Prajateerpu: A Citizens Jury/Scenario Workshop on Food and Farming Futures for Andhra Pradesh, India

Michel P Pimbert and Tom Wakeford

IDS
Institute of Development Studies
Sussex

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International Institute for Environment and Development


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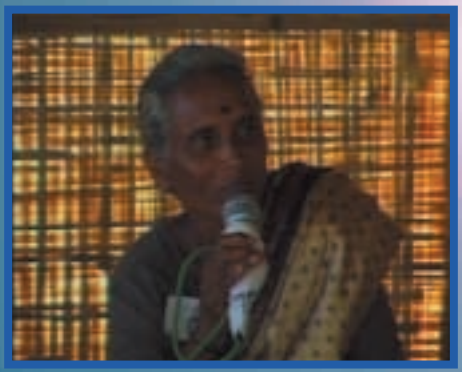
Anjamma


Ganeshra


Baayakka


Geetha


Baby


Kotaratnamma

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STRATEGY &
ACTION PLAN

UNIVERSITY OF HYDERABAD

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The Institute for Development Studies, UK

The International Institute for Environment and Development, UK

The National Biodiversity Strategy and Action Plan, India

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Host

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Prajateerpu: A Citizens Jury/ Scenario Workshop on Food and Farming Futures for Andhra Pradesh, India

Executive Summary

Prajateerpu (translation: 'people's verdict') has been devised as a means of allowing those people most affected by the 'Vision 2020' for food and farming in Andhra Pradesh (AP, India) to shape a vision of their own. The Government of AP has developed Vision 2020 as a strategy for development over the next twenty years, partly funded by the World Bank and the UK Department for International Development.

Extensive discussion between partners at the local, national and international level, including community organisations, development NGOs, academics and policymakers informed the formulation of the methodology for Prajateerpu. It uses a combination of a citizens jury and a scenario workshop, supplemented by three video films about different potential paths for food, farming and rural development in Andhra Pradesh over the next twenty years.

Members of the jury were drawn from communities of small and marginal farmers from all over the state of Andhra Pradesh. Most were either *dalit* or *adivasi* and women were in a majority. The jurors' deliberations were informed by their interrogation of a range of witnesses including those from the Government of Andhra Pradesh, a transnational agrochemical company (Syngenta), universities, local NGOs, government advisory panels and community NGOs.

The participatory process involved in Prajateerpu has been just as important as the policy recommendations reached by the jurors. Facilitators used a range of methods to give jurors the opportunity to validate their knowledge and challenge the misunderstandings of decision-makers. Many people arrived at the event not knowing whether they would have anything useful to say and went away having acknowledged that they had important contributions to make. The depth of engagement and insight they achieved went beyond what would have been possible using opinion polls, questionnaires, public meetings or focus groups. For example, rather than hearing arguments about the potential risks and benefits of particular technologies, such as genetically modified (GM) crops, participants were able to consider them alongside alternative development models. Each different scenario for rural futures could be seen as an interdependent economic, social and environmental system. The process reaffirmed that citizen empowerment and deliberative and inclusive processes can enrich democracy and hold decision-makers accountable for their actions. Jurors used their ability to directly cross-examine the witnesses to give illustrations of, or counter-examples to, the evidence they had heard.

The participants' accounts were in many ways more diverse than those of specialists because they had looser commitments to subject boundaries and, to a certain extent, a more insightful and open-minded approach to the tensions these boundaries can mask. There was a significant diversity of opinion among participants. However there was widespread agreement on the final statement, which included the following:

We oppose

- **The proposed reduction of those making their livelihood from the land from 70 to 40 per cent in Andhra Pradesh**

- **Land consolidation and displacement of rural people**
- **Contract farming**
- **Labour-displacing mechanisation**
- **GM Crops – including Vitamin A rice and Bt cotton**
- **Loss of control over medicinal plants including their export**

and

We desire

- **Food and farming for self reliance and community control over resources**
- **To maintain healthy soils, diverse crops, trees and livestock, and to build on our indigenous knowledge, practical skills and local institutions**

We conclude that the potential of Vision 2020 to damage, or potentially improve, the livelihoods of small and marginal farmers in Andhra Pradesh is as least as great as other mega-projects such as the Narmada Dam or the introduction of 'Green Revolution' technologies. We urge opinion-formers and decision-makers in India and internationally to respond to the results of Prajateerpu by reviewing the assumptions that underlie their policies about rural futures. Such a review should include further democratic innovations of this kind.

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Introduction

The State of Andhra Pradesh (AP) in South India is currently re-thinking its approach to farming, land use and marketing. The AP government's vision of the future of the state's food system is presented in strategy papers and in its document 'Vision 2020'. Released on Republic Day 1999, Vision 2020 sets out the future of AP as imagined by the government – a future in which poverty is totally eradicated. Vision 2020 seeks to transform all areas of social and economic life in AP, not just food and farming. It aims to build human resources, focus on high-potential sectors as the engines of growth, and transform governance throughout the state (GoAP 1999). The government's poverty-reduction strategy is intimately linked with the delivery of this comprehensive vision. External development agencies support the Government of AP in this endeavour, with the World Bank and the UK Department for International Development (DFID) being the main donors (DFID 2001).

About 70 per cent of the state's recorded population of 70 million work in agriculture (www.andhrapradesh.com). Fundamental and profound transformations of the food system are proposed in Vision 2020, yet there has been little or no involvement of small farmers and rural people in shaping this policy scenario (GoAP 2000a, 2000b, 2001a). Recently local and state-level partners have revealed considerable concerns about the possible impacts of Vision 2020 on livelihoods security, agricultural biodiversity and the very fabric of local food systems and economies. AP officials and international donors also point to areas in Vision 2020 that need further public consultation and refinement.

It was in this context that the UK-based International Institute for Environment and Development (IIED) and the Institute of Development Studies (IDS) designed and facilitated a participatory process to encourage more public debate in policy choices on food futures for the State of Andhra Pradesh.

Prajateerpu – the 'citizens jury' on food and farming futures in Andhra Pradesh – was a six-day exercise in deliberative democracy involving marginal-livelihood citizens from all three regions of the state.[1] It took place at the Government of India's Farmer Liaison Centre (Krishi Vigyan Kendra – KVK) in Algole Village, Zaheerabad Taluk, Medak District, Andhra Pradesh, from June 25 to July 1, 2001.

The national partners involved in this international collaboration on deliberative democracy and the future of food systems, livelihoods and the environment included the Andhra Pradesh Coalition in Defence of Diversity, the University of Hyderabad, AP, and the All-India National Biodiversity Strategy and Action Plan (NBSAP).

This report describes briefly the salient features of the deliberative and inclusive processes, and presents:

- **the methodologies used to facilitate the process of inclusive participation and deliberation on food and farming futures in AP;**
- **the jury's verdict and vision of the future;**
- **an evaluation of some of the strengths and weaknesses of Prajateerpu; and**
- **some critical reflections on the significance of Prajateerpu for democratic governance and policy futures on food systems, livelihoods and the environment.**

1 Prajateerpu is the Telegu word for people's verdict.

1. Deliberative Democracy and Citizen Empowerment[2]

1.1 Deliberative and inclusive processes

Deliberative and inclusive processes (DIPs) are used in both the North and South to give the historically excluded a voice in decisions. Over the past quarter century a number of 'participatory' methods have been developed to supplement conventional democratic processes by moving beyond traditional forms of consultation. These methods and processes include citizens juries, neighbourhood forums, consensus conferences, scenario workshops, multi-criteria mapping, participatory rural appraisal, visioning exercises and deliberative polling. They can differ substantially in detail and have been applied to a wide range of issues and contexts. What they have in common, however, is that to varying degrees they all seek to adopt the features of deliberation and inclusion described in Box 1.

Examples of recent exercises that have allowed local voices to influence policy, planning, service delivery and technology assessments include:

- Scenario workshops and consensus conferences on urban planning in Denmark
- A Citizens Jury on Genetically Modified Organisms (GMOs) in Karnataka
- Consensus conferences and deliberative polling on the location of toxic wastes in Switzerland
- UK – Citizen Foresight – including multi-criteria analysis
- The use of RRA/PRA to inform policy decisions on land tenure and national resource management legislation in Madagascar and Guinea

There has been a significant increase in the use of deliberative and inclusive processes, in both North and South, particularly during the

Box 1. Some Features of Deliberative and Inclusive Processes (DIPs)

1. Deliberation is defined as 'careful consideration' or 'the discussion of reasons for and against'. Deliberation is a common, if not inherent, component of all decision-making and of democratic societies.
2. Inclusion is the action of involving others and an inclusive decision-making process is based on the active involvement of many social actors, and usually emphasises the participation of previously excluded citizens.
3. Social interaction is usually part of any DIP, and normally incorporates face-to-face meetings between those involved.
4. There is a dependence on language through discussion and debate. This is usually in the form of verbal and visual constructions rather than written text.
5. A deliberative process assumes that, at least initially, there are different positions held by the participants and that these views should be respected.
6. DIPs are designed to enable participants to evaluate and re-evaluate their positions in the light of different perspectives and new evidence.
7. The form of negotiation is often seen as containing value over and above the 'quality' of the decisions that emerge. Participants share a commitment to resolving problems through public reasoning and dialogue aimed at mutual understanding, even if consensus is not being sought.
8. It is recognised that, while the goal is usually to reach decisions, or at least positions upon which decisions can subsequently be taken, an unhurried, reflective and reasonably open-ended discussion is required.

2 References to much of the work described in this section can be found in Pimbert and Wakeford (2001) 'Deliberative democracy and citizen empowerment: An overview', in: *PLA Notes 40*: pp.23-29. This can be downloaded from www.iied.org.

last decade. This is the result of a number of interrelated social and political trends.

1.2 Political change

In many countries the kind of so-called 'representative' democracy that relies on the accountability of elected politicians has been heavily criticised for its frequent inability to protect the interests of a large proportion of its citizens. Marginalised groups in both North and South are not often given the opportunity to participate effectively, and the poor are often badly organised and ill-served by the organisations that mobilise their votes and claim to represent their interests. The crisis of legitimacy faced by institutions in the eyes of poor people (and of a growing number of middle-income citizens) is widely documented. Drawing on participatory research in 23 countries the recent 'Consultations with the poor' report, prepared for the World Banks' *World Development Report 2001*, concludes:

From the perspectives of poor people world-wide, there is a crisis in governance. While the range of institutions that play important roles in poor people's lives is vast, poor people are excluded from participation in governance. State institutions, whether represented by central ministries or local government, are often neither responsive nor accountable to the poor; rather this report details the arrogance and disdain with which poor people are treated. Poor people see little recourse to injustice, criminality, abuse and corruption by institutions. Not surprisingly, poor men and women lack confidence in the state institutions even though they still express their willingness to partner with them under fairer rules (Narayan et al. 2000).

Some countries, particularly in the North, are beginning to see DIPs as a way to democratise policymaking by moving beyond representative democracy and traditional forms of consultation to give the historically excluded a voice. The current concerns of donors for 'good governance' and the strengthening of civil society have increased interest in the use of DIPs for policymaking in the South.

Civil society organisations (North and South) have been largely responsible for the growing interest in a wide range of participatory methodologies. Over time these organisations have begun to take on a greater advocacy role, demanding that citizens voices be heard during both the formulation of government policies and the design of technologies to meet human needs in environmentally sustainable ways. These social actors also argue that DIPs have the potential to improve the quality of decision-making and increase the likelihood that policy formulation and implementation will be more legitimate, effective, efficient and sustainable.

1.3 Lack of trust in professional expertise and science

The growing public mistrust, their scepticism, loss of deference and perception of declining legitimacy regarding professional and scientific expertise also partly explains the rising interest in DIPs. This is particularly the case in countries where the lack of trust in government institutions is associated with the strengthening link between the state and scientific expertise in policymaking. Western science plays a central role in determining much of the content and practice of service delivery (e.g. healthcare systems) and the design of technologies that make up the built environment in which citizens live, work and spend their leisure time. Science has thus become increasingly drawn into policymaking as specialists, such as scientists, engineers, health professionals and urban planners, make decisions about social, economic and environmental issues to provide policymakers with options. This involvement of scientific expertise has tended to remove decisions from democratic politics, allowing instead more opaque technocratic decision-making to prevail in many cases (Buhler et al. 2002).

Trust in scientific expertise has been further eroded in the eyes of citizens because:

- People in industrialised and post-industrialised countries no longer view science as rep-

resenting certain knowledge. Citizens are faced with a wide range of opinions from experts and counter-experts in major scientific controversies. This undermines the positivist view of knowledge with its claim that any group of experts faced with the same problem should arrive at the same conclusions.

- Public understanding of science has been increasingly informed by radical critiques which present science as an *embodiment of values* in theories, things, therapies, systems, software and institutions. All these values are part of ideologies or world views, with scientists immersed in the same cultural and economic conflicts, contradictions and compromises as ordinary citizens.
- Citizens feel themselves 'at risk' from science-based social and technological developments. The recent crises in European countries over BSE and GMOs, for example, have seriously undermined public confidence in scientific expertise. This has been compounded by evidence of collusion between some key government scientific experts and the commercial interests of industry. Citizens are increasingly sceptical of scientific solutions when 'experts' have actively contributed to creating public health, social and environmental crises.

In both North and South, attempts to overcome low public confidence in government institutions and scientific expertise have often emphasised a more deliberative and inclusive form of debate and policymaking. The value of formal scientific specialisms is recognised, but so is the importance of citizens perspectives as an alternative way of framing issues.[3] Advocates argue that DIPs allow multiple perspectives into debates, thereby generating better understandings of the uncertainties of science-policy questions. The potential of DIPs to broaden democratic control over science and technology is also important.

1.4 Uncertainty and complexity

The introduction of new technologies and all policy processes involves making decisions without being able to predict the effects of different courses of action. As the problems and systems become more complex and unstable, levels of uncertainty increase significantly. Environmental uncertainties and technological risks are particularly problematic in this connection, as environmental dynamics and effects are usually complex and long term. Biophysical processes, such as climate change or interactions between GMOs and the environment, are often characterised by non-equilibrium dynamics and high levels of instability. Predicting the long-term impacts of the products of genetic engineering on the living environment is beyond the power of existing science. The traditional approaches of risk management and cost-benefit analysis are inadequate when we don't know what we don't know, and where we don't know the probabilities of possible outcomes. In other words, even specialists are ignorant of the extent of their own ignorance.

Given such uncertainty in the face of complexity, 'experts' and 'specialists' may have more knowledge at their fingertips, but they are no better equipped to decide on questions of values and the public good than any other group of citizens. Perceptions of both the problem and the appropriate solution are value laden and differ enormously within society.

Advocates claim that the use of DIPs under conditions where there is uncertainty and ignorance can help:

- create a political space in which the values and views of non-specialists can be elicited on different visions of the future, whilst establishing spaces and forums for their debate and arbitration;
- generate new knowledge to inform social, environmental, economic and science policy through the interaction of diverse social actors, including local residents, citizens and divergent interest groups; and
- ensure that knowledge and policy processes respond more adequately to both local realities and local definitions of well-being and progress.

3 In this report we favour the use of the word 'specialist' rather than expert because it avoids the false contrast between 'experts' and 'lay people' so often condemned in analyses of knowledge/power relations. The word specialist acknowledges that some people in society have had a specialist training – whether it be in genetics, sociology or hydrology, whereas 'non-specialists' have insights based on more general experiential learning. We recognise that this 'specialist' / 'non-specialist' division, like most generalisations, masks considerable diversity in levels of specialism. However, the terminology at least avoids the implicit hierarchy between the 'lay' person or public whose knowledge is less reliable or rational, and that of experts or scientists who are assumed providers of expert and reliable assessments.

1.5 Human rights, social justice and empowerment

For advocates of DIPs, issues of human rights, justice and democratic accountability are enhanced when the formulation of policies and the design of technologies involves inclusive deliberation. When conditions are enabling, citizens juries, scenario workshops and other participatory methods create a political space for those with no effective voice to influence policy. Inclusive deliberation potentially allows men, women, the old and children to exercise their 'human right' to participate – as citizens – in decisions about society, the environment and the organisation of economic life (Brock et al. 2001, United Nations 1948).

People are no longer viewed as mere passive users of policies and technologies or mere consumers, choosing from a predetermined set of products. Instead, they become active makers and shapers of the realities that affect their lives. Much of this argument draws its legitimacy from the Universal Declaration of Human Rights. This vision of deliberative democracy also resonates with longstanding political traditions in which direct citizen empowerment and action are seen as the central objectives of a just and free society that celebrates diversity, empathy and virtue.

This rich experience of the theory and practice of deliberative democracy was drawn on to design and organise Prajateerpu – a Citizens Jury/Scenario Workshop on Food and Farming Futures for Andhra Pradesh.

2. The Prajateerpu Process

2.1 Rationale and methodology of the citizens jury

2.1.1 Rationale

There are a range of ways in which political actors can 'represent' the opinions of citizens. Perhaps the most widely known is the opinion poll. In the period leading up to elections, different media outlets compete to give the most representative opinion poll of the state of play between the main political parties based on the instantaneous reactions of voters 'in the street'. Commentators often remark that such a small sample size (below 1,000) may not be very 'representative'. This attitude has led some to suggest that policymakers should not believe any research on public attitudes that has not been backed up by a statistically valid survey.

A second tradition of representation was laid down in the Magna Carta in 1215, which promised that 'no free man shall be taken or imprisoned or dispossessed or outlawed or exiled or any way destroyed ... unless by the lawful judgment of his peers by the law of the land'. This led to the system of trial by jury that continues to this day in the UK, US, much of Europe and many other democracies around the world, such as Russia, Brazil, and Australia. It is not uncommon for twelve randomly chosen citizens to decide the fate of someone charged with murder. These twelve people clearly cannot be a statistically representative sample of the population, yet few deny that, once they have heard the evidence for the prosecution and defence, the jurors are able to fairly represent the conscience and intelligence of the community.

Whilst elected governments make the laws, it is juries in most cases who have the power to decide the innocence or guilt of anyone charged with breaking those laws. They have an importance to many democracies that has often had to be fiercely defended. One senior British judge, surveying the limiting of a government's power provided by the jury over the centuries, compared the jury to: 'a little parliament.... No tyrant could afford to leave a subject's freedom in the hands of twelve of his countrymen.... Trial by jury is more than an instrument of justice and more than one wheel of the constitution: it is the lamp that shows that freedom lives.' (Devlin 1966). More recently, a US lawyer has suggested that no other institution of government rivals the jury in placing power so directly in the hands of citizens or wagers more on the truth of democracy's core claim that the people make their own best governors (Abramson 2000) (see Box 2).

The opinion poll and jury are each based on different concepts of representativeness. Statistical representativeness arises purely from the mathematics of random sampling. The concept of a jury, including the citizens jury design of Prajateerpu, relies instead on the judicial representativeness of taking twelve citizens, more or less at random, and allowing them to deliberate on evidence to reach their final verdict. Because it is an informed decision, reached after extensive opportunity for deliberation, the verdict they reach is seen as far more valid than if a question was asked of one thousand un-informed citizens. The method is designed to allow participants to represent their own views, which are formed after discussions with others. Contrary to the methods used in much market research, most decisions in people's lives (from 'shall we have a cup of tea?' to 'should we have children?') are taken after anything from a brief discussion to an extended deliberation between those concerned with the issue. It is therefore opinion polls (and even many other supposedly objective social research methods) that are unrepresentative in that they do not allow citizens to reach informed decisions in conversation and deliberation with others. When it is argued that citizens juries are 'qualitative' and therefore not statistically representative, it should be understood that their comment refers to statistics, not representative democracy.

Box 2. The citizens Jury Method

Historians have described how the spontaneous use of citizen-led 'people's courts' to discuss issues of concern to the community goes back at least as far as eighteenth century England (Thompson 1963). During the English Civil War groups such as the Levellers and the Diggers campaigned to allow ordinary people – not just noblemen – to be allowed to serve on legal juries. The principle of justice being administered not by government, but by one's peers, was passed down in common law, later being revived by campaign groups such as the Luddites, who put pieces of industrial machinery 'harmful to the commonality' on trial in front of people's courts during the first decades of the nineteenth century (Woolgar 1997).

The first recorded event that was actually called a 'citizens jury' was undertaken in 1974 by the Jefferson Center, Minnesota. Between 1974 and 1999 the Jefferson Center, the Public Agenda Foundation and the National Issues Forum ran around thirty juries at the local, state and national level within the US. They tackled a number of topics including healthcare reform, budget priorities, environmental issues and local school district facility needs.

Since being introduced to the UK in 1996, over one hundred citizens juries have been held on issues ranging from healthcare rationing to education policy and taste and decency on television. The citizens jury adopted in the UK is based on both German 'planning cells' and American citizens juries, and it has many similarities to approaches in other parts of Europe. There has been a high level of diversity in the way the approach has been put into practice.

citizens juries have now been used in many countries including Brazil, UK, Spain, Germany, India, New Zealand, Canada and Australia. Outside the US they are organised by a variety of different groups – governments and local authorities trying to acquire legitimacy for their actions, campaigners trying to demonstrate widespread and informed public support for their cause, and qualitative social researchers trying to gain greater insights into participatory governance and direct methods of democracy.

In a citizens jury a representative panel of citizens meets for a total of thirty to fifty hours to examine carefully an issue of public significance. The jury, of between twelve and twenty members, serves as a microcosm of the public. They hear from a variety of specialist witnesses and are able to deliberate together on an issue. On the final day of their moderated hearings, the members of the jury present their recommendations to decision-makers and the public.

citizens juries have a number of features that distinguish them from other methods of participation:

- Participants are systematically recruited, rather than just being asked to turn up via an open invitation.
- Participants are given the opportunity to scrutinise the information that they receive from witnesses.
- Participants are given time to reflect and deliberate on the questions at hand, usually assisted by a facilitator.
- Acting as 'jurors', participants are expected to develop a set of conclusions or 'visions' for the future.

2.1.2 Jury selection

Under the model of citizens jury most commonly used in the UK and US, jurors are often recruited via a random selection of people taken from the electoral roll (Coote and Lenaghan 1997). It is widely agreed, however, that this method is not appropriate and is not an effective way to get a representative sample of citizens in nations where not only are people living in extreme poverty, but electoral records are often incomplete. In many *adivasi* regions of East Godavari District, the home region of two jurors, no elections at any level have been held for four years, and no electoral roll exists.

The selection of jurors in Prajateerpu followed the model adopted in the Karnataka jury (Wakeford 1999), whereby independent researchers were commissioned to recruit the members of the jury. A team of researchers from the University of Hyderabad, trained in

Box 3. Farmers in Andhra Pradesh

Andhra Pradesh is the fifth largest state of India in terms of both surface area and population. About 70 per cent of the state's population are engaged in agriculture. The jury selection process did not seek to achieve representation from all social groups, instead it purposefully and positively discriminated in favour of the poor and marginalised farmers and landless. Over 80 per cent of those involved in agriculture are small and marginal farmers and landless labourers who own a mere 35 per cent (3.5 million hectares) of the total 10 million hectares of cultivated land. About 20 million bovines (cattle and buffaloes), 15 million sheep and goats, 750,000 pigs and 65 million poultry are spread across some 10 million households engaged in agriculture. The landless, marginal and small farmers own about 70 per cent of the livestock. Small ruminants and backyard poultry are reared primarily by the landless adivasi, the traditional small-ruminant-eating castes such as the kurma and the galla, and the dalits (the 'untouchable' caste, a very marginalised social group). The size of a bovine herd is closely linked to private land ownership, with the number of bovines increasing with landholding size. In all agricultural settings across AP, women play a greater role than men in agricultural work and food preparation, looking after almost 80 per cent of the day-to-day livestock management.

participatory development and communication, were chosen to conduct the recruitment.

Although this meant that the jury was not randomly selected in the mathematical sense, it was more representative of small and marginal farmers (see Box 3) than if recruitment had been via other methods, such as using the highly error-prone electoral rolls which systematically exclude the many poorer citizens who are eligible but are not registered to vote.

Also, the process that we were beginning was not one of quantitative market research, but of qualitative action-research linked to empowerment. From this point of view, working through existing groups and identifying participants who were active members of those groups would mean that if people wanted to take forward the issues raised in the jury, they were at least in contact with a group that might allow them the opportunity to do so. The fact that all participants had some involvement with, or membership of, a local group, meant that participants were not plucked off the street as most opinion poll and focus group participants are, but that they had some knowledge baseline of exposure from which they could participate.

Research for jury selection was conducted by the Department of Communication, University of Hyderabad by the following group of participatory field researchers: LVV Nath, Eluru Suneetha, Naveen T, M Janaiah, Roselyn Supriya, K Krishna Shankar and P Srinivas. The research was supervised by Dr Vinod Pavarala, Associate Professor in the Department. The team interviewed a range of rural people who they contacted using names provided by community groups from the following organisations:

- DGIS-supported programmes (DGIS is the Dutch Ministry of Foreign Affairs)
- Agriculture, Man & Environment (an NGO)
- APCDD (a coalition of NGOs working on sustainable/equitable agriculture)
- Yakshi (an NGO working with *adivasis)*
- Girijan Deepika (an *adivasi*-run empowerment coalition)
- AP Dalit Farm Workers' Union

Having collected a list of names and addresses, the team then travelled to the villages where these farmers lived and conducted detailed interviews. In selecting the jurors, the researchers laid particular emphasis on recruiting *dalit*, *adivasi* and women farmers. The selection criteria were that they should be:

- small or marginal farmers living near or below the poverty line;
- open-minded, with no close connection to NGOs or political parties; and
- likely to be articulate in discussions.

In addition, one urban juror was recruited to give the perspective of someone who was a consumer of farm produce but was not earning a living from the land. While she could obviously not be expected to represent the

full range of views of urban citizens (i.e. those not involved in agriculture), it was clear that the deliberations would be enriched by participants being able to take on board her concerns and knowledge. (For details of a process in the UK that also mixed urban and rural perspectives in this way see National Consumer Council 2002).

Given that a certain level of articulate speech is a crucial part of a deliberative democratic discussion (see comment by Paul ter Weel in Section 4.11), the team was asked to double-check that the jurors would not feel inhibited about speaking out in a formal setting.

