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Indonesian smallholder beef producers' perception of sustainability and their reactions to the results of an assessment using the sustainability assessment of food and agriculture system (SAFA) – a case study based on focus group discussions

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ABSTRAK

Penelitian ini berdasarkan penelitian kualitatif menggunakan Focus Group Discussion (FGD) pada peternak sapi potong di Kabupaten Semarang, Provinsi Jawa Tengah, Indonesia. Penelitian ini bertujuan untuk menganalisis persepsi responden tentang arti aspek keberlanjutan atau *sustainability* dan merefleksikannya dalam kegiatan sehari-hari sebagai peternak sapi potong. Pelaksanaan FGD diawali dengan menyajikan hasil analisis *Sustainable Assessment of Food and Agriculture* (SAFA) dari *Food and Agriculture Organization* (FAO) yang telah diujikan terhadap responden untuk memfasilitasi diskusi. Selama pelaksanaan FGD direkam menggunakan perekam suara digital, kemudian dilakukan transkripsi secara mendetail dan dilakukan proses *coding* dengan program Transana. Hasil FGD dimasukkan ke dalam tema diskusi (*themes*), sebagai dasar untuk analisis lebih lanjut. Tema-tema tersebut digunakan untuk membangun gambaran, pandangan dan pemikiran responden tentang aspek keberlanjutan berdasarkan hasil analisis SAFA, dan persepsi responden tentang tindakan pemerintah untuk mempromosikan aspek keberlanjutan, serta implikasinya bagi pembangunan pertanian. Responden penelitian menilai aspek keberlanjutan dalam konteks sehari-hari bukan sebagai konsep multi-dimensi. Dalam pandangan mereka, aspek keberlanjutan sangat terkait dengan kemampuan untuk melanjutkan usaha ternaknya agar dapat bertahan dan mempunyai kemampuan untuk menyerahkan usaha tersebut kepada generasi berikutnya.

Kata kunci : peternak sapi potong di Indonesia, Sustainability, SAFA assessment

ABSTRACT

Beef cattle farmers were interviewed about what "sustainability" means to them with regard to their daily practices, both in their daily working life and after being confronted with the results of an assessment conducted on their farms prior to a focus group discussion (FGD) utilizing the Sustainability Assessment of Food and Agriculture (SAFA) system developed by the Food and Agriculture Organization (FAO) of the United Nations. The study presented in this article was based on two FGDs, using the results of the SAFA online assessment as a tool to initiate and facilitate the discussions. The two group discussions were recorded using a digital voice recorder, transcribed in full and then coded using the software program Transana. The discussions were organized into themes, which allowed a basis for the further analysis. The themes allowed us to build a picture of the participants' views and

thoughts on sustainability with regard to their farming management practices in the light of the SAFA framework, and their own thoughts and perception of the government's action to promote sustainability, as well as to consider its implications for the futures of their own farms. The interviewed beef cattle farmers thought of sustainability on a day-to-day context rather than as a multi-dimensional concept. In their views, sustainability was very much about being able to continue farming, for the farm to survive and about being able to hand it over to the next generation. However, when presented with the four dimensions of the SAFA framework, they acknowledged the wider perspectives and different aspects of sustainability and reflected about how their own agricultural practices related to these wider aspects too.
Keywords: Indonesian smallholder, beef cattle farmers, sustainability, SAFA assessment

INTRODUCTION

The concept of sustainability has been interpreted, presented and understood in many different ways in relation to agriculture (Pretty, 2008). Pugliese (2001), for example, describes "sustainable agriculture" as a form of agriculture that includes a dynamic set of practices and technologies that enhance the environment while providing income to the beef cattle farmer over a long period of time, in combination with agricultural and social practices that will lead to long-term economic benefits and that are socially attainable in local rural communities.

