

Poverty and Pesticides: Protecting Health and the Environment

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The Millennium Development Goals (MDG) outlines clear goals by world leaders to address peace, security, development, human rights and fundamental freedoms. Kofi Anan reports in 2005 that if current trends continue, there is a risk that many of the poorest countries will not be able to meet many of the MDGs. He goes on to say that we have the means to ensure that all countries meet the MDGs but *“our challenge is to deploy these means.”*

While the MDGs are admirable and their vision is clear, the approach however is still missing the involvement of a key player—namely the poor, their organisations and their movements. It is not enough that the poor are seen as beneficiaries, but more importantly they should be key players involved in policy formulation and in the implementation of strategies for poverty reduction, including achieving the MDGs. It is crucial that local institutions and processes are set up to ensure that the poor and their organisations participate in the whole process at all levels and their visions, aspirations and their solutions taken seriously.



Speaking to the plenary of the IFCS Forum V, PAN executive director Sarojeni Rengam asserted that it is only if the civil and political rights of groups who often have little voice are guaranteed, can we reach the goals of the MDGs and the World Food Summit. Photo: PAN AP

In the goal to halve the numbers of hungry and malnourished, the FAO contends that we are far from meeting the targets. The 2005 MDG Report states that the setbacks on hunger nearly outweigh progress and that the number of hungry people has increased in sub Saharan Africa and Southern Asia. Most of the world's hungry live in rural areas and that hunger tends to be concentrated among the landless or among farmers whose plots are too small to provide for their needs.

If this is the case, then shouldn't the immediate response be to provide land to the poor and support to small farmers? For decades now peasant movements all over the world have been asserting the right to land to the landless. Their assertion to this right comes in the face of repression and violence. It is a political struggle, since in many countries there is a lack of equitable distribution of land and a handful control access to this resource.

Gender discrimination ensures that women rarely own land, lack access to financial and social assets, have fewer opportunities to improve their skills and knowledge, and are rarely able to access public decision making processes. This August 2006, a thousand rural women, mainly Dalits, met in a conference in Tamilnadu, India to raise their voices to highlight their struggle against the practices of un-touchability, gender discrimination and the negative impact of the globalisation process, and agricultural policies that are detrimental to their livelihoods and survival. Time and again the grassroots women passionately asserted their demands for the right of poor rural women to own land. They also outlined their efforts and strategies to achieve land rights for impoverished women. In addition they concluded that land ownership alone will not be enough, there has to be support for inputs such as seeds, water and credit that would be needed to ensure sustainable livelihoods for their communities, and agriculture that would safeguard their health and the environment.

Just as the women in the conference had articulated their concerns, so have many other peasant men and women in many other fora and struggles called for genuine agrarian reform. This reform includes not only land rights to the landless, but also the necessary support to ensure their food and economic security. With right over the land, the peasants will have the right to make decisions on how the land is used, the types of crops, the kind of agriculture that they would choose including sustainable use of land and sustainable agriculture. For the majority of peasants, their lives and their livelihoods are tied to the land. Without control over land, women and men peasants cannot sustainably and efficiently use the land and its resources. They cannot invest in improving the soil, plan the crops that they will grow, and make long-term plans to improve their economic situation. Their access to credit is also limited due to lack of collateral in the form of property or other assets.

Agrarian reform that has been taken up successful in some countries shows that with rights to land ensured, peasants have been able to have livelihood security. Recent research from FAO shows that countries that have equitable, efficient land tenure systems and that have been in the forefront of ensuring property rights for both men and women, have developed faster to achieve higher levels of food security, health and welfare.

The absence of such access to land and resources means that the poor have no say in the kind of agriculture that is being practiced. As a consequence of the current food and agricultural production practices, the knowledge, skills and practices that are the basis of ecological agriculture and livelihoods of rural communities have been marginalised. The current industrial agriculture which relies on monocultures, pesticides and fertilisers as well as substantial irrigation, is also unsustainable and results in loss of biodiversity, land degradation and reduction of soil fertility.

One of the major concerns is the use of pesticides within these systems. Farmers and agricultural workers are exposed to pesticides directly when they are mixing and spraying these pesticides. Communities and consumers are insidiously exposed to pesticides through contamination of the soil, air and water or in some countries they are exposed through aerial spraying of pesticides.

Under-reporting of pesticide poisoning is rife especially in developing countries and so accurate figures are not available, and only estimates of pesticide poisoning are on

hand. One WHO report in 1990 estimates 25 million agricultural workers suffer at least one episode of pesticide poisoning every year. In Central America the under-reporting rate has been documented as 98 percent with a regional estimate of 400,000 poisonings per year¹. Moreover, most estimates exclude chronic poisonings and pesticide-related disease. Pesticides cause 14 percent of all known occupational injuries in agriculture and 10 percent of all fatal injuries.² The chronic effects of pesticides are particularly alarming when new studies link certain pesticides to cancer, lowered fertility, endocrine disruption³⁴ and to suppression of immune systems.

