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Are Educators Ready for the Next Earth Summit?

by John C Smyth

Preface

Education is widely recognised as one of the major implementation tools for Agenda 21, the action plan for sustainable development developed at the 1992 UN Conference on Environment & Development (UNCED). However, education's progress compared to other Agenda 21 issues and implementation mechanisms has been slow, as although considered important it is all too often dismissed.

The idea is for *sustainable education* not to provide all knowledge, but to teach how to look for knowledge – to be a tool with which to action sustainable development. Sustainable education requires an understanding of education beyond the formal system, and as such calls upon us to reconfigure our traditional perception of 'education'.

John Smyth gives a comprehensive view of how the issues surrounding the education community have developed and outlines the areas still needing attention, as well as offering constructive criticism of action so far. He looks at the stakeholders within the process, suggesting a holistic approach where we can learn from other people's examples, and places the responsibility for this on the wider education community. By giving recommendations on ways to move forward and create links to overcome these gaps this paper hopes to inspire those with that responsibility.

The conclusion is that we need to redefine education in sustainable development policy. All stakeholders need to come together to generate a much needed breakthrough in education, leading to a better informed and sustainably motivated public.

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Are Educators Ready for the Next Earth Summit?

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In Agenda 21, the Action Plan from the 1992 Summit at Rio de Janeiro,[1] education got more mentions than anything else besides government, not only in the education chapter but throughout the text. A welcome discovery for those educators who had been trying to improve public learning about human-environmental relationships since the 1970s. Chapter 36 itself, on Education, Training and Public Awareness, was passed almost without comment. Education continued to be mentioned repeatedly in the major UN conferences that followed Rio. Conference delegates were evidently in no doubt that a better informed and better motivated public was necessary to effect the changes for which they were working, and that education was a key element in bringing that about. In 1999 a study of delegates to the UN Commission on Sustainable Development (CSD), meeting to monitor progress on implementing Agenda 21, suggested that this has continued to be the prevailing view.[2]

With the follow up, the World Summit on Sustainable Development (WSSD), now happening in 2002, delegates will wish to know how far educators have gone towards fulfilling both their own and Rio's expectations, and how they plan to continue. What follows is an attempt to draw together some of the relevant issues as a basis for discussion and further study as appropriate.

In Agenda 21 … education got more mentions than anything else besides government

Environment and education

The use of terms must be clarified. For the purposes of this paper the environment refers to the total environment of humankind, biophysical and social, natural and anthropogenic, economic and cultural, with a past, present and future. This is how the term was used at the definitive international conferences of the 70s and 80s[3,4] although a 'greener' concept of the environment persisted in popular usage.

Education is taken to mean the guidance of learning, usually towards identified goals, whenever and wherever it is undertaken. A recent trend to refer to 'learning' rather than to 'education' – for example in learning societies, self-directed and distance learning, open learning systems and learning approaches to change – is a reminder that this is the key activity and it has never been confined within institutions, so its guidance plainly requires action on a broad front. Formal education, in schools, universities and the

like, continues to have a critical role as the central definer and expositor of what education should be about, a concentration of knowledge, skills and forward thinking, the most direct means of contact with a large proportion of most populations while in a receptive state, and the gateway to productive life as a participating citizen. But the formal sector is nowhere the sole operator: non-formal education operates outside the curriculum but is organised as learning experience from both inside and outside the formal sector, while informal education concerns learning from experiences not usually designed for that purpose.

Two points regarding learning about the environment arise from this. One is that people learn how to behave towards their environment not only, and perhaps not even mostly, from instruction but from their own experiences, good and bad, and from the example set to them by others in their society, either of which may override instruction. Instruction comes through legislation and commercial persuasion as well as schooling and their influence may be different, although not necessarily stronger. Educators are trying to produce caring, responsible people, who can build up for themselves the values to underpin wise judgments and competent actions relating to their environment whether physical or social. Adult behaviour towards the environment is the product of a sustained learning experience, and practising educators include members of society at large and its institutions, not all of them regarding their primary functions as educative. Until this extended view of learning and education gets home to people, and to policy makers in particular, progress may be slow.