To determine their suitability for jury membership, potential jurors were asked about:

- the size of their landholding;
- their caste / indigenous group;
- crops grown on regular basis;
- livestock owned; and
- alternative sources of livelihood.

Researchers were careful not to pick community workers themselves, but rather use the workers as informants in finding members of the jury, a technique known as 'snowballing' (Atkinson and Flint 2001). Working through these groups gave the researchers a means of accurately identifying small and marginal farmers which would not have been possible using any official information source.

The areas visited included villages in the following districts: Kurnool, Chittoor, Cuddapah, East Godavari, Guntur, Vizianagaram, West Godavari, Medak, Warangal and Mabubnagar.

We wish to respect the privacy of the jurors as much as possible. We therefore identify them only by their first name and district. Neither their native villages nor the organisation that put the researchers in touch with the team have been included in this report or any other publicly available document.

2.1.3 Rapport building

Building rapport and trust with and between the jurors was a crucial task for the facilitators. It was very important to spend half a day easing people into the process. For all of the participants, coming to such an event was a new experience. As well as encouraging the jurors to be at ease, the facilitators wanted jurors to feel that their own knowledge and experience was valid and valuable, even if witnesses might that their own specialist knowledge was more important.

Most of the jurors and the people accompanying them arrived at the KVK campus on the first day, although some had arrived the day before, and had already familiarised themselves with the setting.

The initial session on the first morning involved everyone. The facilitators (see Section 2.5) explained that the jury process is similar to the proceedings of a courtroom. The jurors would first listen to witnesses, then deliberate amongst themselves, and on the final day, deliver their verdict. Many of the individuals present had not been shortlisted by the University of Hyderabad team as jurors, but had accompanied those people who had been selected on their journey. These non-jurors were encouraged to become active observers, however, and to give their feedback on a day-to-day basis on the way the process was being run.

Towards the evening of the first day, the 19 jurors were taken aside and were inducted as Prajateerpu's citizens Jury. They then began what was to be a regular session of ice-breaking and rapport-building with the three facilitators. This session was about two hours long and took place in a meeting hall, giving them some private space away from the hustle and bustle of the other people attending Prajateerpu.

A pillow game was used to start a round of introductions. In this game a pillow was thrown across the room, with as much energy as the person could muster (this was a fairly large hexagonal room, with people sitting along the walls), and the person on whom it fell would introduce herself/himself to the others. Much jesting and ribbing soon began. The introductions included details such as name, district and village details, marital sta-

tus, what the other family members do, educational qualifications, landholdings, irrigation availability or non-availability, crops grown, and so on. The other participants were able to ask questions, and there were queries and clarifications on the different names used for the same crop, for instance, in different parts of Andhra Pradesh.

It was apparent by the end of the session that all of the jurors had become confident, articulate, and prepared to be part of the process for another five days. Those who were already missing their children and other family members back home shared their feelings, and found that others felt the same way. All of them had left important jobs and responsibilities during a busy agricultural period to be part of this important event, and they discussed this and agreed that their participation in Prajateerpu was still worthwhile.

This session was conducted without any cameras or recording of any sort. It was just a quiet, 'make yourselves comfortable' session, and the jurors were told that they could approach any one of the facilitators if they needed anything at all. This reassured those who were concerned about being separated from their friends and relatives who had accompanied them. Some people felt like singing, and the others joined in, helping everyone to relax.

Finally, the jurors were introduced to the concept of Prajateerpu. The plans for the next few days were explained, and the facilitators described what was expected of them. The need to be objective, alert and attentive, and participatory in their decision-making was emphasised.

The jurors were told that three scenarios of agriculture for the state of Andhra Pradesh would be presented to them through means such as specialist witnesses and videos, and that they could choose one scenario, or a combination of elements from two or all three, and finally on the final day they would pass a verdict on behalf of the small and marginal farmers of the state.

The facilitors explained how the jurors had been selected, and noted that they represented various regions of the state. This session was also used to let them know that the media might be present during the process, and to find out if they felt intimidated by this. All the jurors agreed that this was not a problem, and that they would not be distracted.

Following a break of a couple of hours, the group sat down later in the evening to watch the three scenario videos. The aim was not to begin discussing the content of the scenarios, but to familiarise the jurors with the 'futuristic' style used in the films. They were quite able to grasp the new grammar of video, taking in all three films quite easily and understanding the main components of each scenario. The video screening solicited much reaction from the jurors, who openly commented throughout on the scenes they were watching.

The next morning, the first day of the formal proceedings, the jurors met briefly to learn the day's schedule and be reminded of the rules, which they had agreed the previous day.

2.2 The Scenario Workshop: Three visions of the future

The jurors were presented with three different scenarios or visions of the future. Each was presented using a 30-minute video and by key opinion-formers who tried to explain the logic behind the scenario. Over a period of four days the jury listened to and cross-questioned thirteen witnesses including representatives of the Government of AP, the Indian branch of the International Federation of Organic Agriculture Movements (IFOAM), and Syngenta, one of the world's largest biotechnology corporations. It was up to the jury to decide which of the three scenarios, or which combination of elements from each, was most likely to provide them with the best opportunities to enhance their livelihoods, food security and environment twenty years from now.

1. **Vision 1: Vision 2020.** This scenario has been put forward by Andhra Pradesh's Chief Minister and has been backed by a loan from the World Bank. It proposes to consolidate small farms and rapidly increase mechanisation and modernisation. Production-enhancing technologies will be introduced in farming and food processing, reducing the number of people on the land from 70 to 40 per cent by 2020. DFID (UK) has expressed an intention to provide a large grant towards this programme (DFID 2001).[4]
2. **Vision 2: An export-based cash crop model of organic production.** This vision of the future is based on proposals from IFOAM and the International Trade Centre (UNCTAD/WTO) for environmentally friendly farming linked to national and international markets. This vision is also increasingly driven by the demand of supermarkets in the North who want a cheap supply of organic produce and to comply with new eco-labelling standards.
3. **Vision 3: Localised food systems.** A future scenario based on increased self-reliance for rural communities, low external input agriculture, the re-localisation of food production, markets and local economies, and with long-distance trade only in goods that are surplus to production or not produced locally. Support for this vision in India can be drawn from the writings of Mahatma Gandhi, indigenous peoples' organisations and peasant unions linked to *Via Campesina*.

The videos of the different scenarios offered colourful illustrations of the salient features of life predicted by the opinion formers for each particular vision. Existing video footage was sourced from organisations such as the Television Trust for Environment (TVE), the BBC and Development Perspectives (Hyderabad). Where it was needed, new footage was shot in both rural and urban settings in Andhra Pradesh. Each video ended with a succinct summary of the policies and institutions that would steer Andhra Pradesh towards that particular food future or vision.

The contents of all three videos were based on research by IIED's Sustainable Agriculture and Rural Livelihoods Programme. The video scripts of possible futures for food and farming were based on the analysis and interpretation of policy documents (such as the Government of AP's strategy for agriculture in Vision 2020) as well as on documented experience of rural societies undergoing change in developed and developing countries. Although based on plausible policies, the videos provide informed guesses and Utopian sketches of the future. The power of video was used in a deliberately dramatic way to evoke colourful, appropriate and meaningful visions in the minds of the jurors. The framing assumptions and the boundary conditions were visibly different in each of the three videos. These shifts in framing conditions were meant to encourage the jurors to actively imagine, envision and create appropriate food and farming futures for AP (see Box 4).

Development Perspectives adapted the initial storylines into full scripts. The film director worked closely with IIED to ensure a fair and consistent representation of 'life under each scenario'. To ensure that comparisons between visions were meaningful, each scenario or vision was described systematically from the following perspectives:

- Ecology of food production
- Ecology of food marketing
- Food and the economy
- Food and community
- Governance and food security

Further consistency was achieved by using a 'Current Affairs' format for each video, with the same newscasters, anchors and correspondents for all three videos. A brief synopsis of each 30-minute video is given in Annex 1.

The videos were a key part of the citizens jury / scenario workshop's deliberative and inclusive process. They set the stage for a deeper explanation and assessment of the main features of each vision by the jury. Further imagining and visualisation of desirable and possible futures occurred through the presentations of the specialist witnesses.

4 DFID works with the World Bank to support a programme of structural adjustment for poverty elimination in AP. The four main pillars for budgetary support are Power Sector Reform and Restructuring, Fiscal Reform, Governance Reform and Rural Development/Agricultural Reform. Both DFID and the World Bank work closely to help the AP government refocus its spending priorities and divest functions and services where this is more appropriate. Specific support efforts are made to strengthen the Government of AP's capacity to manage the privatisation programme outlined in Vision 2020. The State of Andhra Pradesh receives over 60 per cent of all DFID aid to India (DFID, 2001).

Box 4. Envisioning the Future of Food and Farming in Andhra Pradesh

- The visions are a way of looking forward and getting an impression of what lies in the future. Each vision offers a comprehensive view of the overall political, social, ecological and economic organisation of a food and farming future. In each case evocative images are used to help answer the question 'what does this policy decision imply for the longer term, for the generation that will come after us?'
- The visions all have a strong visual dimension. Video was consciously chosen to develop expressive and plausible visions of food and farming futures for AP. As a communication medium, video has the potential to create clear images of possible futures that are meaningful to both literate and non-literate audiences. The videos were designed to stimulate the imagination of the viewers through the use of colourful, appropriate and meaningful images of farming, landscapes and the lives of people in each vision.
- The visions function as diagnostic and analytic instruments that uncover fundamental relationships between policies, the organisation and structure of different food systems, and their impacts on society and the environment.
- By offering diverging images of the future of food and farming in AP, the visions enrich debate by eliciting associations and stimulating thinking about starting points, ideas and normative positions.
- A valuable function of the visions is to provide alternative frameworks of interpretation, frames of reference and hypothetical positions. Visions offer a broader view and invite critical reflection on a multitude of relevant subjects. They act as catalysts to persuade jurors to think independently about a feasible and desirable future.
- The visions tend to elicit both positive reactions and opposing views. By actively interrogating and exploring the visions the jurors are stimulated to form an opinion on the desirable choices for the future of food and farming as well as the ultimate goals of society.

2.3 Specialist witnesses

Another crucial part of the deliberative process depended on identifying individuals willing and able to defend a particular vision of food and farming futures in Andhra Pradesh. The following criteria were used to select appropriate specialist witnesses:

- Different sectors of society and interest groups (industry, government, civil society organisations, farmer trade unions, academic institutions, donors, etc.) should be represented by the range of invited specialist witnesses.
- Witnesses – and the organisations which employ them – should be credible and have a proven track record of engagement with the issues to be discussed.
- Witnesses – and their employer organisation – should agree to participate in the deliberative process on the basis of prior information and a clear description of their roles, rights and obligations.
- Witnesses should be able to communicate clearly their perspective to a lay audience in face-to-face interactions, without recourse to papers, display-boards or other visual aids.
- Specialist witnesses should agree to address specific single-issue concerns in the context of a larger scenario for the future, for example the impacts of new technologies such as GMOs in the context of Vision 2020.
- Witnesses should be willing to stay overnight after their presentations, to interact with other observers and gain first-hand experience of the dynamics of the jury process.

Each specialist witness also had to agree to address the jurors directly and be open to cross examination. The names and affiliations of the specialist witnesses are given in Box 5.

Strict timekeeping by the facilitators ensured that each specialist witness' presentation lasted no more than 35 minutes (excluding translation time). The presentations were followed by dialogues of up to 40 minutes (excluding translation time) between jurors and the specialist witnesses, with questions, answers and

Box 5. The specialist witnesses at Prajateerpu

The names and affiliations of individuals who gave specialist evidence at the Citizens Jury on Food and Farming Futures for AP are:

1. *Mr K Akbal Rao*
   Deputy Commissioner and Deputy Director of Agriculture Andhra Pradesh, Government of India
2. *Professor MV Rao*
   Former Vice Chancellor of Andhra Pradesh Agricultural University, Hyderabad, India
3. *P Chengal Reddy*
   President of Andhra Pradesh Federation of Farmers Associations, Andhra Pradesh, India
4. *Dr KPC Rao*
   Principal scientist, Economic Planning, National Academy of Agricultural Research Management, Hyderabad, India
5. *Dr Alexander Daniels*
   General Secretary, IFOAM-Asia
6. *Dr Shivram Krishna*
   Cultural anthropologist working with tribal peoples in AP
7. *Dr Sagari Ramdas*
   Director, Anthra, and specialist in livestock issues
8. *Dr Partha Dasgupta*
   Syngenta Seeds Asia-Pacific
9. *Dr Debashis Banerji*
   Former Head and Professor of Botany and Molecular Biology at CCS University, Meerut
10. *Michael Hart*
    President of the Small and Family Farm Alliance, UK
11. *Colin Hines*
    Associate, International Forum on Globalisation, UK
12. *Dr TN Prakash*
    Professor of Agriculture and Coordinator, Agro Biodiversity Group of National Biodiversity Strategy and Action Plan (NBSAP), India
13. *K Srinivas*
    Political economist and journalist, Andhra Pradesh, India

counter-questions informing subsequent deliberations.

2.4 Role of the jurors

The jurors considered all three visions, assessing the pros and cons on the basis of their own knowledge, priorities and aspirations and taking into account the specialist witnesses' contributions. The jurors were not asked to simply choose Vision 1, 2 or 3, but were encouraged to assess critically the viability and relevance of all the elements of each scenario for the future. They could choose one particular vision OR combine elements of all three futures and construct their own unique vision(s).

The scenarios are images of different possibilities for the future. They are meant to stimulate the imagination, inspire criticism and help generate new visions and action proposals (see Box 4). An important task of the jury was to devise an action proposal which could be implemented to achieve their chosen vision. The resulting action proposals were considered both in small groups and in plenary.

2.5 Facilitators

Good quality facilitation was essential throughout this process. The three Telegu-speaking facilitators were identified and briefed comprehensively before the actual jury event.

The selection criteria for the facilitators particularly stressed good *local* language and communication skills. Participants were coming from all over the state, but they all had the Telegu language in common. Other important criteria included a working knowledge of rural conditions and livelihoods throughout AP, an ability to help people with contrasting backgrounds and life experiences to work together, experience in village-level facilitation and conflict resolution, and representa-

tion of key sectors (government, academia and civil society). Two female facilitator and one male facilitator were sought in order to reflect the gender composition of the citizens jury, which was biased in favour of women.

The facilitators were:

- Sudha Goparaju, Programme Support Team, Rural Livelihoods Programme, Government of Andhra Pradesh, India
- Kavitha Kuruganti, Programmes Division, ActionAid India
- Dr Vinod Pavarala, Communication Programme, University of Hyderabad, Andhra Pradesh, India

All organisational and logistical arrangements were taken care of by a project administrator and their staff. This back-up proved invaluable as it allowed the facilitators to concentrate on the needs of the jurors and the deliberative process.

Close coordination among facilitators was ensured through two half-hour daily debriefing and planning sessions – one in the morning and the second in the evening – which helped clarify and agree what should come next, how things should be done, by whom and in what order. The quality of facilitation and interaction between jurors and specialist witnesses was also assessed on a daily basis by an Oversight Panel (see Section 2.6). During these debriefing and planning sessions, the three Telegu-speaking facilitators worked with the international collaborators from IIED and IDS, who acted as resource people and advisors throughout the process.

2.6 Oversight Panel

The jury/scenario workshop process was overseen by an 'Oversight Panel' – a group of external observers or stakeholders. The role of the panel was to monitor and evaluate the fairness and credibility of the entire process. The inclusion of observers with a diverse range of interests was an important way of ensuring that the methodology was trustworthy and not captured by a group with a particular perspective or vested interest. In this context, the concept of stakeholder was widened to include those who are 'stake-less', having been marginalised by prevailing socio-economic forces. This was based on the coordinating team's belief that only if there was a balance on the panel between those whose human rights are at risk and those with power, would this produce a process that is both fair and seen to be fair.

Two members of the Oversight Panel critically reviewed the scripts of the videos to ensure that each food and farming future was presented in a fair and unprejudiced way. All panel members were involved in the critical evaluation of the jury process and its deliberations.

The panel was chaired by a retired Chief Justice of the Supreme Court of India, and included representatives of the international donor community, civil society organisations and tribal peoples. As a stakeholder/observer panel the composition was carefully balanced using guidelines from previous exercises to include a broad range of interests and perspectives without any one of them dominating (Coote and Lenaghan 1997, Wakeford 1999). The panel was not pushed artificially into being so broad-based as to include, and potentially be disrupted by, individuals who are opposed to democratic accountability of governments and corporations. The members of the panel are listed in Box 6.

2.7 Location and logistics

The Prajateerpu event was held in Medak District, Andhra Pradesh on the farm of a jointly run government and NGO Farmer Liaison Centre, the KVK. All witness presentations and cross examination sessions took place in the main plenary hall. The KVK also offered many separate meeting rooms for the closed sessions of the citizens jury and their deliberations. All jurors, specialist witnesses, facilitators, Oversight Panel members and the coordinating team slept in the on-site accommodation of the KVK. Other observers were housed in hotels in the nearby town of Zaheerabad. Vegetarian Indian food based on

Box 6. The Oversight Panel and Prajateerpu

The Oversight Panel assessed the degree of fairness, trustworthiness and credibility of the citizens jury process. The panel members were:

Justice PB Sawant
Chairman, Press Council of India (former Chief Justice at the Supreme Court of India)
Faridkot House
New Delhi
India

Paul ter Weel
First Secretary
Advisor Development & Environment
DGIS
The Netherlands Embassy
New Delhi
India

Savitri
Girijan Deepika
Addatheegala
East Godavari District
Andhra Pradesh
India

Y Divanjulu Naidu
Coordinator of AME (Man and Ecology)
Andhra Pradesh
India

Sandeep Chacra
Regional Director
ActionAid
Hyderabad
India

produce from the region was prepared and served by the KVK staff.

Separate sleeping and eating arrangements ensured that jurors stayed together, as a group, separated from the others. This reduced the chances that observers or specialist witnesses might try to influence the opinions of jurors outside the formal proceedings of the Prajateerpu process.

All non-Telegu-speaking participants were able to follow the deliberations thanks to the clear translation provided by two senior staff of the KVK, Mrs Salome Yesudas and Mr Suresh Reddy.

2.8 Video archives

The entire citizens jury/scenario workshop process along with interviews of various actors was documented on digital video by a team from the Sarojini Naidu School of Performing Arts, Fine Arts and Communication of the University of Hyderabad (see Annex 2). These comprehensive video archives were compiled to:

- provide a clear and accurate record of the event, including the location, the jury setting, the participants, the nature and quality of the debates, the process and its outcomes; and
- allow any party or external agency to learn from this experience or to check for shortfalls in balance, fairness or failings in the deliberative process.

Two duplicate sets of 26 videotapes were prepared along with a detailed index of the video archives and English/Telegu transcripts for Prajateerpu. The first set of duplicate tapes was left in the custody of the International Institute for Environment and Development, London (UK) and the second with The University of Hyderabad, AP (India).

2.9 Media involvement

News and media professionals were invited to the Prajateerpu event to relay information about the jury deliberations and outcomes to a wider audience, both nationally and internationally. The coordinating team also gave briefings and background information to the press and other news media before and after the event. The active involvement of the press, television networks and radio reporters was seen as an essential part of a methodology that aimed to link Prajateerpu with national and global policymaking.

3. Prajateerpu: The Jury's Verdict and Vision of the Future

3.1 Verdict

The jury's verdict is reproduced in full in Annex 3. In this part of the report, we look at the significant sections of the verdict (in bold), bringing in quotes from witnesses and jurors from the discussions (marked * if the quotes are from the presentations on behalf of the jury by their appointed representatives at the final press conference). This is followed by an explanation of the verdict and brief discussion of the issues arising.

3.1.1 Self reliance

We desire:

- **Food and farming for self reliance and community control over resources**
- **Agricultural systems that require low investments**

Without doubt the most prominent concern of the jurors both at the beginning and at the end of the Prajateerpu process was that they wanted a system of agriculture that would allow them to rely on their own knowledge, skills and resources. This included the management of biological resources in the form of crop varieties and natural resources such as water and soil. The most critical resource that they did not want their farming to become dependent on was cash.

All of the jurors were living in various degrees of poverty. They did not want to spend hard-earned rupees on seeds (usually high-yielding varieties) that required further investments in expensive and unreliable fertilisers and pesticides. Many among the jurors had tried this strategy in the past and had been left owing monies when they had been assured they would make a profit. Some were still trapped in a cycle of debt, often triggered by the use of Green Revolution packages.

The phrase 'Grain that does not mean debts, and crops which do not mean expenditure' (in Telegu *Appuleni dhanyaalu, kharchu leni panta*) became a refrain among the jurors during Prajateerpu. Though not perhaps a universal consensus among all jurors, it was used by one or another juror in almost every discussion.

Their fears were echoed by Srinivas, one of the specialist witnesses, who stated that:

Small farming does not enjoy any prospects at present. There is no support or encouragement for small farming, and there doesn't seem to be any scope for it to become self-reliant.

In her elaboration of her and her fellow jurors' verdict, Ammaji stated that:

* We want to be in a position to continue with our own farming, cultivate our own crops with farmyard manure (FYM) and we want to be self-sufficient.
* We want to depend on our indigenous resources to raise our crops and we do not intend to use fertilisers and pesticides to cultivate our lands.
* We want to cultivate our own land and grow our crops using our livestock.
* We want to continue with our own agricultural practices, cultivate traditional crops and save our own seeds.

3.1.2 Chemicals

We desire:

- **A switch to a system of farming that does not need toxic chemical pesticides**
- **Diverse native forests instead of monoculture plantations (e.g. eucalyptus)**

All the farmers and the consumer on the jury expressed general anxiety and specific concerns about the use of agro-chemicals in farming. Several jurors spoke about the mild to severe forms of pesticide poisoning that they experience on a daily basis. Others described the inferior food quality of crops grown with high inputs of chemical fertilisers. All referred to the debts of farmers hooked on the

pesticide treadmill and the many cases of farmer suicides in AP. Given the severity of pesticide poisonings throughout the state, the jury found the government's policies to be socially and ecologically irresponsible. This was particularly highlighted in an exchange between the AP Deputy Director and Deputy Commissioner for Agriculture and a woman farmer from Kurnool:

Deevenamma: *What happens when we get injured by pesticides that are used inappropriately? Sometimes we even get killed by their adverse health effects. Will you give us compensation? What about all those jeeps coming to our villages and persuading us to use their pesticides. Why can't you stop them?*

Akbal Rao (answering): *Pesticides are like cigarettes. People get addicted to them and use more and more. Only then are they injurious to their health. They need to be educated not to become addicted. We can't stop firms going round the villages marketing their product. If you feel they have cheated you, you should register a complaint with the police.*

(And later during the same exchange…)

Deevenamma: *It is fine that you are thinking of reimbursement from the company if there is a crop loss. But what about loss of lives, with the use of these materials [pesticides]?*

Akbal Rao (answering): *We cannot do anything. It is in the hands of God.*

But pesticides are part and parcel of the process of modernisation spelt out in Vision 2020, according to Professor MV Rao:

Earlier one of you was talking about the ill effects of pesticides and chemical fertilisers, and getting into debt. But you cannot stop using them completely. The crops need some protection…. This is the first time in the state that a document like Vision 2020 has been presented…. The loans from the World Bank would be used to modernise agriculture.

Jurors did not view these trends as inevitable. They spoke of alternative, more effective and safer methods of pest control and fertiliser use, many of which are based on indigenous knowledge and management systems. The need to change perverse policy incentives and subsidies that encourage the use and abuse of agro-chemicals was emphasised in the jury's deliberations. A woman farmer from Visakhapatnam District expressed this vividly:

Ammaji: *We know the harm caused by chemical inputs and we will stop it. … People are lured into chemical farming because of the subsidies. It's [conventional farming] like a father-and-son company, the father sells sugar and the son sells ants, and in the end the ants eat away the sugar.*

One of the specialist witnesses echoed her calls for changes in policies and economic incentives:

Dr KPC Rao: *There's no encouragement for organic farming. Farmers are forced to take up chemical farming because the government provides subsidy only for chemical fertilisers and pesticides. There needs to be a change, changes need to be brought into government systems and policies.*

Incentives to reduce the use of dangerous and expensive agro-chemicals in farming and livestock management were clearly linked with the need to switch to more diverse, sustainable, low external input or/and organic agriculture. The ecological resilience and safety of diversity-rich farms and forests were generally seen as more appropriate than monocultures, which were seen to be riskier and linked with the continued use of pesticides and chemical fertilisers. The jury was confident that small farmers could grow safe, quality food for everyone, provided policies were enabling for the farmers rather than the suppliers of off-farm inputs. In passing its verdict, the jury's stand was clear:

* Narsamma: We are against using chemical fertilisers.
* Anjamma: Since you depend on us farmers to provide you with crops and food, why don't you allow us to follow our own methods, to provide you with quality food. If you consume food which contains toxins, you will have health problems and your hospital bills will go

up. We all eat the same food. If you take care of us and provide us with adequate resources, we will ensure that you get enough and quality food.

* We would want to depend on our indigenous resources to raise our crops and we do not intend to use fertilisers and pesticides to cultivate our lands.

3.1.3 Mechanisation

We oppose:

- **Labour-displacing mechanisation**

The American prairie-style mechanisation of agriculture in AP is central to its government's Vision 2020. One of its supporters, the specialist witness Professor MV Rao, summed up Vision 2020 in three words: 'mechanisation and consolidation'

While not being opposed in principle to machines, the jurors were gravely concerned about the effects they are likely to have on the part-time work they have as casual labourers (or 'coolies') on richer farmers' fields. If such farmers were using machines this crucial source of income would surely be reduced, they suggested.

A second concern surrounding the increased use of machinery on the land for jobs such as ploughing and load-carrying was the long-term health of the soil. Already Andhra has seen a slump in the number of livestock as a result of the move from using farmyard manure to artificial fertilisers. The livestock are often left to wither, while manure is increasingly expensive. If ploughing and load-carrying was to be done by machines, these last major roles for cattle would disappear, with the result that they would disappear from villages altogether. Narsamma's concern, expressed below, is that the inevitable lack of available manure would sap the soil of its strength. Her concern was not addressed by Akbal Rao, who seemed unaware of the link between increased mechanisation and livestock scarcity. Nor did he acknowledge that increases in income due to increased productivity would be unlikely to trickle down to the marginal farmers whose jobs would have been lost and who made up the jury.

