Reclaiming autonomous food systems: the role of local organizations in farming, environment and people's access to food[i]

Michel Pimbert[ii]

I. INTRODUCTION

Throughout the world, civil society and new social movements, - rather than academics or professional policy think tanks-, are the prime movers behind the development of a newly emerging food sovereignty policy framework. Agrarian reforms and gender equitable property rights are central within this alternative policy framework for food and agriculture: - secure access and control over land, water, forests, seeds and livestock breeds for smallholder farmers, pastoralists, fisherfolk, indigenous peoples and landless people. However, it is noteworthy that land reform and equitable property rights are seen as an integral part of a larger process designed to protect peoples' space, ability and right to define food and agricultural policies, as well as their *own* models of production, food distribution and consumption patterns. This is the notion of 'Food Sovereignty',- which is perhaps best understood as a *transformative process* that seeks to recreate the democratic political realm and regenerate a diversity of autonomous food systems based on equity, social justice and ecological sustainability.

Indeed, the emerging Food Sovereignty policy framework identifies the need for several mutually supportive national and international policies to strengthen the autonomy[iii] and resilience of more localised food systems. It recognises that a) there are still today many diverse, local food systems throughout the world, particularly in developing countries, and b) most of the world's food is grown, collected and harvested by over a billion small-scale producers, pastoralists and artisanal fisherfolk. This food is primarily sold, processed, resold and consumed locally, with many people deriving their incomes and livelihoods through work and activities at different points of the food chain – from seed to plate. Such localized food systems provide the foundations of peoples' nutrition, incomes, economies and culture throughout the world. They start at the household level and expand to neighbourhood, municipal and regional levels. And localized food systems depend on many different local organizations to coordinate food production, storage and distribution, as well as people's access to food. Moreover, the ecological and institutional contexts in which diverse food systems are embedded also depend on the coordinated activities of local organizations for their renewal and sustainability.

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[ii] Dr. Michel Pimbert is Director of the Sustainable Agriculture, Biodiversity and Livelihoods Program at the International Institute for Environment and Development (IIED) in London, UK. E-mail: michel.pimbert@iied.org

[iii] In this context, 'autonomy' and 'autonomous spaces' refer to a mode of existence whereby a social group or a nation defines its own needs and limits and sets the course of its own development. Heteronomy refers to a system that is driven by an industrial and productivist rationale (Illich, 1977)

But despite their current role and future potential in meeting human needs and sustaining diverse ecologies, locally determined food systems – and the local organizations that govern them – are largely ignored, neglected or actively undermined by governments and corporations.

First, the global restructuring of agri-food systems and livelihoods threatens such 'autonomous spaces' as a few transnational corporations gain monopoly control over different links in the food chain (Magdoff et al, 2000; Pimbert et al, 2001; McMichael, 2004). The loss of capacity for autonomy and self-determination is a direct consequence of the expansion of the industrial, heteronomous model of development rooted in commodity production. An important mechanism in this process is what Ivan Illich has termed 'radical monopoly': 'the substitution of an industrial product or a professional service for a useful activity in which people engage or would like to engage', leading to the deterioration of autonomous systems and modes of production (Illich 1996). Radical monopolies replace non-marketable use-values with commodities by reshaping the social and physical environment and by appropriating the components that enable people to cope on their own, - thus undermining freedom, independence and culture (Illich 1976).

Second, much of the Millennium Development community sees development as a process in which there will be a reduction in the number of people engaged in farming, fishing and land/water-based livelihoods. It is assumed that small-scale food producers, rural artisans, food workers and many of the rural poor will inevitably migrate to urban areas and find new and better jobs. And indeed, most international and national social, economic and environmental policies envision fewer and fewer people directly dependent on localized food systems and their environments for their livelihoods and culture. Encouraging people to move out of the primary sector and get jobs in the largely urban-based manufacturing and service sectors is seen as both desirable and necessary – regardless of the social and ecological costs involved.

This modernist development agenda and the corporate thrust for radical monopoly control over the global food system are mutually supportive elements of the same paradigm of economic progress. This view of progress assumes that history can repeat itself throughout the world. However, it is becoming increasingly clear that there is a direct relationship between the vast increases in productivity achieved through the use of automated technology, re-engineering, downsizing and total quality management, *and* the permanent exclusion of high numbers of workers from employment, in both industry and the service sector. This erosion of the link between job creation and wealth creation calls for a more equitable distribution of productivity gains through a reduction of working hours, and for alternative development models that provide opportunities and local *autonomous* spaces for the generation of use values rather than exchange values (Gollain 2004; Gorz 2003).

Regenerating autonomous food systems, - *with*, *for* and *by* citizens-, is a key challenge in this context. Reclaiming such spaces for autonomy and well being partly depends on strengthening the positive features of local food systems and on large scale citizen action grounded in an alternative theory of social change. Using specific examples, this paper first highlights some of the many practical ways in which local, autonomous organizations manage and oversee different links in the food chain from seed to plate. The roles and significance of local organizations in sustaining diverse food systems, livelihoods and environments, in producing knowledge and innovations, and in designing

regulatory institutions are then briefly analyzed. Last, reversals and social actions needed to support locally determined food systems and autonomous organizations are identified along with some key challenges for transformation.

II. LOCAL FOOD SYSTEMS, LIVELIHOODS AND ENVIRONMENTS

A significant number of livelihoods and environments are still sustained by a diversity of local food systems throughout the world. For example, half of all working people worldwide are farmers. And most of the world's farming population lives in the South (Table 1). The majority of these farmers are small-scale producers who do their agricultural work by hand (about 1 billion farmers), or by using animals such as bullocks for ploughing (300 million). In contrast, a relatively small number of farmers in the South rely on modern farm machines such as tractors (20 million).

Table 1: Number of farmers worldwide (billion)

	Total population	**Active population**	**Active farming population**
World population	6.1	2.6	1.35
North	1.2	0.4	0.045 (11% of total active population in North)
South	4.9	2.2	1.29 (59% of total active population in South)
• **India**	1.1		0.27 (20% of world total active farming population)

SOURCE: Charvet, J P (2005), *Transrural Initiatives*, 25 January, Paris.

Whilst comparatively smaller in numbers, many people are still involved in community and family farming in the North. For example in Italy, more than 90% of the agricultural enterprises are family run and part time, averaging less than 5 hectares of land. Forests and agriculture play extremely important roles in the family based farming of countries such as Poland, Bulgaria and Latvia. Overall, these and other new member states from Eastern Europe have endowed the European Union with an additional 4 million farmers and 38 million hectares of farmable land.

However, the figures in Table 1 do not account for all the additional livelihoods and jobs associated with localized foods systems. Each link in the food chain offers economic niches for many more people – as millers, butchers, carpenters, iron workers and mechanics, local milk processors, bakers, small shop- keepers and owners of food outlets, for example. The livelihoods and incomes of a huge number of rural and urban dwellers are thus dependent on the local manufacture of farm inputs and on the local

storage, processing, distribution, sale and preparation of food. Even in affluent Western countries such as the USA, the UK and Italy, there is strong evidence that localized food systems generate many jobs and help sustain small and medium-sized enterprises. This economic fact usually becomes more apparent when local economies and food systems are displaced by large supermarkets, international competition and the global industrial food system. For example by 1992 in the UK, the building of 25,000 out-of-town large-chain retailers had corresponded with the closing of roughly 238,000 independent shops (grocers, bakers, butchers and fishmongers) in villages and high streets (DOE/MAFF 1995). When 235,000 US small- and medium-scale farms were squeezed out by market competition in the mid-1980s, about 60,000 other local rural businesses also closed (Norberg-Hodge et al 2002). Since 1991 in Italy, the arrival of superstores known as *ipermercat*i has led to the demise of 370 000 small, family run businesses, including half the country's corner groceries (Grandi, 1998).

Most local food systems are embedded in complex, risk-prone and diverse environments, where most of the world's rural poor people live. These environments include mountains, hills and wetlands, as well as the vast tracts of the semi-arid and humid tropics. They include the full range of ecosystems, from those relatively undisturbed, such as semi-natural forests, to food-producing landscapes with mixed patterns of human use, to ecosystems intensively modified and managed by humans, such as agricultural land and urban areas. People associated with localized food systems thus live in ecosystems of vital importance for human well-being (Millennium Ecosystem Assessment, 2005). As participants in localized food systems, local communities actively influence key ecosystem functions such as:

- the provision of food, water, timber and fibre;
- the regulation of climate, floods, disease, wastes and water quality;
- ecological support functions like soil formation, biodiversity for resilience, photosynthesis and nutrient cycling;
- the basis for culture through the provision of recreational, aesthetic and spiritual benefits.

III. THE ROLE OF LOCAL ORGANIZATIONS IN SUSTAINING LOCAL FOOD SYSTEMS, LIVELIHOODS AND ENVIRONMENT

For as long as people have engaged in livelihood pursuits, they have worked together on resource management, labour-sharing, marketing and many other activities that would be too costly, or impossible, if done alone. Local groups and indigenous organizations have always been important in facilitating collective action and coordinated management of food systems and their environments at different spatial scales. In *Mutual Aid*, first published in 1902, Petr Kropotkin draws on the history of guilds and unions in Europe, travel and colonial accounts outside Europe, and the experience of village communities everywhere, to show how collaboration and mutual support are at the heart of whatever makes human beings successful (Kropotkin 1955). Negotiated agreements on the roles, rights and responsibilities of different actors in a common enterprise are at the heart of the forms of collaboration described by Kropotkin. To this very day, local organizations continue to play a central role in this process of negotiation and coordinated action in a variety of settings and at different scales (Borrini-Feyerabend et al 2004).

The different types of local organizations concerned with food, farming, environment and development include:

- traditional and indigenous organizations;
- governmental and quasi-governmental organizations;
- non-governmental and voluntary organizations;
- emergent, popular or "community-based" organizations, including new social movements.

Local organizations exist across a range of scales – from individual through national to international federations, consortiums, networks and umbrella bodies. One reason for linking up and federating in this way is to increase the effectiveness of organizations in managing localized food systems and their leverage in policy and political debates on farming, environment and people's access to food. However, local organizations and federations are not always welcoming spaces for women, nor inclusive of the weak and marginalized, nor free from manipulation and co-option by more powerful insiders and/or outsiders. While this is by no means universal, some local organizations and federations concerned with food and farming do have shortcomings in relation to equity, gender and entitlements of the very poor and marginalized.

