EDUCATION AND THE CREATION OF SUSTAINABLE RURAL COMMUNITIES IN UGANDA AND JAPAN: SOME LESSONS FOR THE DESD*

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20th July 2004

DESD* Decade of Education for Sustainable Development

Abstract

This paper is based on two research experiences from Uganda and Japan. The major goal of the research was to critically examine educational activities aimed at addressing the challenges of sustainable development in rural areas of the two countries in order to draw some lessons to inform the implementation of the decade of education for sustainable development. The paper is premised on the view that education is not neutral and reiterates the importance of approaching education practice from a more critical and open-minded perspective. It highlights the philosophies of education, environment and development as the major currents informing EfSD, thus making it a multidimensional endeavour both at the practical and theoretical levels. It reiterates the need to critique the philosophical positions of educators as the first step in reorienting education into EfSD.

The results demonstrate the need not to only contextualise EfSD programmes but also broaden the scope to address other socio-cultural and economic issues that often lay out side the concern of educators. A contrast between Japanese and Ugandan experiences demonstrates the magnitude of the problems poverty; inadequate socio-economic infrastructure and the differing economic orientations pose to the implementing EfSD programmes. The paper highlights the complexities involved in attempting to balance ecological, economic, social and other development needs in different contexts.

The Ugandan case illustrates inconsistencies in the epistemological assumptions and didactic approaches common in the implementation EfSD programmes and their potential dangers to EfSd success. The study shows that the intended emancipatory education processes are more often supplanted by technicist methodologies. Thus, it exposes the underlying historical, ideological and epistemological tensions and contradictions within the field of education, particularly in relation to the orientations (neo-classical, liberal and socially critical/emancipatory). It also demonstrates that with the choice of appropriate methods and approaches (more participatory, empowering and active) guided by clear conceptual frameworks EfSD can be successfully implemented.

EDUCATION AND THE CREATION OF SUSTAINABLE RURAL COMMUNITIES IN UGANDA AND JAPAN: SOME LESSONS FOR THE DESD

1.0 Introduction and background

This paper explores educational efforts towards sustainable rural development particularly the role of education in the creation of sustainable rural communities. It is based on a critical review of one major case study of a community-based rural development programme in Uganda, and a few selected experiences in Japan. The research aimed to generate lessons to inform the implementation of the coming Decade of Education for Sustainable Development (DESD) by critically examining the nature of existing educational activities meant to address the problems of rural communities. The selection of the Ugandan case and the Japanese experiences was based on two factors: it was convenient for me, first, as a Ugandan with more than ten years' research experience in the rural Ugandan context and second, my presence in Japan as a postdoctoral fellow provided an opportunity for me to explore some relevant experiences in Japanese context. The paper raises key theoretical issues regarding educational practice and discusses the role of contextual factors in determining the character and direction of EfSD. It also presents a critique of one EfSD programme in rural Uganda.

1.1 Why EfSD?

My focus on EfSD in this study was based on the big challenge facing the efforts to foster sustainability among rural communities. This is regardless of the socio-economic and other contextual variations of different communities. In developing countries like Uganda, the poverty situation; reliance on a cash crop export-led economy in a global neo-liberal economic system; limited access to key resources; lack of appropriate knowledge and skills to manage the available resources; gender and other socio-economic inequalities pose a very big challenge to the attainment of sustainable communities.

In the case of developed countries like Japan, challenges to rural sustainability include among others: the changing rural demographics (the sector is dominated by a core work force aged 65 years and above), declining economic margin and gross income per farm, falling prices for agricultural produce, the declining trends in the proportion of commercial farms (see Table.1). All these imply among other things loss of employment and increased vulnerability among rural farming communities.

Table1. Declining trends in the proportion of commercial farms in Japan

Farm Types	1990	1995	2000	2002
Business farms	820,000	678,000	500,000	463,000
Semi - business	954,000	695,000	599,000	555,000
Side business	1,196,000	1,279,000	1,237,000	1,231,000
Non commercial	864,000	792,000	783,000	779,000
Total No. of farm	**3,834,000**	**3,444,000**	**3,119,000**	**3,028,000**

Source: *generated from the annual Report on food, agriculture and rural areas in Japan FY 2002 Part 1 provisional translation*
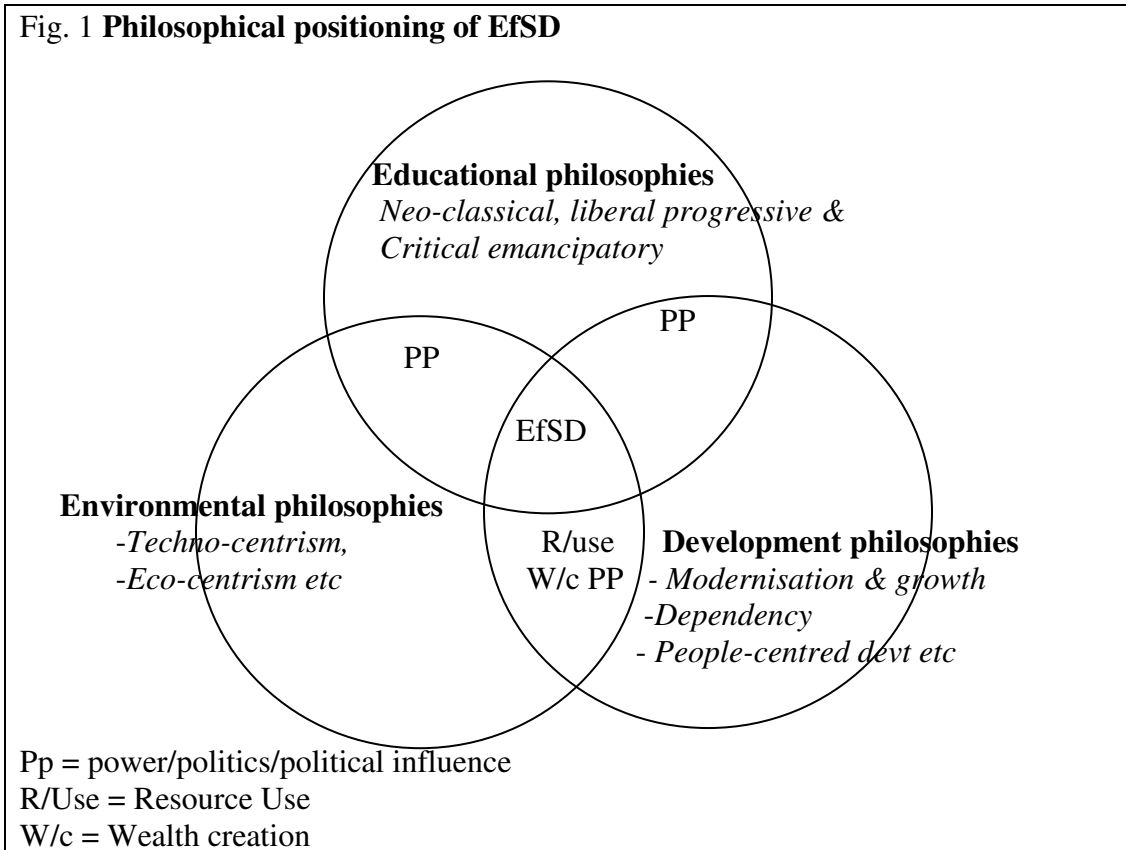
In addition, Japanese farmers are struggling to cope with new regulations to control rice production, insufficient labour supply, and a hostile marketing system that seems to represent interests that do not favour less wealthy farmers.

All the above factors associated with the Ugandan and Japanese rural sector point at the fact that the socio-economic situation of rural dwellers, and farmers in particular, has changed and the need for new forms of learning has become inevitable. Hence the need for educational responses not only based on principles of sustainable development, but also employing methods and approaches that empower communities to become both responsive and proactive enough to get actively involved in activities and processes that will enable them to determine their destinies. Such education represents a shift from the traditional narrow confines of training for skills and knowledge in formal institutions to cover a more lifelong process that provides learning opportunities for diverse social categories (catering for diversity in terms of age, gender, economic grouping, class, religion, occupation/professions and others) in their particular locations, responding to their varied needs, interests and challenges. In essence, this constitutes EfSD which by implication should be critical and transformative with the capacity to engage with the contextual forces that threaten the attainment of sustainable development goals using result-oriented active learning approaches that will create reflexive development actors.

1.2 Educational, environmental and development philosophies as foundations for EfSD

This analysis of EfSD is premised on the view that knowledge is never neutral and neither are scholars who produce it. Like knowledge, education too is not a neutral process or activity. Different people will therefore conceptualise education for sustainable development and the related processes differently. The different conceptualisations certainly influence the practical actions educators take to address educational matters, whether the educators are aware of it or not. Thus the curricula, methods, learning activities and outcomes always reflect the dominant thinking of the educators and the socio-political and professional institutions they belong to. Analysing education for sustainable development therefore, calls for clear understanding of the different philosophical orientations to education and their implications on education practice which helps to explain why educational efforts yield particular learning outcomes.

EfSD is particularly a complex concept and its implementation a composite venture informed by diverse philosophical currents; including philosophies of development, education and environmentalism.

Fig. 1 **Philosophical positioning of EfSD**

Educational philosophies
Neo-classical, liberal progressive &
Critical emancipatory

PP

PP

EfSD

Environmental philosophies
-Techno-centrism,
-Eco-centrism etc

R/use
W/c PP

Development philosophies
- Modernisation & growth
-Dependency
- People-centred devt etc

Pp = power/politics/political influence
R/Use = Resource Use
W/c = Wealth creation

Educators writing from a critical perspective have identified three broad educational orientations (Kemmis et al 1983) namely: the neoclassical/vocational, liberal/progressive and socially critical/transformative orientations. The orientations are classified according to the underlying knowledge-constitutive interests[1]. While this classification might have its own limitations, it also has considerable value, particularly, in characterising and explaining different educational processes and their related outcomes. The framework of educational orientations in table two (2) represents the various locations from which different educators operate, and view the world of education and educating. These professional positions are ideological, and they always consciously or unconsciously filter into the educational practices by

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[1] Habermas (1972), argues that there are three fundamental human interests; namely the technical, the practical and the critical or emancipatory, knowledge-constitutive interests that influence the different types of knowledge and educational processes.

different people, influencing the direction of educational programmes and their ultimate outcomes.

In the case of EfSD, in addition to the educational orientations of practitioners, the way different environmentalists interpret and respond to environmental challenges; and the dominant development discourses (fig.1). This is because by its very nature, EfSD is not education for education's sake, but responsive to socio-economic, human and ecological concerns of society. This is largely why the character and dimension of education for sustainable development, like environmental education, represents a manifestation of the different environmentalisms (Pepper 1986).