The other point is that perceptions of the environment are individual constructs, built from selective reception of data, interpreted in accord with past experiences, present needs and expectations, and future intentions and visions.[5] They are the product of an external environment interacting with an internal one. Two people in the same circumstances may thus have significantly different views of the same world. Responsibility for it is nevertheless shared, calling for compromises – the raw material of democracy.

SDE … emerging as a way of thinking through all education

Education, even in a formal setting, cannot be thought of as a simple package. Many organizations have a stake in it – international and national, governmental and non-governmental, formal and non-formal, public and private. They form together a cluster of systems interacting with each other and the societies to which they belong. All of them are made up of stakeholders sharing responsibility for what it does. Naturally these relationships vary between cultures, countries and regions so any overview of the state of education will necessarily be a generalisation within which more specific diagnoses and treatments have to be made, appropriate to their own conditions.

The education community, for whose support the UN was calling, is a broad spectrum of people from all of the stakeholder groups, the formal

sector of education at every level, many kinds of non-formal education, and the local administrations on which they depend. Those most concerned with these issues were previously associated with environmental education (EE) or development education (DE) but by the 90s these titles were being replaced by the term sustainable development education (SDE), or any of several variants of it, a change fostered by the World Conservation Strategy in 1980[6], the Brundtland Report of 1987[7] and the Rio Summit itself. The education community does not as yet have any recognized structure.

Some of those not directly involved in SDE/EE are apt to think of it as a formal subject to be taught like others as a distinct item in the curriculum, but it might be better regarded as a competence, a permeating quality like personal or social competence, emerging as a way of thinking through all education.

Education after Rio

By the time of Rio the scope of the relevant education was clearer. It was plainly unrealistic to separate humankind and its affairs from the Earth of which it is part, as many environmental educators in wealthier countries had done in spite of UNESCO definitions to the detriment of balanced learning. But as a consequence the whole range of interested parties also expanded. No longer was environmental science on its own an adequate basis for construct-

SDE … remains insecurely defined … so authority is still needed to establish its educational identity

ing educational strategies. Natural scientists were joined by social scientists, economists and more, people with widely different training, experience and priorities. Bringing them together was beset by pitfalls and in some places support for environmental learning started to polarise and to fragment again, putting the holistic principle at risk. Moves to counteract this drift showed that in the right framework concerted thinking and acting are both possible and productive, but putting it together requires an investment of positive effort.[8,9]

Although most educators using the term claim to know what they mean, sustainable development education remains insecurely defined. The distinctions between SDE and EE seem to lie in perceptions and practice rather than in theory. The newer title has proved vulnerable to quite diverse interpretations arising from the different worldviews of its promoters, thus presenting practitioners with problems of authentication and interpretation which they may not be well equipped to handle. Where differences of interpretation lie between educators and their funders the implications can affect survival, so authority is still needed to establish its educational identity. Changes of label should not be made lightly. We should reflect on Batchily Ba's appeal from Mali not to harm hard-won success in legitimising and

stabilising a reform, by changing its name just when it has become acceptable (quoted by Lucie Sauvé[10]).

By 1992, however, educators were already debating the nature of the activity required of them, whatever it was called, and ideas were evolving. Major international conferences at Toronto in 1992 and New Delhi and Thessaloniki in 1997 kept this debate alive, as did many smaller, more restricted, more specialised or more localised events, and an unremitting flood of publications.

During the 90s national strategies for education under one or other of these titles were prepared in many countries with back-up from the World Conservation Union (IUCN) and other international and national non-governmental organizations (NGOs)[11] although not all of them reached active government policy. In many places, however, some sort of treatment of the issues was finding its way into school curricula and also into adult and non-specialist education, sometimes made pressing by particular national and local needs.

