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Beyond Methodologies: Coalition-Building for Participatory Technology Development

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Summary. — Participatory and other approaches to technology development have shared a recent preoccupation with specific methods and doubts about just how much can be expected of the methods themselves, as opposed to how they are applied, by whom, and in what circumstances. Detailed analysis of historical cases suggests that the development of both technologies and methodologies is highly dependent on local context. Such processes are characterized by conflicts over the direction of change and affected by the activities of a particular type of grouping, the development coalition. These coalitions are examined and implications are considered for training, education and Participatory technology development. © 1998 Elsevier Science Ltd. All rights reserved

1. INTRODUCTION

In recent years a growing literature has laid particular emphasis on various specific methods of management and research as solutions to perceived development problems. Indeed, some commentators have expressed concern at an overpreoccupation with methods (Gueye, 1995) and the emergence of a "Manual Mentality" (Guijt and Cornwall, 1995). These concerns are particularly significant given the rapid expansion of Participatory Learning and Action (PLA) along with some of its antecedents and components (Chambers, 1995).[1]

The range of approaches understood under the term Participatory arguably has a particularly vexed relationship to questions of method.[2] On one hand, PLA has come to be associated in many people's minds with a set of distinctive research activities. On the other hand, great expectations have been attached to those activities, if applied with the right attitude, in terms of their capacity to transform relationships between professionals and rural clients and thereby recast development priorities and processes.

This tension is reflected in the attention given to methodology and autocritical discussion in publications such as *PLA Notes* (No. 24 1995, especially). These debates have focused increasingly on the social and political contexts of Participatory activities, and their relationship to what is learned or done.

The paradox between increasing advocacy and increasing skepticism of specific development methods is not confined to Participatory approaches. In Natural Resource Management, Stakeholder Analysis proposes that technical interventions such as erosion control be reexamined in the context of land use politics (Grimble and Wellard, 1997; Gass *et al.*, 1997; Biggs and Sumberg, 1994). The institutionalization of a range of project management tools (such as Team Up, Process documentation and monitoring, and DELTA techniques) reflects a similar concern to analyze the broader environment in which, in the past, promising methods are seen to have disappointed:

> Our interest in stakeholder analysis (SA) stems from the concern that many policies and projects in the past have not met their stated objectives because the consequences of the policy are perceived to be adverse by one or more stakeholder group, and therefore lead to non-cooperation or even open opposition by those stakeholders (Grimble and Chan, 1995, p. 113).

In general, there are two main potential risks with

promoting one set of methods as a solution to problems with a previous set. First, organizations and individuals can have unrealistic confidence in the efficacy of methods *per se*. Enthusiasm for Participatory methods should not blind us to their limitations, particularly where their application has become routine (Gueye, 1995; Chambers, 1995). Second, as many donor agencies, nongovernmental and, increasingly, government organizations are committing themselves to PLA methods (Eyben, 1992; Bush, 1994; Government of India, 1994), it is particularly important to see these in the broader context of who is using them, how, and what for.

A detailed examination of cases in which Participatory methods have apparently been influential in shaping technology development suggests that this influence depended on quite specific historical and institutional conditions. One feature of these histories has been the mobilization of support and resources around key development issues, methodological and technological options. The pervasiveness of such coalition-building behavior makes it an important if obvious subject of analysis, which is often overlooked in the process of abstracting from the histories of technology and methodology development.

2. PARTICIPATORY METHODOLOGIES IN REVIEW

Important critical work has addressed the initially sometimes simplistic accounts of PRA exercises. Mosse (1993) shows that many issues familiar to anthropologists have predictably arisen in their application; for example, the tendency for a public social event — such as a PRA — to construct knowledge in ways that strongly reflect existing social relations of power and gender. Eyben and Ladbury (1994), among others, have criticized idealized assumptions about harmonious rural societies.

There is often a strong individual-based economic rationale for collective action, even in "small-scale" culturally and economically homogeneous communities (Eyben and Ladbury, 1994).

Class, gender and ethnic differences can be expected to produce conflicts over resources, definitions and aims involved in development processes (Welbourn, 1991; Mosse, 1993).

Participation of all or some of the beneficiaries may not be in the political interests of other actors in the project (Eyben and Ladbury, 1994).

Shah and Kaul Shah (1995) indicate the implications of this bland statement in a case study of a Participatory project where the controversial siting of a well led to members of the beneficiary group being beaten to death.

