International Forum on the Eradication of Poverty

15-16 November 2006

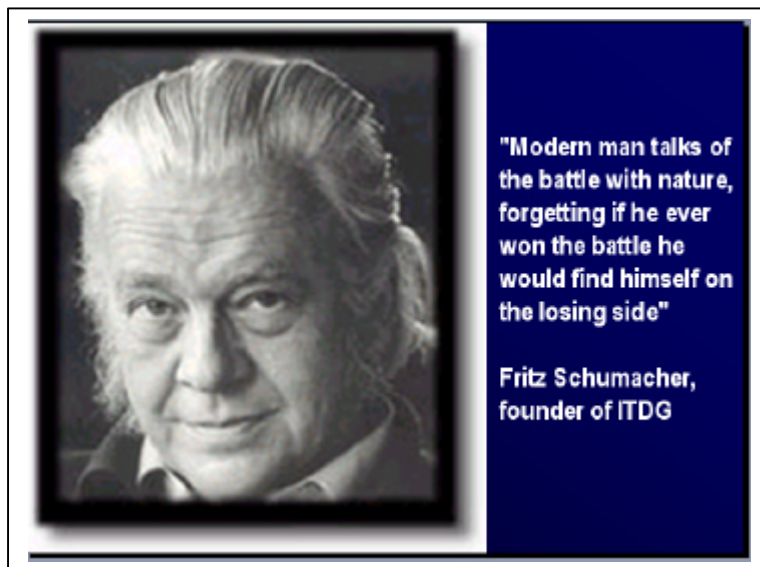### Thinking Outside the Box: innovative approaches

"Technology as if People Mattered"

Patrick Mulvany, Practical Action

…Thinking and acting outside the box is what we do.

And, as a result, we recognise and support the innovations that (poor) people themselves can create and profit from, whilst also sustaining the biosphere.

Since our prescient founder Fritz Schumacher challenged current orthodoxies with his views about development, the group he founded, Intermediate Technology Development Group (ITDG) now called Practical Action, is rewriting his philosophy for the 21st century.

"Modern man talks of the battle with nature, forgetting if he ever won the battle he would find himself on the losing side"

Fritz Schumacher, founder of ITDG

This is the technology century, like none before it, where livelihoods and planetary health increasingly depend on the application or support of biological processes and the use of current solar energy.

Of course, we also promote the benefits of modern communications for societal change, travel reduction, market intelligence and so on, but it is the way people use and abuse

natural resources that will determine how human life on Earth continues (outwith, of course, a global military holocaust).

There are 3 things we have learnt about technology and innovation from our work with poor communities over 40 years:

1. Technology is more than widgets – it is also the knowledge and skills that people use to do things; but useful knowledge and productive skills are disappearing fast.
2. Technologies that have co-evolved with society over millennia are what keep most people alive;
   it's the technologies of the rich – controlled by global corporations – that threaten human life on Earth – e.g. rapid CO_2 emissions leading to climate change, indiscriminate pesticide use, and terminator technologies that switch off germination of seeds; and
3. Technologies developed with and controlled by poor people benefit them.

In contrast, the technologies developed by the corporate private sector and protected by IPRs and commercial contracts facilitate the concentration in ever fewer hands. For example many thousands of plant breeding companies provided farmers' seeds in the 1980s before patenting of genes was permitted and in the early stages of plant variety protection laws. In 2002 only 10 companies controlled a third of all sales. By 2005, ten companies controlled nearly half of global seed sales. Similar concentration of market power can be found in other areas of agribusiness.

- I'll tell you a bit about our organisation
- Give a few examples of the work we do, and
- Show how this adds up to real change.

Through Schumacher's bestseller, he launched the now co-opted phrase "Small is Beautiful". But the sub title "economics as if people mattered" says more. In fact, as anyone who saw his posthumous film "On the Edge of the Forest" in which he was talking about global problems and ecological balance in front of a bulldozed, virgin, Australian forest, he was promoting not just 'economics as if people mattered' but also 'environment as if people mattered', or 'development…', or 'food…', or 'politics…', or 'technology as if people mattered'. Anything where power prevents

democratic choices and undermines Peoples Rights that could benefit the majority and sustain life and livelihoods.

Our work is summarised on the website – we operate in Africa, Asia and Latin America from offices lead by nationals and we cover all productive technologies for food, water, shelter, energy, transport and so on in social, environmental and economic terms. We work in thematic teams addressing issues of 'vulnerability, 'markets' and 'services' within local communities.

We also provide comprehensive information and knowledge services using all traditional and modern communication media and our publishing arm to reach our key audiences.