Narsamma: *You said that we should use machines, it will be good for agriculture. Why should we use them? If we did, we wouldn't get [jobs for ourselves as] coolies. Instead you should give us bullocks for farming. We'll get manure also and we can use the manure to grow our crops.*

Akbal Rao: *The population is increasing manifold. You need to find other jobs [than as coolies] and diversify into various other fields such as business. As I said earlier, [today] 70 out of 100 people depend on agriculture. There will be some drawbacks arising from mechanisation – unemployment is one of them – but machines will speed up the work, and increase production also.*

He later added: *Tractors can do in one day what used to take one hundred days of labour. Of course we should have them. You can of course continue to use bullock carts, but we need tractors because it saves money on labour.*

Narsamma: *If we use machines, the soil will lose its strength.*

Akbal Rao: *Who's asking you to stop rearing animals? You should have animals and you should use the farmyard manure. Both are different, you need to have both. Anyway, there is only 1 per cent mechanisation as of now.*

In passing the verdict, Ammaji summed up the view of her fellow jurors that:

* We do not want machines and tractors.

Taking this comment together with the main verdict text (above), this should not necessarily be taken to mean that marginal farmers would never want to make use of agricultural machines, but rather that they oppose the system of labour-displacing and soil-destroying machinery and tractor use as outlined in Vision 2020.

3.1.4 Water

We desire:

- **Restoration of our irrigation tanks**
- **Irrigation water during drought years**

- **Borewells as a collectively managed resource for small farmers**
- **Restoration of water tanks and indigenous water management practices**
- **Appropriate irrigation**

Scarcity of water for both drinking and agriculture was a key concern of jurors. In AP nearly 60 per cent of the cultivated area is rainfed only. Some were particularly distressed by the lack of water in dryland areas and other districts of AP in which the water table has been depleted through the extensive use of deep borewells. Deevenamma described some of the dire consequences of water shortages in Kurnool district:

The farmers today are faced with severe water scarcity. Excess [use of] borewells in the area has led to the reduction of groundwater to such an extent that people have to buy water on a daily basis. There is no water and people are selling their animals.

This exchange between a farmer from coastal AP and the SYNGENTA representative made it clear that in the face of water scarcity there are few technical solutions available to grow crops:

Shantamma: *No rains, so no crops, what is your answer?*

Dr Dasgupta (answering): *Drought-resistant crops can survive spells of drought, but not complete failure of the monsoon.*

The jury stressed the need to restore the network of abandoned water tanks and indigenous water-management techniques. These indigenous water harvesting and conserving technologies were based on sound design principles and the jury felt the need to rehabilitate them for today's context. Interestingly, borewell technology was not rejected as such, despite its role in depleting groundwater aquifers over large areas of AP. Jurors recommended shifting from individually owned to collectively managed borewells and other forms of appropriate irrigation measures. Anjamma summed up the jury's view as:

* We require water and borewells. There is a need to desilt tanks, ponds, etc. to provide adequate water for the crops.

The jury's recommendations to sustain the supply of water were complemented elsewhere with calls to reduce demand for water by growing locally adapted grain crops (sorghum, millets and pulses) known for their low water requirements (see below).

3.1.5 TRADITIONAL FARMING METHODS

We desire:

- **Indigenous agriculture – including an appropriate combination of silt, farmyard manure, traditional seeds, improved seeds, mixed/rotated cropping, farm-saved seed, and control over seed selection**
- **The maintenance of the variety and diversity of our crops and animals**

Jurors emphasised the values of indigenous farming and land-use systems based on biodiversity. In terms of cropping system diversity a one-to-two acre farm will usually host 8 to 12 types of crop. Genetic diversity within each crop type can be high, particularly on land farmed by marginal and small farmers. Hardy, locally adapted and diverse livestock breeds (poultry, sheep, goats, pigs and cattle) were also seen as key in farming systems favoured by the jury. The importance of livestock as a source of high-quality organic manure was also emphasised by the jury. Many referred to organic manure as the basis of good husbandry and healthy crops, animals and people.

Speaking on behalf of the jury, Ammaji, from Visakhapatnam District, called for production systems that reflect and reinforce farmers' autonomous decision-making:

* We want to be in a position to continue with our own farming, cultivate our own crops with farmyard manure and be self-sufficient.

Whilst the jurors were clearly aware that indigenous farming and its knowledge basis were ecologically sound and less risky, they were also aware that decisive policy changes and technical re-orientations were needed by

the government to realise the full potential of diverse agricultures and land uses. They specifically called for appropriate training and research as well as for government support to re-introduce livestock. In summing up the jury's verdict, Philip from Guntur District described how the government could be more enabling in this regard:

* We want to follow traditional methods and cultivate traditional crops. For this we need training and need to be provided with livestock.

The jury thought that the needs of smallholders and marginal farmers (i.e. improved draught animals, milk production, livelihood diversification), particularly in the arid and drylands, could be creatively fused with the regeneration of soils and healthy agro-ecosystems through applications of organic manure (see Section 3.1.14).

3.1.6 Indigenous knowledge and traditions

We desire:

- **Agricultural systems compatible with our own culture, (including trees/crops/livestock linked to festivals)**
- **Recognition and respect for indigenous knowledge and innovations**
- **Community crop planning**
- **Local management, access and control over prices, markets and marketing**
- **Re-training in indigenous resources management**

With some 70 per cent of the population engaged in agriculture and natural resource management, AP has a large store of indigenous knowledge and many informal innovations in forestry, farming, animal husbandry, water management and healthcare. In many ways this was obvious to all the jurors, who constantly drew on their indigenous knowledge and experience when cross-examining the specialist witnesses. Interestingly, it was left to several witnesses to praise people's knowledge and intellectual contributions.

Dr TN Prakash: *The traditional farmers are rich in indigenous knowledge systems, they are rich in native wisdom. The traditional agriculture is basically depending on indigenous, traditional native wisdom, which they know very well. Green Revolution agriculture, on the contrary, assumes that farmers don't know anything. They have to be taught how to plough, they have to be taught how to take up planting, how to take up plant protection measures, how to harvest, how to do each and every thing. It assumes that farmers don't know anything so everything is to be transferred from scientific institutions to the field, to farmers. Traditional agriculture believes that a farmer knows many things. It is based on what farmers know, what farmers have, it is based on innovativeness or creativity of the grassroots: farmers, pastoralists, women and the rural people. This is your own strength, I am only placing before you a mirror to understand what you are, what our agricultural system is.*

Dr Alexander Daniels: *We collected a thousand proverbs. They are all closely related to organic agriculture. Our [Indian] culture is something that has inherent features of organic agriculture.*

The technocratic mindset which surfaced strongly at different moments of the jury's cross-examination of key witnesses reminded all present how much rural peoples' knowledge was misunderstood, despised, unvalued and marginalised (see Box 7, page 46). Speaking about the neglect of ethno-veterinary medicine, a specialist witness said:

Dr Sagari Ramdas: *Very little veterinary support is available for the farmers. There are no protective measures available for infectious diseases. The farmers are expected to pay for all the medical expenses. The government provides very little support. It is not adequate.... We are not at all looking at the indigenous methods of treatment for livestock. They are not encouraged and followed. But we are talking about exports [referring to the government failure to promote indigenous knowledge in veterinary care whilst simultaneously promoting the export of medicinal plants].*

Many of the jury's recommendations for the future of food and farming in AP are strong calls to recognise, regenerate and build on indigenous knowledge and management systems as local institutions (see following sec-

tions). The enduring practical and cultural/spiritual values of indigenous knowledge as well as the need to recover and re-contextualise what has been lost were emphasised in the jury's final verdict. As Anjamma from Medak district said:

* We require further training to carry out traditional methods of farming.
* We have always used traditional methods and grown traditional crops.
* We manage to produce about 10 varieties of seeds from a small plot of land.
* Our crops and festivals are very important to us.

3.1.7 Seed

We desire:

- **Self-reliance**
- **The right to re-use on-farm saved seeds**

Seed saving was a practice known to, and used by, all the farming members of the jury. Some, such as Bayaaka, had experimented with hybrid HYVs but found that they were not able to save the seeds for future years, this being one of the many drawbacks of HYVs about which the sales reps seem not to have given advice.

Srinivas, a specialist witness, had already described how debts arising from unreliable seeds, costly external inputs and the promotion of inappropriate crops had led to five hundred suicides in Bayaaka's district of Warangal alone.

Deevenamma explained how some poorer, often non-literate, farmers believed seed company sales reps' promises that using the new seeds would lead to riches. She believed that the only way to prevent her and her fellow farmers from being conned was the regulation and sometimes banning of the sale of new seeds that might harm the interests of already marginalised farmers.

When new seeds are available in the market, it is natural [for farmers] to be tempted. Only if you stop them being available will farmers like us use our own seeds. How can we restrain ourselves from using new seeds and the temptation to earn more money?

Having heard about the many varieties of traditional seed still available, Deevenamma suggested that 'We need to know where to get traditional seeds from'. To this, Kotaratnamma, one of her fellow jurors from the neighbouring district of Guntur, added, 'we are growing traditional seeds, but the price we get is not at all remunerative'. Another juror, Paparao, echoed this sentiment, that there is 'no market nearby to me for selling [seeds for] traditional crops'.

In passing the verdict, Narsamma summed up the view of her fellow jurors that:

* We want to continue with our own methods of agricultural practices, to cultivate traditional crops and to save our own farm-saved seeds.

3.1.8 GM

We oppose:

- **GM crops – including Vitamin A rice and Bt cotton**
- **Wasting money on research and development into inappropriate technologies that could instead be diverted to help us achieve our vision**

The Prajateerpu jury heard more evidence on GM (genetically modified, also called genetically engineered) crops than on any other single issue during its proceedings. They heard from two molecular biologists (Professor MV Rao and Dr Debashis Banerji), one bureaucrat (Akbal Rao), one seed company executive (Dr Partha Dasgupta), and the leader of a lobby group for large farmers (Chengal Reddy).

None of the jurors had heard of GM crops before the hearings, yet by the end of the hearings they felt informed enough to reach a strong set of conclusions. The following extracts from the evidence presented to the jury will help to contextualise the verdict they finally reached.

Chengal Reddy, though supportive of GM crop technologies, identified them as coming from the laboratories of the 'white man'. But

he suggested that the white man had brought many good technologies that, just like education, had helped people to progress in life, and that farmers like those on the jury should try out new agricultural technologies such as GM before deciding whether they were for or against them:

It is not sensible to be against the technology. Do you want to stick to traditional practices and methods? But when you fall ill you will only go to an allopathic [conventional] doctor for a cure. You do not want to follow traditional medicine – you will want to go to a hospital and get treatment. On these occasions dealing with technology is okay with you? Do you tell your children to go to school or to do farming with you? It is not wrong to deny education to your children? Any parent would want their children to be educated and engage in professions other than farming such as doctors, engineers or government jobs.

There are many changes taking place. It is not as if everything is good or everything is bad. Things are not always black and white. You like having facilities like electricity, radio, television, etc., and like to have the latest things in your homes. All of those were also introduced by the white man. The clothes that you wear and the pen that you use, that is also from them. Those are because of technology. There are other sections of society who are benefiting from technology – doctors, engineers, computer engineers, etc. They have progressed a lot in life.

You should question, test the technology, examine its usefulness to you and then decide whether you want to adopt or reject it. It's very sad if you decide to say 'No' before it even comes to you. First you need to think of yourselves, what is profitable for you.

While Chengal Reddy appealed to the juror's enlightened self-interest, Dr Partha Dasgupta appealed to their faith in science:

Whenever human beings see a challenge, they make an effort – a physical effort, an intellectual effort – to meet that challenge, to cross over that challenge. So today we think that a 1km river cannot be crossed, but eventually we find out a way to cross that river. This is the greatness of human thinking power, the intelligence which is the mother of all science. We are sitting here in a rural set-up with all the hi-tech, with the video camera, with the digital system. All this is the result of constant human thinking which is going on to develop something new. So each time there is a challenge, we find an answer.

Each technology, or each knowledge or each science has its own limitations. It can give you so much and not more. When you come to the limit of your particular technology, we search for another method or technology which will be able to cross even that barrier. So in 100 years using classical [crop] breeding, with the help of the knowledge of Gregor Mendel, we were able to take the potential yield from barely 2 tonnes to 12 tonnes [per acre]. But at the same time the scientists realised that the classical breeding has this much limitation and we cannot go beyond that.

Dr Dasgupta used a Malthusian-inspired argument to show the need to increase productivity. He then described a range of GM crops that would directly benefit those presently without food. They included rice genetically engineered to resist bacterial leaf blight, insect-tolerant cotton, insect-tolerant maize and herbicide-tolerant soybean. He highlighted the advantages of these 'input' traits, which he said: *are known today for insect resistance, for fungal disease resistance, for viral disease resistance, for salinity resistance, for drought resistance, and for low or high temperature resistance.*

He also went on to describe 'output' traits which 'improve the quality of product'.

A grain contains starch, protein, fat, and we try to make that grain more nutritious, we try to change the amino acid composition, if it is an oilseed we try to change the fatty acid composition of the crop; or if that grain is an edible food and it is deficient in some vitamins, we try to enrich it with those essential vitamins.

This led Dr Dasgupta into a detailed description of 'golden rice' – a variety enriched in Vitamin A. Professor Rao also extolled the virtues of golden rice:

People have gotten used to eating polished rice which has lost some of its nutrients. Now the new technology like GM provides rice with all the nutrients, such as Vitamin A. With provision of such rice there will no longer be Vitamin A deficiencies. Farmers should come forward and cultivate it.

Professor Rao also suggested that *'GM technology will allow farmers to do away with pesticides'*.

The only witness that focused on the risks of introducing of GM was Dr Debashis Banerji. He gave several specific case studies, including the development of the world's most commonly grown GM crop – Bt cotton.

Scientists belonging to certain places [Monsanto] thought how about transferring this bacterial toxin [Bt] as a gene, a chemical, which can produce pesticide[6] – the Bt toxin. So a transgenic crop, a Bt crop, was produced which had this Bt gene; that is now this cotton, the cotton leaves, the cotton boll, the cotton stem, could produce this Bt toxin. It was a very great hope. So people said, the claim was, that now pesticides will not have to be sprayed. The farmers were happy that we would not have to use pesticides. The environmentalists, the ecologists, were happy that now we will not have to spray pesticides. But what happened? You see, within two years the farmers found that the bollworm has developed resistance against all multiple forms of the Bt toxin. I hope you understand, the bollworms developed resistance to the Bt cotton – i.e. the Bt cotton were being eaten up, the bolls were being eaten up by the bollworm. So the US farmers were very very unhappy. So, now what happens to the poor farmer?

The poor farmer goes to the company – Monsanto, which produces Bt cotton saying tell us what to do. Monsanto and the scientists … they say that what you do now is also buy some non-Bt cotton. Farmers saying 'why Sir, I am already buying Bt cotton, why should I buy non-Bt cotton?' So the scientist says 'look, if you have all your plants as Bt cotton, then all the bollworms will become resistant, we want some non-resistant worms also'. The farmer gets confused. He says, 'I do not understand, what do you mean?' Now the scientist says 'we have to have some susceptible bollworms which will be killed by this plant, all bollworms should not become resistant. So, what you do is you have this non-Bt crop, where the non-resistant susceptible worm will also survive, they will mate with the resistant worm and so the susceptible lines will continue.' So the farmer says 'but what about the resistant bollworm?' The scientist says 'you have to use pesticide. Again you have to use pesticide, and stronger pesticide than you used before.' So now see the scenario: the farmer – a poor farmer – has to buy Bt cotton, non-Bt cotton, he has to buy pesticide. And this is much to the advantage of the companies…. So what has really happened? Who has gained? It is the company which has gained ultimately by taking this 'eco-friendly' stand.

Dr Banerji accused agrochemical multinationals of irresponsibility and of risking the livelihoods of poverty-stricken farmers for their own financial ends. He also echoed earlier witnesses' concerns about the loss of employment and farmer self-reliance that would arise from the use of GM crops:

One of the first companies to start herbicide resistance was Monsanto and there are other companies who have also made such GM crops. In India it is very difficult to understand the use of herbicides, because normally we are growing cotton, soyabean, etc., what we do, we use cattle, we run cattle to remove the weeds in smaller farms, such as the ones I know in Madhya Pradesh. In states with larger farmers like Punjab, Haryana and western Uttar Pradesh the application of herbicides can be understood. It is basically not to waste money on labour, not to waste money on employment but to use it on chemicals – this is the basic logic. You can get on a helicopter and spray herbicides – this is the US model of farming. So, has it yielded good results? OK, some people are very happy, they were very happy in the US that now they don't have to engage labour and you have the herbicide-resistant plants. So no problem. But look at the logic – why were the [GM crops with] herbicide resistance developed? It is not that you have a general problem of [weeds developing] herbicide resistance. Say I am producing a herbicide A, a chemical which will kill the weeds, and I am producing also a plant which is resistant to A. So the farmer has to buy the herbicide-resistant seed as

well as the herbicide [from the same company], so the company gains.

Dr Banerji also claimed that golden rice was not as beneficial as had been claimed, as so much of it would have to be eaten per day to get the recommended daily dose of Vitamin A. He also outlined the alternatives to GM crops that the NGO that he works for is practicing in Madhya Pradesh:

It is no use criticising without alternatives. The alternative is to do sustainable dryland agriculture, which we are doing. In Samaj Pragati Sahayog, in Dewas District, Madhya Pradesh, we are doing watershed development work, a very important part of which is an agricultural development programme. Our area is like this, it is a dryland area, and what we are doing, we are using traditional varieties of crops, together with HYVs obtained from agricultural universities. We are producing crosses with traditional varieties that require much less water, much less fertliser and much less pesticide. These new varieties are being developed by agricultural universities, and the main thing is that you can reuse the seeds. Because of this work in our village there is food security, and despite the drought last year there is a one-metre rise in the water table.

Most jurors were convinced that their own methods of agriculture were more reliable than most so-called HYVs or the new GM crops. Their views were summed up by Deevenamma:

Long back when we were doing our own agriculture using our own [indigenous] methods we were also producing enough and we were also eating and we had good comfortable living with clothing and food and everything. Then we shifted to chemical agriculture because they promised that it would give good high yields and more production. So we shifted to this kind of agriculture, but slowly we have to increase our inputs in the form of buying more and more fertilisers and pesticides and many other forms of management.

Already we are having joint pains and other health problems because of this chemical agriculture. Now you are telling us that we have another type of agriculture – GM crops. Now you are also telling us that you have created new varieties. We don't know whether it is safe for our consumption. Because of chemical agriculture our own fodder is already not edible to our own cattle because of pesticide residue. HYV fodder is not relished by our cattle. If you give them GM crops, which kill an insect when a leaf is eaten by the insect, how can you be sure that it does not poison or kill ourselves and our cattle when we use it for human consumption and as cattle feed? All these are genuine doubts we have. I am sure that our own methods of agriculture are safer than these new untested ones.

Even before the evidence from Banerji, one juror had responded sceptically to the claim from Professor Rao that GM crops would not need pesticide applications. 'If that really was the case', said the juror (in a remark made off-camera to Kavitha Kuruganti), 'why would the pesticide companies allow GM crops to come in?' They were under no illusions that the same companies that had sold them pesticides in the past would now be attempting to sell them GM crops.

Perhaps a crucial moment in Dasgupta's evidence to the jury was when he hinted that golden rice was particularly useful in that *it improved nutrition without having to change people's basic condition of poverty.*

This poster says that when you give a child rice, along with that you should give some green vegetables, give some pulses, carrots, etc., etc. But there are vast areas of Asian countries, especially in the coastal belt, where very poor people live, and there are many of them, who will be lucky if they get one meal of rice a day, and only rice, perhaps with a pinch of salt. They cannot buy vegetables or fruit, or anything. It is their rice I am talking about. If that rice is genetically engineered to contain a little more beta carotene, then at least just by eating rice, without changing the economic condition, the child will have better health.

Another juror condemned the amount of money being spent on biotechnology research:

Why spend so many crores of rupees [millions of US$] on your research projects, and on ones which

will only damage farmers' lives too? The farmers know what to do, and they have the knowledge to do it. Please leave the farmers alone. Or give them half of what you are spending, because they can do better.

Deevenamma felt very strongly that GM was dangerous. She asked Banerji to *'please take all this knowledge and plunge it into a deep ocean or sea with all these papers and calculations, etc., so that it may not come out again on the television and in the papers.'*

In their elaboration of their fellow jurors' verdict, Philip and Anjamma made the following statements at the final ceremony:

* Philip: *We do not want GM crops.*
* Anjamma: *We do not want to cultivate GM crops or Bt cotton. They are all new seeds and we have never cultivated them. We have never grown tobacco or cotton.*

3.1.9 Consolidation and landlessness

We desire:

- **To own the land we work ourselves**
- **The restoration of our title to land and rights over forests**
- **Schemes for land re-distribution and reclamation**

Jurors strongly opposed Vision 2020 plans to consolidate land and reduce the number of farm families involved in agriculture and land-based activities. It was offensive to them that such schemes were proposed in a state where 81 per cent of the farm holdings are run by small and marginal farmers who operate farms of less than five acres. They could not accept the rationale put forward by Professor MV Rao, a senior government advisor on agricultural development:

Your farms are so small that there is not even enough space for the bullocks to turn around … because of the small and scattered lands, you do have the capacity to invest on your lands and you are not able to use the latest technology. Consolidation will help you to adopt new technology and earn profits. Efficiency will increase and you will have more productivity. It is easy to run machines on larger lands. You can share the profits with other farmers.

Anjamma (answering): *Again the small and marginal farmers will be losers. The big farmers will walk away with all the returns.*

The specialist witness Srinivas explained that winners and losers would be unevenly distributed in AP:

There are 24 districts across three regions: Telangana, Rayalseema and Andhra. Do you think that there will be equal displacement across these three regions? No. The ones to be affected will be from the backward regions of Telangana and Rayalseema. Nobody will come and force you to leave your land. But the circumstances will make you leave it. Because of a lack of capacity to invest in every way to work your land, you will in the end sell your lands and leave. Despite the existing circumstances the government is not providing any help because they are only interested in implementing their plan [referring to Vision 2020 and World Bank backing].

The jury clearly perceived that the livelihoods and cultural life of the majority of rural people were linked with their continued access to land, forests and water. Their comments also implied that no social model could function with stability without making smallholdings economically viable and sustainable in AP. Set against their frustration at their powerlessness, they saw a hand-waving technocrat promising them the American Dream.

Anjamma: *Today, you have put us on a high pedestal, but it won't be long until you pull us down again. Then what will we do? Again we will be forced to go through difficult circumstances and may even have to resort to suicide.*

Professor MV Rao: *In America only 2 per cent of the population rely on agriculture. We should also be like that.*

Policies based on western models of development were flatly rejected in favour of the right to dignity and culture which land and access to other productive assets can allow. Nor did the jury accept the existing status quo of

inequitable land distribution as an unchangeable reality. The jury asked for fairness and justice in the form of land reforms and the allocation of clear rights of access, use and control over natural resources important for livelihoods. Enabling land reform policies combined with secure rights to make more effective use of abandoned and vacant land were key elements of the vision advanced by the jury.

Anjamma: *The uncultivated lands should be allotted to the poorest of poor farmers, who do not have any land.*

Deevenamma: *There is so much land along the hillsides not used for agriculture, which lies barren. Why can't the government give that land to us? The government in any case does not get any revenue from it.*

Equity and the right to direct control over productive resources were central demands in the jury's presentation of its verdict to the press and official observers:

* Anjamma: We are against the idea of taking away our lands from us, for the purpose of consolidation of lands and contract farming.
* Philip: We demand land for the landless and land deeds *(pattas)* for the farmers who do not have them.
* Anjamma: We refuse to part with our lands. We do not want to give away our lands. We want to retain them.

3.1.10 Displacement / unemployment

We oppose:

- **Land consolidation and displacement of rural people**

Some of the implications of the proposed Vision 2020 on small and marginal farmers have been touched on in previous sections. Witnesses speaking in favour of Vision 2020 were frank in their comments about the need for far fewer farmers over the coming decades, and the inevitable displacement of small and marginal farmers from their farms – what the AP government has called 'voluntary liquidation'.

In his evidence, Professor Rao suggested that 'in our country 65 per cent of the people are dependent on agriculture, we do not need so many people in agriculture, we need to pursue other jobs'. He went on to state that, 'In America only 2 per cent of the population rely on agriculture for their income. We should also be like that.' He also encouraged farmers to 'engage in other sectors such as business and transport'.

However, another witness, Srinivas, doubted whether this was a serious suggestion, given the poverty and low level of conventional education among people in poorer dryland regions of AP, such as Telangana:

There is a subtle plan by the [AP] government for the farmers of [regions such as] Telangana. This is a region of low literacy levels compared to the other regions. Once your lands are lost, you will then become unemployed. There is no scope for such farmers as yourselves to get good jobs, because you are largely illiterate, and you have no skills [that are appropriate to most non-agricultural jobs]. The government merely plans to employ [some of] you as fourth-grade [casual and low-paid] workers in their industries, because they will also need workers in all the industries they are planning to set up. Only a very few will benefit from Vision 2020 – you need to recognise this.

In a question to Professor Rao, Anjamma pointed out that most of the jurors 'depend on coolie work to support our families'. She added:

The day we don't get coolie work we have to starve. To get this work we are dependent on the whim of the large farmer. In such a situation, when lands become consolidated, again it will be the large farmer who will have the upper hand. When consolidation takes place, everyone in each family will have to ask for work from the big farmer, since there is no livelihood to be gained from our own lands any more.

Professor Rao's reply seemed to acknowledge that Vision 2020 would lead to significant hardships for small and marginal farmers and that these would persist for many years after the plan began to be put into effect:

'Unemployment problems will come down', he answered, 'but it will take some time'.

In summing up her and her fellow jurors' verdict, Anjamma re-emphasised the terrible implications of displacement from the land for the small and marginal farmers of AP, perhaps implying that the currently high rates of suicides could increase even further.

