

Cross Cultural Participation in Sustainable Development: Canadian Academic Involvement with Mexican ENGOS

Thomas C. Meredith and Gisela Frias

Department of Geography, McGill University, 805 Sherbrooke W, Montreal, PQ, Canada H3A 2K6

In sustainable development, everyone is a user and provider of information considered in the broad sense. That includes data, information, appropriately packaged experience and knowledge. The need for information arises at all levels, from that of senior decision makers at the national and international levels to the grass-roots and individual levels. The following two programme areas need to be implemented to ensure that decisions are based increasingly on sound information: (a) Bridging the data gap; (b) Improving information availability.

(UNCED 1992, 40)

The Context

Since the Brundtland Commission reported (World Commission on Environment and Development 1987), there has been wide acceptance of their view; that is, the view that the world's environmental problems are inextricably linked across national borders and across the intangible divide between the affluent, high-consumption, industrial "North" and the materially poorer, low-consumption, largely agrarian "South". The assumption was that, once this interdependency had been identified, significant efforts would go into addressing common solutions.

There are barriers to moving in this direction, not the least of which is the simple fact that the North may not yet be politically mature enough to take the actions that a reasonable diagnosis of global environmental problems dictates. The recent volleys into the side of the Kyoto Accord demonstrate the challenges of mobilizing those comfortably isolated (physically and mentally) from the real challenges of acting on CO₂ emissions. Other barriers include the cost and complexity of action. But perhaps the most telling barrier is the simple fact that, even when the political will, economic resources, and scientific insight are there, we still do not know how to accomplish the environmental goals that we set. It is a new area of human experience and we still need to develop tools for action.

One approach is to examine questions of democracy and participation and the close correlates of access to and use of information. Agenda 21 notes that conventional definitions of information may be inadequate and advocates initiatives to

enhance the distribution of relevant information. This paper describes an initiative undertaken under this rubric.

A Partnership

The premise of the work is that for any environmental problem (in which humans play a significant role), there are two critically important data sets: one is the best that science has to offer on the issue, the second is the best that the humans involved in the problem have to offer. The value of the scientific information rarely needs to be justified. The value of the local information is important for many reasons ranging from its inherent accuracy to the fact that it describes the perception of the local human communities and is therefore a part of the human ecology of those communities. Understanding local perception is necessary for any effective action.

These two sets of information imply a partnership; that is, a collaboration between the holders of complementary information sets. Of course, it is not unusual for scientists to work amongst non-scientists, and so there is a legacy of interaction. But these interactions, by and large, have been either exploitative (the research community is simply extracting information from or about the local community) or patronizing (the research community is actually there to disseminate rather than gather information). The reality of partnerships is new and still awkward. It must provide for the truth that "everyone is a user and provider of information" and make sure that the flows of information are at least two-way. How, given different cultural backgrounds and unequal power relationships, can representatives of two groups learn from each other?

The information technology revolution has many profound implications. Spatial decision-support (SDS), including remote sensing, GIS and data management capabilities, has radically altered EDM. Access to the tools of SDS has affected, and will continue to affect, the capacity of different stakeholder groups to influence the outcome of environmental decisions. Establishing equity may require a more uniform access to these tools, but the problem of inter-cultural technology transfer arises. The essence of this problem is the question of the extent to which the "medium is the message." Is it possible to engage people in using SDS without requir-

ing that their procedures of analysis and their data needs conform to the SDS system? If not, then the new tools, rather than being tools of protection or of liberation, become tools of assimilation, and the naive (or indifferent) actors who strive to “modernize” local community participation in EDM may merely be new and slightly more subtle techno-evangelists.

The Program of Action

This project was initiated by Northern academics who had a strong commitment to the idea of community participation in EDM. The intent at the initiation of the project was to find a situation where a community group would be interested in forming a partnership to explore information technology, both to gain access to useful, outside sources of local environmental information and to present their own local information in a more compelling way. A decision was taken not to seek a community already engaged in some local environmental “crisis.” There were two reasons for this: the first was that in crisis situations conflict lines are generally clearly drawn and positions have already been defined. We wanted a situation where people were open-minded and prepared to explore options. The second reason was the belief that communities in crisis are communities at a point in planning and environmental management that should ideally be avoidable if effective stewardship mechanisms exist at the community level. Our interest was in helping to reinforce stewardship mechanisms before crisis arose. Communities where conflicts have arisen represent important areas for remedial action; communities where conflicts have not yet arisen, the vast majority of communities, represent the areas for the development of — to use a medical analogy — “preventative” or health preserving strategies.

We attempted to forge a genuine partnership between Northern researchers and members of a Mexican rural community in a mountain forest area about 20 km. south of the edge of Mexico City (Meredith 1997a). We assumed that “genuine” would require at least two things: that we not come with a prior agenda and that we not hijack the interaction by imposing arbitrary timelines. This is some of what we have learned about procedures so far.