It would travel better if it were located within a broadly accepted structural framework

In some wealthier countries tertiary level courses on aspects of human/environment relationships multiplied, in response to student demand and new job opportunities. Here also many new organizations appeared, outside the formal education sector, committed in different ways to improving both understanding and practice, while established NGOs with non-educational priorities expanded their commitment to learning. New support for educational programmes and materials also came from commercial and industrial firms.

Most encouraging, however, were many successful projects on the practice of SDE/EE offering ideas and good working models for others. Predictably most of them depended on the efforts of talented enthusiasts already trying to underpin protection or improvement of either the 'green' or the socio-economic environment and often working as volunteers far beyond the call of duty. They demonstrated that the will and the skill clearly exist. Their experience could still be better disseminated, and it would travel better if it were located within a broadly accepted structural framework which might save innovative ideas from marginalisation.

In general, awareness of human activities which enhance or threaten environmental quality certainly spread considerably, well publicised through the media although not always so well understood. On the other hand a good case in this business does not guarantee good attention, let alone imple-mentation, and there are always dangers in overstressed and underfunded educators becoming overloaded with advice and exhortations. Nor does the work of enthusiasts in any sphere of activity always survive them when they move on: the responsible authorities which were happy to benefit from the

reflected success of good projects may be less interested in investing the funding needed to insure their continuity. The picture of good practice thus seems to be far patchier than would have been expected from the emphasis given to education at Rio, and not yet enough to achieve the change in mindsets envisaged in Agenda 21.

What still needs attention?

It appears that work is still needed to achieve a wide consensus on what is required of education, greater sensitivity to the real needs of both learners and educators, and a social and political climate conducive to spreading and enhancing success. Many other matters still need attention, of which the following are just examples. Some refer to the nature and status of education itself.

Like much of formal education in the industrialised world SDE/EE has been caught in a slide away from education's liberal origins onto a vocational-managerial route. Non-educator administrators at all levels tend to treat it as an instrument for improving people's capacity to become employable citizens, to be conducted by professional educators in the public and private sectors in accord with directions from above, using well established practices and kept updated in content by the appropriate professional institutions. If that is the way to secure employment many educators and students will readily concur with this view, and the social and economic foundation of sustainability may depend on it. But is this concept of education enough to guide learning for living in such a complex and changing world? Adapting to change may require a wider-ranging critique of the current paradigm of relevant education, with a new emphasis on what Sterling has described as relational learning, and movement from a transmissive to a transformative mode.[12] Here is a call for a fundamental rethink of the nature, structure and place of education, and it belongs to the whole network of interactions between learners and educators, the wider social system, and their environment in all its complexity.

But is this concept of education enough to guide learning for living in such a complex and changing world?

Learning about human relationships with the whole environment, bio-physical and socio-economic, is of course also becoming increasingly relevant to vocational education. Non-vocational education may be ineffective if it fails to meet personal expectations or accord with the behavioural norms of the society in which people lead their everyday lives. In either case far too little attention is given to the influence of direct personal experience and to the example set by society, through parents, peer groups, teachers, cultural leaders, employers, advertisers, entertainers and the exercise of public authority. All of these influences are accessible to guidance and enrichment, and therefore

within the remit of education, but they are separately packaged by society and their management for that purpose either unrecognised or disregarded.

Some concerns still remain about the scope of relevant education. Socially-motivated educators often express concern about approaches which they see as too 'environmental' (meaning in a 'green' sense), while landscape and wildlife conservationists are equally likely to be anxious about a socio-economic take-over of sustainability. So long as the different interests in sustainability feel it necessary to defend their own patches against each other then combining them in a single enterprise is more difficult. This suggests that deficiencies exist in the perception of human/environment systems which well-guided learning should correct.