More generally, important differences have surfaced between two radically different types of spaces for participation: invited spaces from above, and popular or citizen spaces. Governments and donor-led efforts to set up co-management committees and groups of resource-users are examples of invited spaces from above. In contrast, citizen or popular spaces are created by people who come together to create arenas over which they have more control, for example indigenous peoples' platforms for negotiation and collective action, or do-it-yourself citizens' juries that frame alternative policies. While there are notable exceptions, popular spaces are usually arenas within which, and from which, ordinary citizens can gain the confidence to use their voice, analyze, deliberate, frame alternatives and action, mobilize, build alliances and act. But it is noteworthy that such popular spaces may also reproduce subtle forms of exclusion in the absence of a *conscious* social commitment to a politics of freedom, equity and gender inclusion.

Many rural communities are no longer in charge of managing their local food systems, and, importantly, they are not "trusted" by state bureaucracies to be able to do so.[iv] But, throughout the world, local organizations – individually and collectively – still play a key role in:

- sustaining the ecological basis of food systems;
- coordinating human skills, knowledge and labour to generate both use values and exchange values in the economy of the food system;
- the local governance of food systems, including decisions on people's access to food and natural resources.

a. Local adaptive management of food-producing environments

Local organizations are crucial for the adaptive and sustainable management of food-producing environments. As Michael Cernea has put it: *"resource degradation in the developing countries, while incorrectly attributed to 'common property systems' intrinsically, actually originates in the dissolution of local level institutional arrangements*

[iv] This is one of the important insights masterly illustrated in Scott, 1998. As a result of this active disempowering, which in some places has been going on for a long time, human communities and their local organizations may have become all but capable of managing their environments and/or sharing management rights and responsibilities with others.

whose very purpose was to give rise to resource use patterns that were sustainable"(Cernea 1993). Local groups enforce rules, incentives and penalties needed for the sustainable management of landscapes, environmental processes and resources on which local food systems depend. For example, in the Marovo Lagoon in the Solomon Islands, fisherfolk rely on many complex, unwritten rules on ownership, management and use of marine and agricultural resources. The rules specify fishing and cultivation methods and limit the period and quantity of fishing in areas threatened by excessive off-take. Although the system is currently under pressure from increased commercialization of fishing and population expansion, local communities are successfully accommodating these developments within their customary framework Hviding and Baines 1992).

Moreover, local organizations are particularly well placed to monitor and respond adaptively to environmental change. This is important because variation within and among the environments in which local food systems are embedded is enormous. Daily, seasonal and longer-term changes in the spatial structure of these environments are apparent at the broad landscape level right down to small plots of cultivated land. These spatio-temporal dynamics have major implications for the way food-producing environments are managed – how, by whom and for what purpose.

Uncertainty, spatial variability and complex non-equilibrium and non-linear ecological dynamics emphasize the need for flexible responses, mobility and local-level adaptive resource management in which farmers, pastoralists, fisherfolk and forest dwellers are central actors in analysis, planning, negotiations and action (Gunderson et al 1995). Such adaptive management is mediated by local groups that coordinate planning and action at different spatio-temporal scales. More generally, collective action, based on social learning and negotiated agreements among relevant actors in an ecosystem, is often a condition for sustainable use and regeneration of that ecosystem (Borrini-Feyerabend et al 2004). Platforms that bring relevant actors together are key in mobilizing capacity for social learning, negotiation and collective action for natural resource management and sustaining critical ecological services on which local food systems depend. Examples of platforms include joint forest management (JFM) committees, farmer field schools (FFS), local fishing associations and user groups of various kinds. And local adaptive management may focus on whole landscapes, as in the Peruvian Andes (Box 1), or on small plots of land and micro-geographical scales (Box 2).

Box 1: Adaptive management of landscapes in the Peruvian Andes

With the support of a local NGO (ANDES), indigenous Quechua communities in the region of Cusco have become organized into "local platforms" for the adaptive management of mountain landscapes and livelihood assets. In early 2000, the indigenous communities celebrated the opening of the Potato Park as a Community Conserved Area (CCA). Unusually among conservation areas, the Potato Park protects not only the natural environment but also the sociocultural systems that created the landscape. It is also unusual in that many of the most important forms of biodiversity in this CCA are domesticated – in fact they are the product of hundreds of years of deliberate ecosystem management, genetic selection and breeding by the Andean farmers. The farmers are well known for their remarkable ingenuity in the use of ecological habitats and species. For example, the majority of indigenous peoples in the area continue to farm traditional crop varieties and animal breeds, maintaining a high level of genetic diversity, which is well suited to their complex and risk-prone environments. Many of their small

plots contain more than 100 different varieties of potato.

Most importantly, the Association of Communities of the Potato Park is responsible for running the park. The Association's members include the traditional head authority of each of the communities, along with representatives of local residents, non-government organizations, traditional authorities, local cooperatives and others. For the Quechua, the ecological, social, economic and cultural realms of human life are integrated through local organizations, institutions, laws and policies that transform assets (natural, physical, financial, human, social, cultural) into livelihood outcomes. Examples of such indigenous transforming structures and processes include:

- **The development of community-to-community and farmer-to-farmer learning networks based on the principle of *ayni* (reciprocity).** Exchange is promoted through the sharing of information, practices and learning processes. Local platforms (organizations) of "barefoot technicians", elected by their own communities, network with other communities and create opportunities to share and transfer traditional knowledge and innovations.
- **The consolidation of local grassroots enterprises.** These groups are anchored in Andean principles of reciprocity and a local definition of well-being. The organizations work using the principles of Andean economy to reinforce local food systems within a holistic approach to the adaptive management of biocultural landscapes.

This local adaptive management of Andean landscapes thus helps sustain the Quechua's collective bio-cultural heritage. The latter encompasses the knowledge, innovations, practices of indigenous and local communities which are collectively held and inextricably linked to traditional resources and territories, - and includes the diversity of genes, varieties, species and ecosystems; the cultural and spiritual values; and customary laws shaped within the socio-ecological context of communities. For the Quechuas all of these are linked to knowledge of cosmic forces, as part of their 'cosmovision' or holistic worldview.

SOURCE: Argumedo and Pimbert (2005), *Traditional Resources Rights and Indigenous Peoples in the Andes*, ANDES- IIED. IIED, London.

Box 2: Spatial and temporal variation in agricultural biodiversity: some management implications

- The abundance of insect pests and their predators varies enormously within and between fields –even in the more intensively managed systems. In high-input irrigated rice farms, 100-fold differences in the abundance of plant hopper populations are commonly observed on rice plants grown a few metres apart. Huge variations in insect abundance also exist at larger spatial scales, and all are marked by dynamic change over time. This implies that highly differentiated pest management approaches are needed to monitor and control pests effectively and economically. The Farmer Field School based FAO-Government programme on integrated pest management (IPM) is a clear demonstration of the advantages of such local adaptive management of pests and their predators in irrigated rice in Asia. As local organizations that bring people together for joint learning and action, Farmer Field Schools (FFSs) have been a major innovation for the local adaptive management of agricultural biodiversity. FFSs have developed farmers' own capacity to think for themselves and generate their own site-specific solutions for crop protection. The FFSs aimed to make farmers experts in their own fields, enabling them to replace their reliance on external inputs, such as pesticides, with endogenous skills, knowledge and resources. Over one million rice-paddy farmers and local resource users in Indonesia participated, and are still involved today, in this large-scale programme.

- Crops experience rapid changes in environmental conditions, both above and below ground. For example, the physico-chemical and biological characteristics of soils are rarely homogenous within a single plot, let alone between plots. The intense selective

pressures associated with this kind of micro-geographical variation calls for a fine-grained approach to agricultural biodiversity management that hinges on local organizations that support farmer-led plant breeding and decentralized seed multiplication. This adaptive strategy is generally advocated for resource-poor farming systems in marginal, risk-prone environments. However, the Réseau Semences Paysannes in France (a platform of farmer organizations) sees this approach as increasingly relevant for high-input situations in which agricultural diversification can be used to solve production problems induced by genetic uniformity (e.g. pest outbreaks) or to exploit new market opportunities (such as economic niches for local or regional products).

SOURCES: Fakih, M, T Rahardjo and M P Pimbert (2003), *Community Integrated Pest Management in Indonesia. Institutionalizing participation and people centred approaches*, IIED–IDS Institutionalizing Participation Series, International Institute for Environment and Development, London; Réseau Semences Paysannes (2004), *Sélection participative: à la jonction entre sélection paysanne et amélioration des plantes,* Réseau Semences Paysannes, Cazalens.

Local organizations usually develop successful adaptive management regimes when they build on local practices and the knowledge used by rural people to manage food-producing forests, wetlands, fields, rangelands, coastal zones and freshwater systems. Moreover, the "learning by doing" approach of adaptive management, and the experiential knowledge shared in local organizations, often generate the skills and confidence needed to address wider livelihood and environment issues (Borrini Feyerabend et al 2004). All this suggests new practical avenues for outside technical support in which land and water users' own priorities, knowledge, perspectives, institutions, practices and indicators gain validity in the search for a livable world and human well-being (Pimbert and Pretty 1998; Posey 1999; Richards 1985).

b. Local organizations and people's access to natural resources and food

According to the IUCN and the World Parks Congress, national parks and protected areas now cover some 12% of the Earth's land area (IUCN, 2004). Despite rhetorical claims to the contrary, this expanding network of protected areas is still one of the major immediate causes of human displacement, alienation, social conflict and abject poverty in biodiversity rich areas today (Ghimire and Pimbert, 1997; Brechin et al, 2003). It is noteworthy that some of the most creative ways of reconciling conservation with sustainable livelihoods have been generated through the efforts of local organizations. All these locally determined actions aim to reclaim lost rights of access, use and control over land and natural resources on which local livelihoods, human well being and culture directly depend. Negotiated agreements with the State are often key in securing access and other rights to ecosystems important for food, medicine, fuel, human well being and culture (Box 3 and see also Borrini et al, 2004).

Box 3. Securing land tenure and rights through a co-management agreement: the case of Alto Fragua – Indiwasi National Park (Colombia)

The Alto Fragua-Indiwasi National Park was created in February 2002, after negotiations involving the Colombian government, the Association of indigenous Ingano Councils and the Amazon Conservation Team, an environmental NGO focusing on projects to assist the Ingano Indians and other indigenous groups in the Amazon basin. The Park is located on the piedmont of the Colombian Amazon on the headwaters of the Fragua River. Inventories conducted by Colombia's von Humboldt Institute determined that the site is part of a region harbouring the highest biodiversity in the country and is also one of the top hotspots of the world. The protection of the site will assure the conservation of various tropical Andean ecosystems, including the highly endangered humid sub-Andean forests, some endemic species such as the spectacled bear (Tremarctos ornatus) and sacred sites of unique cultural value.

