Daniel provided the contact details for SEVA.

[8] According to Bryman (2008, p. 56, citing, Yin, (2003, p. 41) with *representative* or *typical* cases "the objective is to capture the circumstances and conditions of an everyday or commonplace situation".

independently and in a limited time period, sought to investigate how the NGO SEVA's PGS groups and farmers are faring. Semi-structured interviews were conducted with current and former staff at SEVA's project, Vikas Kendra and with several organic farmers. Several farms were visited and documents were examined and copies made, both in farmers' homes and the NGO's office. At an organic outlet in Kolkata, where SEVA's farmers' produce was sold to urban consumers, the sellers and several consumers were interviewed. Video footage and interview notes, and documents collected from the NGO's office were later transcribed and analysed. The results are divided into four sections: SEVA's organic experience, PGS from farmers' perspectives, the NGO's perspective, and the urban consumers' perspectives. This is followed by a discussion and conclusion.

The Vikas Kendra project

The project Vikas Kendra was started in 1985 by the Society for Equitable Voluntary Action (SEVA), a non-government organisation based in Kolkata. Vikas Kendra currently operates in 14 villages spread over several blocks in North 24 Parganas district (A. Rahaman, personal communication, July 31, 2016). In 1991 the project had selected 100 farmers in 10 villages and helped them convert to organic farming. Four years later, another 100 farmers were brought into the project. By 1998 the farmers began to encounter market problems; consumers were interested in



Map - 1. North 24 Parganas district showing the places mentioned in text

their produce but had little knowledge as to what exactly they were purchasing. In October 2003, SEVA partnered with the Institute for Integrated Rural Development (IIRD), and Vikas Kendra began to organise local markets (*bazaar* or *haat*). Their first organic *bazaar,* where farmers sell their produce directly to consumers, is located in Atghara village alongside an established market held on Mondays and Fridays (Map 1). Six months later a second organic *bazaar* was started at Harishpur, some 27 km away from Atghara. Also in 2004, three organic markets were started in Kolkata at Laboni (Salt Lake), Kasba, and Triangular Park (later another seven markets were started in Kolkata). Here a new problem emerged: unlike customers at local markets who trusted the farmers, urban customers wanted proof that the produce was organic.

In 2005 six of Vikas Kendra's staff members were invited to IIRD, Aurangabad for training in participatory guarantee system (PGS). On their return, Vikas Kendra set up 53 PGS groups, each comprising six farmers, totalling 318 farmers. These 53 PGS groups are organised into ten larger Jaiba Krishak Sangha (Organic Farmers Associations), which meet on a monthly basis. SEVA provided the OFAI's basic organic standards (Box 1), translated into Bengali, to all the group members, and created awareness of the same in all the groups. Each farmer filled and signed an *Organic Farming – Individual Profile* sheet, and throughout the years, has kept a farmer's diary. Each PGS group is divided into two peer groups. A peer group visits the other group members' farms and homes, carrying a *Peer Appraisal Form,* to check their organic cultivation practices. Only when they are satisfied do they certify the farmer organic. Vikas Kendra has facilitated many consumer visits and meetings between Kolkata-based consumers and organic farmers. Vikas Kendra added four new PGS groups in 2015, giving a total of 342 marginal (having less than 1 acre) and small (1-2 acres) farming families engaged in PGS certification. The farmers grow organic rice, pulses, oilseed and vegetables for home consumption and sell their surplus produce to generate a cash income.[9]

[9] In 2006 SEVA also began supporting farmers to grow organic jute. By 2015 it supported 638 farmers (including most of the 342 PGS farmers) producing organic jute on 160 ha, though in 2016 the number of farmers was down to 579, producing jute on 135 ha (A. Rahaman, personal communication, July 31, 2016). The jute farmers, whose product is sold in international markets, are divided into three internal control system (ICS) groups, with the certification costs borne by two companies, Ganges Jute Private Limited and Gloster Limited. SEVA's staff claimed that their farmers were the only farmers producing organic jute in India.

The farmers' views on PGS

In 2015 the 342 farmers supported by SEVA organically cultivated vegetables, pulses, paddy and oilseed on about 35.5 acres (14.4 ha) of land, most of which was irrigated by shallow and deep tubewells (SEVA, 2015). One farmer was Sabita Biswas, who lives in Panji village. She works as an ASHA health worker, her husband runs a small shop from their home, and her son is studying M. Tech. According to Vikas Kendra's records, Sabita's household organically farmed 0.13 ha of their 0.80 ha landholdings in 2008, having last used chemical inputs in August 2004 (SEVA, 2008a). In 2015 Sabita's family was growing vegetables, paddy (HYV) and pulses. Sabita claimed that they grew organic vegetables because the shelf life is five days as compared to one day for non-organic vegetable produce. Since converting to organic, Sabita said they have not needed to use doctor's medicines. Though the yield of organic vegetables is less than that of non-organic, the vegetables fetch a higher rate in the market. PGS, she said, is necessary only for marketing purposes. Most of the year they sell their surplus in the local market, and when production is higher in September-October they send vegetables to the markets in Kolkata.

