

Farmer foresight: an experiment in South India

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Introduction

The Farmer Foresight project was an attempt to apply methods of participative technology assessment in the South, building on the *Citizen Foresight* methodology already developed in the UK (see Box 1). The climax of the project was a citizens' jury, which took place on a farm in B G Kere in the state of Karnataka, India, between the 6th and 10th March 2000. B G Kere is a small village in a dryland area of the Chitradurga District. It is 230km north of Bangalore, the state capital, and contains a high proportion of marginal farmers and landless people.

Box 1 Citizen Foresight

The first applications of the Citizen Foresight methodology examined the future of the UK food system during the summer of 1998, before the controversy over GM-food reached its recent heights. The core of the process was a deliberation on the 'pros' and 'cons' of genetically modified foods by a panel of twelve randomly chosen UK consumers¹.

During the spring of 1998, twelve randomly selected British citizens were brought together at ten weekly meetings to hear evidence, ask questions and draw up conclusions. Members of the panel interrogated expert witnesses from academia, government and the food industry on the way our food is grown, processed, regulated and presented to consumers. This report presents their final conclusions.

Having been charged with discussing the future of the food system, panellists themselves set out the subjects that they thought were most important. They decided on a range of possible options, together with criteria by which they could be assessed. Once they had received evidence both resulting from an expert seminar and directly from witnesses, the citizen panellists themselves decided on the subjects they would like to cover in their report.

The selection and facilitation of the citizens' panel were conducted in accordance with guidelines laid out by the IPPR² (see Delap, this issue), with three major exceptions as follows.

- The panel met during ten three-hour sessions rather than over four seven-hour sessions. The meetings took place in the function room of a local pub. Both these features were designed to allow the panel to integrate deliberations into their normal working lives.

- Extra witnesses could be called at the direction of the panel when they wanted additional evidence on a particular subject.
- The citizens' deliberations were informed not only via witnesses but also by an expert panel who responded to requests for advice using a framework based on multi-criteria analysis (see Stirling, this issue). This allowed various options for the future of the food system to be analysed according to a range of criteria, rather than just one.

Because of these *Citizen Foresight's* modifications to the IPPR methodology, we generally referred to the randomly-chosen participants by the more generic form 'panel' rather than 'jury'.

A key element of the IPPR Citizens' Jury methodology was the overseeing of the project by a Stakeholder Panel, which included the key interest groups and oversaw the project to ensure proper balance (see Pimbert & Wakeford, this issue). The panel was composed of citizens from a suburb of Brighton, East Sussex. The electoral ward used contained a population that had voted in line with the national average at the 1996 local elections. Two thousand questionnaires were distributed to named individuals on the electoral roll, who were offered £150 for their participation in the ten weekly deliberation sessions.

The panel met in the function room of a local pub, on ten consecutive evenings. They received evidence from four principal witnesses, who the stakeholder panel agreed, to represent a balanced view. Having heard all the evidence, the panel was then asked to draw up conclusions in the form of a report. This was typed up by the facilitator and amended by the citizens' panel at their final meeting.

Conclusions

While the Citizen Foresight process has yet to be fully assessed, preliminary evaluations by the citizens' panel failed to suggest any bias for or against genetic biotechnologies in the project's methodology. The most common suggestion for improvement by the participants was that they would have liked even more time for discussion.

Some of the most striking features of the Citizen Foresight process include observations that:

- the report by the citizens' panel was more hostile to genetically engineered foods than those reached by the Science Museum's consensus conference on plant biotechnology in 1994;
- the panel felt fully informed in making their recommendations and were highly aware of the different dimensions of risk;
- the panel displayed a thirst for critical perspectives on conventional assumptions – both scientific, economic and environmental;