Different frameworks for sustainability assessment, policies and actions have been organized and implemented, e.g. RISE (Häni *et al.*, 2003), *Indicateurs de Durabilite des Exploitations Agricoles* or Farm Sustainability Indicators or IDEA method (Zahm *et al.*, 2008) and "Rapid Assessment" (Leach *et al.*, 2012). Each initiative has an underlying perception of how the concept should be framed and understood. These underlying perceptions may or may not be explicitly explained or brought into the debate. The Food and Agriculture Organization of the United Nations (FAO) developed a system for the sustainability assessment of agricultural and food systems termed the Sustainability Assessment of Food and Agriculture (SAFA) system, in which four dimensions of sustainable development are taken into account and measured using multiple indicators, namely environmental, economic, social, and governance dimensions (FAO, 2013b). The SAFA tool is designed to assess sustainability at the level of farms and companies involved in the food and agriculture sector (FAO, 2013a). It is based on the FAO's definition of sustainability: "the management and conservation of the natural resource base, and the orientation of technological and institutional change in such a manner to ensure the attainment and continued satisfaction of human needs for present and future generations. Such sustainable development (in the agriculture, forestry and fisheries sectors) conserves land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable (FAO, 2012)".

The Indonesian government developed and promoted an Indonesian national strategy for sustainable development in 1997, which it initiated in order to accelerate sustainable development in order to combat poverty, enhance environmental protection and rehabilitation, support sustainable resource management and promote the participation of different segments of society in the decision-making process (Ministry of Environment, Republic of Indonesia, 1997). The strategy document provided an overview of the key environmental and development issues important for Indonesia, including human services, waste management and natural and land resource management.

The present study was based on a case study analysis of Indonesian smallholder beef-cattle farms using the SAFA framework (Gayatri *et al.*, 2016). After the assessment was completed, the results were presented to the farmers in specially set up focus groups, which allowed them to explore the results and discuss their views on, and perception of, the concept of sustainability, and how they saw their own practices – both in relation to their own perceptions and in relation to the way in which sustainability was presented to them.

Many studies in the literature have focused on measuring farmers' perceptions of sustainability through analyzing quantitative data, such as Agahi *et al.* (2011), whose study involved 140 wheat farmers in Iran and utilized structured interviews. They found that there were direct relationships between a numbers of socio-economic factors that were predefined by the

authors, such as education, the use of information sources and extension services, and the perception towards sustainable agricultural practices. In the present study, we chose to study the farmers' own perceptions of sustainability and how they relate this to their own working practices by using focus group discussions (FGDs), as we felt that it was necessary to hear their own words on both their perceptions and working practices when they were presented with the concept of sustainability defined in the SAFA framework, which may not be a definition they had heard or consider before.

MATERIALS AND METHODS

Study Sites and the Choice of Research Approach

The study presented in this article was based on two FGDs that took place in Bawen and Ungaran Barat districts, respectively, in Semarang Regency, Central Java Province, Indonesia based on consideration as highest population of beef cattle in Semarang Regency. Prior to conducting the FGDs, the interviewer conducted an SAFA assessment of each of the farms of the beef cattle farmers involved in the FGDs. In this way, six different beef cattle farms were assessed in total, involving three farms of different types (described below) from the two districts, and these provided the background for the two FGDs. The results of the SAFA assessments were presented to the respective beef cattle farmers during the FGDs so they could discuss them in the group. With this approach, the researchers aimed to ensure both homogeneity and heterogeneity in the group in order to ensure some degree of commonality among the participants but with sufficient variation to allow for contrasting opinions to be included as well as a range of experiences (Halkier, 2010). This also allowed potentially opening up a common exploration of how different ways of farming potentially related to the concept of sustainability used by SAFA. The three different beef cattle farm types represented in the assessment in each district were: 1) family farming systems utilizing family labour only, 2) family farming systems utilizing family labour and hired labour and 3) farming systems where the household head was a farmer and also engaged as a middleman in the marketing of beef cattle.

The use of focus group discussions is well established as a legitimate data collection method within a qualitative research tradition (Barbour, 2007). The rationale behind the use of focus groups in this study was the advantage they offered to bring together a diverse group of farmers from different farm types and with different experiences, which facilitates and encourages a greater variety of communication and the participants opening up compared to other qualitative methods of data collection, such as individual interviews (Holkier, 2009). It was felt that the group discussions would allow the participants to explore together the concept of sustainability as defined by FAO, and hence to help bring it from a rather abstract level to a level where they could see it in the context of their own daily practices. As a research tool, we considered that the FGDs could provide insights into the range of opinions, experiences, practices and ideas among the participants, who came from different types of smallholder beef-cattle farms.