Box 2: Organic vegetable production

The Government of West Bengal awarded Nirapada Biswas 5,000 rupees for "best farmer" under its ICF programme in 2005, and 10,000 rupees for 'Kishav Rakho' in 2013. In 2015 he grew 28 vegetable varieties, including *parwa*, sponge gourd, bitter gourd, chilly, lady's finger, peas, cucumber, pumpkin, red spinach, aubergine, green banana, papaya, cauliflower, red cabbage, potato, lemon, *kakro*, snake gourd, ash gourd. He rotates rice, vegetables and sesame on five plots, totalling one acre.

Picture-1. Nirapada with award certificate

Picture-2. On his organic vegetable farm

Nirapada Biswas, also from Panji village, is an award winning farmer (Box 2). He began organic agriculture in 1991, at a time when he was suffering from a blood disease that had

caused his entire body to bloat. His doctor had told him that he would die, and thereafter he had decided to stop using chemical fertilisers and pesticides. Before joining a PGS group in 2005, he used to grow and sell organic vegetables in the local market, which did not require certification. Nirapada explained that his group has six members, three each in two peer groups that visit each other's fields and homes to check that production is organic. He said that they can tell when vegetables are organic because they are rough but when chemicals have been used, the vegetables are bright and fine.

Nirapada claimed that he's able to run his household through organic farming. He doesn't have any input costs, and gets a good price for his produce which he sells twice weekly in the local market. His wife, when asked, could not say whether it was the consumption of organic food that saved her husband's life; however she did say that their family has no need for a doctor. Nirapada's daughter-in-law pointed out that organic food is quick to boil and tasty.

Another farmer is Sattar Biswas of Paschim Simla village. Sattar recalled that he began organic cultivation in 1993. He'd become ill, he said, by spraying crops with chemical pesticides and eating the chemicals' residues in his food. In 2008 he was recorded as growing organic jute on 0.5 ha (1.25 acres) of his land, and organic mustard and paddy on another 0.03 ha (SEVA, 2008a). In 2015 Sattar grew vegetables on 0.33 acres) and jute on 1.33 acres in the pre-monsoon season, and had sowed *ranjit* and *sona mukhi* rice varieties in the *kharif* season. The vegetables included gourd, ash gourd, lady's finger, basil, *parwal,* chilly, sponge gourd, and *ol* (elephant leg) – a root vegetable. He said he makes his own fertiliser from mixing *gobar*, organic waste and mustard oil cake, and he also uses green manure, i.e. leaving uprooted crop parts to wither on his plot. He uses *neem*, custard apple leaves, cow urine, and cow dung to make pesticides to spray on his crops. He also uses a pheromone trap to kill insects. Sattar said his organic veggies fetch a 20 percent higher price in the local market at Atghara, which he attends twice a week. Once a year he travels to Kolkata to see one of the organic markets. Sattar recalled that PGS started in 2004-06. He attended many meetings and seminars before deciding to join a PGS group. He said that by visiting other organic farmers he upgrades his knowledge, and that all his PGS group members are happy. Through his PGS group he's a member of a Jaiba Krishak Sangha (Organic Farmers Association) which has 42 members. The members deposit a total of 10-17,000 rupees each month, and can take loans solely for agricultural purposes.

The NGO's experience with PGS

SEVA claimed that its 342 PGS farmers are approved as organic, are aware of organic certification and its need, and are confident to carry out the certification process themselves (SEVA, 2015). Abdur Rahaman, of SEVA's Agricultural Department, said that by having small PGS groups, i.e. of six farmers, control of the PGS process is easier. He said that over the years up to a 100 farmers had been thrown out of the PGS groups for using chemicals. Due to its low cost and easiness, the farmers accept and have a good opinion of the PGS process. Asked about SEVA's connections with the organic movement, Abdur said that SEVA was once connected with OFAI however they aren't aware about PGSOC. They've received support from the jute companies Ganges and Gloster, from local donations, and from IIRD which ended in 2011. But the West Bengal government has never supported SEVA's agricultural work. Despite this, the farmers were still farming organically. Samples of the farmers' vegetables had been taken to Kolkata for testing and found to be chemical-free. Somewhat surprisingly, Abdur said,