As educators try to respond to the broad range of sustainability concerns, their minds are actually preoccupied with not only the desire to educate, but also do so in such a manner that satisfies their interpretation of the environment, environmental concerns and their world view of good environmental management. This probably explains the different dimensions of EfSD. Educators rooted in techno-centric environmentalism for example design technocratic educational programmes that not only exhibit their confidence in the potential of science, technology, 'experts' and regulations to address sustainability concerns, but also fail to recognise the central role of key stakeholders (e.g. local communities), in interpreting their local situations and generating home-grown responses.

Likewise, educators with an eco-centric environmentalist bias design educational programmes that aim not only to empower people to manage the environment but also create more harmonious relations between society, nature and individuals within society. They also aim to re-orient society's modes and relations of production. The central role of those directly affected by particular sustainable development challenges is emphasised, not as passive recipients of 'expert' advice and directives but active analysts of their situations and co-creators of home-grown solutions to the challenges.

At another level, society's development goals and the philosophies that inform them form an integral part of EfSD. This is because of the organic relationship between development practices and the environmental crisis/sustainability challenges which EfSD aims to address. For example, the twentieth century perception of development as economic growth, and modernisation as the right strategy for pursuing it, has led to unsustainable patterns of development and it is largely responsible for many of the environmental and development problems experienced in the world to-day.

In order for EfSD to play its transformative role of re-orienting society and its systems, it is not only enough to critique modernism and its basic assumptions, but also to recognise all philosophies underlying actions geared towards the attainment of sustainable development as this will empower all stakeholders to pursue options that are sensitive to the socio-economic and ecological impacts of development processes well understanding each others' limitations.

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Table 1: Educational orientations, characteristics and implications

Characteristics/assumptions on:	Neo-classical/ Education	Liberal/ progressive Education	Critical/ emancipatory/transformative education
Education	- Viewed as a technical activity, and an instrument/tool for achieving pre-determined behavioural goals; - Preparing people to perform specific tasks; - Teacher-centred, - Neutral activity fully in the hands of the educator/technical expert to manipulate in order to change learners behaviour;	- a social process preparing people for life rather than work (which is narrow) - should be learner centred	- a social process empowering people to critique and transform oppressive socio-cultural, political and economic structures; - political and ideological - used to perpetuate dominant socio-economic and political relations - levels power gradients in society, - inextricably linked to the social, economic, cultural and political structure of society
Educators	- Viewed as experts in changing learners	- viewed as facilitators of the	- co-learners and co-constructors of

		learning process - organisers of learning opportunities - enabling learners to take advantage of those opportunities	knowledge in a situation of mutual respect in order to respond to challenges collectively and individually; - collaborative agent
Learning objectives	- behavioural and predetermined by the expert educator	- co-constructed and outcomes collectively determined/derived from community	- co-constructed based on material conditions of the people
Learners	- lack the right knowledge skills and attitudes (must be taught by the expert – like an empty vessel to be filled)	- central to the educational process, - learners experiences are seen as the basis for learning, - Seed to nurture	- experienced co-constructors of knowledge and central actors in the learning process; - critical, constructive co-participants - -fire to kindle
Learning and change	- a linear process involving knowledge acquisition, attitude and behavioural	- social process in which all those concerned actively and willingly	- social transformative process; - revolutionary

	change, (all depend on being equipped with knowledge)	participate; - depend on understanding social phenomena and being able to interact with it; - expected to occur through reform based on people's understanding of the situation and informed decision making rather than technical	aimed at levelling power gradients
Knowledge	- 'True knowledge' helps to solve technical problems, and its creation is a responsibility of the expert educator/researcher - through objective science - pre-packaged learning experiences	- knowledge is socially constructed in participatory manner, -	- socially constructed and dependent on one's personal location - should enable people to be critically aware and challenge the dominant oppressive power relations and structures in society
Teaching/learning	- Transmittal/teacher	- bottom-up	- bottom-up,

Methods			
Methods	centred - Social engineering	participatory - democratic and experiential - collaborative	creating critical awareness; - conscientisation through dialogue; - critical enquiry
Educational failure	- associated with learners weakness	- associated with the exclusion of the majority of people from the planning and development of educational plans and strategies; - lack of ownership of educational programmes	- autocratic socio-political structures which lead to transmittal educational processes; - disempowering methods and content

(Adapted from Kemmis et al 1983 and Janse van Rensburg 1995 and modified)

2.0 ANALYSIS OF EfSD EXPERIENCES FROM UGANDA AND JAPAN

This part of the paper presents an analysis of a community-based sustainable development programme in Uganda, contrasting key emerging issues with relevant Japanese experiences. The community-based programme used education as the central implementation strategy. The goal of the programme was to create social and economic empowerment of the smallholder farmers through training in sustainable agriculture, land use and management, agric trade and microfinance. The case of VEDCO's community-based educational programme discussed here represents one of the many responses to development challenges in Uganda's rural sector by Non Governmental Organisations (NGOs). Uganda's national environmental policy through the NEAP accords NGOs a central role in the implementation of policy goals and activities at community level (MNR 1995). This is based on the belief that NGOs operate closer to communities than many government institutions/departments. Such a position gives the NGOs a better understanding of the actual needs of the people and the potential to develop appropriate responses.

2.2 The Ugandan case and Japanese experiences

The Ugandan case is based on a programme initiated by VEDCO (Volunteers Efforts for Development Concerns), a local NGO in Luwero district, central Uganda. Luwero is a rural district with a population of (479,922), 92% of whom are based in rural villages (UBOS, 2002). Between 1981 and 1986, the district experienced a guerrilla war that lasted for six years and finally brought the National Resistance Movement (NRM) government to power in 1986. The war devastated most of the economic and social infrastructure, human life and settlements. The district is currently among those with the largest numbers of orphans and widows due to the war, and of late the AIDS scourge. Such factors have increased the social and economic vulnerability of the people in the district. Major efforts towards reconstruction and rehabilitation of the district have been in place for almost two decades, but the district is yet to fully recover from the effects of war. Although the Ugandan case constitutes the core of this discussion, experiences gained from my research among Japanese farmers in Miyagi prefecture Tohoku Region, are drawn upon to establish a contrast between the two different contexts.

2.3 The role of contextual factors in shaping the character of EfSD
This section of the paper contends that the character of EfSD in any given country is deeply influenced by the local context of the country. The purpose of the coming discussion is therefore to use the Ugandan and Japanese cases to illustrate this point in an integrated analysis of the different experiences. Poverty, inequitable distribution of land the main community resource, and other socio-cultural dynamics including the patriarchal gender relations as factors that characterise the socio-economic context of Uganda are discussed in contrast with the Japanese situation.

2.3.1 The socio-economic situation of the studied Ugandan case

Agriculture, in particular crop husbandry, is the source of livelihood for 85% of the people in the wetter southern part of the district (VEDCO, 1998). Animal husbandry, in particular cattle keeping, dominates the drier northern part of the district. The agriculture is largely subsistence, using rudimentary methods and tools. The average economic status of the researched community was below the official national poverty line of $1240 per a year. In some communities, the annual household incomes were incredibly low, ranging between $160 and $ 600 (Kyaddondo & Kyomuhendo 2000 and VEDCO, 1998).

Land the main resource for farmers, remained 'insufficient' and inequitably distributed which forced people to adopt unsustainable and ecologically destructive survival strategies. Wetlands were for example being drained for agricultural use, and natural bushes set on fire to avoid labour costs for bush clearing. Activities like brick making and commercial cutting trees for fuel wood/charcoal were being pursued as alternatives partly due to scarcity of land, and partly to generate the badly needed cash in the face of decimating poverty. For those who chose to borrow or hire farmland from local landowners, they often did so on terms which bred a sense of insecurity and discouraged farmers from managing the land efficiently. In some cases people borrowed pieces of land that could only be used after heavy labour costs which many farmers lacked and to make matters worse, land owners withdrew the land immediately borrowers made it good enough for productive use. Such problems led farmers to knowingly violate principles of sustainable agriculture through actions like over-cultivation of land and intercropping of incompatible crops, and to revert to the use of agro-chemicals to maximise production.

The mentioned scarcity of land notwithstanding, my experience with some Ugandan and Japanese farmers suggested that the 3-6 acres/1-2.5 ha of land available to Ugandan farmers on average, would be sufficient if well managed and maximally utilised. Many of the Ugandan progressive farmers with the same size of land were not only producing enough to cover their household food security needs, but also had a surplus for the market. The case of the Japanese farmers I visited in Miyagi prefecture is also testimony to this. Farmers with the same amount of farmland or less were achieving optimal production and even being urged to cut production largely because of the effective steps they took to manage the land. Interestingly, although many of the Japanese farmers I interacted with had an average of 2 ha for agriculture, none of them complained of the scarcity. One has to note therefore, that whilst it is important to deal with the problem of inequitable distribution of land, including streamlining of land policies, more concerted efforts should be directed towards better management of land. This calls for education for sustainable development that emphasises land management practices alongside issues of equity.

2.3.2 The plight of pursuing the goals of sustainable development under poverty

Poverty posed a key threat to the attainment sustainable communities in the Ugandan rural sector. It manifested itself as a complex, multi-dimensional phenomenon, rooted in both problems that were local and global. At the local level, political instability; complete dependency on traditional cash crops; insufficient production skills; inadequate technical personnel to support local producers and unreliable markets and marketing systems exacerbated poverty. Other factors like the dependency on the vagaries of nature for production, pests, diseases and vermin; limited access to micro-finance and government's structural adjustment and economic liberalisation policies also contributed to the poverty situation. The poverty situation was worse among the female headed households the majority of whom were widows. The elderly and the youth many of whom were landless also featured prominently among the poor. Such people did not have much to sell apart from the little food they produced, which rendered them even more vulnerable. Communities were also often unable to take advantage of the available alternatives either due to poverty, lack of confidence or other technical difficulties as illustrated by the cases in Box 2. Such factors demonstrate the depth of the challenge to the pursuit of the goals of sustainable development in a context of poverty and underdevelopment.

Many of the problems mentioned here were entirely unknown among the Japanese communities I visited. The Japanese farmers were in contrast grappling with more substantive issues regarding sustainability like safety of production, market challenges and others, as opposed to subsistence in the Ugandan case. This scenario reiterates the need for a contextualised approach in the implementation of EfSD and to avoid any generalised solutions to problems of sustainable development.