1 Wakeford, T. (1999) *Citizen Foresight: The Future of Food and Agriculture*, Genetics Forum, London.

2 The Institute for Public Policy Research

- the panel was sceptical of the vested interests of all the participants in the Citizen Foresight process – including stakeholders, experts and organisers;
- having framed the options and assessment criteria for their discussion, the panel focused on producing conclusions that would have direct policy relevance – using the witnesses as resources to this end; and,
- rather than merely learning about the issues, many members of the panel appeared to feel empowered by their deliberations, asking to be involved in follow-up exercises, even on a voluntary basis

The *Citizen Foresight* exercise was influential in guiding the UK government's own recent consultation³. The members of the citizens' panel were invited by government to meet the Minister of State to tell him directly of their verdict. Their conclusions also formed a feature-length news item on national television, thus raising the standard of the debate beyond mere scare stories and hype⁴.

The Karnataka jury was made up of 14 small and marginal farmers, together with expert witnesses who presented evidence for and against the new biotechnologies and the other observers and participants⁵.

Other social actors in the process included:

- University agricultural/ecological scientists and biotechnologists (e.g. Indian Institute of Science);
- Commercial biotechnology corporations (e.g. Monsanto India);
- ActionAid and other development NGOs (e.g. Deccan Development Society);
- Farmers' Union representatives (e.g. KPKS – Karnataka's state-sponsored farmers' union); and,
- State and National Government (e.g. Department of Agriculture, Karnataka; Department of Biotechnology, New Delhi).

The ActionAid team attempted to adapt the citizens' foresight technique to a developing world context. The new method incorporated three key elements.

- The relative advantages of a range of scenarios, such as different technological pathways, should be compared from a variety of technical, social, economic and political perspectives.
- The composition could include people drawn from all over a village, region or country (or, in principle, the world) thereby giving a jury a degree of significance for a range of societal scales.
- Rather than looking at local livelihood issues and

3 Office of Science and Technology, Allan, B. et al. (1999) *Public Consultation on the Biosciences: Report of the Advisory Group to the Office of Science and Technology*, Office of Science and Technology, London. MORI 1999 *Public Consultation on Developments in the Biosciences*, Department of Trade and Industry, London.

4 *Daily Express* 1999 More pressure for firmer control of GM food, 5/3/99:24, Express Newspapers, London.

5 Full details of jury methodology described in *AgroIndia* (Special Issue) April 2000, Bangalore, India.

policies, the jury should give at least as much of their attention on regional, national or global issues, depending on where the relevant decisions are taken.

Having heard four days of evidence on the possible future role of biotechnology in farming, a jury of eight female and six male farmers gave their verdict on the following question: "Would you sow the new commercial seeds proposed by the Indian Department of Biotechnology & Monsanto on your fields?" The results were: 4 yes, 9 no, 1 invalid ballot paper (by secret ballot).

Figure 1 A small farmer casts her vote at the end of the citizen jury's deliberations on the pros and cons of using genetically modified crops (GMOs)



Context of participation

Just as political and economic systems are subject to capture by a narrow elite, so are systems of knowledge and innovation. In the South, this is perhaps most obvious in agricultural communities⁶.

Knowledge

The jury demonstrated the competence with which farmers, many of whom had not finished basic schooling, or were even illiterate, could discuss often highly technical issues to which they had no previous exposure, such as genetically engineered crops. They achieved this by carefully eliciting from each witness the information relevant to their livelihoods. Rather than attempting to build up a basic knowledge of genetics, they asked whether the 'new seeds', as they called them, could address their needs, such as returning organic matter to their soils, and reducing their susceptibility to rapidly changing market prices for their harvested produce.

6 Baumann, M. et al. (1996) *The Life Industry: Biodiversity, people and profits*. Intermediate Technology, London.

Having interrogated the witnesses and discussed the issue among themselves, the jury was asked to vote on whether they found the Bt cotton seeds⁷ acceptable to be planted in their fields immediately. Their nine to four vote rejecting the seeds was not simply a negative response. It was supplemented by a wide-ranging list of demands as to what action should be taken by the government and transnational corporations as a precondition for their new seeds to receive greater acceptance.