Under the terms of the decree that created the Park, the Ingano peoples are the key actors in charge of its design and management. The area— whose name means House of the Sun in the Ingano language— is a sacred place for the indigenous communities. This is one of the reasons why traditional authorities have insisted that the area's management should be entrusted to them. Although several protected areas of Colombia share management responsibilities with indigenous and local communities, this is the first one where the indigenous people are fully in charge. This has been possible thanks to the Colombia's legislation that recognises traditional authorities (asociacines de cabildos) as legal subjects with faculty to develop their own development plans, including environmental management provisions.

The creation of the Park has been a long dream of the Ingano communities of the Amazon Piedmont, for whom it naturally fits their Life Plan (Plan de Vida), i.e. a broad, long-term vision for the entirety of their territory and the region. The creation of Alto Fragua-Indiwasi National Park with the Ingano as principal actors in the design and management of the site, represents an important historic precedent for all the indigenous people of Colombia, and an example to follow.

Adapted from Oviedo, 2002 and Zuluaga et al., 2003, see Borrini et al, 2004)

In other situations, regaining access and control over land and productive resources may depend more on collective forms of direct action and civil disobedience, with or without violence. For example Brazil's Landless Workers Movement,- or *Movimiento dos Trabalhadores Rurais Sem Terra* (MST) -, carries out long overdue land reform in a country where less than 3% of the population owns two thirds of the land on which crops could be grown. Since 1985, the MST has peacefully occupied and directly taken over unused land where they have established cooperative farms, constructed houses, schools and clinics, and generally promoted indigenous cultures. Through its direct actions and organization MST has won land titles for more than 250 000 families in 1600 settlements and today about 200 000 encamped families now await government recognition. MST is the largest social movement in Latin America with an estimated 1.5 million landless members in 23 out of 27 states of Brazil (see www.mst.org.br/home.html).

Once food has been harvested from fields, forests, pastures and water, local organizations oversee its processing in a variety of local contexts. Many local organizations and groups also determine people's access to food. The criteria and indicators used by these local organizations to guide action often reflect culturally specific forms of economic rationality and highly diverse definitions of well-being. Indeed, the latter usually sharply contrast with the indicators and criteria used in mainstream

definitions of poverty, well-being and economic exchange. For example, the international development community's current emphasis on market-based approaches is largely blind to the fact that many local organizations mediate forms of economic exchange that exclude the use of money.

A largely invisible informal economy based on principles of solidarity, gifts and reciprocity ensures that people in much of Africa have at least some access to food in rural areas and, to a lesser extent, also in urban centres (Latouche 1998 and 2003). While the monetarized economy is depressed in much of the African continent, people often live on the production of use values outside the money market and depend on informal economic exchanges. These mechanisms, such as subsistence-based markets and bartering, are mediated by a complex web of local organizations and groups (Latouche 1998). In the Peruvian Andes, the barter markets run by women's organizations ensure that the poorest of the poor have some food and nutritional security (Box 3). Both the volume and economic value of food exchanged through these webs of polycentric local organizations can be significantly higher than that sold in money-based markets (see Box 3). However, most development economics, policy think tanks and international donors largely ignore the huge potential of these forms of economic organization and exchange in meeting human needs.

Box 3: Barter markets in the Peruvian Andes

The valley of Lares-Yanatile in Cusco (Peru) is rich in biodiversity, containing three different agro-ecological zones at altitudes of 1,000 to 4,850 metres: *yunga*, *quechua*, and *puna*. Andean tubers and potatoes are grown in the highest zone; corn, legumes and vegetables are in the middle area, with fruit trees, coffee, coca and yucca in the lower part. Every week a barter market is held in the middle area of the valley, where nearly 50 tonnes of goods are traded each market day – ten times the volume of food distributed by the National Programme of Food Assistance. Anyone can participate, and can trade any amount of any crop.

Women are key players in this non-monetary market, which is vital in ensuring that their families have enough food to eat, and that they have a balanced diet. The rainforest supplies vitamin C, potassium and sodium through fruit, such as citrus and bananas, that do not exist in the *quechua* and *puna* zones. The middle and high zones supply starches, mainly potatoes and corn, which provide desperately needed carbohydrates to the rainforest zone. Principles of reciprocity and solidarity guide the economic exchange of a diversity of foods, ensuring that important needs of people and the land are met in culturally unique ways. Indeed, recent action research has generated new evidence on the importance of Andean barter markets for:

- access to food security and nutrition by some of the poorest social groups in the Andes;
- conservation of agricultural biodiversity (genetic, species and ecosystem) through continued use and exchange of food crops in barter markets;
- maintenance of ecosystem services and landscape features in different agro-ecological belts along altitudinal gradients and at multiple scales;
- local, autonomous control in production and consumption – and, more specifically, control by women over key decisions that affect both local livelihoods and ecological processes.

A polycentric web of local organizations operating at different scales (from household to whole landscape) governs these forms of economic exchange and contributes to the adaptive management of environmental processes and natural resources. In addition to contributing to the food security of the poorest of the poor, this decentralized web of local organizations also enhances cultural, social and ecological resilience in the face of risk and uncertainty.

SOURCES: Marti, N (2005), **"**La multidimensionalidad de los sistemas de alimentacion en los Andes peruanos: los chalayplasa del valle de Lares (Cusco)", doctoral thesis, Universitat Autonoma de Barcelona,

Barcelona; and www.diversefoodsystems.org.

These biases of "normal professionalism" and "normal development" (see Chambers 1993) also exist towards locally managed and controlled food-distribution schemes in marginalized environments. For example in the drylands of India, the official Public Distribution System (PDS) that was set up as a safety net for the poor has become socially and ecologically counterproductive. In the farming belts stretching across the Deccan plateau, north Karnataka, Marathwada, the deserts of Rajasthan and many *adivasi* (indigenous people) areas in central India, coarse cereals like sorghum and various nutritionally rich millets (pearl, finger and foxtail millets) have been the mainstay of agriculture, diet and culture. Farming of these crops extends to 65 per cent of the geographical area of the country where agriculture is rainfed and where the concentration of the rural poor is among the highest in the world. These rainfed crops require very few external inputs and no irrigation. They offer nutritional and food security for rural communities – especially for the marginalized and most vulnerable. And yet, "progress" in food production and peoples' access to food in India over the last decades has been fuelled just by two crops: rice and wheat (the "fine" cereals). Of every 100 tonnes increase in food production, 91 tonnes were contributed by rice and wheat. The remaining 9 tonnes were provided by coarse cereals (5.5 tonnes) and pulses (3.5 tonnes). In the last three decades, sorghum has lost 35 per cent of cropping area, and little millet has lost nearly 60 per cent of cropping area.

Despite all the rhetoric of increasing food production in the country, policy makers and foreign development aid advisors have allowed nearly 9 million hectares of the millet–sorghum growing area to go out of production. One of the major contributors to this problem is the Public Distribution System (PDS), as practised in India, which concentrates on only rice and wheat. This centrally run national PDS provides for a regular and continued uptake of rice and wheat from the market for distribution to the poor at subsidized prices. The PDS offers a steady and remunerative price for rice and wheat farmers who are already supported by subsidized irrigation, subsidized fertilizers and adequate crop insurance. On the other hand, farmers from the rainfed areas suffer from multiple disadvantages – no assured irrigation, no subsidies, no crop insurance, and unreliable market forces. Moreover, the flooding of the Public Distribution System with cheap rice and wheat weans away the traditional users of coarse grains and leaves the small-scale production of sorghum and millets without a market. As a result, many rainfed farms have been abandoned, and large areas of dryland agriculture are turning into fallows, enhancing desertification.

In response to these multiple crises, local organizations have developed alternative forms of PDS based on the cultivation of local grains, local storage, local processing and decentralized local control in different regions of India. Like the alternative PDS run by women's organizations in Andhra Pradesh (Box 4), such community-controlled systems of food distribution contribute significantly to the alleviation of hunger and the regeneration of degraded drylands. They also significantly reduce the overhead costs incurred by the mainstream Public Distribution System (PDS), which involves energy-intensive long-distance transport of food grains, the maintenance of a huge storage infrastructure and centralized management.

Box 4: An alternative Public Distribution System run by women in Andhra Pradesh, India

A Public Distribution System (PDS) operates in the villages around Zaheerabad in Medak District of Andhra Pradesh, as elsewhere in India. Every month, each family having access to this system (about half of the rural population) can buy 25 kilos of rice at a subsidized rate. Although this ration is the lifeline of poor rural families, the rice sold in the PDS is unfamiliar to the women of Zaheerabad. They have never grown rice on their dry lands, instead cultivating and cooking sorghum and millets, and a wide range of pulses. With more and more PDS rice coming from the resource-rich areas of South India, dryland farmers and their food crops were being gradually displaced. Their lands were being put to fallow and local biodiversity important for food and agriculture was eroded. The PDS rice was cheap but nutritionally inferior to traditional coarse grains. Being reduced to consumers dependent on purchased food for their own survival undermined the women's self-esteem and self-respect as food providers and keepers of seed.

The women organized into *sanghams*, voluntary associations of Dalit women (the lowest social rank in the village), and discussed possible alternatives to the government's PDS. They decided to reclaim their fallow lands and grow their traditional dryland crops again. They planned to establish a completely community-managed PDS system based on coarse grains, locally produced, locally stored and locally distributed. Meetings were held in villages and the modalities of running an alternative PDS were worked out together with the Deccan Development Society (DDS), an NGO supporting the work of the *sanghams*. Formal agreements were signed between the DDS and the village *sanghams* to specify the roles, rights and obligations of each party in the joint management of the alternative PDS. Working through the DDS, the *sanghams* also approached the Ministry of Rural Development, which saw the merit of their case and approved funding for a Community Grain Fund.