In many areas the agro-ecological balance has been severely disrupted by intensification programmes that involved heavy reliance on pesticides. Populations of natural enemies of pests disappeared as a result of intensive spraying. This combined with pest resistance to pesticides caused a crisis where more and more pesticides were used without preventing a decline in production. In several countries such crisis has caused major economic loss for example, the Brown Plant Hopper crisis in Asia in rice. This twin problem of pest resistance and resurgence and increasing costs of pesticides, and other inputs forcing many small farmers into a cycle of debt. For example, in India according to official sources, between 2001 and 2006 as many as 5,910 farmers committed suicide in Karnataka, 1,835 in Andhra Pradesh, 981 in Maharashtra and 201 in Kerala. Countrywide, between 1995 and 2003, 926,000 farmers are reported to have committed suicide, according to statistics put out by the home ministry. The main causes are said to be indebtedness, crop failure, and other economic and psychological reasons. Many countries in Asia small farmers are also buried in debt.

Among the 1 billion of the world's poorest people, 75 percent live in rural areas and 50 percent of all working people worldwide are farmers and agricultural workers—most of whom live in the South. Increasing proportion of the rural poor use pesticides without any safeguards and this is impacting their health, environment, and biodiversity. Most of the farmers and agricultural workers in developing countries that use pesticides lack information and training and are ill-equipped to avoid hazards. They often use older products because they are cheaper, but these are also frequently more hazardous and more likely to be the subject of international concern.

Surveys of these farmers and agricultural workers by PAN and others have shown horrendous practices such as the use of brooms to apply pesticides, using hands to mix pesticides and sometimes broadcasting the chemicals with their hands. The situation is made more serious because of lack of information and training, and illiteracy. Agricultural workers—especially those in the plantations—work as pesticide sprayers because they rarely have another option as workers. They work eight hours daily, and are exposed to a cocktail of pesticides without protective clothing, and often without any knowledge of the dangers of the pesticides they spray. Protective clothing are rarely available or affordable and where it is available the hot, humid climate ensures that it is difficult to use. Women continue to spray while pregnant in the fields and in the plantations. In the floriculture and horticulture fields in some countries, women bring their infants and children to work while they labour; and these children are exposed to

¹ Murray D, Wesseling C, Keifer M, Corriols M, 2002. Surveillance of pesticide-related illness in the developing world: putting the data to work. *Int J Occup Environ Health* 8(3): 243-8.

² International Labour Conference, 88th Session 2000, Report VI (1), Safety and health in agriculture, ILO, Geneva, 1999.

³ Theo Colborn, Dianne Dumanoski and John Peterson Myers. "Our Stolen Future", Penguin Books, 1996.

the chemicals that are used in these industries. Hired for their nimble fingers, girl children between the ages of 7-16 work in the cotton seed production and as flower pickers. These young girls are exposed to hazardous pesticides when these are sprayed in their vicinity in the fields of cotton or flowers. Many do not get the opportunity to go to school and the meagre salaries they receive contribute to their families continued existence.

Even when they may be literate, pesticide sprayers are very often unable to read the information written on the labels. Other problems noted include the fact that:

- ◆ The labels may not be in the local languages, as in the case of pesticides which are smuggled into the country illegally. In Cambodia, a study found that 95 per cent of the pesticide bottles sold were not labelled in Khmer, but in a foreign language – English, Chinese or Malay.
- ◆ The listing of contents may be in scientific jargon rather than in commonly understood language. Thus, the label may state the chemical composition of a pesticide rather than its popular name such as lindane, paraquat, and so on.
- ◆ Retailers and plantation management do not fully inform the farmers and plantation workers about the risks of the pesticides or the precautions that should be followed as noted on labels.
- ◆ In PAN AP's own research, plantation workers have noted that the labels are often removed from pesticide containers, thus making it very difficult to know what they are made to spray.

The advertising and promotional materials promote hazardous pesticides by using sweepstakes, competitions and offers of gifts such as motorbikes, trucks and other attractive household appliances, if they meet a certain target of purchase. These marketing strategies are unprincipled, and such advertising goes against the FAO Code of Conduct on the Distribution and Use of Pesticides—highlighting the lack of corporate responsibility.

Communities living in the vicinity of pesticide producing facilities complain about health impacts and the contamination of the surrounding environment as a result of pollution from these facilities. One such community living around the DDT plant situated in Eloor, Kerala launched a national campaign on September 17, 2006 and declared their rights for clean healthy environment and toxic free food and for clean water. They also asked WHO to take back the POPs waste from the DDT production.