Box 1 Community description of the poverty scenario (source: extracts from farmers' interviews in Uganda)

People are poor and most of them depend on personal labour. It becomes difficult for many of us to practise the new skills and knowledge, because some of them need money to be implemented. At times those people wait to see how we who implement benefit from the things we do, but unfortunately many of us are not good examples. I, for one, for instance, grew eggplant in large numbers. When they matured, I had nobody to sell to, yet I had wanted to use money from the sales to buy the necessary inputs. As a result my problem became worse, I wanted pesticides to kill the pests because the local concoctions had failed to kill all of them, but here I was, unable to complete the work I had embarked on. My situation became a point of reference for those who denigrated our involvement in the training; I could not attract those slow adopters, because there was nothing good to learn from me. Actually they laugh at me because some are better off than me.

The training approach and content has been very good, because it focused on the real things we have been trying to understand and now I can say that I know what I am doing, but there is one thing: *Omwavu ne bwasoma taba n'amagezi* ("It does not matter how much you train a poor person, he will always remain a fool"). Due to poverty we cannot implement, that is, get those materials like banana suckers, improved seeds, that's why we are still seen as fools. Our knowledge is not reflected. Do you think a visitor will see me and believe I have any knowledge and wisdom? No. no. Because of poverty I am sitting on the knowledge**.**

2.3.3 Diversification as a strategy to avert poverty

To cope with the challenges of poverty VEDCO introduced high value crops to diversify farmers' incomes, but like other efforts, this was also confronted with three major problems: a) crop management; b) quality control/assurance and c) marketing.

a) Crop management
While farmers had sufficient experience in the production of coffee and other traditional cash crops, they had to be taught to produce the high value crops like okra, chillies, dudi, hot pepper and others. Although this was done as part of the sustainable agriculture and farm business education programme, farmers realised that high value crops required more intensive care and strict production procedures to meet the quality demanded on the international market. This was a big challenge to many Ugandan farmers who had to re-learn and adjust according to the new demands. Interestingly, a similar concern was raised by Japanese farmers with regard to their efforts to redirect production from rice to crops like wheat, soybeans and others. The key informants from the government agriculture department and the Japanese farmers' corporation also confirmed this challenge to Japanese farmers. The only difference was that many Japanese farmers unlike the Ugandans were part-time farmers with other jobs and therefore not looking at farming as the only source of livelihood.

b) Quality control/assurance
Farmers also realised that some of the international quality standards were difficult to attain, confusing and 'unrealistic'. Exporters for example, wanted small size okra, small mangoes, pineapple and avocados. This however contradicted the farmers' views of 'good' quality. Japanese farmers on their part decried the strict and often arbitrary standards and methods of grading agriculture produce in the market. According to one key informant, the decisions were subjective only reflecting the perception of the individual quality assessor but not the reality of the products assessed.

c) Marketing
Most of the high value crops like okra, chillies, hot pepper and dudi produced by Ugandan farmers had a limited local market, as they were not widely consumed by the local people. This was contrary to the Japanese situation where farmers largely target a ready domestic market. This is not to down play the impact of the stiff competition and above-mentioned quality standards which often eliminate the less competitive farmers who, happen to be the less wealthy, aged and therefore more vulnerable members of society.

In contrast to Japanese farmers, the plight of Ugandan farmers appeared graver due to the fact that Uganda has no safety-nets or deliberate coping strategies to help farmers absorb the different shocks that often hit the farming industry. While Ugandan

farmers entirely depend on the vagaries of nature with no institutional framework to bail them out in case of any hazards, Japanese farmers have the agricultural insurance to address such challenges. The Japanese government policy towards agricultural diversification is for example cushioned by incentives like compensation to farmers for income lost in the process of adjustment. Once again one recognises that to address the plight of poverty in any community demands not only education with particular emphasis on change and managing change, but also practical support in form of material incentives like the case of Japan, although this seemed far beyond the capacity of many developing countries.

2.3.4 The plight of rural communities under structural adjustment programmes

Through a review of both Ugandan and Japanese literature and interviews with farmers, I discovered that both countries had had structural adjustments albeit in different directions and for different reasons. Nevertheless the impact of these adjustments on the capacity of communities to pursue and achieve goals of sustainable development remained tremendous.

Uganda like many poor developing countries, had bow to some of the demands of international funding agencies in particular the IMF and the World Bank. From the mid 1980s, the country started to adjust the economy according to the structural adjustment programmes (SAPs) of these funding agencies. Some components of the adjustment programmes like the removal of farmers' subsidies and withdrawal of government's regulation of producer prices as part of economic liberalisation, left farmers helpless and at the 'mercy' of the merciless hands of the market forces. This directly exposed Ugandan farmers to the negative impact of fluctuating international prices of traditional cash crops like coffee and cotton. In 1986 before Uganda embarked on the full liberalisation of the economy for example, it earned $500 millions from two million bags of coffee exported on the international market. The paradox is that, currently the country only earns $100 millions after raising coffee exports to five million bags which is more than double the 1986 volume of export (The New vision: 28 May 2004). Apart from exacerbating the poverty situation, the fact that increased production did not guarantee better incomes for farmers and as such a reduction in poverty, demoralised them.

The above scenario represents the irony of trade liberalisation and the limitations associated with the concepts of free trade and globalisation (Sachs 2002) at the global level. While free trade is based on the assumption that there should be free mobility of "goods, capital and people" in the world, (Sachs 2002:56), in reality, it only works in favour of the wealthy countries. Commodities from developed countries move freely into poor countries' markets, but put unnecessary and unrealistic 'quality' regulations on imported products that militate against poorer countries.

Japan on its part has had its own home-grown structural adjustment programme in the area of food production. This has been due to a reduction in the demand for rice from

the 120-kilogram per capita consumption thirty years ago, to the current 60 KGs (Mr Nitta 2004 - Sendai city agriculture office – personal communication). This has compelled government to introduce a policy that urges farmers to produce less rice by committing only 70% of their land to rice production and the rest for other crops like wheat and soy beans. This has been followed by the removal of government control of the price of rice, which has had a devastating effect on the farmers' incomes. Like in the Ugandan case, liberalisation led to a sharp drop in the prices of rice from between 15,000 yen to 18,000 yen per a bag, to between 10,000 yen and 14,000yen for the same bag of rice. As a result many farmers have decided to leave farming in favour of other employment or relegate it to a part-time activity.

2.3.5 Politics: government and the NGO role

Uganda has a decentralised local government system based on the district as the biggest local government unit and below it, the sub-county, parish and village as the respective lower levels of government. The purpose of decentralisation is to bring services closer to the people and to nurture people's participation in matters concerning their lives. While this is a good principle it has often been riddled with institutional and individual capacity gaps. The presence of government structures including line ministries and local government departments to deal with issues of the rural sector notwithstanding, lack of sufficient human and material resources undermine their capacity to perform as expected. The NGOs, which play a supplementary role, are equally incapacitated by the same challenges that face government departments. NGOs for example often lack resources of their own and have to depend on donor support that is rarely without encumbrances.

A sharp contrast exists between Japan where material and human resources are not a problem and the level of commitment and efficiency almost guaranteed and the Ugandan situation discussed. The striking differences can be largely attributed to the differences in capacity between the two countries in terms of the social infrastructure, material and human resources. The Japanese government for example develops its policies and implements them using its own resources and without any external influence. For example, the Japanese government has a plan for revamping the rural farming sector by attracting people from other professions into farming. This is backed by technical and material support from government. As a result, Japanese people formerly involved in the construction industry, are joining farming in Miyagi prefecture, Tohoku region (Mr Nitta – personal communication), yet Uganda has to borrow to implement its Plan for Modernisation of Agriculture (PMA) and the poverty alleviation plans. In addition, while the role of non-government actors in crucial in both cases, the multiple capacities of the Japanese Agricultural Corporation as an intimate partner of the rural farming communities constitutes a major asset for the Japanese rural sector. The all-powerful Agricultural Corporation not only has a grip on the market, but also a big stake in research, farmers' education, supply of inputs and the financing agriculture enterprises. Compared to the donor funded and often less professionally managed Ugandan NGOs as partners of the rural

communities, one realises the depth of the challenge of creating sustainable rural communities in poor developing countries.

2.3.6 Gender and other socio-cultural dynamics

Failure to consider of gender and other socio-cultural dynamics like selfishness, conflicting interests and intra community rivalries also affected the programme's potential to attain the goals of sustainable development in the Uganda case. Whilst for example women were the main tillers of the land, and participated most frequently in VEDCO's programme activities, in most cases they neither owned the land, nor had full powers to use it to implement the sustainable agricultural practices they had learnt. It often took a lot of negotiation for married women to use the land for any activity other than household food production, and where such freedom was granted it was in a joint project with the husband, in which case women were the lesser partners. There were instances where women were divorced or jilted when husbands felt threatened by their empowerment. This revealed a deep-seated source of powerlessness that was not being addressed by the programme.

It was rather unfortunate that with the major goal as economic empowerment of smallholder farmers many of whom were women, the organisation overlooked the gender implications of economic empowerment without accompanying social and political empowerment of the people involved. Gender relations in this society also took a more complex dimension due to the fact the family structure in this, like in many African communities is very different from the western nuclear one. In this community, the families are not only extended but also often polygamous and patriarchal. Such factors deeply entrenched the disempowerment of both women and men as the cases in Box 2 demonstrate.

Some of the efforts aimed at household economic empowerment like organisation's orientation towards commercial farming mentioned later, also had gender implications at household level. In a society like this one where women's major role is to produce food and feed the household, and men to make money to meet other family needs, commercialising agriculture portended a major shift in the allocation of household land. Indeed it happened, and often with undesirable conflicts over the allocation of land for food production and commercial farming with some men trying to convert more land towards commercial farming at the expense of domestic food production.

Literature on Japanese farming community hints on similar challenges especially with regard to the contradiction between the high rate of women involvement in agriculture and their minimal managerial role in the enterprise (Annual report on Agriculture FY 2002). Unfortunately I was unable to follow this up in the interviews due to language and time limitations

Box 2 Gender dynamics the Ugandan case

One female key informant, a Programme manager with VEDCO, reported two of the cases. In both cases, after realising that the women were proving innovative and generating some personal income from farming the land, husbands refused them to use the land, except for household food production. One of the women, a second wife, chose to hire land to avoid domestic conflicts, but was jilted by the husband, who felt disobeyed and threatened by the woman's move. In the second case, another second wife was divorced for the same reason. In the third and more unique case, one of the male lead farmers was a victim; relatives of his wife destroyed their property and evicted them from the land because they had settled on land that belonged to the woman's family. The woman's relatives saw the presence of a 'strange' man on the family land as a violation of their culture and a potential threat to the security of ancestral property and deeply entrenched patriarchal relations.

3.0 THE CHALLENGE OF BALANCING THE 'SUSTAINABILITIES'

The holistic nature of sustainable development opens it to a broad range of interpretations and misinterpretations often based on the particular socio-economic, political and other locations of practitioners. Economists and 'developers', for example view it in terms of economic sustainability, environmentalists as environmental sustainability, and socio-economists as socio-economic sustainability. This often results in conflicting scenarios at the operational level with varying levels of emphasis depending on the professional orientations of the practitioners.

