

SUSTAINABLE AGRICULTURE, FOOD SECURITY AND GENDER

Presentation to CIDA Workshop on Children's Contribution to Working and Caring for the Land: The Links Between Agriculture and Child Rights – March 2nd, 2004

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Good afternoon, and thank you very much for the opportunity to speak with you today. I have been asked to speak on the themes of sustainable agriculture, food security and gender, with reference to the participation of children and youth. I am not an expert on children's rights or youth in agriculture, but I am happy to share some reflections on these themes based on experiences working with groups in Asia. I intend to illustrate the inter-connected nature of sustainable agriculture, food security and women in agriculture by drawing on work being done by Deccan Development Society (DDS) in Medak District of Andhra Pradesh, India. Though there is similar work being done in other parts of the world, I will concentrate on this case study in order to more fully illustrate the inter-connectedness of this approach to food programming, one that is in fact more of a development philosophy than a development programme, as it is holistic and takes into account a broad range of issues.

Medak district is a semi-arid dry-land area which receives very little rain, and is considered one of the poorest in India. Many of the people who live in Medak belong to the so-called "untouchable", or *Dalit*, caste – the lowest rung on the Indian social hierarchy. Medak is considered part of India's "hunger belt", parts of the country which regularly experience serious shortages of food and hunger. Despite India's unprecedented growth as measured by indicators such as GDP, over 320 million people do not have enough to eat on a regular basis.

About two years ago, there was an extended drought in Andhra Pradesh. Cracks in the earth opened up into ravines. Crops withered and died in the heat. The state approached the federal government and asked for emergency food from the country's stockpiles. At the same time, in Medak District, women leaders met to assess whether emergency food was needed. Women from village after village said they had no need for external food. What they had grown in their own villages as part of their "alternative public distribution system" was enough to meet their food requirements. Apparently this floored government officials as here were villages like others nearby, inhabited by the least-materially privileged sectors of India society, no irrigation, poor land quality. How was it that the villagers of Medak, supposedly among the most food insecure of the whole country, turned out to in fact have the greatest food security in a time of scarcity and hunger? This is what I would like to explore with you today.

The answer here lies with community mobilization around the themes of bio-diversity based agriculture and the critical role of women in food security. The villages with which DDS works are all organized around *sanghams*, which loosely translates as village women's groups. The sangham women grow crops which have been traditionally grown in the Medak area for centuries. As the land is rain-fed and extremely dry, these are crops

which have developed over generations to flourish in local conditions, without irrigation, or chemical pesticides or fertilizers. Mostly, the grains grown are various varieties of millets and sorghum, foods which are known to be much more nutritious than polished white rice. Using inter-cropping and crop rotation, the sangham women grow not only these staple grains, but pulses, vegetables, fruit and medicinal plants – not only preserving, but enhancing biodiversity in the process. The results are tremendous. I met one woman, for example, who nurtures over 70 plant varieties on her one acre of land.

As no chemicals are used, there is an abundance of what some might call "weeds", but are in fact valuable uncultivated foods such as plant greens and tubers. Among these uncultivated foods, many are leafy green edible plants, and provide an immensely rich source of nutrition, including elements such as iron, vitamin c carotene, folic acid and riboflavin. Among the poor in South Asia, and probably other places in the world, uncultivated foods provide a minimum of 40-50% of people's food sources. Women are the keepers of the uncultivated foods knowledge, and children, especially girls, help gather and prepare these foods, with knowledge being passed on through generations. In addition to the uncultivated foods which grow in areas where ecological agriculture is practiced and which greatly contribute to nutrition and food security, there are many varieties of medicinal plants, and others used for fuel and for fodder. Uncultivated foods have also often been used to tide people through lean agricultural seasons or food emergencies. This example clearly underlines the key role of agro-biodiversity in food security. However, these tremendously nutritious, safe and freely available food sources are intensely threatened when chemical farming is practiced. Industrial farming practices such as mono-cropping threaten bio-diversity based food production systems such as the one I am describing, and undermine the food safety nets of poor people.