* You are talking about the removal of 30 per cent [twenty million] of us! Where will the farmers go? If you throw them away, what will they do with their lives?

3.1.11 Fair markets

We desire:

- **Subsidies for inputs for organic agriculture – including farmyard manure/natural pesticides/traditional varieties**
- **Local outlets for produce and local sources of inputs**
- **The Public Distribution System (PDS) – don't take away our ration cards**
- **That the *Antyodaya* (PDS for the poorest) should reach us**
- **Fair returns for our work and produce**

Official claims that market-led growth is the key to poverty alleviation and food security were greeted with disbelief and open suspicion by the jury. Members of the jury reflected on the many crises that have jolted the agricultural sector in AP over the last two or three decades. The bulk of the farmers who commited suicide belonged to small and marginal family farms. No attempt has been made to solve the problems faced by these farmers in order to make them economically viable and boost production. As the government advisor Professor MV Rao put it:

No one will come to you to buy the 10 quintals that you might produce [you will have to go out yourself to find the market/a buyer]. But if there are large quantities, like 100 acres of cultivation, then a tractor can come and collect it for you – marketing is made much easier.

Market-based solutions to improve the lot of small farmers and alleviate hunger did not tally with the experience of the jurors. As Paparao from Warangal District said to the specialist witness representing Syngenta:

You talk about the shortage of food in India. I took a loan at 36 per cent a year from a moneylender to buy chemicals to grow a grain crop recommended by the government. I got a very good yield in the first year. But when I came to sell the crop the market price had plummeted so that I couldn't afford to sell the crop. So here I am a poor farmer with lots of grain sitting in my farm for three years, while you are telling me there is a food shortage. Now you can tell me how I pay back my loan or buy seeds for next year.

What you say may be true in your district, but all I am telling you is the facts – the global view, answered Dr Partha Dasgupta.

The jury saw unfair markets at the core of the problem in this context. Vision 2020 misses the mark as far as they are concerned, as the vision simply assumes that export markets are readily available and that AP farmers will be able to survive stiff competition, nationally and internationally. According to one of the specialist witnesses, Dr KPC Rao, unstable markets usually end up hurting the poor:

There will be increases in production and there will be a surplus of products in the market, but because of this the prices will plunge. The markets will not fetch a good return for the farmer.

Evidence for market instability caused by the removal of quota restrictions and lifting of tariff barriers by the government of India was also discussed. Jurors understood the implications of the flooding of Indian markets with imports of cheaply produced foods. An example given by one of the specialist witness was known by several jury members:

Colin Hines: *India has reduced its barriers to imports of hundreds of things. America has huge amounts of GM soya that it cannot sell to Europe. So when India reduced its protective barriers, its tariffs, in came a flood of foreign cooking oil. This has, it is thought, hurt five million farmers and three million processors of things like peanuts into oil in India.*

Instead, the jury stressed the need for fair and properly regulated markets. They emphasised the need for: governments to help local economies flourish; fair markets for the supply of appropriate inputs for the organic and low external input farming and land care they wish to live by; and fair prices for their produce. The jury's vision of economic arrangements included markets working alongside accountable and fair Public Distribution Systems (PDS) to ensure an equitable distribution of available food supplies. The jury stressed the enormous potential of more localised markets to link producers with consumers in more direct ways. Speaking for consumers on the jury, Geetha emphasised the economic rationale of more localised markets:

When the agents buy the tomatoes, say at a rate of 50 paise per kg, they sell it to the consumer at Rs.10 per kg. The produce should remain within the local area and should not be sent out. There should be a direct link between the farmers and consumers.

This concern was echoed by Narsamma, from East Godavi, when she spoke on behalf of all jurors:

* Our crops do not fetch a proper price in the markets and we do not have direct access to markets. Our crops are bought at very low prices and the same are sold back to us at exorbitant prices.

3.1.12 Corruption / unfair pricing

We desire:

- **Fair returns for our work and produce**

We oppose:

- **Contract farming**

The corruption and greed of the powerful were widely identified as major stumbling blocks to improvements in the well-being of the poor. Exasperated by Professor MV Rao's faith in the government, Anandamma, from Chittoor district, pointed out that:

If they [the government] send relief supplies through people like you, it will never reach us! Whatever relief is sent to us in the form of money or clothes does not reach us. The middlemen eat it up. They are all corrupt. Whatever money comes in for us, you think it's yours and you use/eat it up.

To which Professor MV Rao admited to corruption in the government and proclaims that *'it should be brought down'*.

The jury also lamented the fact that much foreign aid given to AP is captured by elite groups. In the words of Anjamma from Medak District:

You say you have been sending crores and crores of money for our development, but it never reaches us. We'll be happy if you make sure that this money reaches us, the poor.

The jury's sense of betrayal by the government was summed up by Narsamma, who comes from a tribal area of East Godavari:

* There have been promises by the government to provide free wheat. But there are no signs of it. Even kerosene and rice are being sold at a very high price.

Given the existence of unfair markets, the jury could not see how contract farming could help them. The very idea of having their lands taken away from them for the purposes of land consolidation and contract farming was corrupt and unjust to the jury. Moreover, the jurors could see how contract farming would further undermine their autonomy, as corporations switched their strategy from direct control over land to control over the production process via 'independent farmers' under exclusive, or tied contracts. Small farmers would bear all the risks of crop and livestock losses, while the company would keep the profits from farm chemical sales, shipping processing and wholesale distribution.

Speaking on behalf of all jurors, Anjamma concluded:

* We do not like the idea of contract farming. We are not going to gain anything by contract farming. In spite of our hard work there won't be any gains for us, nor will we be entitled to equal shares, in terms of profits.

3.1.13 Credit

We desire:

- **Agriculture that does not require loans, so long as we have been ensured access to sufficient livestock and water sources**

Like most marginal farmers in India, the jurors had great difficulty in obtaining credit from official sources. While already richer farmers are able to obtain such benefits, poorer rural people are forced to turn to the local moneylenders who charge extortionate levels of interest. These lenders may also be the middlemen from whom small farmers have no choice but to buy their inputs, and to whom they must often sell their harvest. Often, if the moneylender is not repaid on time, the farmer may be forced to leave their land. Samayya gave a typical example:

I have borrowed money at 36 per cent interest, and I started growing [my crops]. I have to buy so many fertilisers, and costly inputs, DAP [di-ammonium phosphate fertiliser], urea and all these things … for three years the minister is saying there is no market price. The person with whom I have borrowed money is pressuring me to pay back the loan … the minister is saying there is no price to pay for the grain I have produced. And how can I pay back my loan?

Dr Dasgupta seemed unsurprised but also unperturbed by this account:

I think your problem is faced by many Indian farmers, and you have raised a valid issue and it is for all of us to become worried about it … you have borrowed money at high rate. I think these are all national issues…. In some developed countries, which are more advanced than us, these problems have been solved … there is some control over the interest rate at which the farmer borrows the money. It cannot be 36 per cent, it is very bad, it is exorbitant, it is killing, it is punishable. The interest rate for the farmer should be reasonable … these are definitely the problems which need to be solved.

Unlike Dr Dasgupta, who did not discuss the effects of his technologies on the current 'killing' system of moneylenders, middlemen and consequent coercion to use chemical fertilisers and pesticides, Professor Rao suggested the corporate take-over of farming could actually eliminate such problems :

At present you have problems with middlemen. [To solve this] there should be a direct link between farmers and companies.

Narsamma asked Akbal Rao why his department skewed credit to favour those already well-off.

Why does your government support finances for tractors and not bullock carts? In my village there used to be 10 tractors, now there are twenty. The big farmers can get big loans for these tractors, but we cannot even get small loans.

Akbal Rao's answer avoided the issue of marginal farmers obtaining small loans and instead extolled the virtues of tractors (see Section 3.1.3).

Dr KPC Rao believed that larger, more powerful farmers and middlemen often abuse their power and that policies should be changed to prevent this, and punish offenders.

The traitors [the people who caused the cooperative societies to fail] – both farmers and middlemen – should be punished. In other states, if the farmers cheat, the community will condemn them. In Andhra Pradesh that does not happen. There is very little social awareness and unity, so that there is no strength to fight the injustice in the system. [He uses a Telegu saying]: The pahelvan *[bully]: the one who eats a lot of a money gets the most respect.*

In their summing up of their and their fellow jurors' verdict, Philip and Anjamma repeated the central issue for small farmers – the lack of access to the loans and subsidies available to larger farmers.

* Philip: There are cooperative societies / sangams to help farmers but we are not able to get much help from them and we do not have any access to loans.
* Anjamma: We do not have access to subsidies and bank loans.

3.1.14 Livestock / manure

We desire:

- **The continued integration of livestock in our agriculture (including goats)**
- **Practices that maintain soil strength – (including livestock/farmyard manure /mixed cropping, cover crops, neem cake, groundnut husk)**

Factors such as declining fodder and water resources combined with blanket animal-breeding policies fuel a downward spiral of loss in livestock genetic diversity, draught power, natural fertilisers, livelihoods and household assets.

Valuable local animal breeds (Ongole and Deoni cattle, Deccani sheep and Aseel poultry) often end up in the slaughter houses for want of fodder. Yet Vision 2020's strategy of high milk production for export is based on the intensive development of fodder resources (increasing the area already under exclusive fodder crops; and contract farming for major feed ingredients like maize and soybean). Dr Sagari Ramdas, a specialist witness on livestock, asks:

The government is asking you to provide fodder from your lands. You have small lands. Will you feed yourselves or your livestock? Who can afford it? Only people having 40, 50, 60 acres of lands can provide for fodder from their own lands. Earlier we used to cultivate crops [all pulses, cereals, varieties of corn, etc.] that would also provide feed for our livestock. Now we are forced to abandon those and grow cotton, tobacco. Where will we get the fodder?

Drawing on her experience in Kurnool, Deevenamma reminded the jury that the intensification of fodder production through the use of agri-chemical inputs has already affected the nutritional quality of fodder. Vision 2020 plans will only aggravate these trends:

Because of chemical agriculture our own fodder is already not edible to our own cattle because of pesticide residue. HYV fodder is not relished by our cattle.

Based on what they already observe throughout AP, the jury did not believe that the Vision 2020 plans for livestock development was in the best interests of society and the environment. Declining populations of work bullocks are leading to shortages in draught power during the critical agricultural season. Many farmers leave their lands fallow because of insufficient draught power. Feed shortage and a declining cattle population have resulted in acute shortages of organic manure. Farmers have had to switch to using polluting chemical fertilisers, even though they prefer to use natural manure.

Moreover, inappropriate animal breeding programmes and discrimination against livestock important for the poor also contribute to the demise of livestock-based livelihoods in AP. For example, the government's policy of upgrading all local cattle with exotic and cross-bred germplasm has resulted in dairy animals that are non-economical for farmers with limited resources. The improved breeds can only give high milk yields if provided with the necessary feed, water, labour and veterinary health care. The majority of farmers in AP are simply unable to provide or pay for these high inputs.

The government's proposals to ban goat rearing in the state would further harm biodiversity and the poorest; goat rearing is critical for the survival of many households among the *adivasi*, *dalit* and low castes.

Sharing his concerns about the government's lack of sensitivity to the needs and priorities of small livestock rearers, Philip concluded:

All that the government seems to be interested in is setting up many factories for meat production. The government wants increased dairy production. And they will only support very few farmers.

The NGOs should support the small and marginal farmers in dairy production. Then we could [at least] contribute in protecting the local and original breeds.

The jury believed that this erosion of livestock biodiversity would increase with the type of agriculture proposed under Vision 2020. According to them, the local animal breeds important for livelihoods and sustainable agriculture should be conserved in-situ by strengthening integrated farming and indigenous systems of land use in which livestock play a key role in nutrients cycles and the maintenance of soil fertility. These and similar points were re-emphasised in the jury's summing up:

* Ammaji: We want to be in a position to continue with our own farming, cultivate our own crops with farmyard manure and we want to be self sufficient.
* We want to continue growing crops, using farmyard manure. That way we do not fall prey to any diseases caused by toxins*.
* Philip: We want to follow traditional methods and cultivate traditional crops. For this we need training and need to be provided with livestock.

3.1.15 Organic and indigenous methods of agriculture should receive financial aid

We desire:

- **Subsidies for inputs for organic agriculture – including farmyard manure/natural pesticides/traditional varieties**

Many jurors had personal experience of the way the present subsidy system encouraged a move from farmyard manure and diverse cropping systems to artificial fertilisers, pesticides and monocultures.

While some witnesses promoted the hi-tech package contained within Vision 2020, others, notably Drs Daniel and KPC Rao, talked of the potential benefits of organic methods. Dr Daniel focused on India's deep knowledge and widespread practice of organic methods of agriculture.

Our culture is something that contains within it the essential features of organic agriculture. In fact the idea of organic agriculture moved from India to America and then to Europe and now it is being re-propagated in our country…. We have a fantastic information base and advanced systems for organic agriculture. We ourselves are capable of preparing the necessary inputs for organic crops. If we are convinced about it and I am sure if local communities are able to take management of their affairs then we can solve the problems…. We [Indian farmers] are the largest organic producers in the world. But only a tiny proportion, around 60,000 hectares, is recognised.

Dr KPC Rao took a more detailed look at the practical possibility for organic agriculture in AP.

If not for the Green Revolution, there would have been situations in which people would have killed each other for food. The drawback has been that there has been no encouragement for grains like jowar and maize.

There's also no encouragement for organic farming. Farmers are forced to take up chemical farming because the government provides subsidy only for chemical fertilisers and pesticides. There needs to be a change in government systems and policies.

The jurors' satisfaction with non-chemical methods, and their desire for more support to allow them to continue is illustrated by comments quoted in sections (3.1.1, 3.1.2, 3.1.13 and 3.1.5).

3.1.16 Opposing current Vision 2020 proposals

We oppose:

- **The proposed reduction of those making their livelihood from the land from 70 to 40 per cent in Andhra Pradesh**

The jury was able to relate Vision 2020's proposals for food and farming in AP to the experience of farming communities who had travelled down the same road in the US and Europe. In his witness presentation, Michael Hart, a small farmer from Cornwall (UK) said:

Then in 1947 we had an act of our parliament called the 1947 Agricultural Act which in a way is very similar to Vision 2020. So between 1947 and 1996, we lost 300,000 farmers in Britain. Now I know in your terms that's not very many, but there were only 500,000 farmers in Britain in 1947. And that act of Parliament in 1947 was for less farmers, more mechanisation, and intensive cropping. The whole idea was to produce a lot more food for Britain … [but] despite all the increase in production, despite loss of labour from the land, we in Britain have reached the point where farming no longer makes any money for the families involved. While the farms have got bigger and more intensive, we have damaged the environment, we have damaged the wildlife. We now have a very large payment needed each year in Britain to remove fertiliser and chemical pesticides from the water. So with all the intensification we have done tremendous damage to the countryside…. Our policy, as I said earlier, has lost many many farmers from their farms, and in the last two years we have lost 40,000 farmers. Many of them still have no work…. Ask yourselves where is the market for food grown for export, and what will it be worth?

Experience from other parts of India also shows how loss of land through consolidation and mechanisation usually leads to more destitution, injustice and livelihood insecurity, as explained by another specialist witness:

Srinivas: *Once your lands are lost, you will then become unemployed. There is no scope for these farmers to get good jobs, because they are illiterate, and they have no work skills. The government plans to employ you as fourth-grade workers in their industries, because they will also need workers in all the industries they are planning to set up. This is not a method or system for backward people. It is not for the poor, for women, for dalits. It is for the high caste and the developed. Maybe men from the upper castes might agree with it [Vision 2020].*

The validity of the assumptions behind Vision 2020's plans for agricultural modernisation were openly questioned by the jury, as previous sections of this report testify. Specialist witnesses simply confirmed the jury's doubts on the government's hyperbole and over-inflated claims:

Dr KPC Rao: *They say that there will be a 6 per cent rise in productivity. Scientifically there is no foundation for that.*

The fundamental motives and rationale behind Vision 2020 seemed apparent to all jury members. As one juror put it:

Philip: *They [government] have not done anything. During elections they come to get the voters' support, they distribute alcohol and ask us to make self-help groups. Through Vision 2020 they have devised strategies to earn money, they have not invested anything in us.*

At times no words were uttered by the jury as they imagined and weighed up the future prepared for them from above. For example, body language, eye movements and head nodding were used by several jury members as they closely and intensely identified themselves with what Michael Hart said about the plight of farmers in the UK:

So I talk to you as one farmer to other farmers. As I have already said, many of the problems you have are the same as ours. We have low, very low prices, we have many farmers committing suicide because they cannot make a living. We have many experts and government ministers giving advice and making policies, and just as appears to be happening here, never actually talking to the farmers and consulting us on what we want and what we can do and what we would like to see.

The jury understood all too well how Vision 2020 would alter the distribution of income from inequitable to inhuman. Their opposition to Vision 2020 was total (see Annex 3). They could see no future for the land and ordinary people in what would be an ever-increasing integration of the State of Andhra Pradesh into the global economy through trade and investment rules, privatisation and new technologies.

3.1.17 Policies to improve health and well-being

We desire:

- **The PDS – don't take away our ration cards**
- **That the *Antyodaya* (PDS for poorest) should reach us**
- **High quality safe food (free of toxic residues)**
- **Nutritious diverse food**

We object to:

- **The loss of opportunity for hospitality due to our lack of self-reliance in food and high cost of its purchase**

Although only a limited number of health and social impacts of future development policies were raised by witnesses, the jurors were keen to raise a number of issues of their own.

Deevenamma's comments on the decline in the quality of food caused by the growth of HYVs has already been quoted in section 3.1.8.

Another juror called Baby responded to Dr Dasgupta's promises for improved health for the poor from Vitamin A rice with her own account of the health effects of Green Revolution crop introductions:

Thirty years ago our elders were following traditional methods of agriculture. They ate very healthy food and they gave birth to us. But by the time we grew up, these methods of agriculture have either been forgotten or are being lost. Now we are grown up and chemical agriculture is dominant. Under this system we are asked to spray so many varieties of pesticides – crystal varieties and liquid varieties – and all the fertilisers have been taken up. Today at 30 years of age we are unable to take a normal workload on our bodies. We are not able to bend properly and we are unhealthy. When chemical agriculture has resulted in this type of tragedy, how can you guarantee that GM will not harm us, harm our strength, our health and our own existence?

Dr Dasgupta's response appeared to confuse people's quality of health and ability for active work with their average age at death:

Actually people live much longer now than they were living 30 years ago, it is a fact. In my grandfather's generation nobody survived more than 65 years of age. By the time it came to my father's level I think the average age went to about 80, which is a fact. The longevity of Indians, or the longevity of people all over the world, the average life expectancy, which you also probably will agree, in your village now there are more older people alive than there were 30 years ago, it is a fact….

Having heard Banerji's evidence, jurors also linked the damage caused by the inappropriate use of HYV packages to wider changes that had occurred in families. One described how, since many people no longer grew subsistence crops, it was much harder to invite relatives and guests round for a meal. In the past the meal would be sitting in a field ready to harvest and eat, whereas now everything had to be bought and so guests would be hurried away before they could ask for second helpings. Anjamma made parallels with what she saw as a wider social malaise:

You have introduced hybrid varieties and also chemical agriculture, and we are now in debt. Now we are talking about GM crops and this type of agriculture. I don't know where we are going to reach and what type of agriculture we are going to have to face. We and our elder generation became parents after marriage but now our grandchildren and children want to become parents before marriage itself. Unless we abolish GM and such technologies, I don't know where we are heading…. We have to just abolish such technologies.

The subsidised Public Distribution System (PDS) of food grains was obviously a lifeline for most jurors. The poorest amongst them were also aided by *Antyodaya*, which is a scheme of reduced price food.

Summing up their verdict, Anjamma commented:

* We need ration cards. The government has to ensure that we continue to have the ration cards.

Narsamma added:

* We want to continue growing crops, using farmyard manure. That way we do not fall prey to any diseases caused by toxins.

3.1.18 Export-led growth

We oppose:

- **Loss of control over medicinal plants including their export**

Based on the theory of comparative advantage, Vision 2020 sees food exports as the most efficient way to ensure prosperity in AP. The specialist witness representing the government mentioned that AP's remarkable comparative advantage stemmed from the low cost of labour and its rich endowment of agricultural crops and natural resources.

Professor MV Rao: *The SWOT analysis of Andhra Pradhesh shows that AP has a huge potential for exports. AP is leading in tobacco and mangoes. Some products that have potential for exports are aquaculture products – prawns, freshwater fish, cashew, milk products, oilseed cakes, turmeric and coriander, green chillies, sugar, corn, medicinal herbs, castor and tamarind…. AP is leading in seed production. There are brighter prospects for exports of seeds…. Export will yield more financial gains. There is much scope for doing organic farming and exporting those products. There is also scope for exporting processed food items. We need to motivate the farmers to pursue this.*

Our efforts are to tackle issues related to hunger and starvation. We have plenty of natural resources, we need to use them effectively and make profits. A lot of changes will come by 2020 and there will no longer be starvation, hunger or drought.

Drawing from their own experience with markets, several jurors openly doubted the validity of this economic theory and the Utopia of plenty promised by Vision 2020 (see 3.1.11). One of the jurors asked:

Deevenamma: *Why is it that only export of food grains is talked about? Don't you think that we should first talk about feeding ourselves and our families before we talk of cultivating crops for the sole purpose of exports. Trucks of food are being sent out for somebody and thanks to this we will be left with drought and shortage of food for ourselves.*

The jury heard more about the fate of farmers affected by export-led policies in other counties. Compelling evidence on the social costs of agricultural intensification based on the theory of comparative advantage was given by a specialist witness from the UK:

Michael Hart: *If I now move on to growing crops for export – which is also part of the Vision 2020. We also, as farmers in Britain, have been encouraged to produce for export markets, and so are many other countries across the world. I think maybe the best example of growing for export markets is America, where I have many farming friends and we have many contacts. In 1996, the American government brought in a new Act, a new agricultural policy, which encouraged the American farmers to produce as much as they could and all the surplus America didn't need would be exported to the rest of the world. It has not worked there. There are many family farmers in the US, who are also going bankrupt, they also have many farmer suicides, and they have a lot bigger farms than I have, than you have. If they can't make it work, I don't see that I, or you, as farmers can…. What everyone also forgets is that you and I are farmers, we produce crops, we farm the land. We are not exporters. I have never exported anything and I suspect that neither have you. Everything that I sell is sold at the normal price for my country. If it goes for export it is the exporters, the big international companies that make the money out of it, not the farmers.*

The jury was clearly aware of how dependence on external markets for food exports and the supply of inputs made them vulnerable to cost price squeezes. In an exchange with the government's senior advisor on biotechnology and food policy, Deevenamma asked:

What we grow is for AP. But you send it to other countries. Everything comes to us at a very high cost, we have to pay heavy electricity bills as a result of machines, there is unemployment for both men and women farmers [both ploughing and harvesting work is replaced]. How do we progress?

Acknowledging that farming was not economically viable under present policies, Professor MV Rao answered back: *Do not depend entirely on farming, engage in other occupations also.*

Jurors were alarmed by the government's plans to further expand and facilitate corporate sector involvement in export-oriented agriculture. The issue of medicinal plants highlighted the conflict between production for human needs versus production for profitable export markets.

Professor MV Rao: *Regarding medicinal plants, we have plenty of resources in our country. At present you have problems with middlemen. There should be a direct link between farmers and companies. The government is making attempts in this direction. Up to Rs.80,000 crores can be earnt from exports [of medicinal plants]. At present the government is giving up to Rs.1 crore to some of the farmers in Nalgonda and Mahabubnagar, in AP, to cultivate medicinal plants [for export].*

The importance of medicinal plants in the indigenous healthcare systems of people and livestock was strongly emphasised by all the jurors. Philip told Professor Rao that the jury was not against trade per se but that policies should take human need as the starting point:

About export of medicinal plants – we should use it first for our needs, you should provide us with inputs and training on how to use them and then only the surplus should be exported.

The jury thus acknowledged that AP could engage in trade and did not rule out exports that are surplus to local and state-level needs. The jury clearly valued exchanges of ideas, goods, technologies with the outside world. Exports need to serve wider social interests and should – in the jury's opinion – be subject to appropriate controls by society and targeted government interventions. In this respect, the jury's final verdict on exports was informed by ethics of fairness and distributional justice:

As Narsamma said:

* We condemn the export of medicinal plants.
* Exporting of food grains should be banned.

3.1.19 Local institutions and government

We desire:

- **Local outlets for produce, and local sources of inputs**
- **That the formation of representative organisations of farmers should be facilitated**
- **That we can be linked up to farmers in different regions**
- **That all employees of the state should be accountable to us – including forest officials)**
- **That the government should be responsible for providing basic services such as drinking water, monitoring prices, compensation in case of loss of life in agriculture, giving loans to small, marginal and landless farmers, and banning spurious pesticides**
- **That foreign aid (from white people) should follow this vision and benefit the poorest**

In a similar way to coverage of social and health issues, witnesses only rarely addressed themselves directly to issues of local institutions and governance. Yet jurors' accounts of experiencing socially unjust systems of governance were prominent both in their questions to witnesses and in their deliberations leading up to the verdict. Their final conclusions listed six 'desires' all of which related directly to local institutions and governance (see above).

The jurors had clearly moved on from an analysis of the current defects in local, regional and national institutions to thinking of practical solutions that could improve their lives and that of their communities. However, there clearly remained real anger on behalf of rural people living in poverty that money was being frittered away by corrupt and unaccountable systems of government. In the final press conference Anjamma, who had been listing the conclusions of the jury, could not resist repeating the jurors' distress:

* We do not have a clue as to where the money (funding) is coming from or whom is it going to. It is definitely not reaching us and this is a mystery to us. Whenever we approach the government they simply throw up their hands and do not take any responsibility.