In its first year, this jointly managed scheme involved over 30 villages, brought about 1,000 hectares of cultivable fallows and extremely marginal lands under the plough, produced over three million kilos of extra sorghum (at the rate of about 100,000 kilos per village) in a semi-arid area, grew extra fodder to support about 2,000 cattle, created an extra 7,500 wages and provided subsidized sorghumfor about 4,000 families. Grain storage was decentralized, using indigenous storage techniques that minimized pest damage and health hazards. Biological diversity significantly increased in the area, as traditional crops and varieties were reintroduced as part of complex and diverse farming systems.

At the end of the storage period, during the food-scarcity seasons, the *sanghams'* sell their grains at a subsidized price to around 100 poor households in each village. Using participatory methods, the Dalit women decide who among the villagers are the poorest and qualify for community grain support. In each village, the villagers draw social maps on the ground of all households. The villagers evolve criteria for rural poverty, and judge each household on a five-point scale of poverty, after careful deliberation in an open and transparent way. Households thus selected are issued a sorghum card by the *sangham*. Instead of the subsidized rice of the government PDS, which costs 3.5 rupees per kilo, this card entitles a family to an amount of sorghum at the subsidized price of 2 rupees per kilo, for each of the six months of the rainy season. The poorer the family, the larger its entitlement. In recognizing each person's fundamental right to food, the *sanghams* thus practice their own concepts of equity and solidarity as they distribute the benefits of the co-managed PDS.

SOURCES: Satheesh, P V and M P Pimbert (1999), "Reclaiming diversity, restoring livelihoods", *Seedling* Vol 16, No 2, pages 11–23; Srinivas, Ch and S Abdul Thaha (2004), *A study on Alternative Public Distribution System, Deccan Develoment Society,* Hyderabad.

c. Federations, networks and organized policy influence

Federated organizations have an important role in projecting the voice and concerns of small-scale food producers and other citizens in a variety of spheres. Many such federations that aim to influence policy-making are not entirely focused on natural resources and agriculture. They may be landless people's movements (the clearest examples being the million-strong O Movimento dos Trabalhadores Rurais sem Terra (MST) in Brazil and the Kilusang Magbubukid ng Pilipinas (KMP) in the Philippines)[v], federations of the urban poor[vi], indigenous people's movements (such as the Coordinating Body for the Indigenous Peoples' Organizations of the Amazon Basin (COICA)[vii], peasant movements (such as Via Campesina[viii] or the Réseau des Organisations Paysannes de l'Afrique de l'Ouest[ix] (ROPPA) in West Africa), or various national federations of producer organizations, such as those of Benin, Niger, Mali and Senegal (GRAF/GRET/IIED 2003). Producers' organizations have also been active at the international level. One example is Via Campesina, a broad, worldwide coalition of peasants and farmers lobbying on land-tenure reform, agro-ecology, and food sovereignty.

Box 5: Producer organizations, collective action and institutional transformation in West Africa

Producer organizations (POs) cover a wide range of activities, from management of common woodland or pasture resources, water use, and collection and sale of a particular crop, as well as providing access to fertilizer, seed and credit. Grouping together through collective action enables producers to take advantage of economies of scale, as well as making their voices heard in government policy and decision-making. Additionally, producers hope to increase their negotiating power with companies buying their crop – increasingly necessary as globalization is bringing more concentration and integration of agribusiness throughout the world. In some cases, producer organizations have also provided a valuable bridging function between farmers and sources of technical expertise, such as research and extension structures. Foreign aid funds have often been instrumental in strengthening the role that POs can play, despite the associated risk that the leadership may become distant from the interests and needs of the membership.

Over the past decade, a range of POs have become established and strengthened their positions at local, national and sub-regional levels in West Africa. These organizations are in part the result of government withdrawal from important sectors of the rural economy, including the supply and marketing of agricultural inputs. They have also emerged in a context of greater political liberalization, and now represent a political force of which governments must take notice. This became clear from the strike by Mali's cotton farmers in the 2001 season, due to low prices and continued waste and corruption within the *Compagnie Malienne pour le Développement des Textiles*. The strike cut output by half, with many cotton farmers switching to maize and other cash crops for that season.

Examples of POs operating at national level include the *Comité National de Concertation des Ruraux* (CNCR) in Senegal and the *Fédération des Unions des Producteurs* (FUPRO) in Benin.[a] The CNCR provides an interesting case, which brings together a series of PO federations in Senegal, and has become a central actor in the dialogue between government, donors, and

[v] MST in Brazil has its own website, with pages in Portuguese, English, French, Spanish and Italian, such is its international prominence (http://www.mstbrazil.org/). KMP is a nationwide federation of Philippine organizations, which claims to have "effective leadership" of over 800,000 landless peasants, small farmers, farm workers, subsistence fisherfolk, peasant women and rural youth (http://www.geocities.com/kmp_ph/index.html).

[vi] www.iied.org/urban/pubs/eu_briefs.html

[vii] www.coica.org

[viii] www.viacampesina.org

[ix] www.roppa.info

producers on agricultural strategy and related issues, such as land tenure. Such POs have the advantage of providing a channel to make the case for greater support to agriculture in general, as well as to take account of the particular constraints faced by smallholders. Policy and decision-making in government tend to follow both formal and informal procedures. Smallholders have less easy access to informal mechanisms that operate through networks of friends and associates, and lobbying through high-level political contacts, which are usually the preserve of powerful economic actors, such as large commercial farmers and agribusiness. Thus, POs need to make best use of official channels and opportunities to give voice to the needs of less powerful actors.

At the regional level, there has been increased interest in generating pressure on governments and regional institutions to ensure that producer interests are better taken into account in negotiation processes, such as those concerning the World Trade Organization (WTO), European Common Agricultural Policy (CAP) reform and the Cotonou negotiations. Organizations representing West African producers include the Réseau des Organisations Paysannes de l'Afrique de l'Ouest (ROPPA), the Association Cotonnière Africaine and the Union of Chambers of Agriculture for West Africa. ROPPA and its members have been particularly vocal in support of household farming, and opposed to the agribusiness model being promoted by some as the means to "modernize" agriculture: "This vision [in support of household farming] has been inspired by a global perception of the role of agriculture in society, not only for producing food and fibre but also performing many other economic, social and environmental functions".[b] Thus, the argument being made by ROPPA and others supports broader debates regarding the "multifunctionality" of agriculture and of the land, and the consequent need to avoid a purely economic or market-based approach.

SOURCES: adapted from Belières, J-F, P M Bosc, G Faure, S Fournier and B Losch (2002), *What Future for West Africa's Family Farms in a World Market Economy?* Drylands Issues Paper No. 113, International Institute for Environment and Development, London; and Toulmin, C and B Guèye (2003), *Transformations of West African Agriculture and the Role of Family Farms,* Drylands Issues Paper No. 123, International Institute for Environment and Development, London.

a. GRAF/GRET/IIED (2003), *Making Land Rights More Secure*, proceedings of an international workshop, Ouagadougou, 19–21 March 2002, International Institute for Environment and Development, London.

b. Belières et al. 2002, op. cit., page xx.

Most of these organizations come to food and agricultural policy debates with wider agendas, for example on land redistribution or participatory governance. As a result, their activities may be very wide- ranging and complex. Yet, they can lead to important shifts in the balance of power in favour of poor rural people, as the rise of producer organizations in West Africa illustrates (Box 5). Many such federations of the rural and urban poor are well placed to promote non-state-led forms of deliberative democracy aimed at making national and global institutions accountable to citizens – particularly those most excluded from decision-making. Bold innovations such as the Prajateerpu ("peoples' verdict") on the future of food and farming in South India (Box 6) suggest new ways of bringing together coalitions and federations of the poor with international organizations to:

- create safe spaces and participatory processes in which expert knowledge is put under public scrutiny through appropriate methods for deliberation and inclusion (e.g. citizen juries, consensus conferences and multi-criteria mapping);

- strengthen the voices of the weak in setting agendas and framing policies and regulatory frameworks for development and environment – at local, national and global levels;
- facilitate the horizontal interlinking and federation of citizen spaces as a way of decentralizing and democratizing the governance of food systems, in both rural and urban contexts;
- support the emergence of transnational communities of inquiry, and coalitions for change committed to equity, decentralization, democratization and diversity in food systems, environment and development.

Box 6: Prajateerpu – a citizens' jury on food and farming futures in Andhra Pradesh, India

Prajateerpu (or "people's verdict") was an exercise in deliberative democracy involving marginal farmers and other citizens from all three regions of the state of Andhra Pradesh. The citizens' jury was made up of representatives of small and marginal farmers, small traders, food processors and consumers. Prajateerpu was jointly organized by the Andhra Pradesh Coalition in Defence of Diversity (made up of 145 NGOs and POs), the International Institute for Environment and Development (IIED), the Institute of Development Studies (IDS) at the University of Sussex, the University of Hyderabad, Andhra Pradesh, and the all-India National Biodiversity Strategy and Action Plan (NBSAP). The jury hearings took place in Medak District, Andhra Pradesh, in June 2001. Jury members also included indigenous people (known in India as *adivasi*), and over two-thirds of jury members were women. The jury members were presented with three different scenarios, each advocated by key proponents and opinion-formers who attempted to show the logic behind the scenario. It was up to the jury to decide which of the three policy scenarios provided them with the best opportunities to enhance their livelihoods, food security and environment 20 years into the future.

Scenario 1: 'Vision 2020'. This scenario had been put forward by Andhra Pradesh's Chief Minister, backed by a World Bank loan and budgetary support to the AP State government by the UK's Department for International Development (DFID). It proposes the consolidation of small farms and rapidly increased mechanization and modernization of the agricultural sector. Production-enhancing technologies such as genetic modification would be introduced in farming and food processing, reducing the number of people on the land from 70 to 40 per cent by 2020.

Scenario 2: an export-based cash-crop model of organic production. This was based on proposals from the International Forum for Organic Agriculture (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, complying with new eco-labelling standards.

Scenario 3: localized food systems. This scenario was based on increased self-reliance for rural communities, agriculture with low external inputs, and the re-localization of food production, markets and local economies, including long-distance trade only in goods that are surplus to local production or not produced locally.

The workshop process was overseen by an independent panel of external observers drawn from a variety of interest groups. It was their role to ensure that each 'food future' was presented in a fair and unprejudiced way, and that the process was trustworthy and not captured by any one interest group.

The key conclusions reached by the jury members, their own "vision of the desired future", included features such as:

- food and farming for self-reliance and community control over resources;
- maintaining healthy soils, diverse crops, trees and livestock, and building on indigenous

knowledge, practical skills and local institutions.