When tragic accidents occur (sometimes avoidable) in these facilities, remedial measures to contain the contamination, clean the site and provide medical support and compensation to those affected are very slow in forthcoming. For example, the infamous Bhopal gas tragedy where a leak of methyl isocyanate gas, or MIC, from Union Carbide's Bhopal plant killed thousands of people. However, even now after more than 20 years Bhopal gas survivors are still struggling for remedial actions including rehabilitation of the contaminated site, compensation including medical support for those who are still suffering the health effects, as well as access to clean drinking water.

Governments in developing countries lack the resources to monitor the impact of these facilities on human health and the environment. Neither do they have the resources or sometimes the capacity to undertake systematic monitoring of pesticides and even to enforce regulations. Health monitoring is very sporadic and almost non-existent in least

developed countries let alone monitoring of soil, water or food residues is absent or limited. Even when a government takes the action to ban some of these pesticides, they are pressured to continue their use because of economic considerations. The health of workers and peasant farmers are often ignored in the pursuit of national growth and development.

The International Code of Conduct provides relevant and useful guidelines on the use and distribution of pesticides as well as the IFCS Forum V recommendations on Highly Toxic Pesticides. Given the conditions of use of pesticides in developing countries, it is best that the Code and the IFCS recommendations are adhered to especially to the provisions of the Code (7.5), calling for the prohibition of the importation, sale and purchase of highly toxic and hazardous products, such as those included in WHO class Ia and Ib ... and IFCS recommendations that also include endosulfan and paraquat... as well as (5.2.4) calling the pesticide industry to halt sale and recall products when handling or use pose an unacceptable risk under any use directions or restrictions.

Strategies to reduce pesticides in relation to poverty reduction should also generally include the following components:

1. *Implementation of equitable land reform* and redistribution of land to landless within a rights-based approach to development with gender equity as a priority
2. *Policy development*: ensures adequate and sound legislation that integrates critical management of, and precautionary principle on, chemical use in a country's economic programme;
3. *Ratification and implementation* the Rotterdam Convention on The Prior Informed Consent Procedure For Certain Hazardous Chemicals And Pesticides In International Trade, the Stockholm Convention on Persistent Organic Pollutants, and implement the Strategic Approach on International Chemical Management, International Code of Conduct on the Distribution and Use of Pesticides.
4. *Peoples' participation*: strengthens the voices of the people, especially the poor and the victims, peoples' movements and NGOs in setting agenda, framing policies and regulatory frameworks;
5. *Information dissemination*: promotes comprehensive information (especially on the hazards and risks of chemical use and exposure) for informed decision-making especially of the poor that bear the most exposure; integrates information in education programs;
6. *Risk assessment and management*: establishes management policy based on risk avoidance, and on precautionary approaches e.g. early identification of high risk sites; strengthens capacity for risk monitoring, assessment and interpretation, that gives importance to peoples' voices and participation;
7. *Implementation and enforcement* of regulations that protects the users/victims and penalizes the sources; of methods of prohibiting highly hazardous pesticides and preventing illegal use;
8. *Capacity enhancement* for the rehabilitation of contaminated sites and victims of contamination, and for responding to emergencies; rehabilitation measures should comprehensively include compensation, costs for recovery of livelihood sources, etc.;
9. *Research and development* in the national science and technology framework to produce health and eco-friendly substitutes and alternatives to chemical usage.

Another component of poverty reduction should focus on the implementation of

alternatives to pesticides, especially ecological agriculture. In Asia, because of the indebtedness, health impact of pesticides and the environmental degradation, there is a slow revolution that is taking place—the ecological agriculture movement. This movement looks at agriculture as a holistic system, where other key concerns besides yield increases are considered in making decisions about development. Most emphasis is placed on food sovereignty and security in a framework encompassing production, environment, women's participation and democracy. Such ecological agriculture systems tend to learn from, and build on, traditional farming using local farmers' tools and technology. Today 200,000 farmers in Bangladesh are practising ecological agriculture within the *Nayakrishi Andolan* (New Agricultural) movement. More than 20,000 farmers in India are practising low external input agriculture without the use of pesticides, while in one NGO programme in Indonesia, more than 10,000 farmers have been reducing pesticide use by 60-80 per cent through community integrated pest management.

Combining the right to land and productive resources, ecological agriculture, and strong action on pesticides are but the starting points. More importantly, it is only through genuine participation of peasants, agricultural workers, fisherfolk, pastoralists, indigenous communities, Dalits and rural women and their organisations in the policy formulation and implement of the strategies of poverty reduction that poverty reduction and actions to ensure chemical safety can be achieved.

Only if the civil and political rights of groups who often have little voice are guaranteed, can we reach the goals of the MDGs and the World Food Summit.

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