Through my participation in the implementation of VEDCO's programme I realised that while it was a good principle to bring together the three concepts of economic development, social development and environment/ecology under the umbrella of sustainability, the concept of sustainable development itself was subjected to the major contradiction of having to exist in global capitalism. Global capitalism is rooted in the exploitation of natural and human resources focussed on accumulation of wealth and informed by the economic growth and modernisation development ideology (Escobar 1997, Esteva 1999). Development seen as economic growth often becomes a top-down process in which development experts impose their own perception of development on local people considered backward and ignorant. Although this approach has formed the backbone for the development of most developed countries, it has led to major environmental, social and economic problems which the world is trying to address through EfSD. The immense criticism of this line of development in the past two decades has apparently not deterred Ugandan development agencies to pursue it. It is manifested both in the technocratic development ideology underlying the organisation's tendency to want to transform the community on the organisation's own terms and in the government policies on poverty alleviation and agricultural modernisation.

The above spirit was also exhibited in the organisation's desire to make the community economically sustainable. This was demonstrated in the relentless drive towards commercialisation of agriculture. With this shift, the drive towards socio-ecological and environmental sustainability got increasingly superseded by the desire

to make the organisation, as well as farmers economically sustainable. The focus on economic goals unconsciously affected the interpretation of other goals and certainly the organisation's orientation to the community. This became even more evident in the NGO discourse when farmers, formally referred to as partners, started to be referred to as 'clients' and 'customers'. Conversely, as VEDCO's focus shifted, their partners did not automatically 'metamorphose' into commercially oriented farmers. They remained peasant farmers with the same mentality, interests and aspirations. As the commercial orientation became stronger, the organisation's view of clientele also shifted towards those with the capacity to cope with the demands of commercialisation. This unfortunately left the neediest of the people outside development ventures that were initially meant for them.

VEDCO's increased commitment to economic goals posed a greater challenge to the attainment of the broader and more holistic goals of sustainable development. With the new orientation, the organisation's social responsibility diminished, increasingly giving way to the pursuit of profits, accompanied by a new economic slogan of providing 'demand-driven services' (VEDCO 1999). Unfortunately, the so-called demand-driven services lacked the necessary social orientation. It became an outright private enterprise, profit-driven and in most cases, appeared to be aiming at an overnight creation of farmer entrepreneurs out of the poor peasants. This demonstrated a good example of a 'community-based' social programme sidetracked by economic motives and the concept of sustainable development utterly at risk. Whilst business/economic interests are often individual and private, issues related to environmental, ecological and social sustainability are public and universal in that they equally affect people regardless of their role in causing such problems. The reality is that once the private individual drive takes over, socio-ecological and other sensibilities decline and that is what exactly happened in this case. The farmers' private profit-oriented interests increasingly took precedence over environmental/ecological and other social concerns. There was farmers' renewed preference for chemical fertilisers and pesticides in order to be able either to produce quickly and pay back the micro-finance loans, or to achieve the quality of products required by international buyers. This once again raises the question as to whether sustainable agriculture was really sustainable under conflicting economic, environmental and social demands and pressures.

There was evidence of contradictions at the level of national policy regarding the drive towards the goals of sustainable development and underlying global and local capitalist interests. The Plan for Modernisation of Agriculture and the National Environmental Policy for example bring out two contradictory messages. Alongside the government policy of sustainable development, ran the official development discourse that reflects neoclassical developmentalist ideals (Mshana 1992). Concepts like the 'modernisation' of agriculture reminiscent of the Asian green revolution of the 1960s and 1970s are used uncritically. Agricultural mechanisation and monoculture as strategies for modernising the sector are seen as a given (MAAIF and MFPED 2000). Low agricultural productivity is blamed on the failure to use chemical

fertilisers and pesticides, [2] with the environmentally friendly alternatives being explored by groups like VEDCO only considered as strategies for the use by poor farmers (MAAIF & MFPED 2000). The only similar scenario in the Japanese context is related to the conflicting roles of the Japanese farmers' corporation which preaches sustainable production but often supplies agro-chemicals to farmers.

On a more positive note, the value of the commercial orientation of the programme lay in its role as a catalyst that brought many committed farmers into the programme. Unlike in the earlier approaches, with the commercialisation trend, farmers showed more commitment to participate in the activities, firstly, because they had decided to pursue those activities, and secondly, the activities were directly related to their material and economic well-being. This point reiterates Fagan's observation that practices to address environmental sustainability must embrace people's aspirations, fears and needs for the future (Fagan 1996). A point echoed by Haverkort in his justification of communities' felt concerns as a central motivating factor in community programmes. He argued: "when enthusiasm is plentiful, farmers walk two full days to attend classes, innovations spread spontaneously from one farmer to another and many former problems seem to solve themselves" (Haverkort *et al* 1991:27).

There is a lot to be learnt with regard to the pursuit of the goals of sustainable development in developing countries as compared with developed countries. In the case of a developing country like Uganda, the philanthropic/benefactor relationship between development agencies perpetuates community disempowerment. As one thinks of EfSD to foster sustainable for rural communities, there must also be similar educational responses to deconstruct such disempowering tendencies among the different stakeholders including the development agencies.

Secondly, poverty the main challenge to the attainment of sustainable development in developing countries makes even the available options difficult to pursue just because such options need some economic input which is often lacking among the poor. It is more difficult and challenging to design EfSD programmes which are focused and easy to implement in the Ugandan situation than in developed countries like Japan, where poverty is not an issue to the majority of the population, and a business partnership rather than a philanthropic/paternalistic relationship exists between people, government and development agencies.

In a the case of Uganda, the factors for failure to balance environmental, economic and social sustainability is influenced by a more complex array of factors than in developed countries. Uganda's sustainability motives are for example not regulated by a critical mass of local stakeholders, but the desire to meet basic needs in the face

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[2] The Plan for Modernization of Agriculture (Ministry of Agriculture Animal Industry and Fisheries [MAAIF] & Ministry of Finance Planning and Economic Development [MFPED] 2000:75) cites Uganda's rate of using chemical fertilisers as the lowest in the world and suggests an "intensive fertiliser drive" at farm level.

of limited alternatives. This sharply contrasts with the Japanese situation and probably that of many developed countries where the level of poverty is negligible and the awareness of the need for unsustainable production is high. A combination of factors like: the existence of a powerful community of enlightened consumers whose concern for safety is impeccable, the presence and strict observance of national policies towards sustainability, emphasis on green production to meet market demands, makes Japan's efforts to balance the different dimensions of sustainable development a lot easier.

It should also be noted that even with the problems of marketing, declining income and strict quality standards, Japanese rural communities have far more opportunities than Ugandans. Unlike Ugandan rural people whose lives are tied to the land with almost no viable alternatives, those Japanese frustrated with agriculture have difficulty in getting formal employment in other sectors and thus relegating farming to a second or third priority in one's life or entirely abandoning it altogether. It is this availability of options that has enabled many rural Japanese people to become part-time farmers with formal employment as the main source of income.

The above strengths notwithstanding, the paradox remains that there are still key threats to the sustainability of Japanese rural farming communities which need to be addressed. Rural communities engaged in farming are becoming increasingly vulnerable due to the strict quality demands by the marketing system. As a result, many are failing to sell their produce in the common market and either dropping out of farming or choosing to sell in the farmers' markets where there are no such restrictions. It has also been observed that the level of commitment to sustainable management land tends to degenerate with farmers shift from full-time to part-time farming which is a key threat to the drive not only towards the creation of sustainable rural communities and but also the sustainable utilisation of resources.

The foregoing discussions awaken us to the challenges of balancing the different dimensions of sustainable development and points to the task ahead of EfSD as a response to challenges of sustainable development regardless of the context. It also implies that the design of EfSD programmes should as of necessity equally consider the different dimensions of sustainability and respond to each pf them accordingly.

4.0 EfSD AS A RESPONSE TO SUSTAINABILITY CHALLENGES: VEDCO's case

The next section is a specific case of a community-based education programme designed to create sustainable rural communities in central Uganda. The analysis illustrates how the contextual challenges discussed in the previous section affected the character of an educational response to sustainability problems. It also focuses on the importance of theoretical clarity in designing and implementing EfSD programmes. One noticeable gap in this analysis is the marked absence of contrasting experiences from the Japanese situation. Two factors are responsible for this situation.

The differences in the socio-economic structures of the two countries have dictated two different approaches to community-based education, with the Japan taking a more individualised one to one learning approach as opposed to a more collective approach adopted in the Ugandan situation. The Japanese approach demanded a different research approach, timing and social dynamics that were not as feasible within the time available to me.

4.1 The NGO community-based education programme

In the year 2000, VEDCO embarked on the implementation of a community-based rural development programme in response to community needs identified in two 'participatory' [3] baseline studies. The programme specifically set out to address among others: problems of food security, natural resource management particularly land for agriculture. Programme activities included 'participatory' training of smallholder farmers in sustainable agriculture (sustainable land use, crop and integrated pest management, food security management, banana and coffee rehabilitation) management of income generating activities, and marketing of agricultural products. It also entailed enhancing farmers' participation in the development and implementation of programmes for income diversification, introduction of alternative income generating activities, and fair terms of trade between smallholder farmers and crop buyers.

The ultimate goal of this programme was sustainable economic and social empowerment of smallholder farmers and entrepreneurs demonstrated in the communities' ability to utilise and manage available community resources in a sustainable way and, to negotiate for support for sustainable agriculture, food security, marketing, and other income generating activities.

The programme objectives and ultimate goals implied critical transformative educational processes including learning methods and content. VEDCO as an organisation also believed in the need for transformative education to create an empowered community, capable of responding to its needs, challenges and problems. Based on these motivating factors, the organisation declared its commitment to the implementation of a participatory training programme guided by transformative educational goals. We used Participatory Action Research (PAR) as an implementation methodology to ensure continuous learning through reflection and action in order to strengthen the programme and build the capacity of educators/implementers to be proactive and responsive to challenges of sustainable development.

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[3] Although the studies were in principle supposed to be participatory, the reality turned out that participatory data collection methods were used technocratically to extract information from the people, making the end product more of an organisational rather than a collective community/NGO programme.

**4.2 Motivation for the Participatory Action Research methodology**

The principles of PAR were applied to implement the programme in a community context, blending it with the philosophy, tools and techniques of Participatory Rural Appraisal (PRA)/Participatory Learning and Action (PLA) (Chambers, 1997). I saw the methodology as one of the surest ways of empowering the community and NGO staff to respond to sustainable development challenges in their context without necessarily creating unsustainable influence on the process, outcomes and future.