However, growing food in a sustainable fashion is not sufficient to ensure food security. Key to the broad concepts of food security, perhaps more akin to the newer discourse of food sovereignty, is the notion that in order to ensure genuine food security, farmers must have control over the whole food production system, beginning with seeds. In these sangham villages, women are seed keepers and exchangers. In accordance with practices that have been around for a long, long time, the sangham women keep, lend, borrow and exchange all the seeds they use in their fields. They are stored using traditional, chemical free methods made of locally available material, often in straw baskets wrapped in mud or sealed clay pots. Neem leaf, or other plants depending on the seed, is used to deter pests. Women have historically been the seed keepers in this area and many others, and work with the rest of their families to plant, nurture and harvest crops. In this way, farming families are able to be entirely autonomous and non-reliant on the market for agricultural inputs. In areas where people regularly borrow money for agricultural inputs from money-lenders who charge exorbitant interest, and where bonded labour is common as a result, food sovereignty can be the difference between a life of misery and one with options and opportunity.

In this agricultural system, children are not seen as people who need to be fed, but as active participating agents. Everyone, from the elderly to the young is valued for their contribution to agricultural work and community development. Older people, especially

women, hold huge amounts of information about seeds, seed saving, inter-cropping, seasonal fluctuations and more. The passing on of this information through the generations is key to the sustainability of the system, and much emphasis is placed on children acquiring this life sustaining knowledge. Children, especially girls, learn about what seeds should be planted when, and with which other plants, where to place them in a field, when to sow them, etc, from a very young age. This participation in family and community life is generally safe and rewarding for children, and there are no dangers from chemical poisoning or contamination, or of maltreatment by employers. There is little or no division between “productive” people and others, all have a role to play. As the knowledge does not come from outside, these agricultural systems also reinforce confidence in an environment where low caste people are treated very badly, and contributes to a sense of community strength and pride. Now, in these villages, the most upper caste people come to Dalit women for advice and for seeds for their own fields, transforming local power structures in the process.

Before I fully explain the next step in why the sangham women did not need the emergency food rations, I must step back and say a few words about India’s national Public Distribution System (PDS). As I mentioned earlier, there are estimated to be 320 million people in India without enough to eat. The government tries to address this through the PDS, a country-wide system of subsidized ration shops. The PDS is widely acknowledged to be rife with problems, including distribution-chain breakdowns, corruption such as officials demanding bribes for ration cards, people being sold sub-standard broken grains, and much more. In addition, the main grains supplied through the PDS are rice and wheat, which are less nutritious than many locally grown grains and not as culturally appropriate. And finally, the big question surrounding the PDS system is, how can people who are extremely low-income afford PDS rations in the first place?

The sangham women, and other people in other parts of India, have developed an alternative PDS where food is grown, stored and then distributed within the community in times of food scarcity, according to need as established by the community members themselves. This program is premised on bringing fallow land under cultivation, in the ecological manner described above. Through an initial small loan, villagers are able to invest in manure and plowing abandoned land, slowly bringing large areas back under cultivation. They then pay back their loan slowly, over a number of years, in millet and sorghum, which goes into a Community Grain Bank. That grain is then distributed during the lean times to village families, at a very low cost, pro rated according to means. Over time, the village becomes largely self-sufficient, growing enough grain for everyone to get through the lean season without having to face hunger or migrate to work as day labourers.

In the past, people had to leave their villages and migrate to work on other people’s farms at key times of the agricultural season. The wages were not enough on which to survive, and people had to borrow money from money-lenders, getting into cycles of debt. In order to pay it back, they had to work more and more on the money-lenders land, and they no longer had time to invest in their own land. As this went on, and people had to borrow more and more money to survive, they essentially became bonded labourers. This

also heavily affected children as they either migrated with parents if they were old enough to work, often in incredibly difficult situations, or stayed behind with the most elderly. Those who worked with their families faced dangerous working environments, chemical poisoning, extremely strenuous working conditions and lack of opportunity. No longer having to migrate due to the Community Grain Banks frees people up to invest in their own land, slowly breaking the cycle of debt. In many villages where there is a Community Grain Bank, money-lenders have closed up shop as no one is borrowing money from them anymore, and bonded-labour has stopped. This is how the villagers of Medak district ended up turning down emergency rations even during a time of drought. They had enough.