Grimble and Chan's position is partially consistent with this strand of the Participatory literature. But, adopting a narrow definition of "Participatory methods" as primarily data extraction techniques, they argue that the methods themselves need to be located within a broader frame that enables stakeholders to be identified and conflicts potentially defused, circumvented or resolved. "Participatory methods *per se* cannot guarantee success" (Grimble and Chan, 1995).

The question of whether PRA is a good tool for exposing and dealing with social conflict is centrally important here. Mosse (1993) has famously argued that PRA has a tendency to manufacture impressions of community cohesion. Welbourn has suggested that, while PRA *can* be used to explore issues of intracommunal difference in rural development contexts, it confers no particular advantage when it comes to addressing these issues. Its principal value may, it is suggested, be as a training tool.

Shah and Kaul Shah (1995) are scathing of such arguments. These are said to be based on superficial impressions of typically Western consultants and academics with little appreciation of the central importance of facilitation and long-term engagement with the complex, conflictual processes of rural institutional development.

This debate serves to emphasize that the term Participatory is used to describe a broad range of activities and relationships. For Guijt and Cornwall (1995), this eclecticism is a strength. Conversely, though, the meaning of PLA and the activities that go on under its heading cannot be simply sorted into correct and incorrect practice. This is particularly true in the context of the approach's greatly expanding popularity. Guidelines for applying Participatory approaches to watershed development within government departments suggest that PRA is seen predominantly as an extractive research tool. Training is emphasized, PRA exercises are short and follow-up involvement is limited.

[Project staff] need to be trained in the tools and techniques of project management, Participatory Rural Appraisal (PRA) methods, community organisation and other administrative and accounting procedures (Government of India, 1994).

Without underestimating the potential significance of such innovations within bureaucracies, this language conveys a fairly stolid and narrow view of what PLA is about.

We would argue that the reasons for PLA's "success" here and not there, at achieving one *desideratum* or another, have to be sought in the

social and political contexts of the methods' application. The implementation of a Participatory approach provides no guarantee, in itself, about an organization's development priorities or how they will be met. This may seem uncontentious but is frequently underrecognized by some of PLA's proponents.

In some cases, of course, the key conflicts of interest are located "outside" the project's nominal area (Goold, 1994). Van Ufford (1994) reviews a Participatory Process project where political concerns of the donor and the Indonesian government prevented their acting on evidence from a mid-term review that there was minimal democratic village level participation actually taking place. To date, however, PLA's concern with the quality of "insider-outsider" interactions at the local level has not been matched by analysis of development actors and institutions more generally (Biggs, 1997).

Moreover, recent discussion of the roles of "insiders" and "outsiders" in rural development processes has taken us beyond earlier, somewhat schematic portrayals of professional-client relationships which it was necessary to "reverse" (Chambers, 1990). It is not merely a question of "outside expert professionals" adopting top down approaches (Eyben and Ladbury, 1994). More subtle issues are at stake involving power and knowledge transactions and role negotiations (Robinson-Pant, 1995; Burghart, 1994, p. 99) which PLA may be relatively "weak" at exploring (Cornwall and Fleming, 1995).

Evidence from Participatory forestry initiatives in Scotland supports the contention that the roles of "insiders" and "outsiders" are considerably more nuanced than commonly assumed: Jeanrenaud and Jeanrenaud show that, where PRA has been used, its outcomes have been determined by the essentially political activities of the groups and individuals involved, both locally and internationally.

> Perhaps an enduring value of PRA is not so much its "tools" per se, but the longer term effects of the alliances they generate, which help create political space and financial support for community initiatives. International preoccupation with methodologies for appraisals leaves the role of informal alliances and coalitions in social change largely under-researched (Jeanrenaud and Jeanrenaud, 1996).

This view is supported by evidence from other conflict situations (Shah and Kaul Shah, 1995; Appleton, 1995).

Reviews of a large range of Participatory farmer research projects undertaken in the 1980s show that, even for a particular — agricultural — technology, there is a tremendous diversity in what is said or understood to constitute Participation in projects

(Biggs, 1989; Merrill-Sands et al., 1991; Martin and Farrington, 1987). Recent work suggests the importance of flexibility and methodological adaption and that a mixed bag of Participatory and "conventional" techniques may be appropriate (Schreckenberg, 1995).

If participation takes many forms, we should not assume that simply "including" certain kinds of people (in a team or process) is sufficient to effect the participation of the group they are taken to represent. It is worth remembering that no two wheat plant breeders, or economists, or landless laborers are likely to respond in the same way to many issues. Furthermore, they are likely to come to quite different conclusions about project priorities and management. The same goes for groups such as "social scientists," "locals," "donors," "female farmers', and so on. It is notoriously difficult to come up with practical criteria to facilitate the "unbiased" selection of representatives.