These concerns, however, mainly trouble people in wealthier, developed countries. But their influence around the world is considerable and as in other matters they are apt to export both their viewpoints and their problems with great confidence. Over much of the Earth's surface, however, where human societies are more closely tied to the natural resources on which they depend, environmental and socio-economic factors are inseparable in people's lives and the distinctions drawn above mean nothing. Defining goals can be simply survival measured in quite short terms. Problems are often the result of developments decided by people living comfortably, and far away. National strategies for EE/SDE prepared on western models to appeal to foreign funding agencies may offer little to address local needs, and give insufficient attention to indigenous life and custom. Practice based on theory derived from a different culture cannot be expected to succeed, and models of environmental care and learning which take no account of traditional knowledge and practices, where these exist, should rightly be viewed with suspicion.[10]

The affluent North may not be very good at listening to the South, which is a pity since it would learn a lot. But again there are deficiencies which can be ascribed to failure in perception of a whole system extending beyond familiar, conventional or imposed boundaries. Furthermore they are not only global in scale or rural in location: parallel problems can influence the effectiveness of learning strategies in urban environments. Indeed we should be warned to inquire also how holistic our approaches are within industrialised countries.

So the educational scene since Rio might be summed up as one of growing if scattered activity, enthusiastic effort often poorly supported by society, a lack of overall leadership in matters of conceptual structure, a tendency of vested interests in both academic disciplines and promoting organizations to withdraw behind defensive boundaries, and a general difficulty about perceiving large systems and differing points of view. The Rio process either initiated or reinforced the successful changes reported above: is continuing attention being paid to these other matters?

Education at the CSD

At the UN General Assembly Special Session in 1997, which reviewed progress since Rio, education got much less prominence than previously. UNESCO, as the task manager for education, had already reported to the CSD that *"education is the forgotten priority of Rio"*.[13] National delegations appeared to have given education their blessing, taken the injunctions home to their education ministries for attention, and then dismissed it from their minds. The aforementioned survey of delegates in 1999[2] noted that very few members of delegations carried 'any brief for education'. This was not surprising since education scarcely figured on the agenda that year, although many of the delegates clearly considered it relevant to the topics (*e.g.* tourism, oceans and seas) which they were then discussing. It seems as if some important linkages were not being made.

Where environment-related policy is determined (other than specifically education policy) educators are not normally invited to contribute, and decisions which reflect on their work are passed over for education ministries to implement. There was therefore no call for education to be represented on delegations, and nothing much to attract NGO educators as observers. Yet learning is a vital human activity sustained through life and, as has been mentioned, subject to many influences outside formal institutions. Here is another missing link.

Governments ... found that 'education' was a convenient place to download an awesome responsibility

Further, the education community had unfortunately not been recognized by the CSD as a Major Group of stakeholders, perhaps because it was not well enough organized when these were first set up. It still does not speak with a concerted voice. It was thus at a disadvantage compared with the nine existing major groups, most of which were backed by strong international NGOs. In consequence the views of educators did not get as much exposure as those of others, and, for example, events which could have linked other agenda topics with education were not set up.

A more cynical view of the position might be that governments, having taken on the hard task of changing people's mindsets towards their environment on a global scale, found that 'education' was a convenient place to download an awesome responsibility which might have troublesome implications elsewhere. Meanwhile education ministries at the receiving end, beset by many problems including other pressure groups more vociferous and perhaps better supported politically than this one, and a disinclination to move away from the safety of established curricula, were understandably likely to give low priority to potentially disruptive innovations wherever they came from.

So with no real evidence of widespread change in formal learning relating to sustainability at the level of general education, nor of much improvement in public understanding of what it means, and no notable increases in the

allocation of resources, education has appeared to be dropping behind in its responses to Rio. Could there even be a hint of boredom with the issues setting in?

Some disquiet may be justified, and it is time to find ways of improving education's role in promoting Agenda 21 objectives.