It also included opposition to:

- the proposed reduction of those making their living from the land from 70 to 40 per cent in Andhra Pradesh;
- land consolidation into fewer hands, and displacement of rural people;
- contract farming;
- labour-displacing mechanization;
- GM crops, including Vitamin A rice & Bt cotton;
- loss of control over medicinal plants, including their export.

The Prajateerpu and subsequent events show how the poor and marginalized can be included in the policy process. By being linked with state-level and international policy processes, the jury outcomes and citizen voice have encouraged more public deliberation and pluralism in the framing of policies on food and agriculture in Andhra Pradesh. The state government that had championed Vision 2020 reforms was voted out of office in 2004. The largely rural electorate of Andhra Pradesh voted massively against a government that it felt was neglecting farmers' needs, rural communities and their well-being.[a] Similarly, the issues highlighted by the Prajateerpu have been partly responsible for the setting up of a UK parliamentary inquiry into the impacts of British bilateral aid to India, and Andhra Pradesh in particular.[b]

SOURCES: adapted from Pimbert, M P and T Wakeford (2002), *Prajateerpu. A Citizens Jury/Scenario Workshop for Food and Farming in Andhra Pradesh, India*, International Institute for Environment and Development, Institute of Development Studies, Andhra Pradesh Coalition in Defence for Diversity, University of Hyderabad and All India National Biodiversity Strategy and Action Plan, IIED, London (www.iied.org/docs/sarl/Prajateerpu.pdf); and Pimbert, M P and T Wakeford (2003), "Prajateerpu, power and knowledge: the politics of participatory action research in development. Part 1: Context, process and safeguards", *Action Research* Vol 1, No 2, pages 184–207; www.prajateerpu.org.

a. http://www.expressindia.com/election/fullestory.php?type=ei&content_id=31318; www.guardian.co.uk/international/story/0,,1212942,00.html.

b. www.parliament.uk/parliamentary_committees/international_development/ind040324__21.cfm.

Local organizations and federations thus increasingly seek to have a greater say in the governance of food systems. In so doing, they challenge liberal understandings in which citizenship is viewed as a set of rights and responsibilities granted by the state. Instead, citizenship in the context of locally determined food systems is claimed, and rights are realized, through the agency and actions of people themselves. Local organizations and federations are thus increasingly becoming expressions of an emergent citizenship in the governance of food systems. People have special rights when it comes to food, and claiming and exercising these rights to "food sovereignty" has become a movement that is very much in tune with this concept of "citizenship". The People's Food Sovereignty Network defines the concept thus:

"Food Sovereignty is the right of peoples to define their own food and agriculture; to protect and regulate domestic agricultural production and trade in order to achieve sustainable development objectives; to determine the extent to which they want to be self reliant; to restrict the dumping of products in their markets; and to provide local fisheries-based communities the priority in managing the use of and the rights to aquatic

resources. Food Sovereignty does not negate trade, but rather it promotes the formulation of trade policies and practices that serve the rights of peoples to food and to safe, healthy and ecologically sustainable production."

In the next section I briefly identify and critically reflect on the potential and challenges of some of these processes for transformation for 'Food Sovereignty'.

IV. Reclaiming Autonomy and Food Sovereignty

Food sovereignty is perhaps best understood as a *process* that seeks to recreate the democratic political realm and regenerate a diversity of locally autonomous food systems. Indeed, a key goal of the more emancipatory federations and organizations mentioned above is to develop a public sphere that allows for maximum democracy in the literal sense of the term. In its present form, this new politics in the making affirms the values of 'confederalism', 'dual power', 'citizenship', 'inclusion', 'transformed knowledge and practice' and 'deepening democracy'. At the same time however, these guiding values and principles for transformation deeply challenge the nascent food sovereignty movement to transform *itself*.

Confederalism. Combining localism with interdependence over large areas is a key challenge for actors working for 'food sovereignty'. Many ecological, economic and political issues need to be dealt with in concrete and workable ways, including:

- Collective action and local adaptive management of ecosystems and natural resources coordinated over a wide area and at different spatio-temporal scales e.g. pest control and group action; linking community conserved areas (CCAs) into bio-cultural and conservation corridors; sustaining critical ecosystem functions across watersheds and landscapes…
- Organized cooperation for economic exchanges based on the recognition that different communities are interdependent for the production, processing and distribution food, farm tools etc, and that such economic exchanges are part of social life
- Linking peoples' spaces in which citizens organize to freely define and implement policies that exert a *de facto* countervailing power against inappropriate government and corporate practice e.g. land reclaimed through direct action by the urban and rural poor; setting up of GMO[x] free zones and regions; declaration of GATS'[xi] free municipalities and provinces; 'no patent on seeds' zones and other initiatives that uphold farmers' secular rights to freely save, access, use and exchange seeds and livestock breeds
- Consciously developing forms of governance and cooperative relations that are genuinely inclusive and *directly* democratic, with effective safeguards against the abuse, misuse and concentration of power.

[x] Genetically Modified Organisms (GMOs). GMO free regions have been declared by organized farmers and citizens in some states of Brazil and in parts of Italy and France for example.

[xi] General Agreement on Trade in Services (GATS). The mandate of the GATS is the "liberalisation of trade in services". The GATS is wide ranging in scope and includes public services (health, education, transport…), environment (water, forests, protected areas, watersheds…), tourism and communication for example. Several municipalities in France have declared themselves as GATS free zones (http://www.attac.org/indexen/index.html).

Nurturing and strengthening citizen centered food systems and autonomy thus calls for forms of political and social organization that can institutionalize interdependence without resorting to the market or the central State. The principle of confederalism offers such an avenue for the horizontal linking up of several political entities into a larger whole. Confederalism involves a network of bodies or councils with members or delegates elected from popular face-to-face democratic assemblies, in villages, tribes, towns and even neighborhoods of large cities. These confederal bodies or councils become the means of interlinking villages, towns, neighborhoods and ecological units into a confederation based on shared responsibilities, full accountability, firmly mandated representatives and the right to recall them, if necessary.

These horizontal forms of organized cooperation do already exist at one level within the food sovereignty network. For example since 2000, the Network of Peasant and Agricultural Producer's Organisations (ROPPA) has federated the national farmer's platforms of 10 countries in West Africa. However, much more needs to be done to strengthen and institutionalize such forms of interdependence in a direct-democratic way, - linking more people and places in autonomous food sovereignty networks as they confederate worldwide.

Embracing equity and gender inclusion. Throughout the world, the challenge of widening social inclusion and representation is key for most civil society organisations and federations that seek food sovereignty. Gender equity and learning how to better include and respect the voices of the very poor and marginalised are both enduring and urgent new challenges for the food sovereignty movement and civil society at large.

Several discussions of peoples' movements involving farmers and other resource users generally conclude that the demands of these movements are biased to the needs of rich—or at least to those of surplus—producers (Brass, 1995). Some movements tend not to voice concerns of particular relevance to the rural poor, such as minimum wages and harassment. Similarly, recent reviews of membership organisations have at times concluded that "successful groups among the poor tend to exclude the layers below" (Thorp et al, forthcoming). This is especially the case for groups whose functions relate primarily to economic service provision, marketing, etc (Bebbington, 1996).

However, this is by no means a universal phenomenon. For example, Indian farmer movement demands for higher crop prices allow more surplus retention in rural areas, creating investment capital that allow rural industrialisation and so jobs for the poor (Omvedt, 1994). Even if the voices and interests of some layers of the poorest are excluded in such organisations, the voices of less poor (but still poor) people are likely still to be included. The implication here is not to work against such organisations or criticise them harshly, but to support additional organisations that can specifically represent the very poor and the marginalised environments in which they live. It also means that civil society needs to constantly ask: "under what conditions can poor people's voices be heard, and projected by, organisations and social movements that also involve wealthier farmers, fisherfolk, and other resource users?"

Although natural resource management is becoming increasingly feminised, rural organisations still seem to reflect and reinforce the patriarchal relations that characterise many rural societies. Thus if raising the voice of poor people in natural resource policy is a general problem, then raising the voice of poor women in these policy discussions is particularly challenging. Traditional, community level organisations are often biased to men. In Ecuador, for instance, the International Fund for Agricultural Development

(IFAD) estimated less than 10 per cent of the members of community assemblies were women, and some estimate that women hold only one per cent of leadership positions (see Deere and Leon, 2001). Women also suffer discrimination within many large-scale organisations created by indigenous peoples (Deere and Leon, 2001). Whilst many NGOs have sought to increase women's participation, there are many obstacles to gender sensitivity and inclusion within NGOs. In India for example, broader social relations of caste and class can influence how the NGOs deal with women farmers, reducing any extent to which their work is empowering (Nagar and Raju, 2003). In Indonesia, more gender inclusive policies and practices have only just recently started to be introduced in Farmer Field Schools (FFS) and the wider federation FFS are part of (Fakih et al, 2003).

One important obstacle to women's voice in such organisations is that participation is linked to tenure over land and other natural resources (e.g. see Agarwal, 2002). Tenure rules often privilege male ownership (though not in all cultural contexts). In this connection, the success of women's and indigenous movements in shaping new land use legislation so that it is more inclusive of women's tenure rights is very significant (Deere and Leon, 2001). It demonstrates that large-scale organisations can enhance the voice of women in policy and institutions. It also encourages the food sovereignty movement and federations to constantly ask: "under what conditions can women gain more space in organisations and peoples' movements to voice their views on food, farming and environment, and make their priorities and knowledge count?"

Dual power. The larger and more numerous the linked federations and confederations become, the greater is their potential to constitute a significant counter-power to the state and transnational corporations that largely control the global food system. Confederations can eventually exert "dual power", using this to further citizen empowerment and democratic change. For example, they can seek power within local government through strategies of collaboration and political negotiation, while also maintaining strong community and municipal organizing strategies at the grassroots. Multiple lanes for engagement can also be used to link community-based food systems, social movements and political parties with direct local governance strategies. This dual-power approach is widely used by the Indonesian Peasant Rights movement (Box 7).