PAR is an approach to education, research and development rooted in the socially critical analytical framework (Blackburn and Holland 1998). The methodology derives a lot from the Freirian philosophy of liberation and empowerment through critical awareness building (Torres 1995). Participatory Action Research's main purpose is to produce knowledge in an active partnership with those affected by the knowledge and for the express purpose of improving their social, educational and other material conditions (Bhana 1999:228). It constitutes a deliberate intent by people to continuously learn from their own experiences in order to continuously improve their situation in life without relying on external intervention (Chambers, 1997 and Schwandt, 1997.) This methodology emphasises a reversal of roles in which the power dynamics between researchers and communities keep shifting during the process, each playing the role of an expert or a learner at the appropriate time.

PAR is distinct from other types of research because it triples as a method of enquiry, a pedagogical approach and a medium for action (Hall, 1981, Maguire, 1987). It is aimed not only at bringing people together for purposes of mutual development, but also at achieving understanding and change (Wadsworth, 1998). Through PAR, researchers seek to "actively involve people in generating knowledge about their own condition and how it can be changed, to stimulate social economic change based on the 'awakening' of the common people to charge of their development process (Chambers 1997:108). Unlike other research methods that are largely extractive, in PAR, as Schurink (1998:415) observes, "the actual research takes second place to the emergent processes of collaboration, mobilisation, empowerment, self-realisation and the establishment of community solidarity".

The methodology involves cycles of inquiry (McNiff et al, 1996) beginning with a situational analysis to identify key issues, followed by identifying and planning strategies to address the issues, implementing the plans, studying the implementation process, identifying new issues, planning and acting again (Carr & Kemmis, 1986, McTaggart, 1997). This approach makes PAR a comprehensive methodology of enquiry, learning and development in a community context. Most importantly, by pursuing a participatory path, it helps to deconstruct the dominant misconception of research (in particular social research) as an exclusive domain of the elite.

The Participatory Action Research process
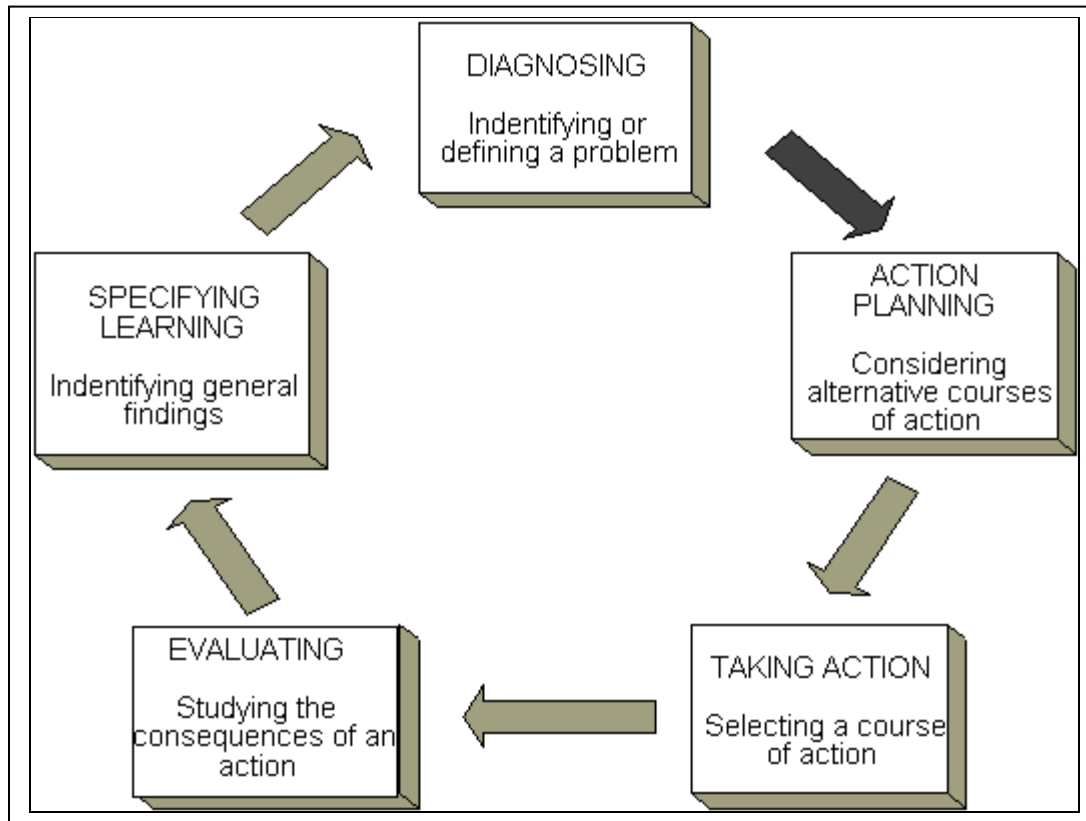
Spirals of enquiry, reflection and action

Cyclical Research Process
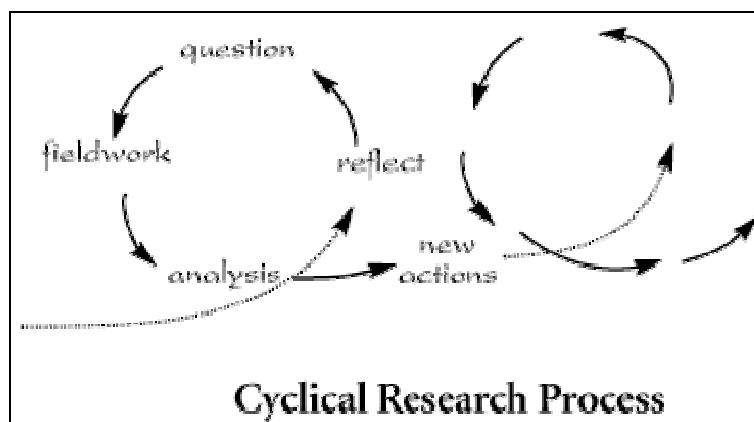
Through the PAR process we were able to generate findings that exposed the contradictions and inconsistencies that neither represented the best intentions of the organisation as stated in the programme goals nor were in line with the implementers' overt aspirations and these are analysed in the coning discussion.

4.3 Educational Practice as a Technical Activity

The analysis in this part of the paper is based on the findings of the first PAR cycle in which programme activities took the neo-classical view of education as a technical process (see Table.2). Educational activities based on the neo-classical educational orientation approach educational practice as a 'neutral' instrument for overcoming technical problems, over emphasise the use of science and technology to solve problems and view educational process as a process of transmitting knowledge to change people's behaviours.

4.3.1 The contradictory RDDA model

The processes involved in the development of VEDCO's programme contradicted the underlying transformative/emancipatory interest of the programme. The programme exhibited a technocratic neoclassical approach to educational planning reminiscent of what Popkewitz (1984) called the Research, Develop, Disseminate, and Adopt (RDDA[4]) model of programme development and implementation. Programmes following this model assume a technocratic dimension based on the neoclassical hierarchical notion of knowledge and knowing whereby the researcher, educator, or development worker is assumed to have the 'right' knowledge and capacities to conceptualise issues on behalf of learners, research participants or communities (Usher *et al* 1997) with whom they work.

In the case of this programme, consultants were for example hired to conduct a participatory assessment of community needs. But as results came to demonstrate, these expert consultants used participatory methods as mere tools for data 'extraction' but not as part of a holistic empowering and co-learning process they are meant to be in emancipatory programmes. Thus although research played a central role in informing VEDCO's programme, it was based on the technicist positivist notion of 'finding out about' people's lives (Usher *et al.* 1997) rather than engaging people in finding meaning in their situations. The communities were used as research 'subjects' only to provide information to the experts to make meaning of that information and in the end 'name' the community situation. As a result of this exclusion of community from the analysis and interpretation of their situation, the actual needs, problems and interests of the community were misinterpreted and their situation misrepresented. For example it was assumed that:

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[4] RDDA is a top-down approach to programme development and implementation based on the traditional centre-to-periphery development model. The model entrusts the destiny of people to the hands of a few experts believed to have the capacity to analyse the problems of others and come up with appropriate responses to identified problem (Popkewitz 1984)

- the community was not only interested in farming but farming the same crops;
- communities were homogenous with similar needs, interest and aspirations (no tensions, no contradictions at different levels);
- people were willing to work together on collective village demonstration gardens to acquire new knowledge and skills;
- people would automatically adopt the methods of work advocated and taught by VEDCO;
- there were no other dynamics to influence people's response to the programme;
- people's priorities were similar with that of the organisation;
- VEDCO's and the community had a common understanding of food security; and
- the timing of the programme in the community did not matter

As such, socio-economic, political and cultural factors like income and land distribution, the different dimensions of poverty, gender and specific individual and group interests that influenced access to and management of key resources were not central factors in the first phase of the programme, although the baseline study had indicated them. In the end, this approach alienated both the communities, whose needs were supposedly being responded to and the extension workers who were to implement it.

Whilst critical reflection, planning and action are integral components of emancipatory education practice to continually inform and strengthen programmes, the RDDA model applied in this case did not allow for recursive reflection and review. In essence, erroneous conclusions based on the baseline study formed the basis for inappropriate programme planning the results of which could not be reversed before causing damage to the programme.

4.3.2 Behaviourist training objectives and technicist[5] programme content

The educational and development objectives that guided the programme were stated in the neoclassical behavioural manner emphasising the ultimate behavioural change, expressed in facts and figures (e.g. numbers of demonstration gardens established, workshops held and numbers of participants attended, support visits made to individual households etc.) This depicted the underlying neoclassical instrumental view of education that disregards educational processes and focuses on the outcomes. Because technicist education is often geared towards fulfilling predetermined goals, in this case also, knowledge was treated as a neutral tool to be manipulated by the expert educator (Carr and Kemmis 1986) in order to achieve those goals. This was often demonstrated in the emphasis on the provision of technical facts about sustainable agriculture and training techniques especially when training lead-farmers,

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[5] Schuurman E. (1997) describes technicism as a fundamental attitude that seeks to control reality and to solve all problems with the use of scientific-technological methods and tools. Technicist approaches therefore make exclusive efforts to explain and deal with development and other socio-economic issues using science, technology and the related scientific methods as if the causes of problems confronting society are always exclusively technical and only solvable through similar means.

as the purpose was strictly to 'equip' them with particular skills and knowledge to pass on to fellow farmers.

In essence, the programme treated the situation simplistically by only viewing community problems from a technical perspective as *lack of knowledge and skills in production, the right technology and markets*. This interpretation of community problems as technical had far reaching methodological and practical implications. It created a defective assumption that once 'equipped' with those missing skills and technical knowledge, a tremendous transformation in the farmers lives would be achieved. Communities were reduced to 'target recipients' in a one-way process of transfer of technical knowledge and skills, while extension workers were turned into conduits for transferring 'packages' of what VEDCO considered appropriate skills, using transmittal methods and expecting farmers to comply.