4. An Evaluation of the Prajateerpu Process

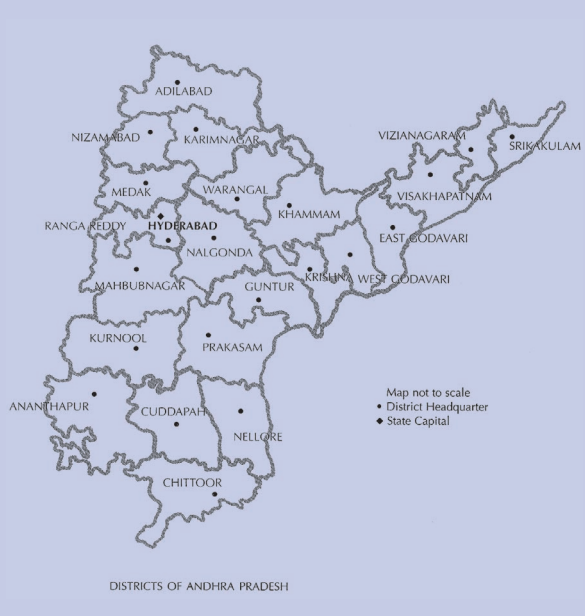
4.1 Representativeness and deliberation

An attempt was made to reflect closely the realities of rural Andhra Pradesh in the choice of jurors (see Box 3). This citizens jury was thus made up of small and marginal farmers, food processors and an urban consumer. The jury included a large proportion of *dalit* and *adivasi* people. The consumer representative was an educated woman from a medium-sized town. Over two-thirds of the jurors were women. All the main regions (Coastal Andhra, Rayalseema and Telangana) and the seven distinct agro-ecological zones of AP were represented on the jury (see Table 1 and Figure 1).

It was important to make sure that the jury understood that they were there for deliberation and not just representation. Although they had been chosen from a wide variety of agricultural backgrounds, and their numbers even included one person from an urban area who could provide a 'consumer' perspective, jurors were told to focus on discussing what would be best for everyone in rural AP rather than representing, say, rice growers, the landless, *dalits* or *adivasis*. This is an important difference which we believe was vital in producing a vision for food and farming rather than a series of potentially conflicting wish lists. The source of legitimacy for the jury was not the predetermined will of the individual jurors, but rather the process by which their collective will was formed – the deliberation itself. Prajateerpu therefore involved both critical scrutiny of evidence and opportunities for witnesses and their framing of the issues to be challenged.

The diverse composition of the panel of witnesses (or subject-matter specialists) ensured that key sectors of society fed their views into the process. On balance the three visions were relatively well represented by the witnesses who gave evidence to the jury. Nevertheless, the absence of key witnesses meant that some arguments in favour of particular futures

Figure 1:



may not have been presented as well as they could have been. The absence of three organisations that were invited to participate is particularly noteworthy in this connection:

- The World Bank, a major supporter of the rationale and implementation of Vision 2020. The World Bank is the largest external development agency supporting the Government of AP, with an annual disbursement of US$266.23 million in 1999-2000.
- The UK Department for International Development, which works with governments in four states: Andhra Pradesh, Orissa, Madhya Pradesh and West Bengal. The State of Andhra Pradesh alone receives over 60 per cent of DFID's total aid allocation to India, which is itself the largest national recipient of UK development assistance. DFID plans to more than double its aid to India over the next two years (up to £300 million).
- The International Trade Centre (a WTO/UNCTAD initiative), a global institution emphasising the export potential of organic farming and trade for developing countries.

Despite repeated invitations sent to national representatives and/or the headquarters of these organisations over a period of several months, the World Bank, DFID and the International Trade Centre decided not to

Table 1. The Social and Farming Background of the Jurors

Region	District	Name	Sex	Land Holding (acres) Wet	Dry	Lease	Total	Family Mem	Caste	Livestock	Other Income	Crops
Rayalaseema	Kurnool	Mariamma	F	2.5	2		4.5	9	Mala	2 BU+1 BU CL +10 H	–	PP, JO, P, CU, CHILLI
	Kurnool	Deevenamma	F	0.5	1		1.5	9	Mala	1 BU+1 BU CL +10 H	–	P, PP, JO
	Chittoor	Danamma	F	0.5	2		2.5	7	Mala	1 H	–	GN, PP, PM, FB,UDDALU, GG, P, CHILLI, VEGS
	Chittoor	Baby	F		2		2	5	Mala	0	WL	CP, COW P, FB, PP, GG, UDDALU,
	Chittoor	Anandamma	F		6.5		6.5	8	Madiga	5 G	–	HG, JO
	Cuddapah	Laxmamma	F				0	8	Mala	3 C+ 3 C CL	WL	CP, P.
	Cuddapah	Ramayya	M		2		2	14	Mala	6 BU	MS	TU, CP, P,
Coast	E Godavari	Mangayamma	F	2	2		4	7	Konda Reddy	4 B+ 4 C +4 C CL	WL	PM, JO, P, COW P, PP, BOBBARLU, BODUMA
	E Godavari	Narsamma	F		5		5	8	Doralu	2 B+2 C+1 B CL	–	PM, CO, FOX M, JO, COW P, HG, BOBBRLU, P, PP, VEGS,
	Guntur	Kotaratnamma	F		0.5		0.5	6	Mala	1 BU	MS	P, BG, VEGS,
	Guntur	Philip	M		1.5		1.5	5	Mala	0	–	BL, P, BG, TU, VEGS, MAMADI ALLAM,
	Visa Khapatnam	Ammaji	F	2	2		4	5	Gavarlu	1BU + 2 B	WL	P, SC, CHOLLU, BOBBARLU,
	Vizianagaram	Santamma	F	1	1		2	2	Jathab	2 B+4 G+4 H	WL	P, PM, JO, UDDALU, FM, FOX M, JUDUMULU,
	W Godavari	Ganesh Rao	M	2	3		5	6	Mala	0	–	TO, CO, P, GN,
Telangana	Medak	Anjamma	F	2	2		4	17	Gowds	2 BU+2 B+2 BU CL	WL	CO, CHILLI, VEGS, JO, PP, COW P, TU, P, BG, ONIONS,
	Warangal	Baayakka	F	2	1		3	8	Doralu	0	–	P
	Warangal	Paparao	M	4	3		7	8	Koya	4 B+3 CCL	–	P, CO
	Warangal	Sammayya	M	2	1		3	8	Doralu	0	WL	P
	Medak	Geetha Murthy	F				0	3	Brahmin	0	WL	CHILLI, FM, SEASME, SAMA

Key:

PP-Pegion Pea, JO-Jowar, CU-Cucumber, PM-Pearl Millet, FB-Field Beans, GG-Green Gram, CP-Chick Pea, COW P-Cow Pea, HG-Horse Gram, BG-Black Gram, BL-Betel Leaf, FM-Finger Millet, FOX M-Foxmillet, VEGS-Vegetable, TU-Turmeric

B-Bull; BU-Buffalo; C-Cow; CL-Calf LF; H-Hen; G-Goat

WL-Wage Labour, MS-Milk Seller

Geographical Origin:

Kurnool:2, Chittoor:3, Cuddapah:2, E Godavari:2, Guntur:2, Vizag:1, V-Nagaram:1, W-Godavari:1, Medak:1, Warangal:3, Consumer:1

Rayalaseema: 7 Farmers from 3 Districts

Coastal AP: 7 Farmers from 5 districts

Telangana: 4 Farmers from 2 Districts

Gender:

Male Farmers: 5 Women Farmers: 13 Women Consumer: 1

Note on Jury Members

Malas and Madigas are Scheduled castes, who are above the scavenging community within the hierarchy amongst the *dalits*. They are usually agricultural labourers. In earlier times, when the Jajmani patron-client relationships between landlords and *dalit* families still existed, most of them would have been bonded or attached labourers. Some of these community members are also carcass cleaners, leather workers, cobblers and drum-beaters to this day.

The Gavarlu and the Doralu are classified as Scheduled Tribes, and are forest dwellers or forest-dependent communities. In this case though, the jury members are cultivators as well as agricultural labourers.

Doralu, Konda Reddys, Gavarlu, Jathapu, and Koyas are all tribals who live in fringe villages around forests, and also practice agriculture.

Gowds are traditionally toddy-tappers, but are also cultivators.

participate in this event. The World Bank officially declined the coordinating team's invitation three days before the start of Prajateerpu, leaving them no time to make alternative arrangements.

We recognise that some political actors, including many international agencies, corporations, some NGOs and even elected governments, feel threatened by the techniques of democratic participation and citizen-science accountability used in this project.

4.2 Balance between research and emancipation

As a qualitative research exercise Prajateerpu clearly provides an excellent insight into the views of small and marginal farmers on the future of food and farming. From the outset we were confident that the innovative and participatory methods we have used would give a far better reflection of what the participants think about food and farming than mere social research. However, part of the success of the participatory techniques we used arose from the way in which the facilitators and coordinating team all recognised that participants had a fundamental right to have their views heard and that these citizens wished their conclusions to be acted on by those in power. Because it was clear to the jurors that the facilitators' attitude was one of wanting to help them influence policy changes that would benefit poor and marginal farmers, a level of trust was established between them that certainly contributed to the rich insights contained in this report.

Social researchers often see themselves as value-free objective scientists. Their task is to simplify a diversity of views, expressing them in a form that will be understood by, and be useful to, other researchers and sometimes policymakers. In the case of opinion polls this can seem relatively straightforward, although the precise wording of the question can be a major factor in whether the survey simply provides an answer that suits the purposes of the customer.

The advantage of focus groups and some of the other widely used participatory methods is that they allow skilled researchers to get 'inside' the mind of those participating and attempt to explain how what they say relates to what they really think, and how they may act. In its most advanced form, a focus group can help researchers analyse the participants' psychologies and interpret the meaning of social phenomena from the perspective of each participant's own goals, values and point of view (Kerr and Cunningham-Burley 2000).

What opinion polls, focus groups and all the tools of market research have in common is that they take information, experiences and knowledge from their subjects without giving anything back, except sometimes a small financial reward. In many cases, one could argue that power is actually taken away from people by this approach, in that it allows governments or corporations to say that they have taken the views of the public on board, when in fact they have used them merely as a tool to persuade society to support their policies or buy their product (Humphries et al. 2000, Wallace 2001). In neither case are participants left with an increased capacity to have a say in decisions that affect their lives. This is what is meant by extractive research – exercises that give nothing back to those who participate in them (Baxter et al. 2001).

Market researchers view public opinion as a psychological rather than a political phenomenon. Where a participatory researcher may allow a participant to elaborate after saying that they 'don't know enough' about an issue, narrowing down the response to a lack of trust in regulation, or the need for greater insight into how they might influence the policy process, market researchers will merely accept 'don't know'. How can those interviewed for an opinion poll express a feeling of powerlessness unless it is already a tick box on the researcher's clipboard (Irwin 1995, 2001)?

In response to this criticism many social researchers suggest that to allow participants to frame the debate themselves and articulate

their own conclusions in their own way would not be scientifically objective. It would mean that the rationally minded researcher would have to hand over power to the participants, who might use that power to do something unhelpful to the analytical process.

Citizens don't make the scientist's distinction between what is objectively true on the one hand, and their views about what should happen in the future on the other (Fischer 2001). It is only social researchers who, by their own strict rules of conduct, must talk about what is objectively true about the public's opinions, and are currently prevented from adopting an alternative model that sees them as facilitators, helping citizens to make sense of their reality, and then working toward creating opportunities to change it (Bourdieu 2001, 2002). By contrast, the methods used in Prajateerpu aimed to facilitate exactly this kind of empowerment process, without ignoring the need for social scientists to achieve a greater understanding of the relevant issues. The approach taken inevitably generated some tensions, compromises and imperfections. But the daily debriefings between jurors and facilitators and between the facilitators, the coordinating team, and the oversight panel ensured that, as much as possible, these problems were usually dealt with immediately.

4.3 Facilitation

The facilitators' attitude of respect toward the participants as citizens is a crucial component to engaging participants in the discussions. A key part of this is allowing participants to define the issues to be discussed in the way they want. The facilitators' approach had to strike a balance between providing perspectives useful to policymakers and giving control to the participants by providing opportunities for them to frame issues in their own way, using experiences and perspectives that they felt were most relevant. Given that the jury's discussions in Prajateerpu occured over such a short time it was important to use a number of different participatory tools to allow multiple avenues for people to articulate their concerns and suggestions.

As regards generating specific outputs, the main challenges of facilitation were in eliciting:

- a more qualified debate based on an increased exchange of experience and knowledge among the jurors and between the jury and the specialist witnesses;
- new knowledge based on locally existing visions, and what the barriers and opportunities are to realising these visions; and
- policy proposals that outline who must do what to accomplish the necessary changes.

Facilitators used a mix of plenary sessions and smaller focus group discussions to enable jurors to:

- consider and think about what they had heard and/or seen;
- formulate questions for the subject-matter specialists and for all jurors to debate;
- understand arguments presented to them in English or in the different Telegu languages spoken in specific areas of Andhra Pradesh;
- deal with different viewpoints and possible conflicts of opinion among the jurors, without enforcing consensus based on the lowest common denominator;
- allow jurors to explore collectively their feelings, doubts, views and preliminary conclusions at the end of each day's hearings;
- deliberate after reviewing all the evidence presented to them;
- develop and agree on a range of indicators on well-being and on 'good' farming, food and governance;
- imagine and describe desired futures for food and farming on the basis of agreed indicators;
- formulate policy directions and recommendations for the implementation of desired visions for food and farming;
- structure the jury's verdict and agree on who will present what to observers, media representatives and government on the final day of the Prajateerpu; and
- review and assess the strengths and limitations of the entire jury process.

Working either individually or together, the facilitators guided the process with sensitivity and commitment. Evaluations by the

Oversight Panel and the facilitators themselves proved useful in improving performance and overcoming problems identified during the citizens jury hearings:

- Facilitation on Day 1 tended to be overstructured, with some small focus groups appearing to be over-facilitated at times. One of the Oversight Panel members commented, 'The facilitators are a bit too present. They need to let go more, not intervene so much' (Mr Naidu). By the end of Day 1 this was no longer a problem, however, and jurors worked in more independent ways in small groups generating their own questions and deciding who among them would pose the questions.
- One of the facilitators was less fluent and conversant with the Telegu language spoken in some areas of AP. This led to some misunderstandings in translations and some small group discussions. Whilst this was a relatively minor problem, the facilitators changed their initial role distributions to allow the more fluent Telegu facilitators to play a lead role after Day 1. It was understood by all that successful facilitation depended on ensuring that what was said was well understood by the jurors.
- The need for appropriate technology was highlighted on Day 1 when the use of a fixed microphone imposed a certain structure on the question-and-answer sessions. The introduction and use of four mobile microphones from Day 2 immediately encouraged different seating arrangements on the jury's podium as well as more fluid and spontaneous exchanges between the jurors and the subject matter specialists.

The enabling quality of the facilitators' attitudes and behaviour was readily apparent to members of the Oversight Panel and other observers. The jurors were clearly moved by the respectful attitude shown them by the facilitators. The facilitators' positive and enabling behaviour did much to build the trust and spirit of constructive engagement shown by the jurors. In this respect the quality of facilitation was excellent. When working with marginalised and long-oppressed groups such as *dalits*, *adivasi* and small farmers it is crucially important to rely on facilitators who can act out of genuine respect, with attitudes, behaviours and beliefs which reverse much of normal professional practice (Chambers 1993, 1997).

A remarkable degree of consensus emerged among the participants about a wide range of issues. There were some differences in priorities, which were particularly marked between those farming in different agro-ecological zones such as dryland plains and irrigated coastal agriculture. Had more time been available it would have been possible to try to tease out these differences, but given the tight time constraints the facilitators encouraged jurors to suggest recommendations on which most of them could agree.

4.4 Diverse control

The Government of Andhra Pradesh visualises a radical transformation in the way food is produced, distributed and marketed 20 years from now. As a result, all the proposals for the future of food and farming made in the government's Vision 2020 are fairly or extremely controversial. The counter-visions which were explored in this citizens jury/scenario workshop are equally controversial (see Annex 1). It was therefore critical that this deliberative process was transparent and under the control of representatives of organisations with different vested interests and social aims.

At least three levels of transparent control and accountability were built into the AP citizen jury on food and farming futures:

1. **The Oversight Panel.** The Panel had an explicit mandate to assess the fairness, pluralism and credibility of Prajateerpu. The panel was made up of representatives from civil society, the Indian civil service, the international donor community and indigenous peoples' groups (see Annex 3). Attempts were made to include a representative from the corporate sector and DFID India on the panel. Unfortunately neither DFID nor the India Tobacco Group were able to accept the invitation sent to them. Nevertheless, the Oversight Panel's composition was sufficiently diverse to represent a broad spectrum of interests. Chaired by a retired Chief Justice from the Supreme Court of India, the panel critically oversaw the entire

process, checking for possible bias and inconsistencies. Last, the coordinating team from IIED and IDS discussed the citizens jury methodology with the Oversight Panel on a daily basis to ensure that all parts of the process were agreed by a diverse array of actors.

2. **The media observers and reporters.** Members of the press (audio-visual and written) were invited to document the hearings and outcomes of Prajateerpu. The following national newspapers sent their correspondents to observe and report on different moments of the deliberative process: *The Indian Express*, *The Times of India*, *The Hindu*, and *The Deccan Chronicle*. A variety of state newspapers written in Telegu also sent their correspondents. The BBC World News television network was also invited but was unable to send a crew to Medak District, but the two television news services Star News and Doordashan were present, with Doordashan returning three times to film and interview participants at the beginning, middle and end of the event. The semi-continuous presence of the press thus ensured another level of control and vetting of the jury process. The wide reporting of the event in the national media highlighted the credibility and impartiality of the deliberations that led to the jury's verdict. Interestingly, a small minority of journalists were eager to demonstrate that jurors had been briefed and tutored into stating pre-formed positions. In interviews with these journalists, however, jurors **strongly dismissed** these doubts and implicit accusations. In the words of one juror, Baby, *'These are life and death matters to us. We will not let anyone tell us what we should say'*.
3. **The silent observers.** Several other observers were invited to witness the jury process on the understanding that they should remain silent during the specialist presentations and the deliberations of the jury. These observers included other farmers from AP, NGO representatives, agricultural researchers and planners, trade union representatives and corporate sector representatives. These observers were from both India and Europe. Most of them stayed only two to three days but some witnessed the whole event. All formed opinions on the strengths and weaknesses of the process and were able to communicate their views to members of the Oversight Panel, the coordinating team and the press. The presence of the silent observers further enhanced the transparency of Prajateerpu.

Diverse control over Prajateerpu was also ensured by relying on several sources of funding. Funding sources with vested interests in conflicting visions and technology choices should be involved for the sake of pluralism. Based on this rationale, funding for Prajateerpu came from:

- the Government of The Netherlands' overseas development agency (DGIS), via IIED's Sustainable Agriculture and Rural Livelihoods Programme;
- the Rockefeller Foundation via IDS's Environment Group;
- the Andhra Pradesh Coalition in Defence of Diversity; and
- the All-India National Biodiversity Strategy and Action Plan (NBSAP).

The bulk of the funding was ultimately provided by DGIS (65 per cent) and by the Rockefeller Foundation (30 per cent). Although the financial contributions of national partners were relatively small (5 per cent), their contributions in human and other assets were decisive in ensuring strong local and national control over Prajateerpu.

4.5 Framing and scope

The extent to which DIPs extend the scope of discussions beyond individual issues to examine wider aspects, whether they be alternative options or social justice perspectives, is critical to the extent to which they empower people or are merely used to legitimise established power structures and their chosen technological trajectories or policy programmes. The way discussions are framed by information, witnesses or questions can have an important influence on the extent to which citizens have the opportunity to develop their own visions for the future. Prajateerpu contrasted with many efforts at using DIPs and participation methods in the way in which it attempted to allow jurors to see the proposed introduction of new agricultural technologies in their broader social, economic and political context. Rather than concentrating merely on

specific issues such as land consolidation, GM crops and forest produce, the witnesses' evidence and the resulting discussions ranged across aspects of rural livelihoods that jurors themselves thought were important. Confirming findings from previous exercises of this kind, the concerns raised by non-specialists were more diverse than those of specialists or policymakers, as their discussions involved looser commitments to subject boundaries and, to a certain extent, a more insightful and open-minded approach to the tensions these boundaries can mask (Kerr et al. 1998). Although the three scenarios did present three self-reinforcing visions of the future of agriculture, the facilitators were careful to use these as prompts to a wider discussion, rather than directing the jurors to merely choose which of the scenarios they preferred.

In the case of a controversial technology such as GMOs, a wider understanding of the interlinkages between biotechnology, corporate control, and local power structures is 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 the Prajateerpu example the jury was able to compare and evaluate three contrasting whole scenarios, each being the logical product of a series of interdependent values, assumptions and predictions. GMOs were thus not judged in isolation – they were evaluated as an integral part of a wider system or development model. One example of the way in which the jurors used their experience of high-yielding varieties to critique GM crops arose when they were told that GM technology does allow farmers to do away with pesticides. 'If that really is the case, why would the pesticide companies allow GM to come in?', one juror responded disbelievingly.

The videos were inevitably simplified versions of potential scenarios. In his evidence to the jury Dr Daniel commented that the video for the second scenario implied that supermarkets would dominate export-orientated organic agricultural system, yet it was possible to suggest an alternative where only surplus produce was exported, in which case control over markets could remain in local hands. Reactions to the videos thus served to broaden the framing and scope of the deliberations. By offering diverging images of the future of food and farming, the videos enriched debate by eliciting associations, stimulating thoughts and a rethinking of starting points, ideas and normative positions (see Box 4). As Mr Naidu, one of the Oversight Panel members, remarked:

The three videos on food and farming futures exaggerate some of the possible consequences of policy decisions. It's a bit of caricature at times, but it works! It really helps the jury members think through the issues and look at the bigger picture.

4.6 Framing the process in space and time

The ability of citizens to reach conclusions that look beyond immediate needs, work within political or economic constraints, and examine long-term risks and opportunities is an important consideration in DIPs, especially those that deal with a range of scientific and technological issues. Just as importantly, in an era of rapidly increasing globalisation, participants in DIPs should be made aware of the linkages between events at a local level and those that occur at regional, national and international levels.

Prajateerpu combined witnesses with an intimate knowledge of a wide range of social and agro-ecological contexts within Andhra Pradesh with others whose specialisms included the effect of global financial and trade links on livelihoods. Although the jurors had no more knowledge of international capital flows than they did of the molecular biology behind GM crops, they were able to understand the linkages between their own circumstances and large-scale forces such as transnational corporations. Their verdict was therefore able to address such big issues, as shown by their comments on the export of medicinal and food crops.

In terms of timescale, the twenty-year time-frame of the AP government's Vision 2020 document allowed the discussions to focus on the long-term impact of the various different options before the jury. Rather than become too tied up with the detail of a particular policy such as ration cards or golden rice technology, the jury looked at long-term targets set by Vision 2020, such as the displacement of 30 per cent of Andhra Pradesh's population – mostly small farmers like themselves – from the land in the coming two decades.

4.7 Hierarchy and self-censorship

A common observation in India is that people of high social rank feel far less inhibited about contributing to discussions than those from low castes. It was clear to Telegu-speaking observers that social hierarchy was not a factor in the way different members of the jury contributed to the Prajateerpu process, however. The careful selection of jurors ensured that the majority came from rural areas and were from lower caste backgrounds, such as *dalits* and *adivasis*. Only one juror was urban-based and from a high caste. The citizens jury comprised more women than men, reversing gender biases that normally discriminate against women. The rapport-building exercise also went some way toward helping to build the jurors' confidence. The facilitators, who were professionally trained in the empowerment of marginalised groups, spent a day with all the jurors.

As a result the jury's group dynamics were relatively egalitarian and characterised by mutual respect and cooperation. At no time did the more literate men or women dominate or parade knowledge or, in the case of the juror of Brahmin origin, exhibit any caste superiority. On the contrary, the facilitator, Kavitha Kuruganti, remarked on how the jurors evolved more enabling and mutually supportive relationships throughout the Prajateerpu week:

> *After the first two days the jurors realised that some amongst them were talking a lot, while the others were keeping silent. A few of them who were very articulate noticed this and decided to draw the others out the next day. They formed a rule for the day which said that the silent ones will get a chance first that day. And it worked! The third day saw all the jurors speaking, with good facilitation amongst themselves.*
>
> *The jurors built up enough rapport amongst themselves that they were ribbing each other, had nicknames and were cracking jokes at each other. They were found to be taking care of each other if someone fell sick. This was very impressive, given that their backgrounds are very different.*

Unlike the jurors, all specialist witnesses were comparatively better educated and wealthier individuals, often representing powerful organisations or castes. Despite these asymmetrical relationships, most interactions between specialist witnesses and the jurors were balanced and respectful. Disparity in social rank strongly surfaced in a few instances, however:

1. The Deputy Commissioner and Director of Agriculture for the Government of AP insisted that he be provided with a chair and a table to address the jury and plead his case. This despite knowing beforehand that specialist witnesses were to stand in front of the jury whilst arguing their case and being cross-examined. By reproducing a situation in which a bureaucrat sits and lectures from behind a desk, this specialist witness symbolically reproduced hierarchical power relationships. The specialist witness' flippant and rude responses to the questions posed by the jurors had more serious effects however. The senior government official dismissed a question about the possible loss of human life caused by the use of harmful pesticides in the following terms: 'We cannot do anything. It is in the hands of God.' Some of the rebuffed jurors were so upset and offended that they refused to ask any more questions on that day.
2. Contrary to all prior agreements, the specialist witness representing the Federation of Farmers Associations in AP decided to leave immediately after giving his evidence, without allowing the jurors time to cross-examine him. The witness is the president of a powerful federation of higher caste, medium to large farmers in AP. The coordinating team was able to per-

Box 7. The Technocrat Mindset

My interaction with some of the experts also shows that they are essentially technocrats. All that they have considered is the problem from the technical point of view. But of the social dimensions, the other consequences of the problem, they are not even faintly aware. And when you ask them have you considered this, they will say 'no'. This requires consideration.

These were the reflections of Justice Sawant, who was clearly struck by the contrast between the insightful and holistic observations of the jurors and the narrow technical mindset of some of the witnesses. Although some of them veiled their attitudes in politeness, such witnesses clearly felt that they had come with a set of unassailable facts about which the jurors had to become informed.