Revisiting the model

It may help to look again at the stakeholders. They fall roughly into three overlapping groups: (i) the promoters of appropriate education many of whom are issue-centred, often reflecting particular priorities such as landscape protection, wildlife conservation, urban renewal, social deprivation, poverty relief, energy management, peace and many more; (ii) the practitioners both in the formal and non-formal sectors many of whom prefer to see themselves as student-centred, and who cover between them the whole range of age groups and levels of formality or informality; and (iii) the target population, members of the public who, as the receivers of all this attention and lifelong learners, really comprise everybody including both promoters and practitioners when in learning mode. In one form or another the priorities of the public may at heart be security – home and family, lifestyle and status, job and future prospects. All of these groups both influence and learn from each other. There need be no confusion that some individuals appear in two or all three groups at once: people often adopt different positions on the same issue according to their current role.[14]

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These groups naturally reflect the surrounding social system to which they belong, with its various cultural mores, preconceptions and prejudices. They also interact with the political system, ostensibly representing all of society, comprising government and political party machinery, elected representatives and their paid officials, all pursuing interpretations of government policy whether as supporters or opponents. In practice the objectives and priorities of this system may differ significantly from those of the other groups, and within it there are subcultures associated with individual offices, personalities and parties, not always identifiable but potentially key determinators of policy. Both the nature of interactions among other stakeholders and the courses of action available to them are liable to modification while moving through the political system.

Each identifiable group within these systems is likely to have its own preconceptions, its duties and agenda, its preferred interpretation of terms, its own view of a secure and conformable course of resultant action, its own expectations and visions, and within its own society still some room for further limited interpretation by individual executives. No wonder that the clarity of messages passing through them often ends up somewhat fogged. Policy makers

yearn for fewer intractable problems, and those problems where failure to solve them is not followed by retribution may not receive action. Problems a generation hence will be someone else's anyway, and education is notoriously slow to produce results.

In appropriate forms this kind of structure occurs at all levels of activity, from international policy-making to grass-roots practice. The development of an effective strategy for changing learning opportunities entails looking critically at each interaction between the stakeholder groups and at inter-actions both with and within the socio-political system. Together they form a learning web and communication between each pairing should be two-way. Only when every connection, together with its political status, has been evaluated and included in the design process can it be comprehensive.

Involving all the interested parties in the process is important over the whole range from international debate to community initiatives. Only when participation is real are people likely to feel sufficiently involved to have ownership of the outcomes, and this sense of ownership may be the best test of effective participation, sufficient to warrant the term partnership. A truly holistic system of environmental care will be one of partnerships, with the various stakeholder groups working to achieve shared objectives. People now try to identify indices of sustainability, as a way of assessing their level of success in environmental care. Perhaps we also need indices of inclusion to ensure that all the stakeholder groups are party to decisions, including a proper range of those whose status may be overlooked on account of marginalisation by race, gender, age, cultural affiliation, economic status or whatever.

Only when participation is real are people likely to feel sufficiently involved to have ownership of the outcomes

At every level of operation a clear path has to be cut through the thicket, requiring committed leadership, effective tools, a supportive social and political climate, and a well-defined destination.

The holistic principle

What we have been finding in this review are failures to adopt a genuinely holistic view of the human/environment condition and its treatment. Policies and practices tend, not unnaturally, to reflect the more restricted worlds of the people who make decisions and may thus fail to touch effectively all those for whom they are designed. The people directly involved have not yet multiplied into the critical mass of promoters and practitioners needed to alter the policies of governments or to divert public funding to a potentially troublesome (because cross-disciplinary) innovation. Even more critically, the recipient public do not yet see the initiatives as leading to sufficient improvements in lifestyle to warrant political pressure in their support.

But can they be blamed? Their education has probably not provided them with the conceptual frameworks which they would need to assemble all the relevant factors, nor with the ways to use them. For example among the 'matters needing attention' outlined above, which directly concern promoters, designers and administrators of education but may need public support, it appears that frameworks have not been adequate in the context of EE/SDE to support the relationships –

a. between humankind and its whole environment,

b. between human society and the learning stages in development,

c. between education and the different ways in which people learn,

d. between policy makers and the diversity of groups at whom policy is directed.

Lacking these frameworks weak connecting links between major components pass unnoticed or are left unattended in planning. Other difficulties in establishing and implementing SDE will probably reveal similar causes. Until they are properly connected and monitored a workable learning system consistent with the nurture of sustainability seems an improbable dream.

