

## **Catering for sustainability: building a dialogue on organic milk**

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**Abstract.** As an industrialised high quality food commodity, organic milk would present a reliable option to feature catering for sustainability. However, its use in schools, hospitals and workplaces is minimal in Finland at the moment. To boost perspective taking on organic milk among caterers, a co-developmental dialogue in terms of organic milk was employed by researchers and practitioners. The first turn of the dialogue was taken by the researcher who invited the caterers to focus on organic milk; the second was offered by practitioners, who disclosed their views about organic milk in individual interviews and focus group discussions. The third turn was taken by the researcher, who shared information with caterers about their issues and suggested the test use of organic milk. As the fourth turn of the dialogue the caterers responded to the researcher by their chosen practices for the (test) use of organic milk. The dialogue as a participatory research method seemed to offer new ways to promote catering for sustainability.

**Key words:** participatory method, dialogue, organic milk, public catering, catering for sustainability

### **INTRODUCTION**

Public food has been interpreted as ‘prism’ of sustainable development, mediating sustainability between supply chains and customers. This mediation is coined in the notion of catering for sustainability, which seeks to support social justice and more equitable economic development, both locally and across distances, and to integrate these with environmental protection (Morgan & Sonnino, 2008). ‘Flagship’ cases for public food promoting sustainable development are reported in world cities such as Rome, London and New York, and less well known cases can be identified in urban and rural areas in the UK and Italy (Morgan & Sonnino, 2008) as well as in the Nordic countries (Mikkelsen et al., 2007). In Finland, developments such as these command political support by a national program (Getting more from less, 2005) seeking to increase the consumption of local and organic food, often one hallmark of catering for sustainability (Morgan & Sonnino, 2008). This paper stems from the research project ‘innovative Public Organic food Procurement for Youth’ (iPOPY), studying the ways to increase the consumption of organic food by public catering, in alignment with European and national policies for sustainable consumption and production.

Within the research project, organic milk as an industrial, safe and secure food seemed interesting as a sustainable commodity. Milk is a basic part of the school meal in nutritional terms (Lintukangas et al., 2007) and some consumers regard organic milk as a sustainable food choice (Hill & Lynchehaun, 2002). It offers more equitable income for dairy farmers, is available in ample supply supporting dairy companies’

strategies for future (Franks, 2003), means reasonable cost for institutional consumers (Morgan & Sonnino, 2008) and implicates environmental benefits such as not using pesticides and synthetic fertilizers.

Many governments have used participatory research approaches to further sustainable agriculture (Bruges & Smith, 2008). While participatory methodologies in research have been seen both as means to ends and fundamental rights (Pretty, 1995, in Bruges & Smith, 2008), these methods promote practical solutions in cases where research participants have the primary decision-making power; evidently they also expect to benefit from the participation in the research (Bruges & Smith, 2008). Participatory methodologies include the dialogue 'family', which features commitment to dialogue, reciprocity, listening to the other, understanding, experience and realization as well as finding solutions for various situations (Bohm, 1996). Because public caterers often tend to look rather for efficient processes with volume products implicating cost benefits than to sustainable food choices such as organic food (Mikkola, 2009), such a dialogue seemed to offer a suitable method for mapping issues and creating decision making ground (Cronin & Jackson, 2004) for the use of organic milk within public catering. Dialogue as a research method also aligned with Franks' (2003) recommendation about greater distance between organisations campaigning for and the ones informing about organic milk. This paper reports about the dialogue as a participatory research method in promoting the use of organic milk in public catering in 2007–2009 in Finland. The paper analyses what kind of perspectives caterers made and took (Boland & Tenkasi, 1995) for the use of organic milk as a sustainable practice and concludes with the evaluation of the method applied in this project.

## **MATERIALS AND METHODS**

Dialogue as a participatory research method was chosen because through dialogue, participants may deliberate on issues, identify areas of common ground and build mutual understanding with the researcher(s) as well as find support for informed debate and decision making (Cronin and Jackson, 2004). According to these authors, dialogue may also provide 'early warning' of potential problems and opportunities. The participatory method relies on committed research participants, and a relation of trust is a presumption between researcher and participants (Bruges & Smith, 2008). These authors suggest that when project goals are negotiable and flexible, honest researchers and dedicated communities may further their goals by a participatory research approach. In this study, the researcher exhibited honesty on two levels. Firstly, the researcher made and took personally a perspective towards organic milk as a sustainable product (Risku-Norja & Mikkola, 2009). Secondly, the researcher explicated personal commitment to catering for sustainability through the project work, but left, however, in flexible way responsibility for operations and innovations for caterers themselves. The researcher also understood to some extent caterers' positions and commitment for the dialogue through their professional identity for sustainability, which in some cases called for the use of organic food, in others critically questioned the justification for this and in still others delimited the focus on sustainability by exclusion of supply chains (Mikkola, 2009).