The sophisticated way in which scientifically untrained citizens were thus able to develop a sophisticated critique of 'official' knowledge mirrors previous anthropological work such as the recent study of the use of indigenous knowledge by sheep farmers in Cumbria, UK in the aftermath of Chernobyl (Wynne 1996)⁸, the analysis of medical biotechnology by lay focus groups (Cunningham-Burley 1998)⁹ and policy work such as Citizen Foresight – Genetic Forum's citizens' jury on GM food (Genetics Forum 1999)¹⁰.

In contrast to Citizen Foresight, in which UK citizens with no connection to the food industry discussed its future, Farmer Foresight had the advantage that all the participants were experienced agriculturalists. The citizens' jury method was thus used to reverse the power relations between those conventionally regarded as experts and those dismissed as ignorant and in need of educating. This reversal has been especially marked because agricultural genetics is an area, like economics, which is highly technical and normally immune from public scrutiny. In the Karnataka jury, it was obvious that farmers knew far more about the practicalities of agriculture than any of the witnesses.

Hierarchy and self-censorship

It was clear to Kannada-speaking observers that social hierarchy was a factor in the way different members of the jury contributed to its proceedings. Those of high social rank felt far less inhibition in contributing to the proceedings than did those from low castes.

The Karnataka jury aimed for a cross-section model, but ended up over-representing the more prosperous farmers. One of the causes was that ActionAid India's local contacts were keen to provide their key resource people with the presumed national and international exposure that the jury was thought to provide, rather than the poorest farmers known to them.

7 Bt Cotton seeds are a variety genetically modified by Monsanto and include genes from a bacteria called *Bacillus thuringiensis* (Bt). The bacteria had previously been used for biological control in organic agriculture, but Monsanto claims it can provide pest resistance to its hybrid cotton seeds.

8 Wynne, B. & Irwin, I. (eds) (1996) *Misunderstanding Science*, Cambridge University Press.

9 Cunningham-Burley, S., et al. (1998) *The Social and Cultural Impact of the New Genetics*, ESRC & University of Edinburgh.

10 Wakeford (ibid).

Among the poorer jurors, those who had been in contact with development NGOs were more vocal than those who had not. Although the rapport-building exercise did go some way towards building the confidence of jurors of low social rank, any future juries should ensure that someone who is professionally trained in the empowerment of marginalised groups should spend at least a day with this fraction of the jury so that the disparity due to social rank is eliminated.

The gender balance of the jury's composition, being a majority of women, was meant to reflect the fact that women carry out the majority of agricultural labour and are key repositories of knowledge and techniques. The social composition of the jury was more problematic. While the IPPR's citizens jury methodology, along with that employed in the UK *Citizen Foresight* exercise, aims at getting a symbolic cross-section of society, there are also arguments that such fora should be used for the exclusive participation and empowerment of the poorest and most marginalised and that if they do not, the interests of the articulate middle classes end up prevailing.

In the future ActionAid aims to address this issue, possibly by increasing the proportion of poorest and most marginalised jurors to around two thirds. There could also be scope for periodically sub-dividing juries into smaller groups that were women or low caste only, for example. Issues of gender equality and women's empowerment should also continue to inform the selection of witnesses and facilitators.

Governance from local to global

ActionAid's aim in carrying out the Farmer Foresight process was to bring 'the perspectives of the developing world's farmers to national and global debates about the pros and cons of GM crops'. This was based on a belief that 'rural people in the Third World have a democratic right, and sufficient knowledge, to judge the issue for themselves'.