Box 7: The Peasant Rights Movement and policy change in Indonesia

The demise of the repressive Suharto Government in 1997 made it possible for civil society to organize for change on a large scale, and new peasant movements have emerged in every region of Indonesia. The Agrarian Reform Consortium and the Peasant Rights Movements launched by North Sumatra Small Farmers' Union and the Friend of Small Farmers movement in central Java, as well as the Integrated Pest Management farmers' movement, have recently created an even bigger alliance by establishing a Peasant Rights Movement. Organized as a broad federation, the movement is a strong reaction against the neoliberal approach of trade liberalization and especially the corporate takeover of food and farming. These emerging social movements are campaigning to protect the livelihoods and culture of Indonesian rural communities, and are claiming rights to food and farmer sovereignty. They argue that genuine food security and participation of farmers can be realized only in a system where the sovereignty of farmers' organizations and activities are guaranteed. Farmers and people must be able to exercise their human rights to define their food and farming policies, as well as having the right to produce their food in accordance with the diversity of their socio-cultural and ecological contexts.

Many civil society organizations are linked into broad federations to exert countervailing power

against what they perceive as a largely corrupt centralized government. Networks and federations get actively engaged in policy reforms at the sub-district, district, provincial and national government levels. Civil society organizations facilitate participatory policy processes and co-management settings. Networks and coalitions use a diversity of deliberative and inclusive processes to gain leverage, exert pressure from below and effect policy changes. While the primary focus is on institutionalizing participatory governance at the community level, well-organized farmer federations have secured important policy changes by engaging with civil servants at the local and sub-district government level.

SOURCES: adapted from Fakih, M, T Rahardjo and M P Pimbert (2003), *Community Integrated Pest Management in Indonesia. Institutionalizing Participation and People Centred Approaches*, IIED–IDS Institutionalizing Participation Series, International Institute for Environment and Development, London; and Pimbert, M P (2003), *Social Learning for Ecological Literacy and Democracy: Emerging Issues and Challenges*, Proceedings of the CIP-UPWARD-FAO-Rockefeller International Workshop on Farmer Field Schools, 21–25 October 2002, Yogyakarta, Indonesia.

This dual power approach enables the food sovereignty movement to negotiate and push for radical reforms and policy reversals for food, agriculture and development. Equitable reforms in property rights and access to land and other resources are high up in the list of demands (see box 8). But it is noteworthy that the issue of land reform is increasingly linked to other policies that are seen as *mutually supportive* within this emerging policy scenario for food sovereignty and autonomy. Throughout the world, new social movements for food self reliance and the right to land and sustainable livelihoods increasingly emphasise the need to regain control not only over productive resources (the means of production) but also over markets, standards and other regulative institutions that govern food systems (the means of coordination).

Box 8. A Food Sovereignty policy framework

Enabling national policies and legislation

- Equitable land reform and redistribution of surplus land to tenants within a rights-based approach to development.
- Reform in property rights to secure gender-equitable rights of access and use of common property resources, forests and water.
- Protect the knowledge and rights of farmers and pastoralists to save seed and improve crop varieties and livestock breeds, for example banning patents and inappropriate intellectual property right (IPR) legislation.
- Re-introduction of protective safeguards for domestic economies to guarantee stable prices covering the cost of production, including quotas and other controls against imports of food and fibre that can be produced locally.
- Policies that guarantee fair prices to producers and consumers, safety nets for the poor.
- Re-direct both hidden and direct subsidies towards supporting smaller-scale producers and food workers to encourage the shift towards diverse, ecological, equitable and more localized food systems.
- Increase funding for and re-orientation of public sector R&D and agricultural/food-sciences extension towards participatory approaches and democratic control over priority-setting, technology validation and spread of innovations.
- Broaden citizen and non-specialist involvement in framing policies, setting research agendas and validating knowledge, as part of a process to democratize science, technology and policy making for food, farming, environment and development.

Enabling global multilateralism and international policies

- Re-orient the end goals of trade rules and aid, so that they contribute to the building of local economies and local control, rather than international competitiveness.
- Supply management to ensure that public support does not lead to over-production and dumping that lowers prices below the cost of production – harming farmers in North and South.
- International commodity agreements to regulate the total output to world markets.
- Create regional common agricultural markets that include countries with similar levels of agricultural productivity. For example: North Africa and the Middle East; West Africa; Central Africa; South Asia; Eastern Europe.
- Protect the above regional common markets against the dumping of cheap food and fibre, using quotas and tariffs to guarantee fair and stable prices to marginalized small-scale producers, food processors, and small food enterprises. Prices should allow small-scale producers, artisans and food workers to earn a decent income, invest and build their livelihood assets.
- Mechanisms to ensure that the real costs of environmental damage, unsustainable production methods and long-distance trade are included in the cost of food and fibre.
- Clear and accurate labelling of food and feedstuffs, with binding legislation for all companies to ensure transparency, accountability and respect for human rights, public health and environmental standards.
- Restrict the concentration and market power of major agri-food corporations through new international treaties, competition laws and adoption of more flexible process and product standards.
- International collaboration for more effective antitrust law enforcement and measures to reduce market concentration in different parts of the global food system (concerning seeds, pesticides, food processing and retailing, for example).
- Cooperation to ensure that corporations and their directors are held legally responsible for breaches in environmental and social laws, and international agreements.
- Multilateral cooperation to tax speculative international financial flows (US $ 1600 thousand million/day!), and redirect funds to build local livelihood assets, meet human needs and regenerate local ecologies.

Clarity and coherence between means and ends is a key challenge in this context. As the food sovereignty movement further organises into confederations using a dual power approach for change, it will be important to maintain a clear distinction between 'policy making' and the 'implementation or execution' of these policies. Policies for food, agriculture, environment and development will increasingly need to be framed and made by citizens in safe spaces for communicative action, using appropriate processes and methods for democratic deliberation and inclusion (see Pimbert and Wakeford, 2001). Once groups of farmers, pastoralists, food workers and other citizens have made their own policy decisions after careful deliberation, coordinated action will often be needed to implement these policies across wide geographical areas. Several policies decided by democratic means in each locality by freely assembled citizens will thus need to be administered and coordinated by the larger confederation formed to promote 'food sovereignty'. This confederal body has a purely *executive* role in this context. It is made up of delegates nominated by local citizen organisations to whom they are directly accountable. A key safeguard against the abuse of power is that delegates to the confederation are not authorised to take decisions on behalf of their communities, - they are there to carry out the wishes of citizen assemblies 'back home'. Delegates are not empowered to 'make policy' and they can be recalled at any time by the assembly of citizens who nominated them in the first instance to carry out a specific mandate.

The dual power approach to securing autonomy and food sovereignty is therefore not so much concerned with restoring the civic sphere through greater citizen participation in State processes, dialogues with industry and policy spaces 'defined from above'. Nor does it seek to achieve reforms by becoming part of 'representative government' and working adaptively within the boundaries defined by the existing institutional framework. Instead, it aims to regenerate old and new forms of direct democracy, an active citizenship, and a vibrant political life at the local level (see Bookchin, 1995). A key goal is to revive local autonomous organisations and to empower citizens to control those resources and regulative institutions that shape their lives and the environments that sustain their livelihoods. As such, this dual power approach challenges the food sovereignty movement to think and act more *outside* the parameters of the Nation State and commodity capitalism (see Fotopoulos, 2001).

Transforming knowledge and ways of knowing

The food sovereignty movement is increasingly challenged to actively develop more autonomous and participatory ways of knowing to produce knowledge that is ecologically literate, socially just and relevant to context. This implies a radical shift from the existing top down and increasingly corporate-controlled research system to an approach which devolves more responsibility and decision making power to farmers, indigenous peoples, food workers, consumers and citizens for the production of social and ecological knowledge. The whole process should lead to the democratisation of research, diverse forms of co-inquiry based on specialist and non-specialist knowledge, and more transparent oversight. This implies 1) cultural values that emphasise more direct citizen participation in determining research agendas, regulations and policies 2) new professional values, participatory methodologies and behaviour, 3) the adoption of a learning process approach in the production and validation of knowledge, and 4) enabling policies that offer citizens adequate material security and time for democratic deliberation in the context of more localised food systems and economies (see Pimbert, 2004; in press).

Transformation of knowledge is needed several areas, including:

● ***Going beyond ecologically blind science and the neglect of dynamic complexity.*** The science of parts (reductionism),-*as opposed to knowledge and ways of knowing that integrate the parts*-, has largely failed to guide agro-ecosystem and natural resource management. Narrow lens, universal and reductionist explanatory models have generated crisis in natural resource management through their inability to come to terms with the dynamic complexity and variation within and among ecosystems (Gunderson et al, 1995). Reductionist knowledge has selectively favoured corporate profits as well as control over labour and nature in simplified and standardised production systems, - with terminator seeds (GURTS) being the latest flagship in this corporate enclosure of farmers' and nature's autonomy.

Environmental dynamics and effects are usually long-term and their emergent complexity calls for more holistic and transdisciplinary ways of knowing. The development of agroecological knowledge is a case in point here (Box 9). Moreover, new agro-ecological knowledge systems need to work with the complexity and diversity of ecosystems in a constructivist approach to science so that innovation and learning becomes embedded in management.

Box 9. Agroecological knowledge for autonomy and resilence

In both low external input and high-input agriculture, the goals of sustainability, productivity, and equity may best be met through agroecosystem designs that enhance functional diversity at the genetic, species, and landscape levels. A central challenge across the whole range of agroecosystems is to find alternatives to the input substitution approach and future dependence on costly and unreliable biotechnology packages. This can be achieved through an agroecological approach that seeks to break the monoculture structure and dependence on suppliers of off-farm inputs through the design of integrated agroecosystems. By assembling a functional biodiversity within and around agroecosystems, it is possible to encourage synergisms that subsidize agroecosystem processes by providing ecological services, recycling of nutrients, and enhancement of natural enemies of pests, and provide diverse, quality foods and other farm products (Altieri, 1995; Pimbert 1999 and references therein).

Specific components of agricultural biodiversity are often directly implicated in the processes that structure agroecosystems at different temporal and geographical scales (from small farm plots to whole water/landscapes). Even highly complex landscapes like tropical irrigated rice fields or forests in the savannah transition zone of West Africa, are apparently structured by a very few key variables (Settle *et al* 1996; Fairhead and Leach 1996). Research over the past 20 years in applied ecology of managed systems shows that ecosystem and landscape dynamics tend to be organized around a small number of nested cycles, each driven by a few dominant variables (Gunderson *et al* 1995; Holling *et al* 1995).

"A small number of plant, animal, and abiotic processes structure biomes over scales from days and centimeters to millennia and thousands of kilometers. Individual plant and biogeochemical processes dominate at fine, fast scales; animal and abiotic processes of mesoscale disturbance dominate at intermediate scales; and geomorphological ones dominate at coarse, slow scales….the physical architecture and the speed of variables are organized into distinct clusters, each of which is controlled by one small set of structuring processes. These processes organize behavior as a nested hierarchy of cycles of slow production and growth alternating with fast disturbance and renewal" (Gunderson *et al* 1995).