Nor can it be assumed that inclusion guarantees meaningful participation. We can all supply examples of ways in which the culture of an institution or organization itself significantly determines peoples' room for maneuver: what kinds of things can be said, for example, in what fora, how, who can claim to make authoritative statements, how social exclusion is effected in practice, and so on. A more nuanced account of participation here would need to take account not only of people's personal capacities, but of their broader cultural and political orientations, and of power, language and knowledge dynamics in and beyond the group.

The limitations of Participatory methods become a problem where exaggerated confidence in their efficacy leads to their being used exclusively and uncritically (Pelkey, 1996). The *transfer* of methods from one context to another raises concerns familiar from past attempts to duplicate technological success stories by abstracting from the specific social, political and organisational conditions in which a specific technology emerged. Such a historical perspective is perhaps the best corrective to the "copycat cookie cutter" tendency among PLA projects (Pelkey, 1996).

In the next section we look at some histories of technological developments and at the types of participation that took place. In these we attach importance to looking at the roles of individuals and of complex alliances or coalitions in directing the path of technical change. It is this sort of social contextual explanation that we feel tends to get left out of literature and training materials devoted to particular methods.[3] As we will see in the case of the development of some of the methods themselves, it is necessary to fill in the social context to appreciate how they came to be developed and used, by whom, and for what in each particular case.

3. CASE STUDY 1: TECHNOLOGY DEVELOPMENT — THE WHEAT GREEN REVOLUTION

One story about the wheat Green Revolution in Asia is that it represents a classic example of international scientists achieving tremendous results with a top-down approach. It has been estimated that by the early 1990s over 95% of all wheat in Asia was accounted for by improved varieties. Many of the parents of these came from CIMMYT, the international agricultural research centre in Mexico (Byerlee, 1992).

In contrast, another story tells us that this phenomenon represents a classic example of Farmer First Participatory research, combined with a certain amount of luck. In the 1950s, among other innovative approaches to wheat breeding,[4] Dr Norman Borlaug began working very closely with farmers in the Sonora Valley, Mexico. As these contacts developed, he also took up their cause with the Mexican government. He, and others in the network or coalition that formed around this work, mobilized funds, political support, agricultural policy, and so on, to develop and promote improved wheat seeds for Sonora Valley farmers. So an unusually high degree of farmer Participation was in turn supported by a range of negotiations in other arenas. These activities themselves affected, and were influenced by, political and social power struggles taking place at the time (Jennings, 1988).

When the wheat seeds were tested in India in the early 1960s, scientists were lucky to find that they did well under Indian conditions. Once again, there was a coalition of scientific, farmer, donor, administrator, and political actors who were committed to advocating and promoting a particular type of science and technology strategy, focused on dwarf wheats.[5] One of the biggest debates in the mid 1960s centered around the risks associated with importing a large quantity of exotic wheat seed which had only been tested in India for two or three years. Many participants in this conflict argued for a gradual introduction combined with further research into the new germplasm's resistance to local diseases and its long term viability. But they proved unable to mobilize sufficient support in the face of the dominant coalition, which favored rapid bulk importation and aggressive promotion of the new seeds (Brown, 1978).

Lele and Goldsmith (1986) highlight the roles of specific individuals in and around the Rockefeller Foundation in building a coalition within bureaucratic and political elites dedicated to promoting high yielding varieties along with major reforms in agricultural research and production institutions. They attribute the Foundation's influence to four critical factors: (a) a perceived mutuality of interest,

with the Indian government responding to food dependency on the United States by approaching the Foundation for assistance; (b) the breadth of the Foundation's involvement in Indian agricultural, which included graduate education, establishing coordinated commodity research programs, reorganizing the research system, and introducing high-yielding varieties; (c) the long-term commitment of US personnel such as the director, Ralph Cummings; (d) the consistency of the Foundation's "message" about how to proceed. Together, these factors contributed to "the crucial task of creating a constituency of supporters" within government departments. For Lele and Goldsmith, this kind of explicit commitment to "coalition building" remains "crucial" to the extended process of institutional development (Lele and Goldsmith, 1986, pp. 310–317).