What we have been finding in this review are failures to adopt a genuinely holistic view of the human/environment condition and its treatment

Approaching complex issues in which ecological, social and economic elements interact is something for which most people are poorly prepared. Many both within and outside education have difficulty in handling such complex systems, having themselves had an education favouring the reductive approaches which have served scientific progress so well. But the systems we are concerned with here are more than the sum of their parts and the need for skills to handle them is increasing – papers such as environmental impact and biosafety assessments or lifecycle analyses are regularly passed to non-specialists and important decisions made on their basis.[15] Education cannot realistically instill comprehensive knowledge about all these component factors, let alone their interplay, but it can help people to recognize what to look for, how to relate the components to each other in defined systems, provide some feel for the dynamics between them, and guide readers to sources of expertise for necessary detail. Furthermore it can be practised at almost any level of education, side by side with reductive approaches, and infiltrate normal practice in both formal and non-formal learning.

The benefits of introducing these approaches into non-specialist education would go far beyond the immediate subject of this discourse. A growing number of case studies reveal that well-designed environmental policies have commercial as well as environmental benefits. Planning issues

are of growing public concern, not all of it wisely directed. Public health is increasingly associated with environmental and psychological factors in interaction with physiological and pharmaceutical ones. Almost any major issue in international relations would be better understood if thought through in a more comprehensive context. Systems studies would underpin understanding of such issues and facilitate support for wiser measures to address them.[16]

Recommendations

The draft report of the Secretary-General for the second preparatory meeting of the WSSD admits (para.77) that "Few successful working models of education programmes for sustainable development currently exist," and picks out some priorities for education with which few educators would disagree.[17] They are better financial provision especially for basic education, emphasis on the educational needs of the poor and especially of women, revision of teacher education, and more emphasis on the non-formal sector including the influence of NGOs and the media. Bluntly, these indicate that education is still undervalued, unevenly spread, inadequately prepared for and incompletely conceived, none of them the fault of the education community itself but of those charged to sustain it. They are not new problems, and to explain why they still remain one must look for deeper-rooted difficulties lurking behind them.

Critical gaps appear to exist within the network of stakeholder interests, and between it and the political system, for implementing SDE/EE. Solid pieces of progress have been made but vital connecting links to bring them into practice are lacking, and a more supportive social and political climate is needed to sustain them. Conceptual inadequacies have to be found and filled. Measures in support of learning (suitably reworded and presented for user-friendliness) which could help to bring the dream of sustainability closer to reality include the following. They have all been proposed, more concisely, in papers circulating from the CSD Education Caucus.[18] They could now be made the subjects of clear statements of intent and implemented within the year following the 2002 Summit.

Expanding responsibility for the guidance of learning – i.e. education – beyond the formal sector:
Affirm that the attainment of Rio and Agenda 21 objectives cannot be separated from the guided development of all of the population on whose supportive activity they ultimately depend, and that provision of the requisite guidance in every channel through which learning passes must be one of the primary objectives of policy planning for sustainability in the next decade.

Relating policy development to its educational needs for success
and its effects on exemplary and experiential learning:
Support the direct involvement of educators in sustainability planning processes as the norm rather than the exception.

Providing the framework for more structured educational input into the
development of other policies for sustainable development:
Recognise the education community more formally, broadly defined to include educators in the non-formal as well as the formal sector, as a key international player, either through Major Group status or by some other, equally significant means; use it as a means of bringing the educational dimension more fully onto the agenda of meetings and increasing the proportion of educators in national delegations and as observers.

Developing thinking about complex systems among the non-specialist public:
Bring systems approaches to human/environment issues out of the specialist areas of education where they presently exist into the education of all as a means of developing wider understanding of sustainability.

Bridging the gap between liberal and vocational concepts of education
and improving the quality of guidance:
Single out the professional bodies which control continuing professional development, and influence initial professional education (including teacher education), in order to promote greater interprofessional cooperation in disseminating and implementing sustainability principles.