Identifying and understanding the dynamics of these "structuring variables" provide a practical basis for sustainable agriculture and landscape management (e.g. soil and nutrient management, design for multifunctionality and resilience). This kind of ecological literacy provides a firmer basis for the autonomy of people and places.

● ***Overcoming myths on people and environment relations.*** These myths manifest themselves through the neglect of local people, - their knowledge, priorities, management systems, local institutions and social organization-, and the value to them of local assets (natural, social, cultural…). Within this dynamic of "denying and undermining the other", powerful actors seek to control the food system and natural resource management through discourse, law, coercion and violence. Misleading, simplified, and a-historical perspectives perpetuated by powerful bureaucracies and institutions are a persistent feature of environmental policymaking and interventions. Neo-Malthusian environmental policy narratives are still used by external bureaucracies to blame people for environmental degradation and justify imposing on them massive and widespread use of standard environmental management packages (see Ross, 1998). Soil erosion, degradation of rangelands, desertification, loss of forests, the destruction of wildlife and fisheries…all of these problems appear to require intervention to prevent further deterioration, and local misuse of resources is consistently defined as the principal cause of destruction. All too often, *"by depicting resource users (the local ones) as wild, destructive (or illiterate, uneducated, backward or non-innovative), state resource management agencies think they can justify their use of militaristic environmental protection"* (Peluso 1996).

These policy (or crisis) narratives are usually robust, hard to challenge, and slow to change. They play a key role in policy and project-level decision-making. They structure options, define relevant data, and exclude other views within bureaucracies and professional circles. And yet, recent research has debunked several orthodox views and dominant myths on people-environment interactions (Box 10). A future challenge lies in bringing together such plural forms of knowledge within a more comprehensive, *power equalizing* dynamic of participatory learning and action.

Box 10. Debunking myths on people-environment interactions

Recent research has fundamentally questioned many of the environmental crisis narratives and received wisdoms on the supposed destructiveness of rural people on the environment. A combination of historical analysis, social anthropology, participatory methods to understand local resource users' knowledge and perspectives, and insights from non-equilibrium ecology has challenged some of the environmental knowledge taken for granted by government bureaucracies and donors. For example, historical research in West Africa has shown dominant deforestation estimates to be vastly exaggerated. Many of the vegetation forms that ecologists and policy makers have used to indicate forest loss, such as forest patches in savanna are, according to the knowledge of local resource users and historical evidence, the results of landscape enrichment by people.

See Leach and Mearns, 1996; Pimbert (in press)

● ***Decolonising economics.*** Decolonising social imagination from the scientism of neo-classical mathematical economics and neo-liberal economic dogma is essential for transformation towards food sovereignty. This need to re-humanise and re-enchant economics has been well stated by Castoriadis (1996): *"What is needed is a new creation of the imagination that is of unprecedented importance..., a creation which would put at the centre of human life other meanings than the mere expansion of production and consumption, one which would offer goals in life that are recognized by other human beings as being worthwhile [....] This is the immense difficulty we are faced with. We should want a society in which economic values have ceased to be central (or the only ones),- where the economy is put back in its place as a means for human life and not as its ultimate goal-, and in which we therefore give up the mad race to consume more and more. This is not only necessary to avoid the final destruction of the planet's environment, but it is also and especially needed to rescue fellow human beings from psychological and moral misery"*[xii]. 'Learning our way out' partly depends on participatory learning and action that builds on local realities and different indicators of well being, wealth and the 'good life'. For example in Canada, collaborative inquiry largely based on the experiential knowledge of farmers has helped debunk the economic myths that have informed agricultural development over the last sixty years (Box 11).

Box 11. The farm crisis, bigger farms, and the myths of "competition" and "efficiency"

The Canadian National Farmers Union (NFU) and its members took a critical look at the fundamental assumptions that underlie agricultural policy in Canada and in much of the world. The results offer a fresh and original analysis at concepts such as efficiency, competition, economies of scale, the effects of technology, and the allocation of profits within the agri-food system.

[xii] My translation.

Family farms are painted as inefficient, and their loss is swept aside as an unfortunate but necessary effect of progress. However, overwhelming data show that the family farm sector may be among the most efficient in the entire Canadian economy. Statistics Canada data shows that over the past 40 years, no other sector has matched the efficiency gains of farmers.

"When you liquidate a population, one of the things that you need to do is to tell lies in order to devalue and marginalize those people. The most pernicious lie told about our family farms during this crisis is that they are 'inefficient". NFU President Stewart Wells, President of the Canadian National Farmers Union.

"Inefficiency rhetoric is nothing more than a smokescreen: a propaganda tactic deployed against farm families, workers, and rural communities. Only by peeling away the myths and lies can we understand the rural crisis and begin to see <u>who</u> is destroying our farms." Prince Edward Island farmer Ronald MacFarlane

New evidence shows that poor government policies, defective markets, and powerful corporations undisciplined by competition are found to be wiping out families farms. Such citizen led participatory research can thus successfully deconstruct economic myths on 'competition' and 'efficiency' that often resonate with, -and reinforce-, Malthusian and social darwinist views on survival of the fittest (Lewontin 1993).

Source "The Farm Crisis, Bigger Farms, and the Myths of "Competition" and "Efficiency. Canadian National Farmers Union, (2003) www.nfu.ca/briefs/Myths_PREP_PDF_TWO.bri.pdf

Consistent with its 'dual power approach' to transformation, the food sovereignty movement needs to actively engage in two distinct (but possibly complimentary) 'ways of knowing':

1. *Democratizing science and technology research.* The overall aim here is to create spaces and processes that allow for more direct citizen participation and pluralism in deciding on the allocation of funds for research, setting strategic research & development (R&D) priorities, in validating knowledge and new technologies, ascertaining risks in the face of considerable open ended uncertainties and in framing policies for food and farming. This approach seeks to broaden democratic control over existing public research institutions and universities in order to transform theory and practice. In this context, a range of institutional and methodological innovations based on citizen deliberation and inclusion may help re-constitute knowledge and technologies for ecological sustainability, social justice and human liberation (see Fernberg, 2002; Pimbert, 2004). Despite its emphasis on local knowledge and management systems, the 'Food sovereignty' movement also looks to the liberatory potential of modern science and technology. This is particularly true with the development of miniaturisation, multipurpose machines, multimedia and computer assisted technology, knowledge in agro-ecology, and efficient renewable energy systems that can all enhance local autonomy and ecologies, minimise pollution, and expand the realms of freedom and culture by eliminating needless toil. But local organisations and citizen federations should decide which new innovations are needed, when, where and under what conditions along the food chain and in every day life. Hence the need to re-embed citizens in the production of knowledge and fundamentally democratise social and natural sciences research organisations.

2. *De-institutionalizing research for autonomous learning and action.* This approach seeks to strengthen citizen-led innovation and networks of knowledge users who are organized on the basis of a more horizontal and egalitarian logic, - working independently and outside the state and the market. According to Illich (1970; 1975), such endogenous knowledge creation by and for the people means i) taking responsibility for ones own learning process; ii) having unrestricted access to learning tools; and iii) addressing issues that relate to people's aspirations and lives. *"Against the constant and pressing need for expert knowledge to catch up with the industrial development future, endogenous knowledge proposes to 'celebrate the awareness' of the social construction of knowledge and science, and to take the responsibility to 'create' alternative futures"* (Finger and Asun, 2001). De-institutionalizing research for autonomous learning is thus seen as a way to move from 'communes of resistance' to sustainable communities which confederate into larger food sovereignty networks, and in which citizens participate in a direct and democratic way.

Both of the above 'ways of knowing' for food sovereignty need to be attentive to the links between learning, power and organisational change. For example spaces,- including citizen spaces-, are infused with power relations, affecting who enters them, who speaks with what knowledge and voice, and who benefits. This is particularly apparent, for example, when both professional knowledge and peoples' experiential knowledge are brought together in the same space and discussed. Foresters, agronomists, protected area managers, water engineers, health professionals, architects, land use planners, and social scientists all have specialist knowledge that can usefully feed into citizen deliberations and more inclusive forms of participation that strengthen civil society. But the deliberative process, and the political negotiation over what constitutes valid knowledge in a particular context, deeply challenges professionals to assume different roles and responsibilities. In particular, citizens with professional knowledge will often need to shift to new roles that facilitate local people's analysis, deliberations and production of knowledge. Moreover, the adoption of a participatory culture within organisations, including civil society organisations, and changes in attitudes and behaviour are unlikely to "automatically follow" when new methods for deliberation are adopted or suddenly become fashionable. In the 'democratization of research' approach, the design of appropriate institutional mechanisms and rewards to encourage the spread of a participatory culture and praxis within research institutes and universities is obviously a key priority. But to a lesser extent, civil society organisations and food sovereignty movements that seek to create more safe spaces for 'autonomous learning and action' are also similarly challenged to transform themselves. Some ideas about the elements to tackle are offered in box 12.

Box 12. Organisational transformation for democracy in knowledge production
(adapted from Bainbridge *et al.*, 2000; Pimbert, 2003a)

Key actions for actors seeking democratic change and pluralism in organisations that produce social, environmental, economic and technical knowledge (research institutes, universities, government, civil society organisations and federations) include:

√ diversify the governance and the membership of budget allocation committees of public sector planning and research institutes to include representatives of diverse citizen groups. Establish procedures to ensure transparency, equity and accountability in the allocation of funds and dissemination of new knowledge;

- √ encourage shifts from hierarchical and rigidly bureaucratic structures to "flat", flexible and responsive organisations;
- √ provide capacity building for technical and scientific personnel to foster those participatory skills, attitudes and behaviour needed to learn from citizens (mutual listening, respect, gender sensitivity as well as methods for participatory learning and action);
- √ ensure that senior and middle management positions are occupied by competent facilitators of organisational change, with the vision, commitment and ability to reverse gender and other discriminatory biases in the ideologies, disciplines and practices animating an organisation;
- √ promote and reward management that is consultative and participatory rather than verticalist and efficiency led. Establish incentive and accountability systems that are equitable for women and men;
- √ provide incentives and high rewards for staff to experiment, take initiatives and acknowledge errors as a way of learning by doing and engaging with the diverse local realities of citizen's livelihoods in urban and rural contexts;
- √ redesign practical arrangements, the use of space and time within the workplace to meet the diverse needs of women, men and older staff as well as their new professional obligations to work more closely with citizens and other actors (time tables, career paths, working hours, provision of paternity and maternity leave, childcare provisions, mini sabbaticals, promotion criteria…);
- √ encourage and reward the use of gender disaggregated and socially differentiated local indicators and criteria in monitoring and evaluation as well as in guiding subsequent technical support, policy changes and allocation of scarce resources.