> *NGOs have come from West Bengal, Odisha, Bihar and Bangladesh to learn from us about organic farming, but none of these organisations and individuals knew about PGS. So PGS is needed across India. We ourselves need to know more about PGS.*

Alauddin Ahamed, who earlier worked as Assistant Secretary at SEVA (1985-2008), but who now works with *Save Our Rice,* said that in 1991 when SEVA began supporting farmers, they gave them a subsidy to ease them into organic production. Later this subsidy was withdrawn, however the farmers continued. The farmers had found that production without chemicals was possible and that production costs were minimal. According to Alauddin, there is no need for certification when selling at local markets such as Atghara *bazaar,* because consumers trust the farmers. However for urban consumers trust alone is insufficient. To Alauddin, their biggest headache is linking up the organic farmers to markets in Kolkata.

Asked about certification, Alauddin said that the process of internal control system (ICS) used by jute farmers is an annoyance because it involves a lot of paperwork. Yet it's necessary because both Ganges and Gloster, who cover the costs of certification, sell the organic jute on international markets which requires IMO control (by the certification body APEDA). By contrast, with PGS there is no cost and less paperwork, making it ideal for small farmers growing

for domestic markets. He said that SEVA continues to support the farmers in marketing their produce, for example by running collection centres where farmers drop-off their vegetables for sale in Kolkata. After cleaning and weighing the produce, it is taken to various places in Kolkata, such as apartment blocks where in one hour all the vegetables are purchased by residents. A pumpkin that sells for 10 rupees in the local market, he said, may sell for 30 rupees in Kolkata.

Asked about state government support to organic farmers, Alauddin said that in the 24 years of SEVA's work, the West Bengal government had not even once supported them.

> *Uttarakhand are seeking to declare themselves an organic state, Kerala's Agricultural Minister has said that by 2020 they'll be fully organic, and Odisha and Chhattisgarh have also said they're going organic, yet West Bengal's government have made no changes to their agricultural policy towards organic nor have they supported organic farmers. Instead of supporting farmers, the government is more in favour of subsidies for chemical inputs and the introduction of GMO seed.*

Alauddin said that they are campaigning hard over such issues. They succeeded in stopping Bt brinjal from being introduced to India. However with the 'open' border to Bangladesh just 20-25 km from Atghara he was sure that the genetically modified Bt brinjal seed would cross into West Bengal. Thus, he said, organisations like *Save Our Rice* and SEVA continue to raise awareness on this issue, by focussing on in-situ conservation of rice, vegetable and other seeds, and by instructing farmers not to buy seed on the market but to preserve their own seed.

In 2016 SEVA secured funding from the Government of India's Paramparagat Krishi Vikas Yojana (PKVY) for a three year project to support 100 new organic farmers, organised into two groups of 50 farmers. By March 2016 SEVA had selected farmers in Jangalpur, Panji and Pingaleswar villages; villages which already had established PGS groups. According to an article posted on the OFAI website (OFAI, 2016a),

> *Under PKVY scheme, the assistance is provided to the farmers for cluster formation, mobilisation of farmers, PGS certification and quality control, conversion of land to organic farming, green manuring/biological nitrogen harvest planting, establishment of vermi-compost unit and transportation of organic products, packing, labeling and branding or organic products among others.*

According to Abdur Rahaman (personal communication, August 5, 2016), the new PGS groups are too big and are facing many problems: they are unable to maintain the PGS system properly.

Urban consumers' views of the organic produce

Sourav Baner and Sunetra Ghose Choudhuri set up their organic outlet, located at The Guest House on Purna Das Road, Kolkata, in April 2015. The produce sold at the outlet was sourced from Sourav's farm (he grows rice, pulses, vegetables, mustard and sesame), a friend's farm, and SEVA's farmers in North 24 Parganas district. Sourav or Sunetra purchased organic vegetables from SEVA's farmers on a weekly basis, and whatever they were unable to sell they themselves would consume over the duration of the week. According to Sourav, consumers buy organic because it's tastier, they don't want to eat chemicals, and fuel consumption is less for organic food because it cooks faster. When asked how he knows that the vegetables procured from SEVA's farmers were organic, he said that the first and main thing is trust. They also make surprise visits to farmers, and ask them questions like how they tackle pests etc. Trust is important because if a farmer wants to give chemicals he or she will, regardless of certification. Moreover, if a farmer was to use chemicals, eventually they would come to know, i.e. due to the PGS groups.