The Experiences

Intermediary group

In attempting to define an appropriate community partner, it was necessary to enlist the support of people who were aware of the local setting. We contacted GEMA, a group with a record of popular environmental education at the grassroots community level. The interest of GEMA in our project was

very muted, for three reasons at least. The first was the simple clash of the academic and NGO cultures. Academics are seen to be driven by research agendas and institutional structures, while NGO members are action and results oriented. There was little expectation that the research agenda and the pragmatic local agenda would be compatible. The second reason was an issue of marginalization and empowerment. Experience had demonstrated to the GEMA executive two things: the first, that outside researchers tended to want to dominate planning and decision-making processes and could be patronizing in their dealings with local people; the second, that even if a partnership led to useful end products, it is possible that the products would not be sustainable in the local environment (for reasons such as cost, technical complexity, or equipment dependency). The last reason for hesitancy was researchers’ record of desertion. The feeling was that researchers often “mine” a situation for results and then leave without delivering on any of the implicit expectations and often without returning any of the results to the community from which they were generated.

These concerns were very clearly and forcefully expressed. It demonstrated the importance of having some “gatekeeper” advisors at the local level (and the sad legacy of academic research). Our commitment to the idea of partnership made it easy to understand these concerns and possible, after considerable discussion, to arrange a working structure that would prevent some of what was feared. The solution was to relinquish control of decision-making within the project to a group that included GEMA, the community members and the researchers. The consequences of this are evident in the following points.

Local self-administered “diagnostico”

Defining the questions we would investigate was the first step in our process. The area we selected is a forested area that is conspicuously affected by various outside forces ranging from road development and land value increases to the imposition of a set of restrictive conservation measures. We expected forest issues to be paramount locally. They were not. In approaching the community, the implication was that outside researchers would help locals to study and perhaps solve some of their local environmental concerns. Of course, it was vital that we listened to, rather than told about, what those concerns were. The process used was a locally designed and administered survey. This had several beneficial consequences: it got local people interested and involved at the initial stage of the process; it generated a picture of the local environment as seen through residents’ eyes; and it ensured that the work done by the outside partners was relevant, and seen to be relevant, to local concerns.

Use tools of popular education coupled with tools of science

Scientific information is powerful, and the tools of communication that are commonplace in the research environment are effective. Yet, they are appropriate to a narrow set of communication circumstances. The discipline of popular education has developed an array of tools that are effective in many other circumstances, and it is important to draw on these skills when attempting to reach community members who may vary considerably in age, interest, experience and literacy levels. Communication tools that are alien to academic researchers, such as role playing, educational games and skits, are extremely effective in allowing people to express themselves and to make points about environmental information. The procedures can seem slow, and their information content per unit time low relative to, say, an academic lecture. But the skill of the popular education specialist is to know what breadth, depth and mode of delivery is appropriate. These are sophisticated skills that should be recognized as a required complement to the specialist skills of academic researchers working in communities.

Allow open agenda (where process, not outcome, is the objective)

Conventionally actions are undertaken with specific goals in mind, and an effective strategy for moving toward those goals is to have a well-structured agenda. This is contrary to the principle of participatory community-based environmental research. If the goal is to allow community members to express their own perception of their environment and to establish a firm sense of ownership of the decision-making process, then an agenda must be created by the consultative process and it must be infinitely adaptable as the activities proceed and as knowledge, perception and expectation of participants change.

A commitment to an open agenda does not mean that a researcher must give up all control. The researcher is still a part of the process and can still expect to be able to make contributions that will influence what priorities are established. It may be that period of trust-building and/or finding a common vocabulary are required before the community and the researcher can reach agreement on agenda priorities. In this Mexican case, the site was originally selected because of what appeared to the researchers to be serious forest management issues. This topic did not come out in the initial diagnosis and so the partnership had to address the topics that were cited as being of concern (water quality and waste management). It turned out that forests issues actually are important but it took several months of discussion before they were identified. The reasons for this are varied: a perception of what constituted an "environmental problem" conditioned

somewhat by mass media taking a global or regional perspective (dealing with Mexico City) rather than a local perspective; a question of trust on issues that are vitally important and somewhat divisive locally; a matter of perceiving something as omnipresent as the forest as a distinct environmental asset; even a matter of who had become involved in the environmental discussions (see point 5, below).

Demonstration of dynamism in the procedural aspects of the partnership makes it clear that new ideas are welcomed and new inputs can be significant in determining the direction of the overall process. Thus, the openness in the agenda becomes a tool that encourages contributions and participation. Any process that builds conscientious involvement is a positive step. A partnership with an open agenda can contribute to that.

Recognize unequal promotion of idea

As noted above, a voluntary community-based process will initially recruit a sector of the population that may not reflect the array of perspectives and concerns in the community. If it does not, a problem arises because, clearly, everybody in the community has an integrated perception of his or her environment and each of those individuals has a stake in the future and may have unique knowledge of the factors that will shape that future. Each voice could be important but, clearly, not everyone will be as willing or able to become involved in a planning process and, of those who do, not everyone will be equally vocal, assertive, compelling or tenacious.

The question arises of who actually becomes involved in voluntary "community-based" discussions and how representative they might be of the entire community. Clearly there will be some self selection of people who are already concerned about or active on some issue (in this case, water and waste), while there are others who may be too busy, physically less available (because they work in the forests), less open to the idea of community stewardship, or less willing to be forthcoming about their own activities (especially the case if the legality of some informal-sector activities is imprecisely defined).