Selection and Recruitment of Participants

The head of the Central Java Province Livestock and Fishery Office was approached as a key informant and was briefed about the interview plans, including our wish to include one farm from each of the three farm types. He was able to identify a number of farms of each type, and from these, three beef catlle farms were selected using a stratified random number system; whereby we divided the population of beef cattle farming system into three smaller groups, called "strata", comprising family farming systems using family labour only, family farming systems using family labour and hired labour, farming systems where the household head was a farmer and also engaged as a middleman in the marketing system and neighbouring farmers. Next, we randomly selected one farmer of each strata from Bawen and Ungaran Barat districts, respectively. In addition, we added the wives of six farmers, one of the farm labourers of the three farm types, and a neighboring farmer participated in the FGD groups, in order to add other perspectives from different angles. In total, there were 16 participants in FGDs.

The Focus Group Discussions Sessions

The focus group discussions were guided by a moderator (the interviewer and first author), who introduced the topics for discussion and helped the group participants to engage in the discussion among themselves about the concept of sustainability, using the following agenda:

1) Session 1 – at the start of the FGDs, the

moderator gave a brief introduction to "the sustainability concept" according to the SAFA framework, and its four dimensions- environmental, economic, social, and governance and how it relates to agriculture. This gave the background for the group to discuss their own farm practices and how they could relate to the four dimensions of the SAFA framework.

2) Session 2 – in the second part of the discussion, the results of the SAFA assessments of the host farms were presented to the group. This was followed by a discussion in the group about whether their own performance was regarded as "good" or "limited" according to the SAFA framework, and what their own views on this were.
3) Session 3 – the third part of the FGDs focused on their perceptions of sustainability as a more general reflection, bearing in mind that by now their perceptions will have been influenced by the discussions in the two previous parts of the FGDs. The opening question for this part of the discussion was: 'What is your immediate thought when I say "sustainability", and what do you think of it in terms of your own agriculture and farm management?'.
4) Session 4 – the final part of the FDGs involved closing the session by getting the participants to talk about their views on the future, specifically their future plans for their farms, including how they planned to improve their farm management in the future.

Data Analysis

The two FGDs were recorded using a digital voice recorder, and the recordings were transcribed in full and coded using the software program Transana. This allowed us to group the statements into themes, in order to identify patterns within the data and within the many discussions in the groups, and hence to improve the overview of the data, while still describing the data in detail (Braun and Clarke, 2006), with the purpose of analyzing it. Braun and Clarke stated that a thematic analysis is exciting because the researcher can discover themes and concepts embedded in the discussion as it proceeds between the participants. A thematic analysis is different from other types of analysis of qualitative data, such as individual semi-structured qualitative interviews, where e.g. a grounded theory analysis is carried out to seek patterns in the data in order to generate and develop a new theory. We argue that the themes or patterns within data can be identified through this type of thematic analysis, which can also make it possible to discuss the results beyond a particular context. Furthermore, Onwuegbuzie *et al.* (2009) explained that thematic analysis seeks the contexts within words, which is especially important in focus groups because it helps to identify themes. The results of the FGDs were thus organized according to the themes that emerged under the headlines for the four different FGDs' sessions. Next, the themes were organized into "thematic headlines". We divided the result into two tables. Table 1 shows the result of FGDs based on FGDs session 1. The themes were organized into thematic headlines, which were partly organized in accordance with the FGDs session 1. Table 2 shows the participants' perception as the result of FGDs session 2, 3, and 4. The thematic headlines were mainly on the basis of the themes identified during FGDs sessions 2, 3 and 4.

RESULTS AND DISCUSSION

The results of the analysis are shown in Table 1 and Table 2. The themes present a picture of the participants' thoughts about sustainability in their farm management and working practices as reaction to the FAO/SAFA definition of sustainability, and their own thoughts and perception of the government's action to promote sustainability, as well as the future perspectives for their own farms. Table 1 shows the result of FGDs based on FGDs session 1.