Dr Dasgupta made his beliefs clear when he responded to a juror's careful explanation of her concerns about new GM crop varieties. Even though the juror made her point very clearly with the use of an analogy from popular culture, he implied that she lacked a basic comprehension of his evidence:

First, thank you. One thing – I don't know what you understood from whatever I was trying to say.... I was only trying to say how a particular science developed, and how a particular technology is developing. It seems that you have not fully understood what I said.

Studies of technocratic initiatives to enhance the public understanding of science (PUS) have dubbed this phenomenon the 'deficit model'. It is pervasive throughout the many interactions between governments and corporations with citizens, especially in areas where technical specialisms are prominent (Irwin and Wynne 1996).

The main assumption of the deficit model is that people's worries about developments in public policy, whether they concern information technology or GM crops, arise because they are not in receipt of sufficient factually correct information. Only when they are in possession of sufficient information, goes the argument, will they be able to participate sensibly in policy debates. Once their deficit in facts is overcome, it is also assumed that they will be less worried about new developments.

Dr Dasgupta clearly felt that any problem with technology emanating from the 'flawless' testing system devised by government scientists and his transnational corporation must be the fault of farmers and those extension workers who taught them.

Stop using pesticide before the harvest of the crop, so the residues are not there when you are exporting your product outside India. Otherwise they will reject your crop saying there is big pesticide residue. These are the things we have to learn. It is not that the technology is bad, but we have been using it and somebody did not tell us. It is the fault of the agricultural [extension] experts, who [are supposed to] teach you how to use modern technological methods. They have not fully told you how to handle [them], what are the safety measures, and how much quantity [to use]. We have to learn. That does not mean the entire technology is bad.

The other aspect of the technocratic style of the witnesses' interactions with the jurors that clearly prompted some of the Oversight Panel's comments was the way in which their answers patronised or insulted the questioner, or deliberately avoided the question. The following exchange between two jurors and Akbal Rao illustrates the problem:

Ammaji: *You recommend not to use pesticides and fertilisers. We have gotten accustomed to using these, and even the land is accustomed to it. If we stop using them, the crops won't grow. It takes time to prepare the land again [for organic farming]. How do we survive?*

Response: *When you have fever, you don't eat for a couple of days. We won't die if we don't eat food for a couple of days, will we? We are not asking you to stop using fertilisers completely. Use them in optimum quantities. Get your land tested and use the required amounts.*

Another way of avoiding having to answer a juror's genuine concern was for the technocrat to claim that it was nothing to do with his department's narrow remit. Rather than give a genuine opinion, Akbal Rao either palmed the questioner off by suggesting they write to another bureaucrat or said that God, not the government, should be held accountable for agricultural losses.

Ramiah: *In our area, due to flooding, everything perished. We are faced with many problems caused by flooding. Despite our repeated requests, no one has visited our area, not even the local officials. Why are they behaving in such an irresponsible manner?*

Akbal Rao: *This does not come under the jurisdiction of the agriculture sector. It is the responsibility of the*

Revenue Department and the District Collector. We can only provide you with seeds and fertilisers. Give me a letter and I will forward it to the government.

Anandamma: *You might provide us with seeds, but if there is no rain, we get no crops. The government does not take any responsibility nor does it provide any support to the farmers. What do we do?*

Akbal Rao: *Rain is not within our reach. Agriculture itself is like 'gambling with God'. We have no choice but to wait and pray for a good monsoon. We cannot do anything. It is in the hands of God.*

Professor MV Rao used a similar device. Having told the jurors that Vision 2020 foresaw the 'elimination of hunger and starvation by 2007', he avoided any questions that were not narrowly technical.

Juror from Warangal: *Our villagers are all from the same caste, and there is absolutely no opportunity for work. Most of the farmers are heavily in debt. We have lost everything. For two years now all we have been doing is paying / clearing our debts or thinking about our debts. All that is left now is the humans, ourselves. Everything else is gone. Please just let us have the kinds of seeds and agriculture that are within our our reach – grains that come without debts and crops that come without huge investment.*

Professor Rao: *Please attend* Kisan melas *[government-run farm shows] where your doubts will be cleared.*

Baby: *Suppose we agree to do what you suggest and consolidate our lands, we still have to spend a lot of money on buying seeds. But when the government buys seeds from us, they pay a very low rate.*

Professor MV Rao: *But why do you sell your seeds? It is supposed to be stored for the next crop.*

Baby: *We have to, to meet medical expenses, etc. We do not have any assets or any other resources we can fall back on, we have to sell it for survival purposes. The government should help us out in this matter.*

Professor MV Rao: *These are all social problems!*

While witnesses, especially from the government and corporate sector, chided jurors for their incorrect knowledge and practices it was notable that technocrat witnesses often gave evidence that was presented as factual but was open to interpretation. While some evidnece, such as that on GM crops, was contradicted by subsequent witnesses, other statements could have misled the jurors.

Akbal Rao stated that:

With the changes [in diet in AP, because of cheap rice], different kinds of human diseases are also cropping up. AIDS is also one of them.

Later, when he heard from a juror that the incidence of cancer had increased in the local villages that had started growing tobacco, he answered that 'this is the first time I have heard of it'.

suade the witness to stay for question time and honour the agreement he had made, but by then it was clear to many jurors that the witness was not really committed to a constructive two-way dialogue with lower caste individuals.

3. At times the jury members did feel undermined or unvalued by what some specialist witnesses said or implied. Hierarchical power relationships were played out through a series of witness comments and attitudes which can broadly be described as technocratic (see Box 7 for specific examples) .

Apart from these incidents, the relationships were sufficiently enabling and non-hierarchical for jurors to participate meaningfully in debates on the future of food and farming in AP. According to the Oversight Panel members:

Mr Naidu: *The jury's participation has been very encouraging and spontaneous.*

Ms Savithri: *Women participants have shown more determination, and they have the confidence to conduct meetings and share information with others.*

Justice Sawant: *I was happy to see that these farmers were so vocal – particularly the women – and that they had cornered government policymakers.*

4.8 Recognising knowledge

When issues of scientific and technical complexity that are outside their direct experience are put before a jury, as happened in Prajateerpu, the question of the jury's compe-

tence to discuss them often arises. Contrary to what might be expected from surveys highlighting the apparent public ignorance of science, most studies of even the most highly technical court cases have shown that citizens are able to deal with technical issues at least as well as the judges. Like legal juries and other citizens juries, Prajateerpu placed a burden on witnesses to communicate the evidence in a clear and accessible manner. It drew on research showing that, even in cases where it is claimed that trial by jury is inappropriate because of the scientific nature of the evidence, any potential problems can usually be overcome if the manner of presenting the evidence is given careful consideration (Edmund and Mercer 1997).

In some cases, the supposed inadequacy of the jury in a technically complex case has been used as an excuse for failure by the losing side, when in fact it was the quality of its own expertise that was lacking. The assessment of jury competence is thus a politically charged process. The contrasting political interests of the stakeholders involved in the Prajateerpu project should therefore be borne in mind when considering the responses of stakeholders who disagree with the Prajateerpu verdict. Studies comparing the decisions reached by jurors to those reached by judicial experts found that the same verdicts were reached in 75-80 per cent of cases (Lempert 1993). Crucially, this proportion did not change in complex as opposed to less complex cases.

Prajateerpu demonstrated the competence with which farmers, many of whom had not finished basic schooling or were non-literate, could discuss often highly technical issues to which they had no previous exposure. 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 development economics or genetics, they asked whether Vision 2020 or the 'new seeds' 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.

Commenting on how the farmers validated their own knowledge and assessed outsiders' knowledge, an Oversight Panel member said:

Paul ter Weel: *What was most interesting was the fact that farmers, on the basis of their knowledge, wisdom, and feelings, rather quickly understood what they are dealing with. What amazed me indeed was that they immediately knew whether what was being told to them was nonsense or propaganda or whether it had some meaning. And that of course gives hope that there is still this wisdom available amongst them to judge what is useful, what is genuine and what is not.*

After listening to the witnesses and discussing the issues amongst themselves, the jury asked questions framed from their own life experience and livelihood contexts. This usually meant that the jury's questions had a more holistic quality than the arguments presented by some subject matter specialists. Examples of jury reactions to specialist witness presentations include:

- *If low food production and high population is the problem, how come I have so much surplus which I cannot market, lying in my house? And the same with others in my village? Why did our Chief Minister ask for production to be lowered?* (Samaya asked, after the corporate representative from SYNGENTA linked GM technology with the food needs of a rapidly growing human population).
- *What does anyone get out of tobacco and cotton, why should the government support it?* (Philip asked, when statistics related to the production and productivity of these crops were proudly read out by AP government officials along with ambitious plans for the future).
- *What about loss of life?* (Deevenamma asked, when the Deputy Commissioner and Deputy Director of Agriculture for AP announced that the government was developing agreements with agri-chemical corporations to ensure that they reimburse farmers for crop losses caused by the sale of spurious products).

It is particularly noteworthy that the knowledge and life experience of some subject-matter specialists was inadequate when they were asked by the farmers to think through the costs and benefits or the social and envi-

ronmental implications of their policy or technical proposals. As Justice Sawant, the Chair of the Oversight Panel commented:

My interactions with some of the experts also show that they are essentially technocrats. All that they have considered is the problem from the technical point of view. But of the social dimensions, the other consequences of the problem, they are not even faintly aware. And when you ask them have you considered this, they will say no. No, this requires consideration.

Having listened to the witnesses and discussed the issue amongst themselves, the jury found that the policy and technical package of Vision 2020 was unacceptable to them. But their verdict was not a simple 'no'. They put forward their own carefully considered vision of the future of food and farming, with a wide-ranging list of demands detailing what action should be taken by the government, civil society organisations and foreign aid agencies to implement their vision. The actual process of deriving a common vision was in itself a remarkable effort by the jurors to validate their own knowledge and organise their plural and diverse views into a jointly owned verdict. As facilitator Kavitha Kuruganti commented: *The verdict was amazingly comprehensive. It encompassed many differences, a variety of agro-ecosystems, and different local economies, cultural backgrounds, and social backgrounds. This was the case with the jury itself. But all [their requirements, desires and demands] could be merged, to come up with salient features of a common vision.*

Prajateerpu had the advantage that, except for one urban consumer, all the jurors were experienced agriculturalists. The presence of a majority of women on the citizens jury also meant that there was considerable local knowledge on food processing and preparation, storage technology and the other dimensions of household food security. The citizens jury method was thus used to reverse the power balance between those conventionally regarded as experts and those dismissed as ignorant and in need of educating. This reversal has been especially marked because areas like development economics, farm policy and agricultural genetics are highly technical, male dominated and normally immune to public scrutiny.

The sophisticated way in which citizens untrained in development economics, science and policymaking were thus able to develop an insightful critique of 'official' knowledge and policy processes 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), policy work such as Citizen Foresight: The Genetic Forum's citizens jury on GM food (Genetics Forum 1999) and evidence of the recurring mismatch between the prescriptions of development professionals and local realities (Chambers 1993).

Drawing on methods of participatory development in the Third World during the past three decades, as well as sociological critiques of citizen-science dialogue (Irwin and Wynne 1996), there has been an increasing acknowledgement in the policy community that the extent to which citizens are seen as being informed is often a subjective judgement made by specialists with a vested interest in denying it. If a technical specialist were to recognise that a non-specialist citizen's opinion is informed, they are conceding some legitimacy to the non-specialist and thereby conceding some of their own power.

Some elements of this 'citizen-science' model of participation are listed in Figure 2. Examples of the remarkable way in which the jurors interrogated the witnesses and analysed their evidence are given in Section 4.9

Whilst it was obvious that farmers knew far more about the practicalities of agriculture and marketing food than any of the witnesses, it was also clear that jurors valued and recognised external knowledge. They all showed a keen interest in, and actively engaged with, the information presented to them in the videos and by the witnesses. Similarly, witnesses who had never before experienced participatory dialogues com-

Figure 2 : The contrasting characteristics of traditional consultation and a 'citizen-science' model of public participation (based on Irwin and Wynne 1996)

Assumptions of traditional consultation	'Citizen-Science' model of public participation
'The public' is a mass of atomised individuals.	There are many different publics with their own autonomous and often overlapping cultures.
'Ignorance' is a function of intellectual incapacity – a knowledge vacuum – which can be largely alleviated by acquisition of a greater number of technical facts.	Ignorance is a construction of a citizen's social position and identity in relation to scientific-technical institutions following active reflection.
citizens basic values are identical to that of science and technology – a desire to make predictions about and maximise control of the living and non-living world.	Citizens often have different values and therefore epistemological commitments – e.g. might desire to negotiate with, and adapt to, forces recognised to be beyond control.
Non-scientists desire and expect certainty and risk-free environments. Their lack of enthusiasm for science is based on this naiveté.	Little evidence that citizens expect anything to be risk-free but they want to trust the expert-imbued institutions and they feel that trust has been undermined.
The social opportunities for the use of available knowledge is homogenous throughout society.	Society is permeated by structures of power and dependency. These are inscribed into peoples' perceptions of their possible actions.

mented on both the value of the farmers' knowledge and the pertinence of the questions the jurors asked them. A senior government advisor on agricultural policies and the representative of SYNGENTA expressed their appreciation of the jury's knowledge as follows:

Professor MV Rao: *It is a new experience in the sense that we are telling our ideas, our strategies, etc. And there is an immediate reaction from the jury group, from both the men and women who are participating here. I am delighted to see their interest, delighted to see their knowledge and also their curiosity.*

Dr Partha Dasgupta: *Basically a process of learning for me. The way people asked questions was absolutely unexpected. I did not really know what were their feelings, what were their experiences, what kind of questions they were going to ask. Absolutely, a completely new process of learning for me.*

Justice Sawant: *The educational and enabling value of combining different types of knowledge (local and external) through the Prajateerpu process was repeatedly mentioned by participants and observers. The interaction … is educating both the farmers about what ought to be done as well as the policymakers about whether their policies are in the right direction or not. And I believe both of them are learning from each other.*

Prajateerpu provided a space in which perspectives from the social and natural sciences as well as the knowledge of farmers and local resource users could be confronted, negotiated and combined to develop policy futures. The process recognised that there are differently situated forms of knowledge about food systems, livelihoods and the environment, and each is partial and incomplete. Participatory learning, inclusion, dialogues and careful deliberation brought these multiple and separate realities together, combining the strengths of outsiders' and local peoples' knowledge.

There is a strong rationale for democratising policy processes and science in an age of uncertainty by directly involving 'extended peer communities' (Funtowicz and Ravetz 1993) that include farmers, herders, forest dwellers, fisherfolk, and rural and urban people in the production and sharing of knowledge that affects their lives (Irwin 1995, Kloppenburg 1991, Pimbert 1994). In this respect, Prajateerpu has generated and validated new knowledge on how policy processes on food and farming might be democratised and made more accountable to citizens.

4.9 Interactivity and interrogation

Closely related to the framing of an issue is the extent to which citizens are allowed to interrogate their sources of information, rather than being merely the passive recipients of written briefings and specialist testimonies. An easy measure of this is the proportion of time in a process that is devoted to the presentation of witness evidence versus the amount of time allowed for the interrogation of witnesses by the jurors. In Prajateerpu the ratio was roughly 1:1, and appeared to jurors and observers to be enough for the jurors to become as informed as possible about the issues on which the witnesses had given evidence. This compares favourably to other processes of this kind (Wakeford 2001).

The interrogation period also allowed jurors to draw on their own experience to challenge the dubious 'facts', rhetorical devices and analogies used by witnesses, such as that by Reddy and Dasgupta:

Dr Dasgupta: *When I was sitting [waiting to give evidence], I did not have my sandals. They said that if I am going to touch this [microphone] I had better put on my sandals, otherwise I would get a shock. This [microphone] is a new technology, which makes my voice louder so everybody can hear. But it is also run by electricity. If I do not know how to handle electricity, advantage will turn into disadvantage and I will get a shock. Now I don't get a shock because there is rubber on the soles. When you are handling chemicals, or when doctors perform an operation, they wear gloves. When you use a new technology, you must also use safety measures. It is not like the traditional method. The traditional method was safe, but it was not adequate.*

Having heard Dr Dasgupta describe the advantages of the new GM crops, one juror responded with her own analogy:

Juror: *If you are doing anything by spending all these crores of rupees [on new crop varieties], then definitely you must be having more profit to what you are spending. Let me give you an analogy. Before we used to have only Doordarshan [state television], now we have Gemini and ETV and others [cable channels]. We shuttle between Gemini and ETV and we are not able to decide between the two. Similarly, you are giving so many adverts – today you are saying this brand is good, then next day you are saying no this other one is good, and then later showing another picture on television saying no this third one is better, making a lot of confusion.*

Dr Dasgupta: [amidst long response continuing electricity analogy] ... *If I said I already know how to light a lamp, why do you bring me this electricity, I could have refused, it is my choice. Nobody forces. If you see a neighbour having electricity, you go yourself to get the same thing. Nobody forces it, nobody comes and tells you you have to have a new technology.*

Juror: *I want to substantiate with an example. I am drinking porridge and my neighbour is drinking Horlicks [a flavoured powder drink]. For a few weeks she may think that she is well off and drinking Horlicks which is nutritious and all, and she will look down on me. But after some time she will realise that porridge is better than Horlicks. By the time my neighbour realises that, she will lose some strength and she will be weakened. She will have to leave the Horlicks and come back to the porridge drinking habit. But this time has a cost.... By the time we realise there is a problem [with the new crop], we have incurred big loss.*

Dr Dasgupta's final response seems to show he has not fully understood her perspective. He merely re-emphasises her right to know and does not take on board the loss of a crop and consequent suffering described by the juror. Generally, however, the opportunity for a two-way exchange of perspectives between jurors and witnesses certainly helped to improve the quality of deliberations in Prajateerpu.

4.10 Process results

An important factor in the impact of Prajateerpu on Indian and global debates on the future of food and farming was that there were respected individuals on the Oversight Panel who were responsible for evaluating the whole process. This, along with the con-

siderable involvement of AP government officials and a major transnational corporation (SYNGENTA), helped pre-empt possible criticism that the coordinating team had somehow engineered the 'right' result .

When asked if it was confident that the jurors were not just repeating back slogans they had heard, the Oversight Panel emphatically stated that the jury had not been subject to outside manipulation or pressure:

Paul ter Weel: *No, no. In the way they react, it's genuine feeling, it's their deep feeling. They know what they are dealing with.*

This participatory assessment of policy futures reversed many of the dominant trends in policy process. Particularly successful reversals from normal roles and locations included (a) putting the perceptions, priorities and judgement of ordinary farmers centre stage and using appropriate methodologies (a combination of scenario workshops and citizens jury methods), (b) holding the process in a rural setting on a farm, (c) getting government bureaucrats, scientists and other specialist witnesses to travel to farmers in order to present evidence on the pros and cons of new technologies, and (d) using television and video technology to ensure transparency and free circulation of information on the process and the outcomes.

The Deputy Commissioner and Director of Agriculture for the Government of AP stressed how much the Prajateerpu process had broken new ground and set an important precedent for policymaking:

Akbal Rao: *This is unique. I have never seen this anywhere. We are doing so many training programmes with farmers. Thousands of farmers are being trained every year in different technical aspects of agriculture. But this court-like thing is now a new system which was introduced by the organisers. I congratulate the organisers for introducing such a new approach and for exposing the problems of farmers and learning the solutions for those problems.*

Many observers commented on the value of the actual process of bringing differently situated actors into forward-looking, critical deliberations and future visioning exercises. In the words of an Oversight Panel member:

Sandeep Chacra: *The methodology used here is excellent and I can already see how to adapt the principles to other situations. The citizens jury process can be used to look at the future of food and farming with other groups like landless labourers in AP. I also think we could easily adapt the methodology to look at the fate of weavers in the textile sector and sex workers in India.*

The spontaneous spread and local adaptation of the methodologies used in Prajateerpu is indeed an important process result. At the time of writing, various civil society organisations throughout AP are using the three videos produced for Prajateerpu, holding public hearings and adapting citizens jury/scenario workshop methods at the village level. After returning home to East Godavi district, at least one *adivasi* member of the citizens jury toured the Eastern *Ghats* region of Andhra Pradesh and described the Prajateerpu in many villages. With the help of an *adivasi*-run local NGO, Girijan Deepika, she shared her new knowledge of the Prajateerpu process and facilitated village-level visioning exercises.

The design of Prajateerpu ensured that citizens involved in the participatory dialogues were linked to wider policy networks and the dynamics of policy changes. Both the Prajateerpu process and its outcomes were actively used to influence advisory committees, technical bodies and civil servants connected to policymaking:

- For campaigners in Andhra Pradesh, the jury result, together with the considerable press coverage in India and the UK, were extremely useful in that they strengthened advocacy work directed against the current version of Vision 2020 and its components (contract farming, GM technologies, displacement of small farmers, etc.).
- The United Nations Development Programme's *Human Development Report 2001* was criticised by several participants and

observers of Prajateerpu for not paying sufficient attention to the views of the poor on GMOs and simply assuming that the new biotechnologies might be appropriate to meet the agricultural needs of the poor (www.undp.org/hdr2001). A letter signed by 150 AP-based organisations was sent to the authors of the *Human Development Report* to inform them about the Prajateerpu process and jury's verdict *prior* to the release of the *Report* on 10 July 2001. At the London press launch of the *Human Development Report* both campaigners and journalists referred to the Prajateerpu verdict as an example of how UNDP might bring the voices of people in poor countries into its influential *Human Development Reports* in future.

- Press coverage in the UK and France also influenced policy processes, with reports of the government's Department for International Development's support for the policy and technical thrusts of Vision 2020 (*The Guardian* 7 July 2001, *The Ecologist*, September 2001; *Le Monde*, 20 December 2000). As a result, Secretary of State Clare Short – the Head of DFID – responded to questions asked by the press (*The Guardian* 11 July 2001) and, later, by Members of Parliament in the UK House of Commons (Ruddock 2001).

4.11 Empowerment and advocacy

The results of the jury process had a significant impact in global media and lobbying arenas. It has not been going long enough to bring pressure on national and state governments or the donors and corporations that are significant forces in the lives of India's rural poor. Once citizens juries reach their conclusions it is essential that appropriate intermediary individuals and channels exist to act between the jury and those with the power to create change.

These activities can include:

- Building a coalition of organisations and individuals involved in Prajateerpu that can coordinate efforts to influence policymakers.
- Developing multi-stakeholder learning groups at a local, AP, Indian and international level to provide opportunities for constructive dialogue between groups such as marginalised peoples, policymakers and scientists (IIED and IDS 2000).
- Facilitating further processes of deliberation by small and marginal farmers themselves within their own communities. Linking basic literacy programmes to an analysis of power and exploring paths to empowerment. (For examples see the case studies listed in www.reflect-action.org.)

NGOs, federations of farmers' organisations and consumer organisations have a key role to play and can use the findings of the jury for their campaigns and lobbying activities. Members of Girijan Deepika in the Eastern Ghats region of AP have already taken up this challenge. This NGO provides an excellent example of how processes such as Prajateerpu can be part of longer term empowerment processes. Over the past ten years Girijan Deepika has carried out combined literacy and empowerment projects among some of the most marginalised communities in the state, allowing indigenous peoples to analyse their problems, including those caused by Green Revolution methods, and organise effective solutions either through self-help schemes or effective grassroots campaigning and theatre. Similarly, one Oversight Panel member, Paul ter Weel, commented that he would like Prajateerpu to be part of a more widespread and longer term empowerment process that enables farmers to re-validate traditional knowledge that may have been lost during the Green Revolution:

Personally I am more in favour of longer term learning processes, to support long-term learning processes in the community, and then this kind of thing could happen once in a while. There have been 20 to 30 years of top-down agricultural extension, imposing decisions on farmers, imposing information on farmers – often distorted information – which came down in a cascade of training and visits and so on, giving only fragmented messages to farmers. If you are really serious about revitalising agiculture or the strengths of ecosystems, then you have to provide farmers with a learning environment in which they themselves actively re-find themselves in their relationship with nature. If we want to, if we are serious about listening to farmers, then after this period of

imposing on them we should provide them with an opportunity to recoup and to regain their self-confidence and start again doing farming as they have been doing it [by] looking at an ecosystem, at the soil needs, what kind of plants fits their ecosystem with the climate and the availability of water, etc.

4.12 Future initiatives

Vision 2020, the Government of Andhra Pradesh's strategy for development in the state over the next twenty years, will continue to prompt vigorous debate as the advantages and drawbacks of each element for different sectors of the population become apparent. Prajateerpu's aim was to make a contribution towards ensuring that those groups of rural people who are often left out of the policy debates were allowed an opportunity to inform themselves about Vision 2020, along with some alternative visions, and then formulate their own vision, which we have presented here.

Together with the advocacy strategies suggested in 4.11, there is the potential to hold further processes similar to Prajateerpu on rural livelihoods and other issues, both in AP, elsewhere in India and abroad. The multi-actor, cross-sectoral and grassroots-engaged planning process that made Prajateerpu so inclusive and empowering entailed significant costs both in terms of money, human resources and physical infrastructure. However when set against the billions of US$ that are already beginning to be spent in the course of the implementation of Vision 2020, the costs of Prajateerpu pale into insignificance.

If, as bodies such as the Government of Andhra Pradesh, World Bank and UK Department for International Development claim, their vision is of a development model that is fully participatory, then processes with substantial elements of the citizens jury / scenario workshop used in Prajateerpu will have to be at their heart. Though it entails providing information on a much greater scope of issues, we believe that the way in which Prajateerpu avoided dealing with particular new technologies, such as GM crops, in isolation, was key to allowing competent deliberation by the jurors. Only once they had discussed such technologies in the full economic, social and ecological context of how food and farming might change over the next twenty years could citizens come to a considered conclusion. Therefore, though they might be cheaper, mere focus groups, PRA exercises, or even citizens juries which simply focus on the pros and cons of agricultural biotechnology in isolation do not further a comprehensive democratic process.

We hope that all those involved in the first Prajateerpu process, together with those who read this report, will reflect critically on the lessons to be learned for future activities of this kind and their potential role in participatory development. In particular, we hope the remarkable achievements of the nineteen jurors will inspire those who seek to experiment with deliberative methods that work towards socially just, ecologically sustainable and citizen-shaped futures.