The researcher structured the dialogic process in co-operation with participating networks during 2007-2009. This process made use of background understanding

about the use of organic milk in catering, which was developed by expert interviews dealing with vitamin D fortification of organic milk and focus group discussions about green house gas emissions of dairy and vegetable milks to be used in catering (2007–2008). The core of the dialogue consisted of turns between the researcher and the 15 caterers representing five different catering organisations, supported by interviews and discussions with dairy experts during 2008–2009. The first turn was taken by the researcher, who took a perspective for organic milk, invited the caterers and their organisations to participate in the research and finally suggested organic milk to be tested as a sustainable product. The second turn was taken by caterers who presented their views in interviews about the current and optional use of organic milk in public catering. The third turn was taken by researcher, who sought for and shared additional expert information to cope with caterers' views, who, in the fourth turn, responded by their perspectives and decisions about the (test) use of organic milk. The caterers' interviews regarding organic food, particularly organic milk, and their informal discussions and communications with the researcher were used for mapping practical issues and solutions (Cronin & Jackson, 2004) in the use organic milk in public catering. The interviews of the professionals were transcribed verbatim. The informal discussions and electronic messages, created during this dialogic process, represented 'self-ethnography' (Alvesson, 2003), which was used to support the discursive interpretations based on the text analysis of caterers' perspectives (Fairclough, 2003) on the use of organic milk. The limited time frame of the research project does not allow for the prolonged follow-up of developments.

## RESULTS

### *First turn - Researcher's perspective*

A perspective for organic milk as a sustainable commodity was made by the researcher. The developmental trajectory of agriculture was seen to have proceeded through volume oriented conventional agriculture to the alternative one, such as organic and other extensive agricultural production practices, to sustainable agriculture, whereby the economic, ecologic and socio-cultural aspects of agricultural production are implemented as intertwined activities supporting the continuity of both the human and other populations (Risku-Norja & Mikkola, 2009). Currently, organic agriculture is often conceptualised as a member of 'the sustainability complex' whereby it becomes framed as sustainable. However, sustainable agriculture does not comply with particular regulations in the way organic agriculture does, but adopts an orientation towards low-input farming allowing the use of agrochemicals when needed to keep up with the crop levels, at the core of the dynamic relation between the population's nutritional demands and available food supply (Risku-Norja & Mikkola, 2009). The feasibility of organic farming obviously varies, but in addition to sometimes 'modest products' (Morgan & Sonnino, 2008) there are also cases where high quality products are cultivated in favourable conditions, depending on the variety and locality (Risku-Norja & Mikkola, 2009). According to researcher's expert interviews, Finnish organic dairy farms offered meaningful work and produced high quality raw material for processing in excess of demand. A similar situation seems to prevail in the UK, where only about half of particular company's organic milk was sold as organic (Franks, 2003). Furthermore, the feed for organic cows stems largely from

the farm which makes the organic milk ‘extremely local’ and environmentally friendly, and the farmers are paid a premium for the milk. According to expert interviews, the organic milk is included in the sustainability strategy of the dairy company in spite of its rather low profit level. The premium price in retailing does not exceed the price of functional milk products either. This suggests that organic milk represents an overall sustainable option to be used in public catering as well.

#### *Second turn - Caterers perspectives*

The issue mapping of caterers’ interviews and more informal discussions produced five particular themes for the use of organic milk in developing catering for sustainability; these were the chemical composition of organic milk, packaging sizes, milk market, price issues and ‘all organic’ policies.

*The chemical composition* of organic milk was accepted without further questions by some caterers, who worked towards sustainability through product choices. Again some were ambiguous about the lack of vitamin D, which is not added in the dairy process to the organic milk in the way conventional milk is treated. This kind of milk becomes problematic in public catering because of Finnish school meal recommendations of 2008, which include vitamin D fortified milk. Most caterers wanted to use the vitamin D fortified version of organic milk, which does not currently exist, and expected it to be delivered by the dairy company. Some caterers also referred to the lack of selenium in the organic milk. However, there were also those who were concerned about the authentic organic quality of the milk if possibly a synthetic molecule would be introduced to the product by possibly genetically modified matrix of maize oil. An additional concern was that the homogenization process would change the product which would turn out to be unsuitable for users who have been able to drink organic milk only. The low-fat organic milk had also proved problematic due to the lacking homogenization, which caused the fat to layer on the milk surface. This phenomenon was particularly unpleasant in large packaging sizes. An additional problem was that organic milk was not available in non-lactose or other more refined varieties.