The programme used the cascade model to train members of the community to become role models and lead-farmers not only to use a community-based approach to train fellow farmers as trainers and model farmers, but also centres from which knowledge, skills and positive change would 'trickle down' or diffuse into the entire community. In using the cascade model of training, VEDCO made some fallacious assumptions that contradicted the emancipatory goal and view of education as an empowering process. Apart from ignoring the contextual dynamics, such an approach perpetuated the neoclassical linear and hierarchical view of education. For example, assuming that lead-farmers once trained would pass the same knowledge and skills on to fellow farmers in the same way was to ignore importance of context and process in learning and also the complex community dynamics. This was obviously in line with the diffusion model used in traditional agricultural extension in which extension workers supposedly have packages of 'correct recipes' to farmers' problems, to pass on to a 'homogeneous mass" of 'ignorant' farmers (Hillbur 1998).

The rooting of the farmers' training in a neoclassical educational theoretical framework other than the declared emancipatory one, not only undermined the capacity of the programme to transform farmers into empowered individuals, but also blurred the organisation's capacity to understand the underlying causes of the challenges encountered during implementation. Farmers' failure to adopt new farming practices was for example viewed by VEDCO as a sign of inefficiency on the part of the extension workers. The extension workers themselves attributed the problem to poor logistical support, lack of farmers' cooperation, farmers' resistance, laziness and disinterest. This echoes Pretty's critique of traditional approaches to extension and agricultural education thus: "farmers who choose not to adopt are often labelled by extension workers as laggards, with attitudinal barriers" (Pretty 1995:188). But the truth often lies far beyond this, precisely in the educators' and development workers' worldview and the contextual dynamics that are often ignored.

It was this contradictory application of a neoclassical framework in service of a largely emancipatory education and development agenda that made the implementers lose sight of the contextual factors surrounding the programme, centring their focus on activities that would lead to the stated outcomes. What they forgot was that that the achievement of such outcomes was largely influenced by the context

including the process. It can thus be said that even with all efforts focussed on the ultimate goal, with contextual factors including the process unattended to (which actually happens under the neoclassical framework), the outcomes might remain a mirage that might never be achieved in the project's lifetime. This argument is supported by a host of authors including, Fien 1993, Fagan 1992, Janse van Rensburg and Lotz 2000, Mezirow 1990 and Oshima 1999.

4.3.3 Technicist training structures, strategies and methods

The structure of the training exhibited the neoclassical notion of a separation between theory and practice (Higgs, 1998). The initial training workshops were structured into two distinct parts, one consisting of theory and the other of practice in the form of field demonstrations. The theoretical components of sustainable agriculture were always taught at the beginning of the training workshops in school-like educational settings, obviously based on a neoclassical assumption that good learning takes place when theory precedes practice, as opposed to the socially critical belief in the creation of theory through practice (Carr and Kemmis 1986, Higgs 1998).

Learners were made to work on demonstration plots, anticipating that demonstration would equip them with the necessary experience and capacity to transfer what they had learnt onto their farms. Conversely, whilst work on the demonstrations was practical, the method employed was the transmittal 'showing and telling' the farmers what to do, without engaging them in such a way as to become critical co-constructive co-participants (Lotz 2000). Demonstration as a training method does not nurture a participatory spirit, and practical as it appears, it remains an autocratic didactic approach. The failure of farmers to transfer the expected skills and knowledge to their farms demonstrated that learners can go through the entire demonstration process without getting empowered to become independent actors since the process involves following what the expert does. In the absence of the expert, (in which case the symbol of knowledge, power and authority to follow), the learner is rendered powerless.

At the same time, demonstration as a method and the accompanying technicist assumptions caused extension workers to believe that they had to become experts, able to provide all answers to all questions. Extension workers expressed this concern on a number of occasions, as a real source of occupational stress to them, whenever they failed to do so. This is one of the ways in which neoclassical educational practices give a false sense of power to educators, while at the same time disempowering learners. As earlier mentioned, neoclassical educational thought views educators as the sole possessors of knowledge, which contradicts the critical educational notions of collective 'active-meaning-making', co-learnership and co-educatorship. This normally has key implications: it perpetuates a false confidence among educators that prevents them to learn from learners, while at the same time undermining the learners' confidence and inner motivation to work on their own (Freire 1970). Technicist training structures, strategies and methods in this case created dependent learners. Many farmers who transferred what they learnt to their farms in the first phase of the programme, did so more due to the follow-ups by extension workers, than an inner motivation and desire to change. Whenever the

extension workers failed to make follow-ups farmers reverted to their old ways of doing things and complained to extension workers "mwatusuula" *(meaning: you abandoned us).*

The above discussion represents some of the key contradictions characterising VEDCO's training programme and illustrates how the neo-classical educational framework practically reigned in a programme that was in principle motivated by a socially critical intent. The neo-classical view of education as a technical process contradicts the basic tenets of socially critical education, which view the educational process as a social activity and employ educational methods that emphasise people's participation (Carr & Kemmis 1986). The fact that the programme was motivated by an emancipatory intent implied that the methods and approaches employed would reflect that goal, although the opposite occurred in practise. The use of transmittal training methods in service of a socially critical emancipatory intent instead, exposed the contradictions underlying the programme and compels one to wonder as to how conscious the emancipatory intent of the programme remained basic to the programme or whether they had already lost sight of it.

Such contradictions in methodology and approach can be explained in two different ways. The traditional/technicist approach to schooling in Uganda created a technocratic mindset that influenced the professional character of educators. Because little or no efforts were made to deconstruct this attitude and related practice, educators found themselves reproducing the educational processes that created them. In order to change this mindset it was necessary to re-orient the educators but as Mezirow (1990) observed, while many emancipatory education efforts encourage transformative learning, little attention is given to the creation of sustainable structures to enable learners to freely exercise what they have achieved through the process. And according to Mezirow, the problem still remains that, "even in a Freirian model of education, people can change their theories without having improved their capacity to change their situation" (Mezirow 1990:85). At another level, the tensions were also exacerbated by the neo-liberal development ideology of donors, which influenced the NGO methods of operation and vision of change. The donors and VEDCO seem to have interpreted development as modernisation which is a technocratic belief in a one way transformation of those considered backward by the rich and powerful using science, technology and capital investment. This affected the methods of work thus increasing the pressure on the extension workers to transform the behaviours of poor farmers and undermined their capacity to pursue the emancipatory goals and principles.

4.4 Education as a Social Emancipatory Process

The discussion in this section is based on findings generated during the second PAR cycle. Having learnt from the weaknesses of the first phase of the programme, VEDCO took conscious steps to adhere to the declared emancipatory framework in

the second implementation cycle. Emancipatory education is founded on the notion that education should play a role in creating a just and democratic society (Giroux 1983). This implies that education becomes a process that leads to a genuine exercise of power by the majority (Bertrand 1995) in deciding on educational matters. A number of changes were introduced to take care of the different community concerns including among others: a conscious effort to utilise learners' interests, knowledge and experiences, engage participants in learning for immediate action, use of dialogue, collective critical investigation of programme processes integrating critical reflection, participatory action planning and implementation. Facilitators consciously drew on the principles and assumptions of the socially critical framework in this endeavour, and findings showed that once participatory methods were appropriately used, it was possible to actively involve farmers not only in learning activities, but also in implementing what they had learnt without pressure from the facilitators.

A new training strategy was developed based on the expressed needs of the farmers. Farmers for example, preferred to be grouped according to their interests, and specific training for particular interest groups organised around those interests. This was a major break from type of training observed in the first phase where farmers were given generalised training, disregarding the individual and group interests. In addition, a new concept of food security was developed, the range of crops regarded as essential for income generation and food security was widened to include crops preferred by individual farmers and groups, rather than those that had been imposed upon them by the organisation in the original programme. Farmers also began to play a central role in shaping the character and direction of the programme through their active participation in the development of action plans, which included the setting of community and household targets. The results of the changes were evident not only in farmers' positive responses to programme activities and commitment to the implementation of what they had learnt, but also in their self-confidence and attitudes towards self-reliance. For example, whilst in the earlier part of the programme extension workers literally coerced the farmers to implement the new knowledge on their farms, this time round it were the farmers seeking on-farm support from extension workers to perfect their practice. Out of the sixty (60) farmers included in the study more than 75% applied at least ten (10) of the fifteen sustainable agriculture practices they had been taught. As a result of the changes, many farmers felt able to challenge the NGO and the extension workers whenever they failed to meet their obligations. This in a way represented certain level of empowerment on the part of the farmers as evidence in Box 1 demonstrates.

Extension workers also experienced major personal and professional transformations, which were important landmarks in their careers as educators within community contexts (see Box 2). Their approach to training changed from the technicist top-down to one of sharing and negotiation, in which learners and facilitators became co-learners and co-constructors of knowledge. This was in line with the basic tenets of critical pedagogy (Freire 1970, Giroux 1983, Mayo 1999) and the socially critical orientation to education that informed the programme. There was a new awareness

among extension workers that, as facilitators, they were not supposed to provide the answers to all the questions but to work with farmers to find the answers collectively. This demonstrated that extension workers had developed the ability not only to accept challenges and criticisms from colleagues and farmers, but also to reflect on their own abilities and actions and respond accordingly.

The positive changes notwithstanding, there were still several opposing factors that made the implementation of programme activities difficult for many farmers. While it was essential to make use of learners' knowledge and experiences, in some instances farmers either lacked the necessary knowledge and experiences, or the facilitators did not have the time or capacity to effectively guide the dialogue in a way that would enable farmers to make useful contributions to the discussions as one of the cases shows:

> The training process was good, but we made one mistake. Because they used to ask us what we wanted to learn, we only remembered some things and forgot others. We, for example asked them to teach us about vegetable farming, but did not ask them to teach us enough about pest control and management. We instead asked for that training after we saw our vegetables being attacked.

This is a challenge to emancipatory educators regarding the way they guide community-based learning processes. While this might have been an oversight on the part of farmers who did not raise all the important issues and the trainers who failed to apply their professional knowledge and experience, it is also true that often people do not have all the information and knowledge necessary to plan appropriate responses to their problems, rendering it erroneous to assume, as is normally the case in critical pedagogy, that learners know what they need to learn (Freire 1970, Giroux 1983). Findings also revealed cases where the more vocal and influential members of the community marginalized the poor, the quiet and, at times, women. One extension worker made an important observation in this respect:

> I have also observed that when we meet in groups, some of the individuals are suppressed because we tend to emphasise issues that are applicable to the general group leaving out some of the more personal ones applying to individuals. Often farmers come out with real issues, but you realise the issue is individual and the group tries to silence such people saying they are being irrelevant. Then I realise that good as the approach looks, it leaves out the specific interests, strengths and weaknesses of individuals.