Beef Cattle Farmers' Applied Agricultural Practices in Relation to the SAFA Definition of Sustainability

The participants explored together each of the four dimensions of the SAFA framework by linking them to what they did at home and on their farm. During the discussions, they expressed surprise that several of their own daily agricultural practices appeared to already relate to sustainability, as seen from a broader perspective, either by enhancing or challenge the overall sustainability of their farming system, and also that there were plenty of possibilities to improve

Table 1. The results of the FGD session 1. In the right-hand column, the themes emerging under each point are presented. These were organized into thematic headlines, which were partly organized in accordance with the FGD session 1

Headlines of FGDs' Sessions	Thematic Headlines	Themes Emerging from the Discussion
Applied agricultural practices that the farmers thought of when they heard about the four dimentions of the FAO SAFA definition of sustainability (FGD session 1)	Environment dimension	- Farmers realized that some of their current practices related to environmental issues - Composting manure is a current practice - The use of waste water for crop irrigation is done - Some farmers had reduced the amount of water used for cleaning the stables - Some farmers had built biogas plants at home
	Economic dimension	- Farmers renovated the stables for future use - Farmers realized that minimizing risks can increase production stability, such as making hay and storing feed for the dry season
	Social dimension	- Beef production has benefitted the local economy, e.g. through the provision of meat for local consumption and by providing jobs for people near the farm - There were normally clear agreements between employees and the farmer - Equal decision-making was agreed between the husband and wife
	Governance dimension	- Farmers would like to have continued support from government to promote practices that can make their farms more sustainable

their working practices.

The groups discussed the environment dimension of sustainability and together identified a number of common agricultural practices that influenced and potentially contributed to improving the environment, such as composting manure (which most of them did), using the benefits of mixed crop–livestock systems, using waste water for crop irrigation (which only some of them did) and reducing water use for cleaning the stables. In addition, with the funding provided by local government, some of them had also built mini biogas plants for home use. Farmers began to realize the potential influence that their current working practices had on the surrounding environment. At the end of this discussion, the farmers agreed that they actually already did a number of things that could lead to improving the environment, and on the other hand, that there were other things that they needed to be aware of this.

It was seen that the farmers also implemented practices related to the economic dimension of sustainability, such as renovating their stables to access long-term benefits, and by planting grass or corn as well as by making hay to feed the animals from their own resources to reduce the need to buy feed. Ensuring the stability of their farms was particularly mentioned several times during the discussions. The farmers identified several potential risks that could threaten the sustainability of their business, such

Table 2. The perception of the participants based on the result of FGDs session 2, 3, and 4. The thematic headlines were organized and mainly on the basis of the themes identified during FGDs session 2, 3, and 4

Headlines of FGDs' Sessions	Thematic Headlines	Themes Emerging from the Discussion
Farmers' reaction upon seeing the result of the FAO SAFA on the host farms (FGD session 2)	Realizing a broader concept of sustainability	- The concept of sustainability has some elements or dimensions that have never discussed among farmers before - Farmers agreed that it would be useful to be made aware of how to ensure the sustainability of their own farms and of farming in general - SAFA and this kind of discussion can give some guidance on how farmers could perform better in the future – they just need to know how to use this guidance in practice
	Realizing 'the government actually did something'	- The government supports some farming practices that could improve sustainability aspects, through subsidies, grants, donation and by disseminating information - There are no existing regulations to prohibit the conversion of agricultural land into non-agriculture activity, e.g. to prevent increased urbanization – this is a major threat to farmers and farming
Farmers' perception of what is sustainable (FGD session 3)	What mattered to the farmers to make them feel that beef-cattle farming was sustainable	- A continuous improvement of farming management - Low cow mortality - Cows in good condition - Availability of feed resources - Being able to reduce the smell from manure on and around the farm
Motivation to continuing farming (FGD session 4)	Cows versus cash	- 'The cows are my bank': The cows can easily be converted to cash
	Strategies to continue farming	- Saving to invest in new cows - Borrowing money from neighbours to buy feed
	How does the youth see farming?	- City life is easier - Being farmers is not an interesting future - Farmers' concern on the farm will survive whether they will able to hand over the farm to the children or how their children will make it