The crucial stage that should follow on from the jury reaching their conclusions is that appropriate intermediary individuals and channels exist to act between the jury and those with the power to create change. NGOs have a role to play and can better inform their campaigns and lobbying with the jury's insights. The results of the jury had a significant impact in global media and lobbying arenas. However, the process was not conducted over a long enough time-scale that it was able to bring pressure on national and state governments, which are the most significant forces in the lives of India's rural poor. Recently some citizen participation initiatives have experimented with regional and national 'learning groups', which directly engage social actors in taking the results of the citizens' conclusions forward. ActionAid India is looking at similar structures to take forward the results of its present round of citizens juries.

Process of participation

Framing

One important element of the citizens' jury is that jurors are provided with information that allows them to compare and evaluate whole scenarios, each scenario being the logical product of a series of interdependent values, assumptions and predictions (see Box 2). Especially in the case of a controversial technology such as Bt cotton, a wider understanding of the inter-linkages between biotechnology, corporate control and local power structures is far more likely to be achieved by taking a scenario approach than by merely asking a jury to say 'yes' or 'no' to a particular technology. In Karnataka, these scenarios comprised of two starkly different technological trajectories for agriculture: one based on GM seed and continued chemical use, the other on saved indigenous seeds, traditional technologies and organic methods

Despite this aim, an aspect of the jury that did not work as well as planned was the juror's framing of key questions for witnesses and the building of different possible future scenarios for agriculture. Partly due to a misunderstanding in the facilitation of the opening session and partly because of over-ambitious time-tabling, there was little opportunity to ensure the witnesses focused on the jurors highest priorities, as had been achieved in the UK *Citizen Foresight*.

In retrospect it would have taken at least a full day with a specially trained facilitator to carry out a proper scenario-building process of this sort. Other similar projects are perhaps less methodologically ambitious in that they simply present jurors with four different pre-formed scenarios that represent practical alternatives at the policy level¹¹. The facilitation of citizen deliberation encourages jurors to consider these different scenarios, modify and rework them as part of their own scenario-building process.

Language and power

The contributions made by the different jurors appears to bear out David Archer's insights (see Box 2) into the way in which hegemonic knowledge systems affect peoples' worldviews. Farmers who had worked with Green Revolution techniques used the language of risk, modern agronomy and economics, whereas illiterate farmers using traditional techniques and supported by NGOs promoting appropriate technologies, talked of traditional seeds, natural cycles and gender-relations. As Archer concludes, the only way around this is to seek to empower a community to build up their own analysis, so that they can contextualise this with other knowledge systems to which they will inevitably be exposed.

11 Pimbert, M.P.(2000). *Localised Food Systems, Agricultural Biodiversity and Local Livelihoods* (unpublished), International Institute for Environment and Development, London, UK

Box 2 Reflections – David Archer, ActionAid

- 1. The framing of the debate.** There has been a lot of reflection on the explicit ways in which the framing of the debate can be quite manipulative. This includes the way hypotheses are put or issues are constructed for people right down to who speaks within a particular debate and the amount of time each speaker has. I just wanted to emphasise the implicit framing which takes place. This is very much about the institutions that are involved, the dynamics behind the scenes and who identifies with the different institutions. There is a whole range of implicit framing that goes on and which people aren't necessarily aware of. We are usually unaware of this ourselves and the power relationships mediated by those implicit framing devices.
- 2. The need for a long term education process.** One-off interventions where the space is created or defined by an external institution are inadequate to create a sustained, democratic space for reflection and analysis of local issues. You actually need to have a much longer on-going process. One of the very few ways in which you can galvanise people to come together over a sustained period of time is through something that goes broadly under the umbrella of an educational process. Getting people together for a one, two or three year process is certainly worthwhile in my experience. We have people who come together three days a week and sometimes five or six days a week for two hours at a time. That's when you've got the space and time to be able to do a level of detailed political analysis which enables people to think and act for change. This is particularly true if you make it an internal process with a facilitator who comes from the local community, rather than set up a something constantly mediated by the external agency. There are a whole range of new problems which arise when you've got something called an education process, with different assumptions and expectations coming in. But as long as the focus within that educational process is maintained on the analysis of power relations then it can become very interesting.
- 3. Thinking about knowledge.** A lot of the early work in REFLECT and in PRA was premised on the glorification of local knowledge. By working through REFLECT we now recognise that of course no knowledge is purely local anyway. People's knowledge bases are a huge combination of things which they have drawn locally but which are also massively influenced by hegemonic or dominant forms of knowledge that entered the community through one means or another. Actually, peoples' approach to a problem is not in any way pure or straightforward in applying local knowledge to a situation. The key thing is to give people confidence in their own capacity to systematise whatever sources of knowledge they have and to come up with their own analysis. As long as people have got the confidence in developing their own analysis, drawing on whatever sources of knowledge are available to them, then they are in a stronger position to critically contextualise or deal with new forms of knowledge from outside. One of the weaknesses of most of these participatory processes has been to knock people down into local level analysis. One of the major challenges is to ensure that all analysis brings in the national and international dimensions. REFLECT has recently been engaged in very exciting work in the field of numeracy. Adult numeracy sounds like a very boring thing. But numeracy is increasingly now focusing on the analysis of budgets, the analysis of prices and the analysis of statistics. This is enabling people locally to generate their own statistics and critically analyse local budgets. People learn to contextualise things like locally generated statistics and budgets in the national context, using mathematics or whatever.