*Packaging sizes* currently available for low-fat and non-fat organic milk are the one litre milk cartoons, which are not feasible at some dining halls where normally a 10-litre or 20-litre volume package is used for serving milk. The caterers using the large serving sizes were not willing to use the one litre cartoons, which were in contradiction to the strict waste avoidance policies. The small cartoons also increase the amount of work in serving. However, some caterers only use the one-litre cartoons for occupational safety reasons.

*Milk market* developments caused additional supply chain problems for some caterers, who tried to procure their organic milk from wholesalers. The milk product market - as well as other markets too - has been in transition whereby large wholesalers aim to deliver all the products needed by caterers. The milk products have been previously delivered directly by the dairy company and the wholesalers are to some extent ambiguous about the growth of their milk market. Thus, the procurement contract for organic milk could turn in practice to delivery of conventional milk which left the caterer’s sustainability practices deficient and caused additional work to negotiate about the contracts. The dairy company operated as usual and delivered organic milk to caterers awarding their contracts to the company.

*Price issues*, particularly the premium price of organic milk was questioned by caterers, who calculated how much one glass of organic milk, as part of a balanced public meal, would cost and how large a share it would be of the overall cost of the meal. The figure was approximated at about 10-15 % of the raw material costs of the average school meal. This share was deemed as a large one, but comparable with the cost for pupils with lactose intolerance who were allowed to drink lactose free milk or low lactose milk. However, these pupils had a medical certificate, and in the case of organic milk the question concerned catering for sustainability, a more difficult topic for the caterers to explain to municipal authorities funding the free service by tax payers 'expensive' money.

'*All organic*' policies was a point made by some caterers, who wanted to have all (or nearly all) the products organic, which would ease the separation and book-keeping about organic products, dictated by previous organic registration, in force before 1.1.2009. Most caterers did not subscribe to this view but approved that organic produce is used in feasible ways depending on availability and price. To focus more effectively on the use of organic food, some schools and day-care centres were dedicated to the use of organic food or its use in 'ordinary' units was limited to particular thematic organic days or weeks. In general, caterers perceived no strong contrast between sustainability quality of organic and conventional food (Mikkola, 2009), which together with other issues decreased their efforts to use organic milk.

### *Third turn - Coping with caterers perspectives*

The researcher's task, both in group and personal discussions with caterers, was to share information about dairy farming and dairy company's developments to be used by caterers in their process of making and taking sustainability perspective for public catering. The researcher's answers to caterers' issues were developed to bridge the chasms as follows.

*The chemical composition* of organic milk in terms of the vitamin D was suggested to be solved by organising vitamin D fortification as in Sweden and the US. This would present alignment with school meal recommendations and scientifically evidenced need for vitamin D during the dark time of the year. However, this fortification would be enabled only by a national legislative act, conforming to the EU directive for food additives. Moreover, to accommodate to the needs of those who for one reason or another prefer organic milk without vitamin D fortification, organic milk in one-litre cartoons would be produced without this addition. This suggestion implies that the majority of consumers are willing to use vitamin D fortified organic milk.

Finnish organic milk normally lacks selenium because it is produced by selenium poor feed, grown in selenium poor soils without synthetic fertilizers containing selenium. This problem is finding new solutions by adding selenium rich yeast to the feed. This addition was able to increase the selenium level of organic milk to that of conventional milk (Kuusela & Okker, 2007). This new method for increasing the selenium content seems like a feasible, cost saving way to introduce selenium into organic milk, and to follow the organic farming prescriptions. Additionally, fatty acid composition of organic milk seemed to be favourable based on preliminary results at University of Joensuu. These results need more research to be corroborated.

*Packaging sizes* were lacking 10 and 20 litre volume sizes because of an earlier historical development; originally, organic milk was packaged in catering sizes to be

used for self-service and to decrease the amount of cartoons for recycling. However, caterers who served this organic milk, paid attention to the lacking vitamin D fortification, and gave up the use of this product not to violate public nutrition recommendations. According to some commentators, it is possible that in the background there were also efforts to save in public catering, which aligned well with the use of conventional milk. Due to low demand, the dairy company stopped large volume packaging and moved on to use one-litre cartoons. The additional problem of low-fat milk in large serving packages was that the fat tended to layer on top of the milk phase, whereby the first customers got the non-fat phase and the last ones the fat-phase. Today, these problems would be solved by using non-fat organic milk, which would be served in large packages as vitamin D fortified, if there would be institutional consumers who would subscribe to this sustainability approach.