as the lack of available pastures and feed and animal diseases. In response to these risks, the farmers tried to plan for stable feeding, to avoid input supply during the dry season, and to make hay and store feed. They were aware of the importance of keeping the cows in a healthy condition, and tried to identify any early symptoms of disease, as well as maintaining a good hygiene level and stability in animal management. Furthermore, the farmers emphasized the long-term aspects of maintaining economic stability as being important for the

sustainability of their farm and the farming sector. The farms benefitted the local economy through providing employment, paying local taxes and supplying beef cattle locally. This aspect of farming is related to the social dimension of sustainability in the FAO SAFA framework, which deals with maintaining social relations and contributions to the community. This can, for example, occur through the employment of local people when renovating and constructing housing facilities for the animals. Fair contracts between farmers and their employees, e.g. the inclusion of overtime payments where appropriate, were also mentioned. The shared ownership of farms and shared decision-making by husbands and wives were also mentioned as crucial for long-term social coherence and for maintaining a stable framework for the farm. Although the husband was normally regarded as "the household head" and leader for the daily work, normally his wife and the other family members were involved in the work and shared the decisions and responsibilities, e.g. what to invest in and what to prioritize. Indeed, the FGD participants agreed that normally there was no discrimination between the husband and his wife who helped to run the farm practices. In addition to the governance dimension of the FAO SAFA framework, the participants mentioned the role of the local government in improving beef-cattle farming. They hoped that the government would continue to provide support to the farmers to help them improve their farm management, such as by subsidizing feed.

Beef Cattle Farmers' Reaction to the FAO SAFA Results for the Host Farm

The focus groups were introduced to the sustainability concept based on the SAFA framework. The FGD participants had never before been introduced to sustainability as a multi-dimensional concept before. Two sub-themes emerged as a reaction to the results from the SAFA assessment carried out on the host farm. First, the whole discovery of the different dimensions to sustainability under this framework and then trying to relate this sustainability concept to their own daily life and working practices led to a lot of discussion, with a lot of this covering new ground as they had not considered this concept of sustainability before in relation to their own farm practices. The also realized that they actually applied already many agricultural practices that already contribute to sustainability and that could be helpful when planning future farm management, and this made it more relevant for them to be aware of the existence of a sustainability framework, with all its aspects and tools, that could to guide the development of appropriate work practices. The participants agreed that the sustainability concept and its different aspects could be used as guidelines to support continuous improvement and capacity building in order to sustain farming practices and to shape future fair practices in an agricultural context, with the long-term objective of making farming more sustainable, not only just by "surviving" but actually by contributing to an improved environment for future generations. As part of this, they also acknowledged that linking the different aspects of sustainability with their own current practices and taking advantage of the future possibilities to develop additional and improved practices, together with evaluating the strengths and weaknesses of their farms, could help them to obtain a clearer understanding and idea about their future directions.

Second, they gradually discovered how the government actually did something to promote a better and more stable production, as well as higher farm productivity. However, the farmers also had negative experiences and perceptions of the government's role in beef-cattle farming and expressed the view that the marketing infrastructure could be greatly improved, maybe through government regulation of some kind. The participants felt that the government did not fully commit itself to ensuring sufficient future farm land remained available, namely as the participants felt the government had accepted the large-scale conversion of agricultural land into uses for non-agriculture activities, such as housing. The participants felt more land would be required for feed, if beef production were to increase; however, the opposite had happened over the last few years with less land available, with the reasons being, among others, because of increased population density and due to land divisions between siblings, as inheritance. The consequence of this was to make it increasingly difficult to sustain their livelihoods on the land available. The FGD participants agreed that it is important for the future of beef-cattle farming that the government should intervene with new regulations to at least protect agricultural land, perhaps as part of a beef self-sufficiency programme for the country.