One of the many benefits for school-going children who no longer have to migrate for work is that their education is not interrupted by leaving their villages. Some children in the area attend local schools, and others attend a school called the Green School, where along with courses like science and math, the kids learn carpentry, pottery (including how to make pots for seed storage), agricultural practices like permaculture and more. Of course they also learn biodiversity-based ecological agricultural practices such as seed saving and inter-cropping alongside their families, as described earlier. They are taught local crafts and skills by local craft people, thereby reinforcing respect for skilled people within their own communities and castes. In this way there is no artificial split between what is “modern” and traditional”, children learn what is useful for their lives.

Another benefit is that even those who do not work with DDS benefit from the presence of autonomous ecological agriculture in their area. One way is that the lack of agricultural chemicals brings an abundance of nutritious and freely available uncultivated foods which benefit everyone. Ecological agriculture also brings back biodiversity and pollinating insects. Also, people working on their own farms instead of migrating for work raises the day labour rate for everyone, as there are more total work opportunities when more land is under cultivation.

Backing away from this example, I would like to draw out some of our observations from these villagers and others who practice similar kinds of community-based ecological agriculture. If we look at the difference between the state-led PDS and the Alternative PDS, we can observe that though both are seeking to address the same problem of chronic hunger, one is a form of "food provision" program, a "relief" program in development discourse, where people have some access to generally low quality subsidized foodstuffs. The other approach is based on a holistic community development programme, one that in-builds provision for times of scarcity in the broader community development plan, reinforcing people's own capacity to grow food for themselves and their communities while at the same time addressing seasonal shortages and building other aspects of their community development in the process. Therefore, planning for times of scarcity through the Community Grain Banks helps reinforce the strength of the community, ultimately dramatically reducing the need for relief services, rather than a more "relief"-style food security approach which rarely has medium or long-term benefits. In essence, this kind of programming collapses the relief to development continuum, providing for the first while concentrating on the latter.

These Community Grain Banks also act as springboards for community mobilization and development, and ultimately, once the community itself has enough food, it can sell surplus grain to local markets to fund community development programmes. These kinds of holistic approaches, which exist in various places around the world, provide environments where children are generally not only protected and valued, but given the right conditions, are able to flourish - key actors in family and community processes, where agricultural systems and community development are inter-twined and mutually reinforcing.

What are some of the underlying principles of this approach? I will underline a few, though as they are inter-dependent, they are not in any particular order. One is genuine local ownership. The villagers themselves plan, manage and undertake all stages of food production and community grain bank management, as well as other initiatives. All decisions, from what to grow, where to grow it, how to grow it, how much grain to place in the community grain bank, who should access this grain and at what cost, is all decided by the community itself, in public transparent participatory processes. A second principle is that food security is ensured precisely because biodiversity-based ecological agriculture is practiced, using locally adapted seeds which thrive in the local dry-land climate, eliminating the need for cycles of debt to fund irrigation and other costly off-farm inputs. A third principle is that women play a central role in this kind of agriculture, recognized for their knowledge and practice around seed selection, seed properties, seed storage, inter-cropping, crop rotation and more. Children, especially girls, learn these skills from their parents, acquiring knowledge that will allow them to secure at least a basic livelihood from locally available resources, in a manner which is so sustainable that land becomes more fertile, rather than less, as time goes on.

In order to build sustainable community-based food security systems, food requirements need to be looked at less in isolation through food aid-style relief programming or micro-nutrient provision, and more within the wider picture of how food production systems fit into community management and community development processes. In our experience, community-driven biodiversity-based agriculture, with women recognized as central actors, forms a solid basis for genuine food security and rural development, leading to less vulnerable families, and less vulnerable children.