One publication produced 3 years ago for UNESCO called 'Small is Working – technology for poverty reduction' is especially
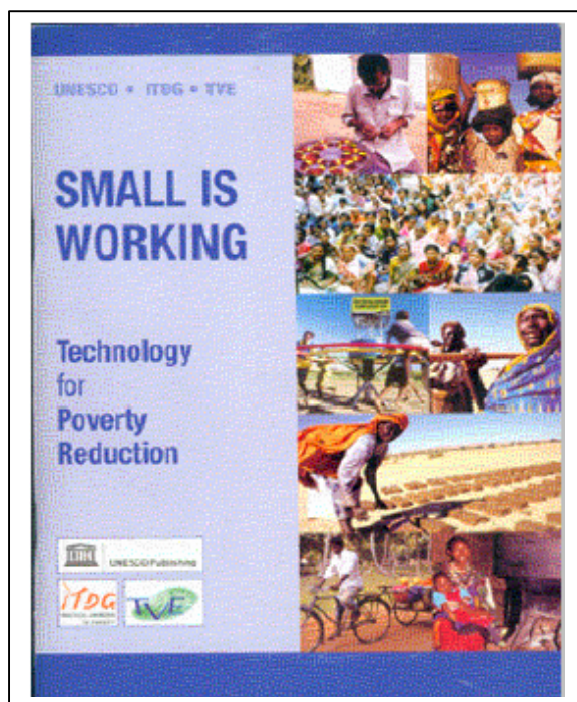
relevant. It provides many examples of good practice and highlights three issues that need to be included in programme design to make things work:

- 'sustainability' underpins all successful innovations,
- 'equity and inclusion' are essential at all stages of development and
- use and the recognition of and support for 'creativity and local innovation'.

In our small way we challenge poverty and those technologies that perpetuate it; but champion the technologies – the knowledge and skills – of the people that give life and livelihoods.

I'll illustrate our work with **examples from Zimbabwe, Sri Lanka and Peru** as well as an electronic conference and a process to bring farmers voices directly to policy decision makers.

The first illustrates the development of Knowledge and Skills

In Chivi, Masvingo Province, Zimbabwe, the challenge was to demonstrate how the arid and structurally overpopulated regions 4 and 5 could be weaned off food aid. The outcome of the work was a sea-change in government extension services. All staff were retrained from being deliverers of Training and Visit's exogenous technologies to becoming facilitators of indigenous innovation processes.

Seed Fair, Chivi, Zimbabwe

After a thorough community process of selection, priority technologies were applied communally – land forming and water harvesting works were built and seed fairs were held for the free exchange of good local varieties and associated knowledge. The ideas spread geometrically and the benefits were retained… and even in current troubled times the local economy and their agroecosystems are more resilient; their food sovereignty – their ability to control their local food system - has been improved. (For more information see 'Beating Hunger' by Kuda Murwira, IT Publications)

The second shows the resilience of technologies that coevolve with people

In the 1980s, after many years of ineffective technology imposition in irrigation development by foreign engineers in Peru, our colleagues found that the principal problem was the neglect of social organisation of community management. A programme started in 6 communities in Canchis province in the Andes near Cuzco, which is the birthplace of potatoes (more than 250 varieties in these communities alone). The communities have reasserted their control over irrigation, as happened in pre-Inca times, and all have equitably benefited.

Local potato varieties in Palcollo, Peru

The process was lead by 'farmer innovators' so-called Kamayoq after the Inca term, who then farmer to farmer and community to community spread the ideas. Later they developed cropping and livestock husbandry skills and their ability to conserve and sustainably use local potato varieties and Andean camellids (Alpacas, Llamas). These co-evolved skills and technologies are sought throughout the region. Information is spread through local TV and radio programmes that the farmers themselves produce and are recognised in global programmes of the UN FAO.

Kamayoq produced programme for Canchis TV, Peru

The third demonstrates that technology benefits those who control it

After the 26th December Tsunami which devastated Panama in the southern part of Ampara district, Sri Lanka, it was only through small interventions that the survivors benefited. The community lost all its boats. Dumped boats, and there were thousands of them, failed. The community required specialist designs, developed over centuries. Artisanal beach fisherfolk required one design, the lagoon fishers, another. It was only when, after thorough community consultation with both men and women, traditional designs were copied. New, resilient boat-building materials were used and community members were trained in construction. Only then were livelihoods restored and benefits realised. Now there are 80 boats in service and a strengthened community organisation that is regulating fishing and organising marketing of fish and fish products.