Beef Cattle Farmers' Perception of Sustainability for Them in Their Daily Lives

The FGD went on to discuss the perception of sustainability in general: what mattered to the farmers to make them feel that farming could be carried out sustainably in their daily lives? The participants all agreed that the future of beef-cattle farming is dependent on a continuous improvement of farming management. For beef-cattle farming to survive in the future, the farmers need to improve their farming management. However, the farmers also talked of sustainability much more on a day-to-day basis. They defined it among others as 'surviving' and 'being happy', and mentioned the importance of there being no cow mortality or dangerous diseases.

Sustainability as a word or concept was not really directly mentioned by the farmers, who rather talked about how the farm could 'remain working' and articulated this as 'surviving', e.g. in relation to the availability of feed resources during the dry seasons. A social life and good relations with the neighbours were also seen as important factors to survival, and in this case, examples where the neighbours complained about the smell of manure were brought forward, both because the social coherence in the neighbourhood mattered and because the farmers realized that the smell was a direct indicator of pollution, which could affect the environment. Often, the farmers were not aware of this and that it was their own responsibility to solve it.

Farmers' Motivation to Continue Farming in the Future

Cows were described as 'savings', because they could relatively easily be converted into cash when the farmer families needed money, such as to send the children to school or to support a wedding ceremony of their children. Still productivity was a big challenge and took up most of the discussion between the FGD participants. To survive and thus to continue farming without going bankrupt was the main articulation around the subject of the 'sustainability of their own farm and farming', and their strategies were organized around this, including in terms of savings, getting over debts and borrowing money from neighbours, e.g. to buy feed or to pay for artificial insemination of their cattles.

The Future of Farming: Youth not Attracted to Farming

The participants discussed how the youth viewed beef-cattle farming, and agreed that there was a general lack of interest in farming among the younger generation. The participants said that, generally, the youth – even their own children – thought that it was better for them to get a job outside farming. They thought that it was because the youth felt that being a farmer is not an interesting future, despite their parents' efforts to build up a farm that could be handed over. However, they believed that if the younger generation would learn from their parents, they might decide to stay in farming, especially if the parents could show them that beef-cattle farming could be profitable. The participants raised strong concerns that the whole smallholder beef-cattle sector was at risk of disappearing, and that if this were to occur, it would impact the nation in general in terms of its food supply in the future.

DISCUSSION

In a previous interview study involving Indonesian smallholder beef producers (Gayatri and Vaarst, 2015), the life situation of the farmers was analyzed, showing how they faced many challenges that limited their possibilities for taking new initiatives and developing new or improved farming practices, in order to, for example, increase beef productivity. It also highlighted the fact that beef cattle farmers were mostly unaware of the existing government policies on beef-cattle farming. Likewise, this study points to the fact that concepts like sustainability have not been raised explicitly with farmers and do not feature in discussions among farmers in the farm environments, neither as a wider concept nor as guidance for future choices, policies or options for development. In this study, we wanted to kick-start this dialogue and chose to do it as a case study to open up a discussion on how to potentially go forward.

How Do the Beef Cattle Farmers Understand the Concept of Sustainability?

The results of the focus group discussions showed that the beef cattle farmers had not heard of the wider concept of sustainability. Nevertheless, after it was introduced and then by discussing it, they could see the relevance of it, and could even link some of their current practices to it. The farmers thought about sustainability in a much more day-to-day context, where sustainability was about the continuance of farming, in order to survive to be able to hand the