The analysis of budgets, prices and statistics is thus becoming a way of making some micro/macro links. This is particularly exciting.

4. Tensions between participation and campaigning styles. A major area of REFLECT's work focuses on education campaigning, strengthening national coalitions and alliances on basic education. I think that as we move into this sort of campaigning, we have to explore some of the fundamental tensions that arise between the campaigning mode of operations and the principle of participatory approaches. And that issue surfaces again and again. One case that was particularly illustrative for me was a recent participatory video project in Bangladesh. Some local communities trained in the use of video. Eight people from four different communities were trained in the use of making their own videos on a whole range of issues. They were specifically asked to make a video on education. Each community made some very interesting videos about one hour long. But nobody could be bothered to look at them. If you wanted to watch them and if you wanted to influence government policy you needed much shorter, sharper things. This led the group of people who'd originally promoted that process to edit the videos down to 10 minutes each. The shorter videos were then used for various campaigning purposes. Now it seems to me that if we talk about the issue of framing debates, then in many cases the issue of editing is actually more powerful. You can edit one hour and come up with ten completely different meanings and purposes. Anybody involved with editing videos knows the immense power associated with that process. So, when you are working in campaigning mode, how do you actually ensure the validity or the ethical engagement with the original participatory process? How do you respect the participatory process throughout and not actually reach a point where you are manipulating it for your own campaigning ends? I think is a key issue.

Stakeholder control/legitimacy

A major tenet of both the IPPR citizens' jury (www.ippr.org.uk) and citizen foresight methodologies is that they should be overseen by a Stakeholder Panel, which includes the key interest groups and oversees the project to ensure proper balance. This is a powerful, though time-consuming, way of attempting to overcome the criticism, often made of PRA exercises, that they risk capture by the organisations that undertake them.

In Farmer Foresight, agro-chemical corporations, in the guise of Monsanto, were keen to gain credibility by being involved. Government, however, was far more wary of becoming fully engaged in the process, as were some international agencies and pro-GM scientists.

Impacts and the future

Accountability of corporations

Given the approach underlying the citizen jury model of maximum inclusivity in its oversight and ActionAid's global strategy of 'encouraging corporate accountability and social responsibility', the involvement of the private sector was a key component of the Karnataka jury.