High profile treatment of learning in relation to important international issues:
Address the implications for education of current transnational issues of concern, *e.g.* the ecological, sociological and economic consequences of globalisation, poverty, violence, the increased movement of people around the world whether as ecological or political refugees, as salesmen or as tourists, threats to biodiversity and their implications, and the influence of changing climate.

Addressing cultural conformities and nonconformities
in sustainability policy and practice:
Develop an intercultural and interfaith dialogue on the value systems influencing learning about human/environmental relationships and locating them in national and cultural contexts.

An international focus for progress of new models of SDE:
Set up a global Education 21 Initiative to provide leadership and encourage a common purpose for educational innovation, provide a secure foundation for work at regional and local levels, bring together the individual talents of separate

bodies with their own priorities under the common objectives of Agenda 21, provide a non-adjectival label for what is being done, acceptable to all; and at best a vision of education to capture imagination and commitment.

Integration of learning patterns with the changing needs of a sustainable human environment system:
Set up a short term special commission, representing all the main determinators of environmentally-related behaviour and all the main international stakeholders, with a wide remit to advise on the practical steps needed to achieve change on this scale without undue disruption.

Strengthening the structures by which improved international influence can be exerted:
Substantially increase the resources available to the task manager for education to promote and facilitate these measures and to draw into partnership the other international bodies concerned, both governmental and nongovernmental.

These measures will inevitably compete with other worthy causes and therefore require the highest level of support possible. But decision makers could be reminded of the now familiar aphorism: *"If you think education is expensive try ignorance."*

The holistic principle binds the effectiveness of education to the performance of those deemed to guide the future of the human/environment system. The commitment shown by world leadership to meeting other objectives for a sustainable world will be the public example from which both educators and learners will judge whether sustainability is to be taken seriously or not, and the success of policies for learning may well be determined accordingly.

It will be variously the responsibility of international bodies, national and local governments and NGOs to provide:

● A clear picture of how Earth-wide human relationships should look, both between humankind and its environment and between different categories of humankind whether defined by gender, race, religion or culture, age, locality, economic status or whatever, justifiable before any reasonable company of humankind;

● An international commitment to place the objectives of Education for All at the top of any priorities for development and funding, which is not only genuine but put into practice;

● Willingness to invest effectively in education consistent with a sustainable lifestyle, widely defined to extend beyond institutional boundaries, to insure that changes, even radical changes, can be made in both formal and non-formal practice without overtaxing practitioners. This may call

for improvements in recruitment, training, working conditions and working environments as well as the means to carry out new programmes;

● Establishment by the education community itself of a mechanism to co-ordinate the influence of SDE/EE educators or education organizations from all the relevant educator categories, to provide leadership, expert advice from a global base, and exert pressure when necessary in support of objectives and recommendations. It should be drawn from existing national practitioners' associations, relevant international bodies, education units of appropriate NGOs and the like, but should be seen to be independent of any particular part of sustainability policy in order to leave no doubt about its broad constitution.

The aim of education is to help people assemble and evaluate the determinants of issues and appropriate courses of action, to appreciate uncertainty and risk, but not to promote any particular sectoral remedy

● Willingness of all concerned to acknowledge that the guidance of learning (education) happens both inside and outside formal institutions, and that everyone shares some responsibility for it;

● Acknowledgment that the current concern to produce conforming members of society who are employable in a competitive market must be balanced by the need to help individuals make their own judgments regarding their identity as earth citizens. One could not deny to people the education they need to find a fulfilling place in society, but they are entitled to find in it also a concern for the quality of their environment and its treatment.

Without pressure to the contrary the sustainable use of resources, the lives of those less fortunate in the competition (especially if they belong to a different social or cultural set), the effects of actions that are distant in place or time, even long term security, are apt to be valued against short term economic criteria or else to be passed over as virtuous but unrealistic frills, irrelevant to real life in the crowd. If neither the political nor the social climate is genuinely favourable to less material objectives sustainability will be hard to reach.