*Price issues and 'all organic' policies* could be solved by the periodical use of organic milk, aiming at the use of larger volumes gradually. This initial low serving frequency would also ameliorate the current lack of vitamin D fortified organic milk. Additional price negotiations with the dairy company could end up with a better solution than the present one, whereby a lot of organic milk is processed and sold as conventional milk due to the low demand on the market but high supply by the dairy company. The solution would clearly not be a solution 'once and for all', but rather an incremental change towards sustainability according to increasing understanding as to how to posit oneself on the market. This stance was communicated with caterers as "intermediary mediating strategy" towards sustainability, a notion coined by Deane-Drummond (2007), advocating a slowly evolving but determined process towards sustainability.

#### *Forth turn - Caterers' perspectives to and decisions on the (test) use of organic milk*

The five catering units participating in the dialogue about catering for sustainability agreed to test the use of organic milk (products), and to include to the test situation a poster explaining researcher's answers (the Third turn) as sustainability strategies in catering. For these test purposes, the delivery of organic milk in stead of conventional one was agreed with the dairy company experts at the same price as conventional milk.

The problem of the vitamin D fortification and large serving size packaging were discussed with the dairy company. The caterers could not have for short test period organic milk in large serving size packages and with vitamin D fortification, because the organic dairies and the ones with the particular packaging machinery were located in different parts of Finland. Changing transport routes to fill 100 cubic meter milk tanks, or machine installations for vitamin D and packaging equipment, together with organic labelling as a certified activity (with new pieces of legislation) could not be organised for a test of minor scale and of short duration. Industrial and legislative logic enables the production of massive amounts of products such as vitamin D fortified organic milk in large packages, if and when there is realistic indication of demand. The caterers understood this and got a basis to look forward to vitamin D fortified organic milk, either in one or 10 to 20 litre packaging sizes. The selenium problem seemed also to find its solution in the future, which was found very positive. Additionally, the possible indications of positive fatty acid composition of organic milk added interest in the product, and caterers wanted more information about possible health related

benefits.

The price of organic milk remained an issue to be negotiated with the dairy company and caterers. The effects of the current economic situation at the end of the first decade of 21<sup>st</sup> century appear unpredictable, not only for economists. Today, the public funding seems to develop into negative direction.

Some caterers accepted the idea of the poster of organic milk as “intermediate mediating strategy” towards sustainability, as expressed by Deane-Drummond (2007). The caterers did not seem to expect that the reality of milk production, including organic production, would be thoroughly understood. Therefore, they make decisions based on their available knowledge and the prevailing situation. An ‘all-organic’ view was suggested as too totalitarian in the current conditions; it would be better for the supply chain to have time to reorganise the production according to demand in one way or the other.

## **DISCUSSION**

The caterers seemed to benefit from the dialogue in the way that they saw organic production as an evolving production mode. They realized better than before, that it was impossible to have a full-blown organic market where they could pick up what they wanted, but that they were participants in the market effecting on its development. They also agreed to the incremental approach of increasing the use of some organic products; lowering the ambition made the development easier. Finally they perceived that the farmers as well as the processors had long term strategies to which they were holding and offering the organic option for caterers. The dialogue also exhibited counselling features, since the caterers could present their thoughts more freely when discussing with a trusted but ‘knowing’ outsider. The meeting with the researcher seemed like a “fresh wind” which supported ‘out-of-the-box’ thinking without the pressure of immediate organisational realities but rather more long-term developments. The result seemed to increase the use of organic milk and other products to some extent; a caterer who was willing before the test to start using organic milk due to organisational strategies made a contract about deliveries of organic milk. Still one caterer converted to organic milk and buttermilk as well as signed up to a scheme for organic food, called step-by-step for organic, and informed this to the researcher. Additional use of organic products was looked forward to in schools using organic bread. However, the large caterers still think about their moves, possibly concerned about economic developments and ways to release some funding for them.

## **CONCLUSION**

The dialogic method seemed to allow for a communication not otherwise available within the milk supply chain. The two-way communication was able to make the views of the supply chain parties mutually understandable by particular answers. The approach seemingly elicited discussions leading to perspective making and taking, whereby participants assumed more strategic role for themselves. However, the changes, although at least partly increasing the consumption of organic food and milk particularly, may not be forecasted in the recession at the end of the first decade of the 21<sup>st</sup> century. The results suggest that this kind of more informal, independent and

trusted ‘round of talks’ may bring some previously unknown facts into the discussions, and therefore is able to change cemented exchange patterns. Catering for sustainability seems to need more profound grounds, developed discursively within the organisations and with the suppliers (Mikkola, 2009). These discussions could be organised on a regular basis, in order to find new innovative ways to comply with sustainability as a moving target. Caterers wishing to extend to supply chains need to learn about the networks at the local and regional level (Tynjälä, 2008), namely in their own organisations and with their immediate and more remote suppliers to see how their buying behaviour is connected with the developments in agriculture and the processing industry.