This is highlights a key problem in facilitation, whereby in an attempt to overcome top-down training, facilitators err on the other extreme. It remains a challenge to critical educators to manage participatory learning processes, without perpetuating inappropriate and unproductive social differentiations. Nevertheless, the concern by the extension worker represented professional growth on the part of extension workers, resulting from the reflective processes introduced through the study. He has seen the limitations of the superficial way in which participatory methods are often applied.

Experiences like the ones above provide an important lesson regarding training as a major programme implementation strategy. It is illustrated that good training on its own is not enough to enable people to effectively implement policies and programmes because lack of knowledge and skills may constitute just a small fraction of the limitations to programme implementation.

It is also important to remember that while learners are knowledgeable about many aspects of their lives and can use such knowledge and experience to strengthen the learning programmes, it is also true that sometimes learners may not have all the knowledge they need. Hence educators' over-reliance learners' experiences might lead to failures that will cast doubt on the socially critical educational assumptions about learner's experiences and knowledge as a basis for meaningful learning. In the same vein, failure by the educators to contribute their own knowledge and experience to boost learners' experiences can undermine their own credibility as educators and commitment to effective training.

In the final analysis, facilitators should be aware that learners might at times have limited knowledge and experience that may call for the experience and expert knowledge of the facilitator. This implies that facilitators need to be sufficiently equipped with appropriate knowledge and skills to guide, supplement and, at times, inform learners or even correct learners' misinformation and gaps in knowledge. Educators also need to be aware of the importance of their own empowerment and active involvement in the processes of spearheading the empowerment process of the learners. By entirely leaving the process to the learners, the educator will be abdicating his/her responsibility and rendering him/herself irrelevant when s/he is most needed to keep the process on course and avoid unhelpful scenarios.

The use of participatory methods was a central factor due to the transformative intent of the study. Participation and participatory methods are preferred where social transformation and emancipation constitute the key goal of learning. Despite this, there are differences in the interpretation of participation, and the assumptions people associate with it, which affect their application. Authors such as McCall (1991), Oakley and Marsden (1984), Pretty (1995), and Rahnema (1992), have argued that participatory methods can be viewed in instrumental terms as tools to achieve pre-determined goals or from a democratic perspective where they are used to create conditions for emancipation. If the impression given by the above description is that of participation, divided along clear lines, it is not true. In the case of this study, there were times when participatory methods were used in an instrumentalist manner to achieve VEDCO's predetermined goals and also where they were used with some emancipatory intent to empower farmers and VEDCO staff.

In addition to the above analysis of the community-based educational programme, below is a discussion of the other important factors influencing the character of the programme, and equally responsible for the nature of results discussed above.

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4.5 Critical theory in a community-based Education/Development Context: A Critique and some lessons

Despite the reported positive results of the second PAR cycle/phase, my working as a full time member of VEDCO's project implementation team and on my research project committed to those assumptions, gave me the opportunity to experience the challenges associated with the application of socially critical ideals in a community context. This, together with my interaction with more literature outside and beyond the critical tradition, challenged my views on socially critical education and some of the assumptions and claims associated with it. I realised that the framework had inherent inconsistencies that undermine the achievement of its own goals. These were exhibited in several contradictions and tensions directly related to the key assumptions of this framework in particular those on empowerment; power, powerlessness, oppression and the emancipation; and levelling power gradients as is later elaborated.

4.5.1 1Assumption on empowerment

Critical theories emphasise the relationship between education, empowerment and emancipation. Whilst I do not contest the validity of this assumption, in the case of this study, I found the concepts of empowerment and emancipation a bit problematic, firstly, because of the deceptively simplistic way in which they are used in critical literature, and secondly, because of the variety of assumptions that accompany them. According to Usher *et al* (1997:187):

> Empowerment does not mean individual self-assertion, upward social mobility or increased disposable income or even a psychological experience of feeling self realised … it means … an understanding of the causes of powerlessness, recognising systematically oppressive forces and acting individually and collectively to change the conditions of life**.**

I found the above description to embrace the views of many critical scholars on empowerment. Nevertheless, my interaction with local farmers who participated in this programme makes me agree and disagree with it at the same time. Whereas I agree that becoming critically aware of the causes of powerlessness, recognising the oppressors and acting to transform the oppressive conditions constitute a major component of empowerment, I also find this view riddled with discomforting assumptions that are not consistent with realities on the ground.

At one level, the above conceptualisation of empowerment is exclusive in one important way. The view emphasises the end result and ignores the contextual dynamics, which underlie the so-called ideal. Using participatory methods in different communities to map out the existing socio-economic and environmental situation, communities were able to collectively identify, critically grade and prioritise the nature of obstacles and challenges impeding their capacity to lead more sustainable

lives. Interestingly, most of the problems were related to people's immediate survival needs. Even after a deeper problem-causes analysis and probing with the 'but why' question, the answers were still tilted in the same direction. From a critical perspective, one could conclude that farmers were probably not empowered enough and therefore unable to analyse 'the deeper' causes of their problems and that is why they stopped at the immediate causes. My contention is that, to argue that because people have not talked about what critical theory calls the 'deeper causes' of problems, then they are not empowered enough, amounts to an imposition of our own view of reality on people. I see this as a drawback of critical theory, for while it is a principle of critical theory to analyse the material conditions of life in order to discover falsehoods and as such become empowered to address the deeper causes of problems, some underlying assumptions of the tradition like what constitutes 'true empowerment procedures', and the desired outcomes, are uncritically adhered to. This in a way evokes Lather's critique of critical theories for adopting technicist tendencies, to achieve instrumentalist 'emancipatory' goals and objectives, which she summarises as "falling prey to the irony of domination and repression inherent in efforts to free one another" (Lather 1991: 59).

This discovery intimates an important suggestion that empowerment should not be as rigid a process as often presented by critical theorists. It is a process, the starting point of which depends on the context of the society in question. For it is argued under the same critical theory that knowledge of the world is always an interpretation of reality from a particular viewpoint (McKay & Romm 1992), a point explored further by Krippner and Winkler (1995), both post-modern analysts, who argue that 'truth' is a matter of 'perspective'. Hence, although my initial motivation and expectation was to study how issues related to community politics and power-related structural injustices associated with resource use and management at different levels manifested in environmental educational activities at community level, I was convinced that in order for those issues to be understood, more obvious problems of poverty and food security had to be addressed first, secondary as they might have appeared from my own perspective. For as Angelson (1997:137) argued, and I was also convinced "Environmental thinking starts after breakfast, and with none, or insufficient meals, there will be little environmental thinking". Naturally, from the socially critical stance that I had chosen, the change raised key questions and debates, for I had always believed that such a move would lead to an unfortunate situation where, like many other uninformed development workers, we would end up, as Ellsworth put it, treating the symptoms but leaving "the disease unnamed and untouched" (Ellsworth 1989:297), but the fact that we were consciously responding to issues of utmost priority to the community convinced us to go ahead, fully committed to a participatory approach to community challenges and obstacles.

The initial outcomes of participatory training of farmers demonstrated more individual self-assertion, upward social mobility, increased incomes and a general sense of realised self-confidence for both farmers and extension workers. Whilst this did not constitute empowerment as is often described in critical literature (Usher 1997, Huckle and Sterling 1996), in the case of the farming community and the NGO, it

represented a significant push towards people's transformation. To the farmers, the visible oppressor, which was food insecurity and poverty, was beginning to retreat and they were taking more informed decisions on how to manage the resources at their disposal and even exhibiting a better understanding of the causes of their plight.

This evidence compels one to re-conceptualise empowerment as a process that starts at the current status of people's lives, progresses according to the material conditions of the people in question. Within this process, the milestones in the form of the various sustainable achievements people attain in the struggle, mark the steps towards different levels of empowerment, but not the strict criteria established elsewhere. Secondly, contrary to the common socially critical assertions on empowerment mentioned above, in the light of this study it was revealed that empowerment, includes individual self-assertion; upward mobility and increased disposable income, the psychological experience of feeling self-realised, in addition to *understanding the causes of powerlessness, recognising systematically oppressive forces and act individually and collectively to change conditions* (which is often overemphasised). In the absence of the former factors which are directly associated with the basic survival of the individual, the latter can be rendered totally impracticable.

The major implication of the above evidence is that, as educators working towards community empowerment, it is necessary for us to look at the process horizontally and vertically. The struggle to achieve the practical needs (basic human needs) in life is a horizontal one. Any success in this direction places the individual or community at a level where they can begin to pursue the more strategic goals in life, which I have decided to call the vertical dimension of the empowerment process. This addresses the more critical issues of politics, power and the related structural dynamics. My view is that the two are integral components of the same process of empowerment and without one; the other cannot be achieved because both dimensions are complementary and as such equally important.

4.5.2 Assumptions on power, powerlessness, oppression and emancipation

Related to the foregoing issue, the results of the study demonstrated that critical theories make sweeping assumptions on power and powerlessness, oppressor and oppressed which divide society into two diametrically opposed sections; the powerful oppressors and the powerless oppressed (Popkewitz and Brennan 1998). I found this inconsistent with the existing reality in the society. Powerlessness did not always arise as a universal phenomenon for any specific group of people. I found it difficult to categorise any group or individuals as entirely oppressed, powerless or powerful. Poor as most of the farmers were, this did not imply that they were necessarily oppressed or powerless, e.g. they exhibited the power to reject or undermine the NGO's efforts; similarly the NGO was both powerful and powerless; the donor agencies were also at times 'powerless' as well.

Different individuals and groups expressed their power in various ways. The power of the villagers lay in their capacity to decide upon their actions independently, and follow their own ideas rather than VEDCO's agendas, even when they appeared weak and vulnerable in their poverty, landlessness and food insecurity. This was

demonstrated during all phases of the programme. In the first phase, they quietly refused to apply VEDCO's training because it was imposed on them and implemented at the wrong time of the year, trying to divert them from their programmes, which to the farmers would have spelt disaster. This forced VEDCO to respond to people's concerns in the second phase of the programme.