It may nevertheless be necessary to reaffirm that the aim of education is to help people to assemble and evaluate the determinants of issues and appropriate courses of action, to appreciate uncertainty and risk, but not to promote any particular sectoral remedy.

Conclusion

We may be dealing with a chronic illness of humankind, and even if we have the diagnosis correct the symptoms of ill-health may not yet be painful enough for us to persuade the patient to start treatment. Or has it just become customary to toss education into the mixture, as an obvious part of the remedy, without thinking how it is to act? Perhaps we should not be misled by the ease with which education was received as an important issue at Rio. My friend Susana Calvo has a maxim *"Donde todos piensan igual, nadie piensa mucho"* – when everyone thinks the same, no-one is thinking much. But complex issues like these need a lot of thought.

In the formal sector the educational issues which are contentious seem to polarise between two focal positions. The first is that education is a means of fitting people to live in conformity with government policy (*e.g.* towards their environment and its exploitation) and that educators are primarily trained people carrying out this task as directed by others, in formally recognised institutions. The second is that education is a means of guiding people's development so that they can understand better their own relationships with their social and biophysical environment, so as to provide active and informed participation in the formulation and implementation of policy, and that educators are in effect everyone concerned with other people and the future quality of their living space. There are, of course, intermediate positions and the focal points are by no means irreconcilable: there has to be a point of balance.

It is perhaps time, however, for education to be at least partly de-institutionalised. This does not mean to deny institutions their continuing vital role but to make plain the reality that education of the whole person, extending into the whole life, is a responsibility of the whole community. The formal sector of education will retain its vital and definitive role but public learning processes are something in which everyone plays a part, whether knowingly or not, and every policy towards society and its environment has an educational spin-off whether good or bad.

Agenda 21 called for education in support of environmental competence to be as basic for people as literacy and numeracy. Can we afford another ten years putting that in place?

We are close to calling for a redefinition of education as used in international policy pronouncements, more in line with the overall guidance of learning, less exclusively tied to the formal system. It would have implications for the formal system, *e.g.* less centralised quality criteria, provision for greater sensitivity to locality-specific knowledge and priorities, movement from learning based on certainties to learning about management of uncertainties. Responsibilities for learning outside the formal system would need more official recognition. Could it all be done without stressing further an already overstressed

profession, an opening of doors rather than closures? [19]

Drawing together varied and dispersed groups of people into a unit committed to a common purpose, and acknowledging their worth by making them stakeholders in the enterprise, are well-tried ways of building up a campaign. Given conviction that the campaign reflects genuine international policy for a sustainable world it might result in the sort of breakthrough which education clearly needs.

Agenda 21 called for education in support of environmental competence to be as basic for people as literacy and numeracy. Can we afford another ten years putting that in place? Can concise proposals be devised which would conform to sustainability principles, and make the decision makers sit up and think? What should they be?

THIS PAPER HAS FORMED ITSELF AROUND SOME GUIDING PRINCIPLES:

1. **The aims of sustainability require that biophysical, social and economic aspects of an issue be considered together and that any policy in which one of these is deficient must be suspect.**

2. **Learning to approach issues systemically should therefore become a necessary part of experience.**

3. **The means of guiding learning for life in a sustainable society and environment should also be treated as a whole issue, comprising all the channels through which learning passes, formal and otherwise.**

4. **Learning is so much a part of normal life that the effects on it of any policy for public action should be one of the criteria on which the policy is judged.**

5. **Learning consistent with sustainability should begin in the local community and extend to national and international actions.**

End Note

This paper has benefited from the comments of many colleagues in the field. Not all the comments have been incorporated but the role of the paper is still to provoke discussion. One commentator, for example, points out how often it betrays the author's northern roots. This is natural – no statement of opinion can be separated from the person who makes it. But that is the most obvious reason for extending the exchange of views and the author hopes to have readers' reactions.

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