However, developing a participatory approach may be demanding in three ways. Firstly, the researcher needs to interpret his/her frame for the participatory approach called for by the government in order to avoid promotion by persuasion; secondly, the researcher needs co-operative organisations committed and willing to participate in the dialogue and practical tests needed by the research. Networking with research participants seems to be an important part of successful social research projects. Thirdly, extensive understanding is needed to be brought to play by the supply chain actors, as well as other experts dealing with the issue. By putting an expert and practitioner team together through participatory research helped to connect consumers with environmentally and economically sustainable development through products such as organic milk, thereby bringing the “Moral Charge” home by advocating fair trade within the North (Jaffee et al., 2004).

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## REFERENCES

- Alvesson, M. 2003. Methodology for close up studies - struggling with closeness and closure. *Higher Education* **46**, 167–193.
- Bohm, D. 1996. *On Dialogue*. (Ed. Nichol, L.) London, Routledge.
- Boland, R.J.Jr. & Tenkasi, R.V. 1995. Perspective Making and Taking in Communities of Knowing. *Organization Science* **6**(4), 350–372.
- Bruges, M. & Smith, W. 2008. Participatory approaches for sustainable agriculture: A contradiction in terms? *Agriculture and Human Values* **25**, 13–23.
- Cronin, K. & Jackson, L. 2004. *Hands across the Water. Developing dialogue of research, Science and Technology (MORST) ‘Dialogue’ Programme*. School of Earth Sciences, Victoria University of Wellington. ISBN 0-475-12219-4.
- Deane-Drummond, C. 2006. Environmental Justice and the Economy. A Christian Theologian’s View. *Ecotheology* **11**(3), 294–310.
- Fairclough, N. 2003. *Analysing Discourse. Textual analysis for social research*. London and New York, Routledge.
- Franks, J. 2003. Current issues in marketing organic milk in the UK. *British Food Journal* **105**(6), 350–363.
- Getting more from less 2005. *Proposals for Finland’s national program to promote sustainable consumption and production*. Available from URL <<http://www.ymparisto.fi/default.asp?contentid=149254&lan=en>> [Accessed 2008 July 4].

- Hill, H. & Lynchehaun, F. 2002. Organic milk: attitudes and consumption patterns. *British Food Journal* **104**(7), 526–542.
- Jaffee, D., Kloppenburg, J.R.Jr. & Monroy, M. 2004. Bringing the “Moral Charge” Home: Fair Trade within the North and within the South. *Rural Sociology* **69**(2), 169–196.
- Kuusela, E. & Okker, L. 2007. Influence of organic farming practices on selenium concentration of tank milk - a farm study. *Journal of Animal and Feed Science* **16**(1), 97–101.
- Lintukangas, S., Manninen, M., Mikkola-Montonen, A., Palojoki, P., Partanen, M., & Partanen, R. 2007. Kouluruokailun käsikirja. Laatuveäitä koulutyöhön. Helsinki: Opetushallitus. [Handbook for school meals. Quality support for school work. Helsinki: National Board of Education (in Finnish).
- Mikkelsen, B. E., Vittersø G., Roos, G., Vramo, L., & Bergström, K. 2007. The public as political consumer - case findings from implementation of organic procurement policies in public food systems in Scandinavia. *Proceedings of the Nordic Consumer Policy Research Conference*, Helsinki, Finland, October 3–5, 2007. Available from URL: <<http://www.consumer2007.info/?p=37>> [Accessed 2008 July 4].
- Mikkola, M. 2009. Shaping professional identity for sustainability: Evidence through Finnish public catering. *Appetite*, forthcoming.
- Morgan, K. & Sonnino, R. 2008. *The School Food Revolution. Public Food and the Challenge of Sustainable Development*. London, Earthscan.
- Pretty, J. 1995. “Participatory learning for sustainable agriculture.” *World Development* **23**, 1247–1263.
- Risku-Norja, H. & Mikkola, M. 2009. Systemic sustainability characteristics of farming systems. *Agronomy Research* **7**(Special issue) ( in print).
- Tynjälä, P. 2008. Perspectives into learning at the workplace. *Educational Research Review* **3**, 130–154.