As one of the largest corporations in both global and Indian agriculture and with its major interests in GM crops, Monsanto was clearly an important stakeholder and witness in such a process. They were approached early on in the jury preparations. The company has been subject to sustained criticism for their development of products seen to be damaging to the livelihoods of small farmers such as hybrid seeds that cannot be kept for future years. Even the Rockefeller Foundation, themselves a leading developer of GM crops, accused the company of risking 'removing the benefit from biotechnology' by rushing ahead with technologies such as Terminator¹². In a statement in June 1999, its president encouraged Monsanto to develop 'participatory approaches' that increased their 'accountability and transparency', 'strengthened farmers' own decision-making', treated them 'as equal partners in a dialogue' and most importantly recognised that 'the poor have a right to decide for themselves'. Along with its decision to halt the development of terminator technology, Monsanto's involvement in the Indian jury should be seen in the light of these criticisms.

The witness Monsanto provided – a former academic researcher into biological pest control methods, Dr T M Manjunath – avoided using his company's name throughout his presentation, saying he was present to discuss the technology, not the company. He lapsed away from an equal engagement with farmers and towards public relations, telling them they must either 'spray', 'pray', or use his companies GM cotton seeds.

As Director of Research and Development at Monsanto India, Manjunath also provided a point by point response to the jury's conclusions. Its high-handed tone is in stark contrast to the open and equal dialogue called for in Rockefeller's statement. However, the very act of making a detailed response demonstrates that Monsanto views the process as legitimate despite the vote against their seeds and most of the conclusions being hostile to their present investment strategy. The company's response also exposed many of the normally hidden assumptions that underlie their work in the South.

Their stated position clearly falls short of both respecting the knowledge of Indian farmers and of satisfactorily responding to their legitimate demands. This gap between Monsanto's global rhetoric and the reality of their policies for Indian farmers has been clearly demonstrated by the jury process. While the Indian farmers rejected the technology without many more years of trials, in which they themselves wanted to be participants and evaluators,

¹² Terminator is a technology that forces farmers not only to buy seeds every year rather than save them, but that also ties them to the same company's chemicals, which become a genetically encoded requirement of the crop. For more details, see www.rafi.org, www.grain.org and www.monsanto.com

Figure 2 Research Director of Monsanto (India) presents evidence to citizen jury members, Karnataka, India



Monsanto has subsequently won approval from the Indian Department of Biotechnology and begun the release of its GM cotton for trials across India. It has also claimed it is assisting poorer farmers by attempting to fund environmental information centres run by the Grameen Bank in Bangladesh.

National and global policies

An important factor in the impact of the jury on UK and global debates about GM crops and food security for the poor and marginalised was the fact that ActionAid chose to appoint a respected development institute (IIED) to provide an evaluation of the jury. This, along with Monsanto's considerable involvement, helped pre-empt possible criticism that ActionAid had somehow got the result it wanted by rigging the process.

For campaigners in ActionAid, the jury result, together with a report and video produced a few weeks later (Wakeford 2000), were extremely useful in that they provided renewed legitimacy to its International Food Rights Campaign. Having shown that farmers at the grassroots, in a country in which it does more work than in any other of its 30 country programmes, supported the main tenets of its campaign, it could lobby, campaign and advocate caution with regard to GM crops with more confidence.

In response to the jury, both BBC Radio 4 and BBC World TV made the jury a key feature of a half-hour long programme devoted to the controversy surrounding GM rice. During the TV programme, the president of the Rockefeller Foundation, the funders of this 'Golden' Rice

research, were forced to defend their position in the light of the jury's findings. The UK government-funded Overseas Development Institute (ODI) also felt it necessary to respond to the methodology and findings of the jury (see <http://www.odi.org.uk/publications/intro.html>).

The future: juries and empowerment

In India, the jury highlighted the need for large development NGOs to examine the ways in which they can make sustainable agriculture a real option for poor and marginal farmers. This requires not just their traditional best practices to be valued, but also for them to be empowered to overcome the constraints on their livelihood from, for example, tiny land-holdings, disappearing water-harvesting structures and endangered traditional seed varieties. Unless juries are linked to wider empowerment processes that make the juries' recommended course of action a realistic choice for the poor and marginalised, then they risk being little more than a convenient propaganda tool for distant campaigners.

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