Several customers were interviewed as they came to the outlet to purchase produce. One customer said that she had been buying organic produce for the past five years, and that the food tastes like it used to, 20-25 years back, before pesticides began to be used heavily. Having eaten organic food at the Art of Living's Ranchi ashram, she had sought out a source of organic produce in Kolkata. She feels the difference when eating organic produce, and to emphasise her point said that it tastes so good spices need not be added while cooking. She came to know of this outlet only by the signboard on the street. She used to shop at Spencer's Retail of Kolkata, but could not get the organic produce she wanted there. Another customer said that Spencer's stock insufficient organic produce, which is why she comes to this outlet. Asked why she prefers organic, the second customer said the rice is easier to cook, has a pleasant aroma, and tastes better than conventional rice. Non-organic leafy vegetables, she said, need washing thoroughly to remove sprayed pesticides, so she and her family prefer organic produce.

Discussion

The statistics provided in *The World of Organic Agriculture 2016* (Willer & Lernoud, 2016) are promising yet for India at least, incomplete. India provided little land use or crop data for cereals, pulses, vegetables and fruits to FiBL for its survey (Lernoud & Willer, 2016, p. 86-114). This gives the impression that the actual extent of organic production in India is unknown. Through 1991 to 2015, the NGO SEVA received no support from the Government of West Bengal. Only in 2015 did the central government launch the Paramparagat Krishi Vikas Yojana (PKVY) under which PGS groups can be formed and supported. The *PGS for India* website portal currently lists 15 PGS groups in West Bengal all organised by JVES (GOI, 2016a); but does not yet mention the two groups of 50 farmers formed by SEVA in April 2016. According to the government's *Local Group, Operation Manual* (GOI, 2016b), PGS groups should have a minimum of five farmers; yet the new PGS groups of JVES and SEVA each has 50 farmers. Given the SEVA perspective that PGS groups of six farmers are more suited to the West Bengal context, it remains to be seen how these large groups will function. The same applies to the question of whether government-funded PGS groups will suffer from bureaucracy or over-regulation (D'Amico and Castro, 2016).

PGS has remained low cost, required minimal paperwork, involved peer appraisals, and allowed subsistence farming families to sell small amounts of their produce (Khosla, 2006). That Vikas Kendra's PGS groups have thrown about 100 farmers out of groups for use of chemical inputs in the past ten years is an indication that the system works effectively. That the 53 PGS groups formed in 2005 are still running is another positive sign. Yet the challenge of sluggish domestic market development (Kaellander and Rundgren, 2008), does not appear to have been overcome by SEVA and its PGS experience. Regardless, SEVA and its farmers have succeeded to produce and supply local markets and markets in Kolkata with a wide variety of high quality, fresh organic products. Though SEVA has done well over 25 years, in 2016 it is supporting only 579 farming families in a district that has a 10 million population (GoI, 2011). Scaling-up the number of farmers and the area under organic production, and creating market linkages especially to Kolkata markets, continues to be a major challenge.

From the farmers' perspective PGS is a success, as it helps them to sell their produce beyond local markets. These farmers have tiny landholdings and it's encouraging to see that they are living meaningful, dignified lives, earning sufficient income to run their households. All the interviewed farmers mentioned earlier episodes

of ill-health, indicating the costs incurred from conventional agriculture and its heavy reliance on chemicals. Another point relates to the skilling/deskilling debate associated with shifts to modern agriculture. Stone defines agricultural deskilling as "the degradation of the farmer's ability to perform" (2007, p. 73). By contrast, the PGS farmers of SEVA's Vikas Kendra project have developed multiple skills. For example, the farmer Nirapada Biswas has expertise in vermicompost preparation, soil fertility management, seed treatment and production, irrigation and water management, crop protection using only on-farm products, conservation of traditional varieties/ land races, post harvest management, processing, certification, policy and advocacy, consumer awareness, conversion (from conventional to organic), administration of internal monitoring system in group certification, local economy marketing, domestic marketing, as well as networking, social mobilisation, and education extension and training (SEVA, 2008b).

Conclusion

This study suggests that organic agriculture in India still has a long way to go. A ten year gap occurred between civil society and the government's efforts to develop a pilot system of PGS (in 2005-06), and the announcement by the central government of its PKVY and other programmes to support organic farming (in 2015). For farmers and NGOs like SEVA, lack of support from the government and the slow development of domestic markets is a cause of perennial headache. Yet PGS does provide an ideal system for marginal and small farmers to easily certify their produce as organic for sale in local and urban markets, which boosts their incomes. Farmers are themselves content with organic farming, and reap the benefits in terms of their good health and satisfaction. That just a tiny proportion of farmers are currently practising organic cultivation highlights the challenge that lies ahead for those promoting organic agriculture in India.

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