4.13 Oversight Panel evaluations

The members of the Oversight Panel critically assessed the different steps involved in the Prajateerpu process. They shared their observations with the coordinating team at the end of each day of the jury's deliberations. The Panel also made an overall evaluation of Prajateerpu after the formal closure of the event. Some of the comments and recommendations made by Oversight Panel members are presented in this section of the report.

On small farmer representation in the citizens jury:

Justice Sawant: *The farmers' jury is drawn from different sections of society. And I am very happy to find that all of them are small and marginal landholders, I don't think there is anyone representing big landholders on the one hand or government policy advisors on the other.*

Mr Naidu: *The jury selection process has been sound and the result is representative of small*

farming communities in AP. I highly appreciate this.

On the jury's capacity to participate meaningfully in the debate:

Mr Naidu: *The jury's participation has been very encouraging and spontaneous.*

Ms Savithri: *Women participants have shown more determination, and they have the confidence to conduct meetings and share information with others.*

Paul ter Weel: *What was most interesting was the fact that farmers, on the basis of their knowledge, wisdom, and feelings, rather quickly have a clue of who they are dealing with…. What amazed me indeed was that they immediately have a clue whether what is told to them is nonsense or propaganda or whether it has some meaning. And that of course gives hope that there is still this wisdom available amongst them to judge what is useful, what is genuine and what is not.*

Justice Sawant: *I was happy to see that these farmers were so vocal – particularly the women – and that they had cornered policymakers from government. Some of these experts just have a one-dimensional, one-directional approach; they had no answers to the social issues that the jurors were raising.*

On the credibility and fairness of the process:

When asked if it was confident that the jurors were not just repeating back slogans that they had heard, the Oversight Panel emphatically stated that the jury had not been subject to outside manipulation or pressure:

Paul ter Weel: *No, no. In the way they react, it's genuine feeling, it's their deep feeling. They know what they are dealing with.*

On the quality of specialist witness presentations:

Sandeep Chacra: *The presentations of the expert witnesses are balanced and fair. With one or two notable exceptions, the expert witnesses rely on logic and evidence to make their points rather than slick propaganda and manipulation.*

On the educational and enabling value of the process:

Ms Savithri: *Most of the farmers have come from very remote villages. The farmers are not aware of the implications of Vision 2020 or GM crops. This is the first time they are coming to find out how a programme such as this could affect their lives. These forums and meetings should be conducted widely.*

Mr Naidu: *The three videos on food and farming futures exaggerate some of the possible consequences of policy decisions. It's a bit of a caricature at times, but it works! It really helps the jurors think through the issues and look at the bigger picture.*

Justice Sawant: *The interaction ... is educating both the farmers about what ought to be done as well as the policymakers about whether their policies are in the right direction or not. And I believe both of them are learning from each other.*

Sandeep Chacra: *The methodology used here is excellent and I can already see how to adapt the principles to other situations. The citizens jury process can be used to look at the future of food and farming with other groups like the landless labourers in AP. I also think we could easily adapt the methodology to look at the fate of weavers in the textile sector and of sex workers in India.*

On improving the process:

Ms Savithri: *These forums and meetings should be conducted widely across Andhra Pradesh. In future more women should be encouraged to participate in such forums.*

Paul ter Weel: *I think that it is important in selecting the people for the jury that you have indeed farmers who have some exposure, or have travelled a bit in the area, who play a bit of a role in Gram Sabha or other fora in their village or in their block. ... Of course you can get a picture that is not representative of the potential that is still there in the community. So, personally I am more in favour of longer term learning processes, to support learning in the community itself. And then this kind of jury event could be done once in a while.*

5. Critical Reflections on the Wider Significance of Prajateerpu

The centralized food system that continues to emerge was never voted on by … the people of the world. It is the product of deliberate decisions made by a very few powerful human actors. This is not the only system that could emerge. Is it not time to ask some critical questions about our food system and about what is in the best interests of this and future generations?

William Heffernan
Consolidation in the Food and Agriculture Sector (1999)

Prajateerpu raises important questions for democratic governance and the future of food systems, livelihoods and the environment in Andhra Pradesh. Some critical reflections on the wider significance of Prajateerpu are offered under the following headings:

- Modernisation, coercion and exclusion
- Making development aid work for the poor
- A vision of more civilisation and less market

5.1 Modernisation, coercion and exclusion

A huge percentage of those displaced [from the Narmada Dam] are tribal. Include Dalits and the figure becomes obscene. According to the commissioner for scheduled castes and tribes it's about 60%. If you consider that tribal people account for only 8%, and Dalits 15%, of India's population, it opens up a whole other dimension to the story. The ethnic "otherness" of their victims takes some of the pressure off the nation builders. It's like having an expense account. Someone else pays the bills. People from another country. Another world. India's poorest people are subsidising the lifestyles of her richest... It's time to spill a few state secrets. To puncture the myth about the inefficient, bumbling, corrupt, but ultimately genial, essentially democratic, Indian state. Carelessness cannot account for 50m disappeared people. Let's not delude ourselves. There is method here, precise, relentless and 100% man-made.

Arundhati Roy (1999)

Like most ex-colonies, India has inherited an administrative system dominated by an elite of scientists, planners and bureaucrats whose contact with the poor is minimal (Alvares 1992, Vishvanathan 1997). Partly because of the still-pervasive caste system that persecutes untouchables (*dalits*), civil servants' perceptions of India's most excluded are often even more warped than those of the nation's former colonial rulers, as decribed by Roy in the quotation above. In the context of agricultural development, the work of AR Vasavi, of the National Institute for Advanced Studies, is exemplary in the way in which she analyses this reality gap (see Box 8).

Vasavi's work points to a diverse and self-reinforcing range of detrimental impacts of Green Revolution (GR) technologies on the poorest cultivators in Southern India. These can best be understood using an analytical framework of social exclusion.

Group behaviour generates patterns of inclusion and exclusion (see Kabeer 2000). The first is the 'mobilisation of institutional bias' wherby a predominant set of values, beliefs, rituals and institutional procedures ('rules of the game') operates systematically and consistently to the benefit of certain persons and groups at the expense of others. In retrospect, it is clear that the GR technologies came to Bidar and different parts of Andhra Pradesh (Chowdary et al. 2000) via institutions ranging from international agencies to local agents that had a very clear, though perhaps sometimes unconscious, bias in favour of large, English-speaking landowners. This powerful combination of technology and institutional bias undoubtedly acted to the detriment of small cultivators who were either non-literate or literate only in their local language.

The second form of exclusionary mechanism is social closure, 'through which social collectives seek to maximise rewards by restricting access to resources and opportunities'(Parker quoted in Kabeer 2000). Unlike institutional

Box 8 Agricultural Technology and Farmer Suicides in Southern India, 1997–8

Bidar is a predominantly semi-arid region on the border of Karnataka and Andhra Pradesh in Southern India. Between December 1997 and May 1998 twenty-three cases of suicide were reported from Bidar and the neighbouring district of Gulbarga. Vasavi had been making an agricultural and anthropological study of the area for several years, and was asked to return to Bidar to further examine the pervasive distress in the region and the suicides that are its latest symptom (Vasavi 1999a). Her conclusion is that the suicides, which are a small part of an epidemic of such cases throughout the poorer areas of India, point to larger and more pervasive crises in semi-arid areas of India (Vasavi 1999b) (see also Chowdary et al. 2000).

Of the total area of Bidar, 82 per cent is used for agriculture, with only 8 per cent fed by canal irrigation. The rest is rainfed, with the better-off farmers using wells or, if power can be afforded for pumps, tube wells. Bidar is one of the poorest districts in Southern India, with the majority of farmers owning less than two hectares of land, and widespread sharecropping.[5] Limited by the low rainfall and soil type, pre-Green Revolution (GR) agriculture was mostly dry cultivation or rain-dependent cultivation in which a diverse range of local sorghum varieties were grown in combination with oil seeds, wheat and other cereals.[6] Green manures such as *sannhemp* and *diancha* were widely grown and helped maintain the fertility of the soil, and decreased the chances of pests and diseases taking hold. Agriculturalists were thereby able to be self-reliant for most agricultural inputs.

During 1966-7 scientists and planners whose experience largely came from agro-ecological regions with high rainfall introduced new varieties of sorghum, paddy, wheat and sugar. During 1972-4 the region suffered a prolonged drought that brought about widespread scarcity. Rather than evaluating the effects the introduced crops might be having on local farmers, however, the government pressed ahead with a scheme to promote GR packages of high-yielding seeds and chemical inputs.

Whilst richer farmers learn from agricultural assistants, company representatives and each other, they are unlikely to share this knowledge with the lower castes to which the poorer cultivators belong. With no formal instruction, these marginalised groups merely try to watch and guess what their more prosperous neighbours are doing. Negligence by the promoters of GR methods therefore led to poorer cultivators having much lower average yields than if the techniques had been used correctly. This is in addition to frequent health problems that arose from the incorrect and unsafe application of these chemicals, which are often poisonous. Told that their problems are a result of their own ignorance, these lower caste cultivators feel helpless in the face of the crises that often arise. The particular trigger for the 1997-8 crisis was an epidemic of an insect called *Helicoverpa armigera*. The 1997 insect outbreak saw widespread crop loss among smaller cultivators and consequently spiralling debt, not least because of the pesticides that the farmers had been wrongly encouraged to buy to control the outbreak. Vasavi believes that although climatic conditions created the ecological trigger for the growth of the pest, it was the agencies promoting GR pigeonpeas and their required inputs that put small cultivators in the position of vulnerability to pest attack. Having displaced 'local knowledge and locally appropriate practices', GR promoters allowed the spread of a new system of agriculture without 'ensuring the proper dissemination and practice of new knowledge'. Finally, with a large number of small cultivators in acute distress, the extension and support apparatus was unable or unwilling to provide support, with the result that many chose to take their own lives. People who had lost hundreds of dollars (US) per hectare were compensated with a few hundred rupees – less than $US10. 'The government' recounts Vasavi, 'has disbursed cheques for sums so paltry that it does not even cover the bus ticket needed to cash the cheque.'

Just as significantly, Vasavi notes that GR technologies have led to small cultivators, who had previously shared agricultural knowledge and practices with extended family and caste, becoming increasingly isolated as atomised economic units. In communities where cultivators came to have closer links to the market than to their neighbours, crop loss becomes a personal crisis rather than something that joint households could combat together. The uniformity of loss of honour when a crops fails and debts increase is now a tragedy ghettoised to an individual family, increasing the sense of shame and isolation among those who are already the most socially excluded.

5 Under the sharecropping system part of the harvest must be paid to a landlord as rent.
6 Vasavi (1999b) found thirty types that had been grown in the district in visits to just three villages.

bias, social closure is usually a more deliberate strategy to exclude virtually any group by attribute – language, caste, literacy, race, social origin or religion. In Bidar as well as in Andhra Pradesh, the fact that most discourse – and all written material relating to the technology was in English or Hindi, and that only the large landowning upper castes were targeted by agricultural assistants to the exclusion of marginal cultivators, is an an example of social closure. In principle it is possible for networks of small cultivators carrying out traditional agricultural practices to form their own networks, as has been done on a small scale on the border of Bidar and Medak districts (Satheesh and Pimbert 1999). However, the already powerful coalitions that have gained as a result of GR technologies have acted to surpress such activities as soon as their interests are affected.

Unruly practices – the gap between official rules and their implementation – is the third type of mechanism though which exclusion occurs. This is a particular problem both in the public sector and in the legal system, where 'the courts only apply the rules when they want to and … the judiciary bends the rules to support the particular class, gender or ethnic interests whilst invoking rules to maintain the illusion of impartiality'. Because, the public sector, unlike the private sector, is often officially contracted to meet and address social needs within the community, unruly practices are most likely to apply here. In addition to allowing the illegal sale of low-caste lands, the government bodies' response to the suicides in Bidar in 1997–8 displayed callous disregard for natural justice. A government-appointed commission produced a report in late 1998 implying that many of the suicides – which continued on into 1999, 2000 and 2001 – actually arose from other causes and were faked as suicides to receive compensation. Other sections of the government have advised that the best solution to the crisis is to send psychiatrists to the affected regions. As Vasavi argues 'resorting to psychological arguments is to deny the social and economic basis of such distress' and 'helps deflect attention from the deep-rooted problems in the content, orientation, and implemenation' of government agricultural policies that promote GR technologies and worsen already prevelant social exclusion.

Exclusion in the social world is mirrored in the natural world as the biodiversity that is important for food and agriculture is pushed out of fields, pastures, water and forests. The loss of collective, eco-specific knowledge and the local cultural basis of agriculture go hand-in-hand with the simplification of complex agro-ecologies and the erosion of biodiversity. With the re-ordering of agriculture by the state and by agribusiness corporations, agrarian cultures have become increasingly integrated into a global agricultural regime that favours elite consumption and access to capital over ecological and social sustainability. In this process, the marginalisation and elimination of plural forms of agriculture, locally adapted livestock breeds, diverse crop varieties and myriad wild foods have been significant in AP. Recent studies by the All India National Biodiversity Strategy and Action Plan (NBSAP) present new evidence on the severity and extent of the loss of biodiversity important for food and agriculture in a variety of settings in AP (NBSAP 2002). Other natural resources critical for sustainable land use and livelihoods have been similarly eroded. For example, the encouragement of export crop production and the cultivation of water-demanding crops such as sugarcane have led to the massive colonisation of critical watersheds and the depletion of water resources in AP.

Prajateerpu confirmed some of the damaging effects of the GR and allowed people who had experienced them to recognise the same logic of social and ecological exclusion embedded in Vision 2020's plans for food and farming in AP (Box 9). The citizens jury thus decisively rejected a development model that seeks to separate and exclude people from their main source of livelihoods (land, water, forests, livestock) and further undermine biodiversity and local control in the name of 'modernisation'. The Prajateerpu vision of the future was all about regenerating more localised and

Box 9 Vision 2020 and the Modernisation of Food and Farming in Andhra Pradesh

Vision 2020's plans for food and farming reinforce many of the trends of the Green Revolution model of agricultural development. The quest for increased productivity, modernisation, use of external inputs and reliance on national and global markets are at the core of the package of measures proposed by the government to transform rural areas in AP. Some of the key policy goals for food and farming are listed here:

- The agricultural sector is to achieve an average growth rate of about 6 per cent in real terms. Efforts will be concentrated on areas showing high potential for growth and for creating value-added employment. These so called 'growth engines' include rice, poultry, dairy, horticulture, fisheries and agro-industry. Development will also focus on areas such as seeds, oil seeds, cotton, sugarcane, tobacco and maize.
- The share of employment in agriculture will decline from its current 70 per cent of the population of AP to 40-45 per cent over the next 20 years. Alternative livelihoods need to be created for the 20 to 25 million people who will be displaced from the land through mechanisation and land consolidation. More jobs will come from the allied sectors and women are to build their skills to gain their share of benefits.
- New biotechnologies will be developed and introduced in food and farming, including high yielding genetically modified crops and livestock.
- The financial investment envisaged is about Rs.160 000 crores, out of which Rs.125 000 crores will be in the irrigation sector alone.
- It is envisaged that a large part of the investment needed will have to come from the private sector since government resources are limited. Agricultural policies should induce investments by all types of private actors – corporations, cooperatives and individual farmers/entrepreneurs.
- Inducing private actors to invest in agriculture will mean framing policy to ensure free and more efficient markets and pricing of agricultural inputs as well as outputs (e.g. reducing restrictions on the rice market); stable policies for export of agro-based commodities (e.g long-term rice export so that export markets can be systematically developed); access to credit; provision of infrastructure and promotion of agro-industry (e.g reduction of excise/custom duties on cold storage equipment and amendment of cold storage Act).
- The corporate sector will be encouraged to invest by adopting enabling policies that foster a direct relationship between farmers and corporations through contract farming and the provision of incentives to boost large-scale investments in agro-industry (e.g, removing sales taxes on processed foods).

Source: GoAP 1999, 2000a, 2000b, 2001a, 2001b. www.andhrapradesh.com

diverse food systems throughout AP. The citizens jury emphasised the need for social and ecological inclusion through appropriate combinations of local knowledge and institutions, adaptive natural resource management, the extensive use of biodiversity and other internal resources, supportive markets and decentralised governance in a variety of settings across AP.

5.2 Making development aid work for the poor

Both the process and outcomes of Prajateerpu have major implications for development aid interventions in Andhra Pradesh. Indeed the jury's verdict specifically calls on external support agencies to support its vision of food and farming. However, taking these 'views from below' on board may require some donors to rethink their basic assumptions on the purposes of aid in AP.

The World Bank and the UK Department for International Development, for example – the two most important foreign aid donors in AP – assume that globalisation[7] and trade are necessary for poverty alleviation. According to official documents both external support agencies support the AP government's ambitious Vision 2020 agenda to link the state with global markets. DFID's White Paper on International Development – *Making Globalisation Work for the World's Poor* – asserts that world trade creates unprecedented new opportunities for sustainable development and poverty reduction (DFID 2000). The World Bank similarly embraces globalisation and the liberalisation of trade as a positive force for poverty eradication (www.worldbank.org). Both the World Bank and DFID claim that people in the South really want globalisation to eliminate poverty. The heads of these two development agencies have stressed the need to listen to 'the voices of the poor' and have taken this high moral stand to dismiss the criticisms of anti-globalisation campaigners at home.

However, there is little or no evidence that the World Bank or DFID have used appropriate methodologies to bring the 'voices of the poor' into the planning and design of their aid programmes in Andhra Pradesh. There has been no *systematic* and *widespread* use of inclusive participatory methodologies to understand local realities and make the priorities of the poor count in donor interventions.

Nor is there any evidence that the donors' process of needs identification and prioritisation of aid were overseen by independent panels made up of different actors, including representatives of the poor and marginalised. How credible, impartial, relevant and trustworthy are the methods and findings used by these donors and their think tanks? In the absence of extended peer review and external verification by an independent oversight panel, how can one be certain that the aid programmes of these development agencies have not been captured by specific interest groups? Has enough time and space been made for donors to build on the knowledge and priorities of the poor by using innovative mixes of inclusive and deliberative methodologies for planning and negotiating aid in each of the 24 districts of AP, (e.g. combinations of citizens juries, citizens panels, committees, consensus conferences, scenario workshops, deliberative polling, focus groups, multi-criteria mapping, public meetings, participatory learning and action methods (PLA), and visioning exercises)?

At the very least, these observations suggest that the aid programmes of the World Bank and DFID are based on pre-formed positions and generalised economic formulae, and on unproven assumptions about the needs of the poor in AP. It is noteworthy for example that aid portfolios for AP are premised on a view of economic efficiency in which the number of farmers and farm families engaged in agriculture rapidly decreases with modernisation. Accordingly, off-farm livelihoods and capital-intensive infrastructure receive a far greater share of aid than interventions aimed at regenerating sustainable food systems and more localised economies. Indeed the results of Prajateerpu and the jury's own vision of the future of food and farming confirm that the views of the poor are largely missing in the development aid plans of the World Bank and DFID, as well as many other donors working in AP.[8]

This mismatch between the priorities of the poor and development interventions is a common phenomenom in India and elsewhere. In their classic works on the culture of development expertise, both Paul Richards (1985) and Robert Chambers (1993) describe how the failure of experts to engage with the realities of socially excluded groups has led to a waste of development resources and sometimes actual harm to these communities. They provide copious examples of how errors became deeply entrenched in the beliefs, thinking, values and actions of development professionals.

7 By globalisation we mean the ever increasing integration of national economies into the global economy through trade and investment rules, privatisation and technological advances, and driven by institutions like the World Trade Organisation (WTO) and bilateral trade agreements. Globalisation is very different from the process of "internationalism" which refers to the positive global flow of ideas, culture, technology and knowledge, together with growing international understanding and cooperation.

8 The World Bank and DFID are the largest contributors of development aid. Others include UNDP, UNICEF and The Netherlands.

These included managers, scientists, planners, academics and consultants, of many disciplines and working in many organisations, such as aid agencies, national bureaucracies, research and training institutes, universities and colleges, and private firms. How could they all have been so wrong, and wrong for so long? How were these errors possible, and why were they so sustained? (Chambers 1993:30)

Chambers' conclusion is that observers initially chose the answers that draw more from their own pre-conceptions and expectations than from a sympathetic engagement with the lived reality of the communities and systems they are studying. Once a myth is created, the professionals and groups listed above may stand to gain from its perpetuation. Sustaining arguments that are known to be incorrect can become essential to the continuation of projects and the salaries of those perpetuating such fallacies. Chambers also cites the peer group pressure of fellow professionals, the culture of subject specialism that excludes perspectives of those not qualified in that particular discipline, and the institutionalised distance between urban middle-class experts, often relying on secondary data rather than the lived reality of the rural poor. He analyses the power that available funding and expertise gives these groups, suggesting that the exercise of this power in development projects follows a particular understanding of reality which automatically blinds them to accepting the validity of different realities that may be encountered.

In the light of Prajateerpu, the World Bank and DFID's support for pro-poor trade and globalisation through the implementation of Vision 2020 is deeply problematic. Lieten's remarks on how academics and development professionals so often mis-represent the poor, the weak and the excluded in India seem particularly relevant here:

These viewpoints have by and large been derived from intellectual constructs, fitting peasant life in neat paradigms. The paradigms have been used to introduce panaceas in order to solve problems and stimulate changes. The vision and views of the peasants, especially the poor peasants and agricultural labourers, has hardly ever been solicited.... The various paradigmatic approaches that have been applied to these conditions have been developed from above. Determining what the actual developees, particularly the poor female and male villagers themselves, thought of the academic reading of their conditions, has been attempted occasionally. When they were 'listened to', the underlying assumption was the introduction of the process of 'modernisation' (later 'globalisation'), with the extension of the capitalist market regime and the individualisation of economic activities. The developees are expected to play by the rules of the game. The 'listening to them' was intended to make them optimal players on an unlevel field (Lieten 2002).

Prajateerpu demonstrated that a more level playing field and richer framing of 'development' options can be achieved when citizens actively make and shape policy futures of their choice. The deliberative process and its boundary conditions did not assume that poverty alleviation could only be achieved through globalisation, international trade and the further spread of capitalist relations of production. The jury effectively called on foreign donors to re-oriente their interventions away from Vision 2020 and support local definitions of food, farming and well being.

5.3 A vision of more civilisation and less market

Citizens assembled at Prajateerpu generated policy futures on food and farming. They did this in a discursive arena in which people intellectually and emotionally confronted one another. They learned about other people's opinions and feelings through dialogue, body language, personal intimacy, and face-to-face expression in the course of making collective decisions. With technical issues presented to them in clear and accessible ways, citizens made political choices. In this sense, Prajateerpu evokes deeper reflections about the nature of citizenship and the recovery of an enhanced classical vision of politics and civilisation.

Politics and *civilisation* are used here as originally defined by the ancient Greeks and Romans. The notion of citizen (*cives*) is at the root of the word civilisation. The very word politics is etymologically derived from *polis*, the ancient Greek word for the public, participatory dimension of a community. Politics, as first described by Aristotle, thus originally denoted a direct democracy. In a limited way, Prajateerpu resonates with these ancient traditions, and with the ancient tradition of trial by jury, and also highlights their relevance for today's social choices. Prajateerpu is premised on the notion of expanding civilisation and direct democracy:

Pursuing civilisation today would therefore mean allowing each potential citizen-subject within society to become real subjects, by offering them ... a genuine autonomy to exercise their ability to give themselves laws and construct rules with others.... More specifically, this implies giving to individuals the means to participate ... in the daily construction of the rules of living together, and to rethink political, social and economic relationships in order to civilise them at a deep level, through the permanent exercise of the freedom to participate (Méda 2000, our translation).

It is striking that in their vision to civilise food and farming in AP, the jury calls for more justice, fairness, humane treatment and democracy as organising principles for the conduct of social and economic life. The categories of economic efficiency and the market are largely absent, or subsumed in society and subordinated to the needs and rights of citizens. In this, the jury echoes many voices of the poor and excluded in South Asia (Leiten 2002) as well as Mahatma Gandhi's vision of agriculture as the seedbed for Swaraj – an ethically and morally grounded system of self-reliance that would enable India to not only break away from colonialism but also generate a new civilisation (Gandhi 1936).

The Prajateepu process stressed the primacy of politics over economics, re-affirming the importance of democratic debate and citizen choice on the ways and means of satisfying fundamental human needs.[9] Whilst fundamental human needs are universal, their satisfiers vary according to culture, region and historical conditions (Max-Neef et al. 1989).

Despite its hegemony today, the notion that corporate-led globalisation is the only route to meeting human needs is increasingly chal-

Box 10. The Neo-Liberal Paradigm and Globalisation: Dissenting Views from Within

There is by now strong empirical evidence of the adverse effects of liberalisation as it was commonly practiced. The approach of development economies that was often taken in the past was to ask, 'What changes in the standard model of an industrial economy need to be made in order to adapt it to the situation in developing economies?' The standard model that was used was the competitive equilibrium model. Today, the limitations of that model are widely recognised; it provides an inadequate model of developed countries, and therefore a poor starting point for the construction of a model for developing economies. The time for challenging the current reigning paradigm may be ripe, as dissatisfaction with globalisation grows, and the spotlight placed on it has highlighted many of its deficiencies. Joseph Stiglitz, former Chief Economist at the World Bank (Stiglitz, 2001)

Globalisation is about power and control. It is the reshaping of the world into one without borders ruled by a dictatorship of the world's most powerful central banks, commercial banks and multinational companies. It is an attempt to undo a century of social progress and to alter the distribution of income from inequitable to inhuman. Paul Hellyer, former Deputy Prime Minister of Canada

Advocates of global economic integration hold out Utopian visions of the prosperity that developing countries will reap if they open their borders to commerce and capital. This hollow promise diverts poor nations' attention and resources from the key domestic innovations needed to spur economic growth. Professor Dani Rodrik, Harvard University, USA (Rodrik, 2001)

9 A definition of the 'good life' implies different ways of satisfying fundamental human needs. Max-Neef and his colleagues have identified nine fundamental human needs, namely: subsistence (for example, health, food, shelter, clothing); protection (care, solidarity, work, etc.); affection (self-esteem, love, care, solidarity, and so on); understanding (among others: study, learning, analysis); participation (responsibilities, sharing of rights and duties); leisure/idleness (curiosity, imagination, games, relaxation, fun); creation (including intuition, imagination, work, curiosity); and identity (sense of belonging, differentiation, self-esteem, and so on), freedom (autonomy, self-esteem, self-determination, equality) (Max-Neef et al. 1989).

lenged in official circles (see Box 10). Renewed efforts are also underway to fundamentally rethink development economics (e.g see www.unrisd.org and Maréchal 2000). In this context, deliberative and inclusive processes that empower citizens to imagine and invent their versions of the 'good life', with the corresponding policies, are potentially of enormous theoretical and practical relevance.