Boat building post-tsunami, Panama, Ampara, Sri Lanka

…and these experiences can be brought together using ICTs, internet and the physical presence of knowledgeable producers in the places where policy and political decisions over technology, aid and trade are made.

Phone in Palcollo in remote Andes – reduces travel, increases market information, improves family links

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For example an electronic conference using D-Groups involved producers from 30 countries in which their views on the future of food and small-scale producers were voiced. The results were launched in London last month.
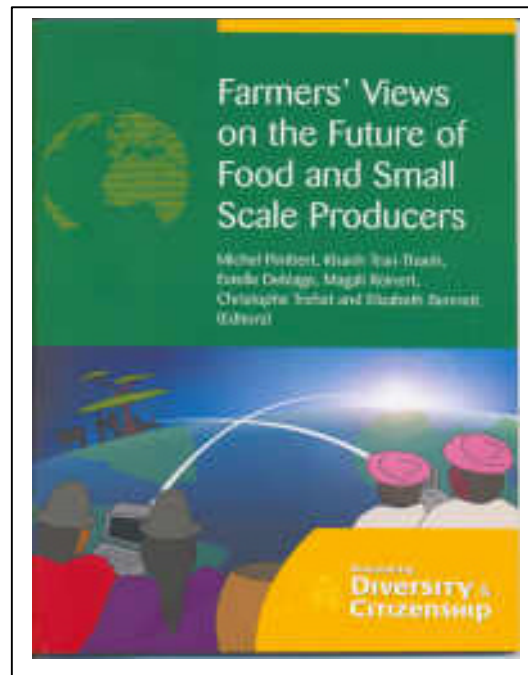
Also, last month two Members of the European Parliament visited a remote part of Kenya to learn from local communities that European aid does not reach and benefit them. But they were told how it could. This was in exchange for a visit by representatives of the communities to European Parliamentary meetings in the UK and Brussels that influenced aid priorities for agriculture and energy provision.

So, in summary, our 'thinking outside the box', with the majority who live and work in the margins of the world's carbon guzzling society, has helped us in our innovative approaches:

- First: To redefine technology from widgets to the embodiment of the knowledge and skills used by people to produce the goods and services they require – and to keep the technology alive, rather than being lost. And we do this by articulating and communicating, within the development and environment community, the importance of technology, especially at local and meso levels,;

- Secondly: To recognise the wisdom of the people with whom we work, who have coevolved useful technologies, and to build on these in order to improve livelihoods and diverse local agroecosystems that are resilient to external pressures including climate change.

  And we have been helped to understand the impact on these communities when their technology and knowledge is privatised through IPRs, proprietary seed technologies or restrictive contracts;

And we understand better the impact of technologies deployed by and for the rich, if the Precautionary Principle agreed by the UN as a last bastion against ill-deployed innovations, were to be ignored;

and

- Thirdly: To redefine our role in support of, not dominating, poor people and their organisations, so that they can reap the benefits of and disseminate the technologies that they develop and can control.

Now, through these processes there has been a release of democratic energies that produce highly articulated global demands for change by social movements at international meetings – and we support them however we can.

For example:

- **on adaptation measures** in the face of climate change in Nairobi this week UNFCC/ COP 12 where thousands of farmers and pastoralists are calling for adaptation measures that will let them increase diversity and resilience in their agroecosystems – the first line in defense of their food sovereignty;

- **on seed rights**, at the CBD/COP 8 in Curitiba earlier this year, where they defended their agricultural biodiversity and fought off manoeuvres to overturn the moratorium on Terminator Technology – the genetic modification that messes up the germination of farmers' seeds, and would force them to buy new seeds each season from ever fewer corporations that control global seed supplies;

- **on food sovereignty** in Rome at last month's Special Session at FAO, to mark the 10th anniversary of the World Food Summit since when, hunger far from being reduced is increasing. La Via Campesina, the global farmers movement, with forums of fisherfolk, indigenous peoples and others clearly spelt out how, through recognising the right to food sovereignty – for increased democratic control over localised

food systems – in place of failed policies especially of the WTO, the problems of hunger would be solved;

- and next year, civil society and social movements will organise a **World Forum on Food Sovereignty in Bamako, Mali – Nyéléni 2007**, to reclaim the Right to Food Sovereignty.

All these global demands are backed by practical local actions that give technology a human face: we support them.

With the social movements of the poor 'outside the box', we are promoting - in true Schumacherian style – a shift in thinking towards: **Technology as if People Mattered.**

Thank you

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Technology as if People Mattered

References to some papers by Patrick Mulvany, concerning agricultural biodiversity and food sovereignty for which technologies, knowledge and skills controllable by people are vital components:

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