The way in which the villagers expressed their power often threatened VEDCO, an apparently strong NGO, its machinery and its donor friends. For instance, by refusing to respond to VEDCO's training that did not correspond with their personal interests, VEDCO was forced to rethink its approach and strategy as mentioned earlier. VEDCO itself and the donors were powerless in the face of farmers who refused to implement the programme as expected. Neither VEDCO nor the donors were able to keep their records and accountabilities straight without the co-operation of the farmers. Power was thus continuously changing hands. This demonstrated the fluidity of power and devalues the practice of branding people powerless, for anybody could be powerless at any given time. In the same way, identifying the oppressors was not always easy as shifts in power location often reflected shifts in advantages and disadvantages and therefore levels of vulnerability to oppression. In this way, there were two obvious areas of disempowerment on the part of the farmers, namely: a) their lack of knowledge of how much power they had over the future of VEDCO and donors, or else they would have used it to negotiate better deals for themselves; and b) knowledge about marketing dynamics, especially at the international level which rendered them helpless in the face of exploitative middlemen. Theoretically, the above discussions find support in the writing of Foucault (1980), who viewed power as dynamic, dispersed, circulating, heteromorphous and always linked to knowledge. This in a way challenges the advocates of critical theory to look beyond and outside it in trying to explain socio-political dynamics.

Another finding that seemed to challenge the generalised notion of empowerment was related to the uniqueness of the communities VEDCO worked with. While it is anticipated in critical theory that collective action, is necessary to deal with collective problems, in the case of my study, I realised right from the beginning that collective action was not a favoured method of work among members of the community. Thus, expecting people to respond to problems collectively (Freire 1970 and Giroux 1983) was an imposition of our own view of how communities should deal with their problems and contrary to the expectations of critical emancipatory learning and independent 'action-taking' arising from one's genuine understanding of the situation. Hence, prescribing the expected behaviour or semblance of an empowered community was in itself a manifestation of subtle technocratic assumptions, characteristic of the neoclassical framework and practically defeated the spirit behind the professed emancipatory goals of participatory development, action research and transformative education.

It must therefore be emphasised that power is not a possession or speciality of certain individuals or groups of people, which they can control and are free to dispense it as and when they want. Power is dynamic; it shifts with time and the particular circumstances of people at a given time. The fluidity of power is part of the dynamic

that ensure the survival of human society as it underscores the need for interdependence and symbiotic living. Secondly, society is not polarised into two diametrically opposed groups of oppressors and oppressed. The ability to oppress and be oppressed migrates with the shift in the location of power. In addition, because there are several forms of power and locations of power, even the fields of oppression can be many, hence, the different dimensions of oppression based on aspects like gender, class, age religion, ethnicity and race.

In the final analysis, assuming that some people have power and others do not is a serious source of disempowerment for all people. In this case, the power of the so-called powerless is not utilised, while at the same time the powerlessness of the so-called powerful is not addressed, yet the two are important in addressing fundamental causes of disempowerment. Therefore as an educator within community-based contexts one needs to be sensitive to community power dynamics as they directly and indirectly filter into the entire set up of learning processes and influence the results.

4.5.3 The socially critical assumption of levelling power gradients

Critical theory aims to reduce the power gradients between those with power and authority to dominate others and those considered powerless. This is when people gain the capacity to organise themselves collectively and without authoritarian control (Janse van Rensburg & Lotz 2000). I found this assumption to be based on the defective premise of a polarised society of powerless and powerful classes of people. In situations with fluid power relations, like the one described above, a universal levelling of the power gradients is not easy to achieve due to the subtle nature of power structures and its many locations and manifestations.

At another level, the assumption that society is polarised does not take into consideration other scenarios like that of VEDCO, which is not necessarily on any particular side of the main divide, but rather a 'friend' to the so-called powerless. The truth is that even this kind of interaction involves power relations. Even in this case, I found the harmonisation of power relations a complicated matter because of the different positions occupied by the different people in terms of their socio-economic and other privileges. These positions would not only affect the interrelations between them, but also their understanding of each other's situation. Ellsworth (1989) brings out this paradox in her own situation where, as a person from a privileged section of American society, she was constrained to understand the situation of her racially harassed students.

Ellsworth's observation resonates with what happened in this study. VEDCO's understanding and analysis of the situation of the villagers was constrained by their different locations as follows: educated, employed, smartly dressed, compared to the villagers, riding motorbikes and able to advise farmers on matters that appeared complex to them. The extension workers' understanding of poverty could not be the same as that of the poor farmers. This revealed itself in some of the assumptions we

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made about farmers, despite the participatory engagement. The assumption that all farmers could afford to get the necessary requirements for sustainable agricultural practices was a case in point. The question that arises here is, whether the power gradients ever be effectively levelled, given the multiple locations of individuals and groups as a result of the fluidity of power in society as discussed earlier; I see this as an idealistic contention of critical theory that is very difficult to achieve in its entirety. The fact that it starts from the assumption that one group of people is empowered and the other is not means that it is flawed even before the process begins. My view is that, instead of aiming to level power gradients from a flawed technicist view of empowerment, as if it is a one-way transfer of power, by the empowered to the disempowered, one should engage in a process of mutual empowerment from all angles through increased knowledge of and about each other, in order to appreciate one another's situation and be able to work towards each others goals. My view should not be misconstrued to mean that no empowerment could ever take place. In this study, certain levels of transformation that could be seen as empowerment were attained but the degree and sustainability of the observed changes remained open to question.

5.0 CONCLUDING REMARKS, LESSONS AND RECOMMENDATIONS

A number of lessons can be learnt and conclusions made from the experiences analysed in this paper. The analysed problematique of EfSD awakens us to the need to approach the subject a little more critically and carefully, aware of the contradictory and confusing potential of the underlying philosophical orientations (education, environment and development) of different practitioners which can constitute a threat to the translation of EfSD's good intentions into meaningful actions in the right direction.

The paper illustrates that among poverty stricken rural communities the search for the development of sustainable communities should go beyond education. This is because of the broad nature of the challenges which include among others the need for policy transformation, material support, and structural socio-cultural matters. These are cross-cutting factors, with political, social and economic dimensions that have to be addressed as such. There is for example a need for EfSD programmes to incorporate both the practical and strategic gender needs of society in general and women in particular to avoid scenarios where partial empowerment is achieved at the expense of other forms of empowerment.

The contrast between Ugandan and Japanese contexts paints a clear picture of the varying capacities and potentials of developed and developing countries and reiterates the need for a more contextualised approach to EfSD implementation. In the case of developing countries like Uganda, it demonstrates that more localised factors like poverty, institutional and personnel capacity gaps, socio-cultural and political aspects of society related to access to and utilisation of key community resources, a less enlightened population in matters of sustainable methods of production and their

threats to society, and externally motivated and under-funded policies not only complicate the implementation of EfSD, but also broaden its scope and call for the adoption of more integrated solutions and implementation methods among rural communities.

The role of a critical mass of consumers, and a market system aware of the need to pursue sustainable development evident in the case of Japan has been noted as a central motivating factor in fostering a conscious implementation of EfSD goals as opposed to the less informed, and basic needs oriented Ugandan population. In addition, the central role of government and non governmental actors in nurturing conditions for EfSD is clearly demonstrated in the Japanese experience, but we are also made aware of the importance of resource availability in making this a reality, as the Ugandan case demonstrates. The problematique of balancing different 'sustainabilities' reveals the depth of the complexity of forces underlying the drive towards sustainable development, and awakens us to the need for a more open minded approach to the implementation of Education for sustainable development to ensure balanced actions which will result in balanced results.

The paper highlights the threats and challenges posed by macro and micro economic policies of adjustment and trade on EfSD as a strategy for addressing challenges to sustainable development. The fact that many policies to be implemented at the local level are developed at the global level implies the need for EfSD to go beyond the local concerns and actors, to educate the global economic and development policy makers about the role of their policies and methods of work in undermining the achievement of the goals of sustainable development. As such, principles of education for sustainable development should inform education and training programmes of policy makers at the national and international levels to empower them develop policies that do not perpetuate unsustainable practices.

VEDCO's community-based education programme on its part reaffirms the ideological nature of education and points at the necessity for educators to be critically aware of this as they approach educational practice. It also portrays the potential of competing educational ideologies/theoretical frameworks to influence educational practice and breed inconsistencies and tensions whenever educators fail to clarify their own theoretical locations and take conscious steps to pursue them. The paper has illustrated that not only competing educational ideologies, but also the competing worldviews of the different development actors and the incumbent complex community dynamics exacerbate the magnitude of the contradictions and tensions in community-based situations.

With regard to the use of emacipatory methods, it has been revealed that although participatory educational methods are potentially empowering, they can be used in a technicist-disempowering manner, to meet the educators' interests, depending on the ideology of the educator, his/her capacity to make effective use of the methods or some other contextual factors beyond the educators control. In the case of this study,

this is evident in the shifts in the direction of the application of participatory methods in the different phases of the programme. The findings have reiterated the fact that technocratic training structures, methods and strategies encourage dependency among learners and also exposed the falsehoods behind the technicist belief that learning can be cascaded and trickled down from lead farmers into the community, while ignoring the contextual factors in which learning take place. The need for use of participatory methods of learning that foster active learning and action through continous

The paper has shown that it is possible to achieve many of the goals of education as a social emancipatory process when pursued consciously using the appropriate methods and taking into consideration the contextual realities of a given community. Nevertheless, the critique of critical theory awakens us to the necessity to move beyond the simplistic uncritical adherence to some of the tenets of socially critical educational principles that may lead to instrumentalist outcomes, and instead seek their applicability within a given context. The paper helps us to re-examine the assumptions of critical theory on power, powerlessness and emancipation and the role of education as an empowering process. We are made to realise that power and powerlessness are a little more complex, dynamic and fluid than often assumed. This has key implications for education in general and community-based environmental education as an empowering process in particular. It calls for educational programmes that employ processes that recognise the complexity of power and nurture strategies that can foster reciprocal empowerment for all stakeholders. It also implies educational approaches that emphasise synergy, go beyond and outside the rigid confines of given theoretical frameworks and seek theoretically appropriate and contextually relevant educational approaches.

The paper has also demonstrated that educators' lack of theoretical clarity on aspects surrounding methods and their practical implications in the learning situation causes them to take decisions that contradict their declared objectives. The process of re-orienting educators as part of EfSD should as such emphasise the relationship between the learning goals, methods used underlying theories and how negatively the effectiveness of learning. This will help educators select and the appropriate educational methods and approaches to avoid contradictory learning outcomes.

As I end this paper I would like to recommend further research in the following areas:
- the potential value/challenges of the different socio-cultural dynamics in Uganda/Africa and Japan/Asia to the implementation of EfSD;
- How to integrate traditional knowledge on sustainability practices of different societies to strengthen, indigenise and create local ownership of EfSD programmes;
- Policy oriented action research on the appropriate modes for educating policy-makers at global level to enable them develop policies that not only take into account the goals of sustainable development but are also cognisant of the unique socio-cultural, political and economic situation of different countries;

- Explore ways of integrating practitioners' research in the implementation of EfSD programmes

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