Prajateerpu, 'the people's verdict' has clearly demonstrated the value of a participatory empowerment process, and articulated a grassroots vision of sustainable, equitable and self-reliant agricultural livelihoods for the next twenty years. While the process clearly contains flaws, we hope it will inspire others to continue to innovate with deliberative and inclusive democratic processes, as has been urged by analysts, NGOs and donor agencies alike (Conway 1997, DFID 2000, World Bank 2002). The potential of Vision 2020 to damage the livelihoods of small and marginal farmers in Andhra Pradesh is at least as great as other mega-projects such as the Narmada Dam or the introduction of 'Green Revolution' technologies. We urge opinion-formers and decision-makers in India and internationally to respond to the results of Prajateerpu by reviewing their assumptions about rural futures and by engaging in further democratic processes of this kind.

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Annex 1. Videos on the Future of Food and Farming in Andhra Pradesh, India

Videos were used to compare and contrast three possible futures for food and farming in AP. IIED's Sustainable Agriculture and Rural Livelihoods Programme did the background research for the videos and prepared the script outlines. The Hyderabad-based communications group Development Perspectives was commissioned to produce the videos. Working with television and media experts in India and the UK, Development Perspectives coordinated the filming, interviewing and editing of the three videos.

The director of Development Perspectives worked closely with the IIED facilitator to ensure a fair and consistent representation of 'life under each scenario' in the year 2020. To ensure that comparisons between visions were meaningful, each scenario or vision was systematically described from the following perspectives:

- **Ecology of Food Production**
- **Ecology of Food Marketing**
- **Food and the Economy**
- **Food and Community**
- **Governance and Food Security**

Further consistency in the presentations of futures for food and farming in Andhra Pradesh was achieved by using a current affairs format for each video, with the same newscasters, anchors and correspondents for all three videos. The initial scripts were reworked to fit within the agreed format. A summary of each video follows:

Video 1: Vision 2020

During the 20 years that followed the adoption of Vision 2020 by the Government of Andhra Pradesh, agriculture, food processing and marketing have been modernised.

Most farms are large. Monoculture landscapes use highly mechanised and intensive methods of production. Crop production now relies on improved seeds, chemical fertilisers, insecticides, herbicides and other pesticides. Livestock production is now concentrated into large-scale intensive units that require large quantities of grain and imported feeds. Partnerships between the private and public sector have yielded many new patented GMOs for agriculture, from herbicide-resistant crops to high-yielding genetically engineered livestock breeds. Farmers now buy patent-protected new seeds and improved livestock every year. Seed saving on the farm is a thing of the past.

The market demand for standardised products, long shelf-life and the capacity to withstand long distance transport has led to a way of farming that is highly specialised, with a shrinking number of crops and varieties grown. Traditional breeds of cows and hens have now been replaced by high-yielding modern livestock breeds. Each farmer now concentrates on the most lucrative farm activities, as defined by the market.

Corporate agribusiness is well established in Andhra Pradesh and supplies almost all the needs of farmers – from farm equipment, fossil fuels, seeds, antibiotics, fertilisers, pesticides and more. Corporations also act as middlemen, processors, distributors and retailers, buying, packaging and selling food in national and international markets. Contract farming for export markets has also become more common and is largely controlled by foreign food corporations.

International competition has become an important engine for change in Andhra Pradesh farming and rural society. In every corner of AP, the less productive small and medium-sized producers have left the busi-

ness, unable to compete in the global market place. The better-off medium-sized and large farmers have increasingly learned to compete with giant corporations to produce food and sell it in the market. Modern communication systems and sophisticated information technology are key for coordination and for linking agricultural production in AP with the globalised food economy of the 21st century.

Food marketing and distribution have become more centralised and controlled by fewer middlemen and big corporations. Farmers now receive a smaller share of each rupee spent on food. For every rupee spent on food today, more goes to the food processing and retailing end of the food chain. Farmers now get a relatively smaller slice of the pie than they did twenty years ago.

Over the last twenty years, the number of jobs related to the production, processing, distribution and sale of food has declined in rural Andhra Pradesh. The rural population dropped from 70 to 40 per cent of the total population of Andhra Pradesh. Towns and cities such as Hyderabad and Warangal grew quickly as rural people left the land in search of work and new livelihoods.

The average consumer in AP can now buy food from all over the world in their supermarkets: cheap milk imported from Europe, cooking oil made from soybeans grown in the US and rice from Vietnam. Long-distance transport and communications infrastructure allows food distribution companies to bring agricultural produce to consumers as and when required. Imports and exports of food in Andhra Pradesh now make up a much larger proportion of economic activity than ever before, with international trade taking an increasingly large share.

With this heavier reliance on agrochemicals and long-distance transport and trade, the food system of Andhra Pradesh has become a major consumer of fossil fuels and electricity in the year 2020. More and more energy is used to process foods, refrigerate them for long-distance journeys, produce the packaging in which processed foods are sold, and power the factories in which AP agriculture's many off-farm inputs are now manufactured. The implementation of Vision 2020 for agriculture has thus gone hand-in-hand with the development of the large-scale energy infrastructure needed to fuel the entire AP food system.

The World Bank and other donors actively supported the state government in this remarkable transformation. Today, Vision 2020 for food and agriculture is a success for classical economists and international banks. But the shift towards a more globally linked food system has radically changed the nature of political decision-making and citizenship in AP. With people becoming more dependent on centralised food distribution systems, distant markets and giant transnational corporations, they have less power to influence the political and economic forces that affect them.

A summary of enabling policies introduced for Vision 2020:

- **Policies and incentives encourage the consolidation of landholdings.**
- **Fiscal and policy reforms promote corporate and contract farming for better agro-industrial integration and capture of export markets.**
- **Policy support and investments are targeted on sectors and areas with high potential for growth for creating value-added employment. Sectors identified include rice, poultry, dairy, horticulture, sugarcane, fisheries and agro-industry, with irrigation areas to receive the lion's share of investments (Rs.125 000 crores).**
- **Agricultural research and extension transformed through a mixture of privatisation and government-industry partnerships to tailor farm research, extension and education to changing market demands.**
- **Policies and incentives to induce investments from the private sector in order to secure a large part of the funds needed (a total of Rs.160,000 crores) for the implementation of Vision 2020 for agriculture.**
- **Improve labour productivity and the competitiveness of farming through support and incentives for mechanisation, use of improved high-yielding seeds and livestock breeds, IPM, efficient use of chemical inputs**

and irrigation as well as the use of new genetic engineering technologies.

- **Link the planned decline in the share of agricultural employment (from 70 to 40 per cent) and the number of families dependent on agriculture with policies for job creation in the allied sectors.**
- **Reform policy to create efficient markets, free and efficient pricing of agricultural inputs and outputs, and incentives to boost large-scale corporate sector investments in agro-industry for food processing and retailing.**
- **Use policies and incentives to promote R&D in new biotechnologies and spread of GMOs in food and farming.**
- **Enact enabling investments and policies to develop the transport and energy infrastructures needed for long-distance trade.**

Video 2: Organic Farming for Markets

Organic agriculture and trade in organic products has experienced a boom in AP over the last 20 years. The growing market demand for organic foods by urban consumers in India and abroad in the late 1990s was a major reason for this shift to organic farming in AP.

From 2001 onwards, the AP government vigorously encouraged organic production and trade in fresh and processed fruit, vegetables, nuts, oil crops, grains, sugar cane, herbs and spices. Government policies and incentives stimulated and supported conversion to organic farming everywhere in AP. Cash crops such as cotton and tobacco and food crops such as rice, pulses and vegetables all moved away from chemically intensive methods of farming. Livestock too was reared following organic standards of animal husbandry in the diary and poultry sectors. The introduction of state-wide policies in support of organic farming and trade encouraged both small and large farmers to grow for the local market as well as national and global markets.

Many more crop varieties and livestock breeds were reintroduced into dryland and irrigated farming in the first ten years. Biodiversity was also emphasised in the number of crop and animal species used in farming and in the complex ecological system created on the whole farm. Wildlife soon returned to farms that had shifted from chemical-based farming to organic agriculture.

The AP government's removal of subsidies on pesticides and artificial fertilisers together with the introduction of tighter food and safety standards all helped make this shift possible. AP became the first Indian state to ban the use of GMOs like Bt cotton thanks to the foresight of senior government officials back in the year 2002. Government legislation also guaranteed the right to farmers to save seeds and livestock breeds, thereby allowing farmers to grow what was most suitable for their soils, weather, local conditions and household needs.

Transnational food corporations and Indian agribusiness entered the organic foods market back in the late 1990s and, in the 20 years that followed, they bought up many small independent producers and natural food businesses. Government policies and economic incentives encouraged many of these companies to set up agro-processing plants, supermarkets and large organic food retail shops. By 2010, new trends in AP's food system emerged. Giant food corporations controlled more of the organic food retailing sector as well as exports and imports of food into AP. As the new gatekeepers of AP's food system these corporations were able to influence the directions of organic farming and trade.

Organic farms that came to rely more and more on large-scale retailers faced intense pressure to specialise production. As a result many farms became less diverse and ecologically complex, reversing the diversification trends observed in the first decade of the century. Whilst the use of pesticides and chemical fertilisers is still prohibited, many organic farms have become monocultures growing a small number of crop varieties. Today the organic livestock sector is dominated by a small number of 'market-preferred' breeds of cows, sheep, chicken and other farm animals.

The overall biological diversity of organic farms and the surrounding lands has declined as a result.

Whilst smaller and marginal farmers initially gained from the new government policies to support organic farming and trade, many left the business over the last decade, squeezed out of the market by more efficient producers. Many disappeared as they were flooded with organic imports either from the better endowed areas of AP or from large organic farms in foreign countries The global definition of rules, regulations and organic certification standards also made it more difficult for small and medium-sized organic farmers to compete. The costs of meeting the stringent health and safety requirements for the production, processing and storage of meat and vegetables for distant markets and consumers were simply too high for many organic farmers in AP by 2010.

The number of jobs related to the preparation, sale and distribution of organic food has gone down as food giants such as Tesco opened supermarkets and large organic food stores throughout AP. Small decentralised shops, family-based food processing concerns and local restaurants have been largely replaced by supermarkets, centralised food processing plants and fast food chains selling organic gourmet foods.

Today organic foods are increasingly sold far away from home and transported thousands of kilometres to feed consumers in Delhi, Mumbai, London and Washington. Along their way to the consumer, organic foods produced in AP are packaged, processed and preserved to increase their shelf life.

Consumers can now buy food largely free from toxic residues. Drinking water is once again largely uncontaminated by dangerous agro-chemical runoff. But the environmental costs of the long-distance transport of AP's organic food produce are high. Food transported in heavy goods vehicles in AP has increased several fold since 2001. And so has the volume of organic foods shipped in and out of AP by cargo planes. This has required massive government investments in new transport networks and energy infrastructures using taxpayers' money and foreign loans.

As the scale of organic farming and trade has grown, both producers and consumers have become increasingly dependent on transnational corporations which have little stake in the local community. Whilst people in AP today recognise the environmental and health benefits of organic farming, they also say that the ability of individuals and communities to determine their own destiny has been eroded.

Summary of enabling policies for organic farming and trade vision:

- **A state-wide enabling policy introduced for organic farming and trade.**
- **Direct and indirect subsidies removed for synthetic fertilisers and other chemical inputs to farming (pesticides, antibiotics) as well as GMOs.**
- **Financial and policy support for the development of public sector R&D capacity in the scientific and technological aspects of organic farming.**
- **Reforms and government funds to tailor agricultural extension and training to the needs of organic farming.**
- **Enabling government policies and investments for the development of appropriate marketing structures and market access for organic produce at local/regional level and at international level.**
- **Introduction of a state-wide, coherent organic certification and standard setting system, compatible with the principle of one inspection, one certification and one accreditation.**
- **Intellectual property rights legislation guaranteeing farmers' right to save seeds and livestock breeds.**
- **Introduction of biosafety legislation banning the use of GMOs in food and agriculture.**
- **Policy reforms to create efficient markets, free and efficient pricing of organic farm inputs and outputs, and incentives to boost large-scale corporate sector investments in agro-industry for food processing and retailing of organic foods.**
- **Enabling policies and subsidies for the development of the transport and energy infra-**

structures needed for long-distance trade in organic produce.

Video 3. Localised Food Systems

News from Europe and the US on the many food crises and problems of industrial farming at the turn of the century deeply influenced policymakers in AP. Farming at a loss had become increasingly common in industrialised countries. In May 2000, English milk producers were paid about 25 per cent less for their milk than it cost them to produce. At that time suicide was the leading cause of death among farmers in the US, where its occurrence was three times higher than in the general population. The Government of AP saw new ways of avoiding the social and environmental problems experienced by the West's industrial farming. Policies in favour of more localised food production and rural economies were introduced in Andhra Pradesh in 2001.

And today, in the year 2020, many locally adapted food systems can be seen in Andhra Pradesh. They are typically oriented towards local and regional consumption, with 'food miles' – the distance between producers and consumers – being relatively short.

Local food production involves a wide range of cultivation and animal husbandry methods, as each place's unique ecological and cultural conditions are allowed to determine appropriate farming practices. Farms are small in scale. Pastures, fallow land, trees, shrubs, woods and water bodies allow numerous wild plant and animal species to live, thereby maintaining the overall biodiversity of AP. On the diversified, small-scale farms of AP, there are multiple uses for everything, with almost nothing given to waste. Pest management, nutrient recycling and fertilisation rely on appropriate levels of biological diversity in and around farmers' fields.

Government scientists actively supported the development of a knowledge-intensive and diversity-rich agriculture. The best of local indigenous knowledge has been combined with the modern science of agricultural ecology through participatory research and development. There are now strong rewards and incentives for government scientists to work with farmers through genuine partnerships based on mutual respect.

The marketing of food is highly decentralised. As the local foods are more often consumed fresh, they usually require less packaging, processing and refrigeration. Organic production methods and low external input agriculture also mean that food is uncontaminated by toxic pesticide residues and other chemicals.

Throughout Andhra Pradesh, farmers have set up public distribution systems (PDS) based on locally produced grains and local management and controlled by villagers themselves. Unlike the PDSs of the past that relied on rice and wheat produced in distant lands, the new community-controlled PDS offers a mixture of dryland cereals as well as rice and maize. Designed in this way the localised PDS not only improves food security but also stimulates production of locally adapted cereals – sorghum and pearl millet in dryland areas and rice in water-rich areas of AP. By relying more on local grain production, the PDSs have also given farmers strong incentives to regenerate abandoned lands.

For the business community and the government of AP the revitalisation of local food systems did not mean eliminating all trade. But it was about reducing the long-distance trade in goods that could be produced more locally. Economic policies were aimed at maintaining a healthy balance between trade and local production rather than assuming that more trade is always better than less.

This localisation strategy meant shorter distances and closer links between local farmers, local processors, local independent shops, local consumers, local school canteens and local restaurants. The existence of thriving

local markets and farmers' fairs also reduced the number of middlemen. It thus gave farmers more money as they could increase their profit share. Other benefits of the localised food systems included more money circulating within the local communities, more interaction between community members and a revitalisation of rural economies where most of AP's population lives.

As rural economies and communities grew stronger, more people who lived in the towns and cities began returning to the countryside to enjoy a better quality of life and environment. Income earning opportunities improved significantly in rural areas, with many more options for off-farm employment. At the same time, improved living standards and education in rural AP gave many younger people new travel and other opportunities.

As the government of AP supported a shift towards localised food systems, it simultaneously encouraged the development of appropriate technologies in rural areas. Modern communications and information technologies are now widely available in villages today. So are modern machine tools that improve the economics and working conditions in local industries and workshops, whilst building on the skills and know-how of craftsmen and artisans. The government of AP had the foresight to invest in some of the most technically advanced, decentralised energy systems available at the beginning of the 21st century. Environmentally appropriate and efficient-energy infrastructures thus fuel the many diverse localised food systems and economies of Andhra Pradesh in the year 2020.

The shift towards more localised food systems also gradually changed the nature of governance in AP. Face-to-face deliberations and participatory democracy have spread more widely. Decisions about what to grow, how to grow it and who gets food are based more on the needs of people, nature and local situations, and not on the impersonal demands of government bureaucracies, the market and international finance. Control is more in the hands of local communities, with government providing back-up support and enabling policies.

A summary of enabling policies for localised food systems

- **Reintroduction of protective safeguards for domestic economies, including safeguards against imports of goods and services that can be produced locally.**
- **A site-here-to-sell-here policy for food production, food processing, manufacturing and services within AP and regionally.**
- **Localising money such that the majority stays within its place of origin and helps rebuild the economies of communities.**
- **Local competition policy to eliminate monopolies from the more protected economies and ensure high-quality food production, goods and services.**
- **Redirect both hidden and direct agricultural subsidies towards supporting smaller scale, more localised producers to encourage the shift towards diverse, ecological and equitable food systems.**
- **Increased funding for and re-orientation of public sector agricultural research and extension towards participatory approaches and democratic control over priority setting and technology validation.**
- **Introduction of a two-tier system of food safety regulations: stricter controls on large-scale producers and marketers and a simpler, more flexible, set of locally determined regulations for small-scale localised enterprises.**
- **R&D and financial support for decentralised and sustainable energy production based on renewable energy.**
- **Land reform, redistribution of surplus land and security to tenants and sharecroppers.**
- **Fund the transition to more localised economies and environmental regeneration by introducing taxes on resources and on speculative financial flows.**
- **Protect the rights of farmers to save seed and improve crop varieties and livestock breeds. Policies forbid patent-like legislation over genetic resources important for food, health and agriculture.**
- **Reorientation of the end goals of aid and trade rules such that they contribute to the building of local economies and local control, rather than international competitiveness. Selective use of trade tariffs to regulate**

imports of goods and food that can be produced locally.

Table 1. The video production and communication professionals

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PV Satheesh
Dr Michel Pimbert

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V Vijaya Kumar

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Narsimha Reddy
Narayana Murthy
Srikanth
Ganesh
Chinna Narsamma
Yesu
Manjula
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Kavitha

Anchors
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News Correspondents
E Krishna Rao
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Video Editor
K Poojary
Ajay Kurien
PMK Raju

Resource People
V Srinivas
K Aneetha
Jagjeevan Ram
Krishna Mohan

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Gayatri
Kurup

Script Translation
K Srinivas

Set Designer
Sistla
Ramachari

Artists
BDL Satyanarayana
B Venkat Rao
Sambasiva Rao

Makeup
Chanti
Technical Supervision
Venkateshwarlu
RM Swamy

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University of Hyderabad
Tarangini Video Studio, Hyderabad
Bars & Tone Television Pvt. Ltd, Pune

Guest Experts
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Siva Rama Krishna, SAKTI (NGO), Hyderabad
R Murali, MARI (NGO), Warangal
Dr Ramanjaneyulu, Scientist, Directorate of Oil Seeds & Research, Hyderabad
Professor Purushottam Reddy, Environmentalist, Osmania University, Hyderabad

A film by
Development Perspectives, Hyderabad

Acknowledgements
University of Hyderabad team
Deccan Development Society team

Annex 2. The Audio-Visual Recording Team

The entire Prajateerpu process and its immediate outcomes were documented through visual and audio recordings. The recordings were done by the following members of the Sarojini Naidu School of Performing Arts, Fine Arts and Communication of the University of Hyderabad:

Producer:	**Nirupam Sarkar**
Co-producer:	**A Veena Prasad**
Production assistant:	**C Satish**
Cameramen:	**Ganesan, Srikant**
Team manager:	**Madhav Rao**
Technical assistant:	**Namdeo (Video Source)**

On-Line Multicamera production was done in a Digital format. The new, miniaturised video technologies allowed for the on-site production of the video and audio archives.

The recording team used the following equipment:

1. **Two digital cameras**
2. **One switcher/vision mixer**
3. **One digital recorder**
4. **Three monitors**
5. **Fixed and mobile microphones**

Annex 3. The Verdict of the Citizens Jury on Food and Farming Futures in Andhra Pradesh, India

Prajateerpu

June 26 to July 1, 2001

We, having heard evidence and deliberated between June 26 and July 1, 2001, present the following verdict.

Our Vision

We desire:

- **Food and farming for self reliance and community control over resources.**
- **To maintain healthy soils, diverse crops, trees and livestock, and to build on our indigenous knowledge, practical skills and local institutions.**

We Oppose:

- **The proposed reduction in those making their livelihood from the land from 70 to 40 per cent in Andhra Pradesh**
- **Land consolidation and displacement of rural people**
- **Contract farming**
- **Labour-displacing mechanisation**
- **GM crops – including Vitamin A rice and Bt cotton**
- **Loss of control over medicinal plants, including their export**

Detailed Scenario

Access and control over resources

1. Land

We desire:

- **To own the land we work ourselves**
- **The restoration of our title to land and rights over forests**
- **Schemes for land re-distribution and reclamation**

We oppose:

- **Land consolidation and displacement of rural people**
- **Contract farming**

2. Water

We desire:

- **Restoration of our irrigation tanks**
- **Irrigation water during drought years**
- **Borewells as a collectively managed resource for small farmers**

3. Seeds

We desire:

- **Self-reliance**
- **Right to re-use on-farm saved seeds**

4. Medicinal plants

We oppose:

- **Loss of control including export of medicinal plants**

Agriculture and Food Systems

We desire:

- **The maintenance of the variety and diversity of our crops and animals**
- **The continued integration of livestock in our agriculture (including goats)**
- **Practices that maintain soil strength (including livestock/farmyard manure/mixed cropping, cover crops, neem cake and groundnut husk)**
- **Agricultural systems that require low investments**
- **Indigenous agriculture – including an appropriate combination of silt, farmyard manure, traditional seeds, improved seeds, mixed/rotated cropping, farm-saved seed and control over seed selection**
- **Agricultural systems that generate secure livelihoods**

We oppose:

- **The proposed reduction in those making their livelihood from the land from 70 to 40 per cent in Andhra Pradesh**

Science/Technologies

We desire:

- **Recognition and respect for indigenous knowledge and innovations**
- **Restoration of water tanks and indigenous water management practices**
- **Appropriate irrigation**

We oppose:

- **GM crops – including Vitamin A rice and Bt cotton**
- **Waste of money on research and development into inappropriate technologies that could instead be diverted to help us achieve our vision**
- **Labour-displacing mechanisation**

Support and protective mechanisms

We desire:

- **Agriculture that does not require loans, so long as we have been ensured access to sufficient livestock and water sources**
- **Subsidies for inputs for organic agriculture – including farmyard manure/natural pesticides/traditional varieties**
- **Local outlets for produce, and local sources of inputs**
- **The PDS – don't take away our ration cards**
- **That the *Antyodaya* (PDS for poorest) should reach us**
- **Fair returns for our work and produce**
- **Own institutions for self-reliance and local decision-making**

We desire:

- **That the formation of representative organisations of farmers should be facilitated**
- **Community crop planning**
- **Local management, access and control over prices, markets and marketing**
- **Re-training in indigenous resources management**
- **That we can be linked up to farmers in different regions**

We oppose:

- **Contract farming**

Culture

We desire:

- **Agricultural systems compatible with own culture, (including trees/crops/livestock linked to festivals)**

We object to:

- **The loss of opportunity for hospitality due to our lack of self-reliance in food and the high cost of its purchase**

Environmental/Human health

We desire:

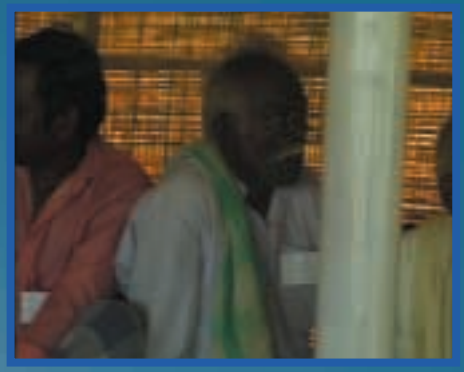
- **High quality safe food (free of toxic residues)**
- **Nutritious diverse food**
- **A switch to a system of farming that does not need toxic chemical pesticides**
- **Diverse native forests instead of monoculture plantations (e.g. eucalyptus)**

Role of governments

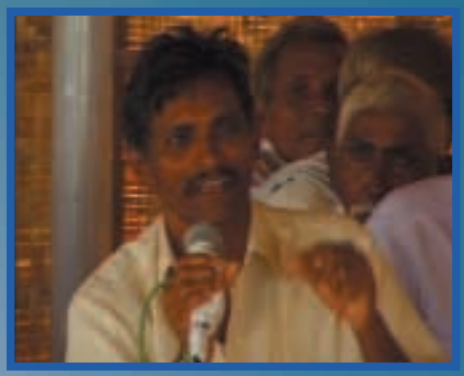
We desire:

- **That all employees of the state should be accountable to us – (including) forest officials)**
- **That the government should be responsible for:**
  - **provision of basic services such as drinking water**
  - **monitoring prices**
  - **compensation in case of loss of life in agriculture**
  - **giving loans to small, marginal and landless farmers**
  - **banning spurious pesticides**
- **That foreign aid (from white people) should follow this vision and benefit the poorest**


Laxmamma


Paparao


Mangayamma


Philip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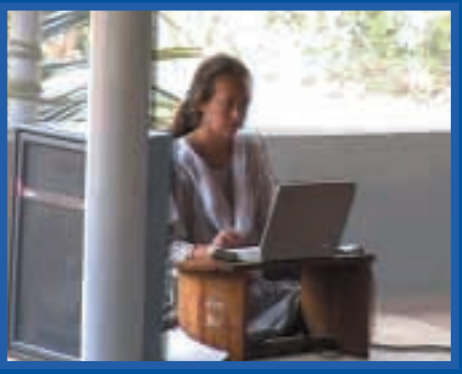

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