This will affect the nature of the partnership program and direction in which activities move. If the process has been "hijacked" by the first arrivals or the most demanding, the partnership may merely create or reinforce divisions within the community and will accelerate fragmenting or destructive interactions within the community. Mechanisms must exist to allow non-dominant voices to be heard. Two methods were used to encourage this in this case. The first was frequent evaluation sessions, at which time the process rather than the content of the process was discussed. The second, and perhaps most important, was to have participants

available for informal discussion. For example, a person who may not have raised an issue in a public meeting (for any of a multitude of reasons) may seek an opportunity to raise it privately, for example in an informal discussion at a social function. If interactions occur only according to norms more-or-less rooted in Roberts Rules of Order, efficiency and predictability may be gained but at the expense of thoroughness and accuracy. Openness to ideas, however they come and whenever they come, will lead to a more complete picture of the issues and priorities. This is the objective of community-based environmental initiatives, and so the mechanisms for capturing ideas, regardless of the promotion skills or intentions of the originator, must be created and maintained.

Adapt information technology

This issue has been discussed at length in Meredith, Yetman and Frias (in press). Three items are important to note. The first is that the amount of data available for outside sources is often overwhelming and, despite efforts by many governments and researchers to ensure unrestricted access to data, the reality is that there are barriers to information flow (Meredith 1997b). What becomes accessible at a given location and time may be as much an accident of the effect of the barriers as it is of the real information needs. The expertise that is required to collect and convert existing data must not be overlooked nor must the fact what is collected and made available at any time may be partial, selective and distorting. For example, in this case a series of maps showing local deforestation was readily available. This was part of a series of national maps, so the scale was not sufficiently detailed for local work. Moreover, assumptions made in the national study masked certain local anomalies (for example, partly wooded pasture land that became more open was represented as deforested land despite the fact that the real transition had been minor; conversely, primary forests that had been cleared but which supported a scrub vegetation were not counted, even though the transition was large). The impact of "random" data needs to be noted just as it must also be noted that it is impossible to wait until all extant information has been collected and made accessible.

The second point is that information management technology, especially perhaps GIS, is inherently complex and requires expert training. The advancing front of new technology and methodology mean that if the "best available" procedures are desired, the dependency on esoteric expertise will increase. This is necessarily marginalizing, since those who community-based initiatives intend to include can become passively dependent on the "black-box" procedures used by the expert. There is no solution to this dilemma except to be aware of it and ensure that a reasonable balance is maintained between credible procedures and stakeholder involvement.

Sincere outreach can help make the start and endpoint of complex procedures clear.

The third point, arising from this, is that in fact, it does not matter if the goal of full local inclusion in decision-support procedures is reached. The process of exploring the procedure and examining the data and technology issues described above is a learning process that helps build inclusion and helps shape the agenda for action. No matter how far along in the learning process people come, if the exploration has helped make the overall process more effective then the exploration has been a valuable part of the process. It is not necessary to succeed in transferring information technology tools to the community; the exploration of the possibilities can be a good popular education tool.

Next Steps

There is a marked contrast between this case and the previous one. Here a real community is involved with real environmental conflicts. Moreover, the community mode of communication and data/information management is distinct from that used in scientific or policy research. The principal finding from this exercise is the organic nature of the growth of real partnerships. Without the intervention of the popular education specialists, the temptation might have been to arrive with the "beads and trinkets" of high-technology decision-support and to proceed to projecting both problems and solutions on the local community. Research undertaken to advance a scientific agenda is not necessarily structured in a way that makes it compatible with the research agenda (implicit or explicit) that is required by a local community attempting to resolve issues in its local ecology.

The tools of data gathering, management and presentation used in science and policy making are becoming essential to effective participation in collaborative decision making. This means that community-based stakeholders will be disadvantaged in any case where they are engaged in collaborative decision-making (or even consultation) in which the outside community establishes the terms-of-reference. This provides a justification for working to make these tools ones of empowerment. But if the experts who control the tools hijack the agenda, local control is lost. The sort of cautious and open building of partnership described here is essential.

The fact that it takes time and risks to build partnerships does not work well within the "instant gratification"/ "short attention span" / "NIMTOO" / "results oriented" value structure of government, corporate or academic culture. This may represent the biggest single "mutual learning" opportunity that will come out working in genuine partnerships at the community level. Whatever academics may be able to teach about data management must be balanced by what we learn

about how human ecological systems evolve in dynamic environments. Acceptance of decisions must be based on participation in decision-making procedures. These increasingly require collaboration. The benefits of science and the information revolution have an undisputed role to play; but that role must articulate with the way communities really work. The challenge is not so much how to make data and information tools available, it is how to make them work in the interest of the community. This can only come from partnership, and, as Karl and Turner have noted above, real progress will require a new class of "problem solver" and significant institutional changes. But the process can begin with experimental partnerships amongst governments, academics, NGOs and communities, partnerships based on the principles of democracy and participation.

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