Last but not least, the participatory forms of inquiry mediated by citizens, their organisations and their federated networks ultimately represent a fundamentally different orientation to the nature of knowledge. This kind of participatory, experiential understanding takes involvement with our surroundings seriously, - in all its ecological, social, economic, cultural and spiritual dimensions. The kind of knowledge that emerges from this process of social learning has been well described by James Scott in his book "Seeing like a state" (1998). He speaks of *"forms of knowledge embedded in local experience"* (mêtis) and sharply contrasts them with *"the more general, abstract knowledge displayed by the state and technical agencies".* "*Mêtis,* says Scott, is *plastic, local and divergent…It is, in fact, the idiosyncrasies of mêtis, its contextualities, and its fragmentation that make it so permeable, so open to new ideas".*
In this context, final objective answers matter less than a concern with processes of emerging democratic engagement. The quality and validity of this way of knowing cannot be assessed from the narrow standpoint of positivist science alone. Criteria of validation and quality need to be much broader. One important criterion of quality is whether or not this social learning opens up new communicative spaces in which democratic inquiry can take place. Another is whether it has contributed to the emergence of a wide community of inquiry among divergent actors. In many ways, social learning for food sovereignty could help to *"shift the dialogue about validity from a concern with idealist questions in search of truth to concern for engagement, dialogue, pragmatic outcomes and an emergent, reflexive sense of what is important"* (Bradbury and Reason 2001). Coming to terms with this paradigm shift is a challenge that needs to be vigorously embraced by organisations of small scale producers, socially responsible researchers and other citizens seeking more autonomy through food sovereignty.

Deepening democracy in the age of globalisation

Whilst clearly important and necessary, 'food sovereignty' does not only imply an expansion of *political* democracy to include more people and places in shaping the policy process, technologies and institutions. An analysis of how power is increasingly exercised and mediated in the age of globalisation suggests that *economic* democracy and *information* democracy are also fundamental for change. Widening *economic* democracy is a key overarching condition for the regeneration of diverse local food systems and food sovereignty in this globalising world. In its deepest sense, 'economic democracy' means free democratic access to the means of life and the guarantee of freedom from material want (e.g. see Fotopoulos, 2001). More specifically, there is a need for economic arrangements that offer enough *material security* and *time* for citizens (men and women included) to exercise *their* right to participate in shaping policies for the public good and be free to develop autonomous food systems. Only with some material security and time can people be "empowered" to think about what type of policies they would like to see and how they can contribute to obtaining them.

Similarly, only with both full access to information and liberation from active brainwashing by various means of economic, political and cultural advertisements and the diffusion of sheer lies can people develop some forms of critical consciousness. It is not possible to have message-free media and purely objective information services. But it is possible for media to respect different views and encourage investigative journalism. And it is possible for a national legislation to include safeguards against economic powers dominating the political scene, and against various forms of media agglomeration. And it is possible for formal education to promote critical thinking, rather than mere absorption of notions, and to expose children to pluralist views as early as possible. It is also possible to develop more autonomous forms of community media (radio, TV and video....) placed under the control of citizen groups and wider federations working for food sovereignty.

In this context, the challenge for civil society organisations working for food sovereignty is to forge new alliances with much wider social movements that are working to 'make other worlds possible' (see Amin and Houtard, 2002). In recent years, civil society as a whole has supported alternative thinking, practices and innovations for widespread transformation that promote not only democratic participation but also economic democracy, information democracy, alternative education systems and gender equity. Examples of proposals for structural reforms aimed at "re-embedding the economy in society"[xiii] and more are shown in Box 13. These are far from being a North-based affair. Both Southern and Northern actors are now discussing such reforms and proposals throughout the world. These reforms would create the wider social conditions in which food sovereignty approaches can (or cannot) thrive. And yet, more civil society dialogue and initiatives are clearly needed to further elaborate, test and implement such proposals for autonomy and sustainability in the coming years.

Box 13. Civil society imagining other possible worlds

In practice, levelling the economic playing field for democratic participation and sustainable livelihoods calls for radical and mutually reinforcing structural reforms. Among these, the following merit closer attention because of the broad directions they suggest for societies increasingly involved in the dynamics of globalisation:

1. ***A tax on financial speculations.*** The proposal, first launched in 1972 by James Tobin, calls for an internationally uniform tax on all conversions of currency (in the original proposal it was set at 1%). This

[xiii] On the concept of embedding economics in society see Polanyi (1957).

tax would discourage speculation and encourage exchange rate stability. At the same time, with annual estimates of the tax revenue ranging from a few tens of thousands of million to a few hundreds of thousands of million US dollars, this globally-raised revenue could create a truly global revenue base to meet global challenges of human and social development and conservation. Responding to a number of technical criticisms, this initial proposal was transformed into a two-tier tax, levied as a national tax but introduced through an international agreement, with a minimal-rate levied on all transactions (the 'basic tax'), and a high rate (an anti-speculation device) triggered during periods of exchange rate turbulence and on the basis of well-established quantitative criteria. Other variations on the theme have also been proposed.

2. ***A guaranteed and unconditional minimum income for all***. The Citizen Income proposal is based on the notion that the productive capacity of society is the result of all the scientific and technical knowledge accumulated by previous generations. This is a common heritage of humankind and all individuals regardless of origin, age or gender have a right to benefit from it, in the form of an unconditional basic income. An equitable distribution of the existing world product would allow each person on earth to benefit from such a basic income. Apart from offering a measure of security, a Citizen Income would allow people—men and women – to find more time to engage in caring activities, civic affairs and democratic decision-making over the means and ends of social life
3. ***A gender redistribution of roles and responsibilities.*** This proposal would allow women to work for a decent wage outside the home *and* men and women to share more evenly in domestic, parenting and caring activities within their households and neighbourhoods. This implies gender equitable property rights over resources as well as redesigning practical arrangements and the use of space and time within the workplace to meet the diverse needs of women, men, dependent children and elderly people (time tables, career paths, working hours, provision of paternity and maternity leave, childcare provisions…). It may also imply a cultural shift affirming the importance and values of the non-monetary reproductive sphere as much as the monetary productive economic sphere—with men *and* women deriving their identities through a plural anchoring in *both* spheres of social life.
4. ***A generalised reduction of time spent in wage-work and a more equitable sharing of jobs***. This proposal is about finding ways to a) change the sexual division of labour so that men do as much unpaid work as women and engage in caring activities within the domestic/reproductive sphere, b) ensure that wage-work is more evenly distributed so that everyone can invest in other activities, *outside the wage economy*, c) defend the rights associated with wage-work, and d) move towards a post-wage society and introduce new rights de-linked from wage-work. An important goal here is to free up peoples' time for self-chosen and autonomous activities, whilst ensuring freedom from economic necessity.
5. ***The re-localisation of pluralist economies that combine both subsistence and market oriented activities*.** The environments where people live will need to offer more individual and collective opportunities of engaging in many different activities outside—and unmediated by—the market, wage-work and commodity production. These environments could provide the structural means by which citizens could manage their own affairs through face to face processes of deliberation and decision making.
6. ***The active pursuit of information democracy***. If, as in the words of Thomas Jefferson, "information is the currency of democracy", democracy is indeed still in its infancy. Enormous work still needs to be done before the majority of people engage in critical thinking and well-informed decision making. Such work should start from profound reforms in formal education curricula, where pluralist perspectives should be substituted in place of monolithic interpretations of history and uncritical perspectives on "science". And it could continue with appropriate regulation of the media business, safeguarding against power agglomerations, enforcing strict codes of conduct with regard to the implicit or explicit diffusion of false information, establishing appropriate procedures to subtract electoral politics from the grip of economic power and encouraging investigative journalism.

(adapted from a variety of sources, including Chomsky & Herman, 1988; Gorz, 1994; Alger, 1998; Mies and Bennholdt-Thomsen,1999; Passet, 2000; Pimbert, 2001; Méda, 2001; www.france.attac.org

V. CONCLUSION

The search for a 'livable world' and alternatives to the corporate enclosure of food, land and environment must critically assess and build on the potential of more autonomous local food systems and organizations. While neither perfect nor always equitable, locally determined approaches and organizations play critical roles in sustaining farming, environment and people's access to food and natural resources.

Moreover, the right to land, food and environmental sustainability will largely depend on emphasizing an alternative 'Food Sovereignty policy framework' that empowers local organizations to manage the ecological and institutional contexts in which local food systems are embedded. These are not the easy options. Dominant rules that govern food and agriculture are designed *a priori* to strengthen not autonomous local organizations but professional control by the state and corporations – and to facilitate not local but international trade. Indeed, there is a fundamental conflict between a global food system of centralized, corporate-driven, export-oriented, industrial agriculture, and one that is more decentralized and smaller-scale, with sustainable production patterns primarily oriented towards domestic markets and meeting local needs.

Regenerating localized food systems entails shifts from uniformity, concentration, coercion and centralization, to support more diversity, decentralization, dynamic adaptation and democracy. This is what the struggle for food sovereignty is all about. New social movements for food self-reliance and the right to land and other resources are arising worldwide. Throughout Latin America and in much of Africa as well as South and Southeast Asia, farmers, pastoralists, women, indigenous peoples, and migrants are organizing, linking together with their counterparts in the North. They are gaining support from scholars, activists, and progressive policymakers. In so doing they are creating a sense of hope and militancy despite the repression that many endure.

The emerging food sovereignty movement is faced with the huge challenge of recreating the democratic political realm as well as autonomous food systems in a diversity of contexts. But there are no ready made solutions for greater social justice and ecological sustainability. This paper has presented some reflections on a process of transformation based on: 'confederalism', 'dual power', 'citizenship', 'equity and gender inclusion', 'transformation of knowledge and ways of knowing', and 'deepening economic democracy'. Whilst critical at times, these thoughts are offered in a spirit of solidarity with the newly emerging food sovereignty movement, - as a contribution to 'learning our way out' of the current impasse of industrial food and farming.

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