farm over to the next generation. The farmers' discussions reflected the gap between the multi-dimensional view developed by many teams of scientists and actors from development organizations and institutions, including larger organizations and institutions like e.g. the FAO, and the view of a group of farmers working at the farm level, and who are mostly focused on making things work on a daily basis and, to some extent, safeguarding the farm for the next generation. They had in other words a much more down-to-earth based idea of sustainable farming, and one which involved a time horizon that could be overviewed by the current generation. In light of the many efforts done by the before-mentioned teams of actors to formulate goals and create practical frameworks to assess sustainability in practice in a farm context worldwide, this questions the wider practical implications and implementations of their efforts if the concept of sustainability has not diffused into farm environments as something meaningful on an everyday basis. Bruges and Smith (2007) mentioned that collaboration and participation among government institutions and communities are necessary and meaningful in the process of moving towards more sustainable forms of agricultural production. However, the first important step is to have a common understanding of the goals. This brings up the question of how to involve all the actors on the ground – in this case, the smallholder beef producers – in setting and bringing larger sustainability goals into practice? This could point to a need to increase and improve the way in which the concept of sustainability is introduced and linked to practical action from the government level to farmers and the farming community. According to Pannell and Schilizzi (1999), there is a need to build a system and this is essential to introduce and improve the understanding of sustainability. This system is envisioned in its broadest sense to cover the individual farm, to the local ecosystem, and to communities affected by this farming system both locally and globally, in order to explore the interconnections between farming and other aspects of the environment, including the social and economic dimension. Pannell and Schilizzi (1999) suggested that it has to be addressed by focusing on particular aspects of sustainability that the decision-maker considers important, and presenting information about the trade-offs between the different aspects of sustainability (environment, social, economic, and governance) within a multiple criteria decision-making formula.

Making the transition to sustainable agriculture is a long process for farmers (Dillon *et al.*, 2009). Dillon *et al.* (2009) referred to a study in which they assessed the sustainability of Irish agriculture, and demonstrated that the transition to sustainable agriculture requires a series of realistic processes. Farmer families' economic condition and personal goals influence how fast or how far farmers can go in the transition. It is also important to realize that each small decision can make a difference and can contribute to advancing the entire farming system towards it becoming a more sustainable form of agriculture, for example, applying new agriculture practices to improve a farmer's income.

Mollenhorst and de Boer (2004) mentioned that there are many ways to improve the sustainability of a farming system through applying some common practices and daily management. In their study, they included water consumption for production, composting manure, improved feeding practices, participation in farmers' groups, and utilizing extension programmes. All these practices contribute to long-term farm profitability, better environmental stewardship, and the rural quality of life.

The Relevance of Using the FAO SAFA Tool as Interview Tool in an Indonesian Context

In the focus group discussions, the SAFA framework developed by the FAO used as a tool for the data collection and to encourage participants to discuss and explore the concepts together as a group, rather than the alternative of them being interviewed by the group moderator. Based on the moderator's observations, the tool helped the participants to focus on the topics related to the different aspects of sustainability, which were introduced into the discussion by the first author, which the farmers responded to and reflected about, which threw up some interesting results as this was the first time they had ever been confronted with all the different aspects around sustainability. Also, this newness to the wider concept was obviously a challenge for the conversation, and the last part of the discussion also showed that just by asking about their perception of their own farm's sustainability, the concept was defined completely differently, as discussed above, where one farmer explained that they use compost manure rather than pesticides, illustrated that words may have different uses and

meanings, and "pesticides" in this case seemed to be confused with "mineral fertilizer". The choice of assessment method was chosen by the authors because they believed this particular discussion was valuable and that it was necessary to hear the farmers' own voice when talking about the future of Indonesian beef-cattle farming, which has been in focus since 2004 through a special programme aimed at Indonesian beef production self-sufficiency. Based on our results, the SAFA tool could potentially and relevantly be used to open up discussions and practical implementations on the use of practices that could contribute to one or more dimensions of a future sustainable development drive, such as a joint community effort for local food systems including beef, or the use of agricultural methods without the use of external or chemical inputs.

CONCLUSION

The participants in the focus group discussions (FGDs) defined sustainability as 'being able to sustain the farm in the relatively near future'. At the same time, being presented with a wider concept of sustainability, they were able to identify and relate some of their own agriculture practices to these sustainability dimensions. They were surprised that several of their own daily agriculture practices contributed to sustainability as seen from a broader perspective, and also, realized that there were plenty of possibilities to improve their working practices. According to the participants, beef-cattle farming will survive in the future if farmers can improve their farming management. The FGD participants had concerns related to their future possibilities to continue in farming, such as a perceived lack of commitment from the government to protect farm land, which had a great influence on the availability of feed resources.

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