If the Rockefeller Foundation presents an image of unity in its approach to Indian agricultural development, The Ford Foundation was split throughout the 1960s by a debate over the value of an extension *vs.* a research-based strategy. This took the form of a personal dispute between the Vice President for overseas development, the agricultural scientist "Frosty" Hill in New York, and the long-term India representative Douglas Ensminger. As part of a group comprising senior government figures such as Food and Agriculture Minister J.V.A. Nehemiah and Agriculture Minister C. Subraimanian, Ensminger, a former extensionist, used his influence with the Chairman of trustees and his extensive contacts in India, within the decentralized structure of Ford, to promote the extension oriented Intensive Agricultural Districts Program. The latter played a key role in disseminating the new varieties (Staples, 1992, pp. 1–20).[6]

What can be seen from these cases is, first, that processes of technology research and development are typically found going on in a context of disagreement about the directions change should take. Whether these disagreements exist between different organizations or within a single organization, it appears, second, that they create important choices and opportunities for individual action at the same time as potentially limiting room for maneuver. It is because consensus does not exist that, third, the direction of change tends to be shaped by the extent to which certain individuals and groups have identified themselves with specific technologies, research strategies, or similar "causes," and have succeeded in mobilizing support for these options. In a context of competing views of the value and suitability of dwarf wheats, for example, the formation and ascendancy of a pro-wheat network or coalition was a crucial factor in guaranteeing their spread and importance. It follows that, while it is of course appropriate to analyze the pros and cons of a

given technology *per se*, the result is a necessarily incomplete account of the requirements for "successful" technology development and dissemination. In addition to good luck, the latter typically involves networking, advocacy, lobbying and other activities — here called coalition-building — which are mainly excluded from conventional technology development narratives.

In a similar way, in the process of promoting particular methods or methodologies, there is a tendency to extract these from the contexts in which they were developed and seen to be effective. Again, however, the following case study suggests how contingent such effectiveness may ultimately be on those contexts.

4. CASE STUDY 2: METHODOLOGY DEVELOPMENT — RAPID RURAL APPRAISAL IN BANGLADESH

One of the "parents" of current Participatory methods was work in Bangladesh in the early 1970s, when the Bangladesh Ministry of Rural Development and the Agricultural Research Council initiated quick rural studies.[7] These surveys featured multidisciplinary groups of natural and social scientists, students, members of research institutes and universities, nongovernment organizations (NGOs), aid and government organizations, which undertook rapid surveys targeting poverty issues and explored a wide range of development options. Considerable time was spent by these groups in villages conducting focus group interviews. A variety of ways was found to fund these exercises. Sometimes staff of institutions were able to include the work as part of their normal activities, thereby providing their time, logistical support and so on. Some funding for logistical support and for the printing of numerous reports was obtained from a donor. In these and other respects the work was fairly *ad hoc*.

Among the many and varied subsequent effects of these early Rapid Rural Appraisals (RRAs) on development theory and practice, one was the work of Md. Yunus, then head of the Economics department at Chittagong University, and a key actor in the village-level survey work. His subsequent development of the Grameen Bank, and its effectiveness at providing credit for poorer rural women (Hulme, 1991), is at least partly the result of information gathered by the RRAs.

In light of the number of academic articles and management manuals on RRA and the Grameen Bank subsequently based substantially on this early work in Bangladesh, we want to make three points.

First, the RRA methods arose out of the political, economic, and cultural circumstances of Bangladesh at the time. A range of people wanted to gain an understanding of issues around poverty and poverty alleviation, and mobilized the resources and methods to do it. They were aware of a range of both qualitative and quantitative research methods as well as social and economic theory. These people identified with a social cause or task that came prior to the methods which were selectively adopted and later enlisted in its support.

It was significant, second, that those involved could attract attention to the work and the information it generated partly because they already had considerable prestige. In the case of Professor Yunus, it was notable that he used other aspects of his position at the time for effect. His influence was based partly on his involvement in the Bangladesh liberation movement, his academic standing as an economist, and his social position.

Another instance of the findings of rapid appraisal generating controversial implications that were then taken up by sympathetic and influential figures, involved a survey of wheat producers. This suggested that traditional grain storage methods were effective and not, as had been suggested by some consultants, the source of serious post-harvest losses. Despite the fact that there were powerful figures who were committed to the idea that there were serious losses and modern storage techniques should be introduced and promoted, the government supported the local storage techniques. What was centrally important to this outcome, however, was that interviewing in the RRA had been conducted by the country's most senior and respected wheat scientist, and that it was his own program that was most directly affected by the RRA's findings and recommendations.

This raises our final point, that it should not be assumed that methodological innovation guaranteed results. As a consequence of RRAs concerned with "appropriate" agricultural technologies, an Appropriate Technology cell was established in the Bangladesh Agricultural Research Council (BARC) in the mid-1970s. While representing in theory a good, institution-building move, this initiative probably had a negative effect on agricultural technology policy. By providing a convenient institutional "escape hatch," it allowed people to say, "We do not have to worry about this because it is being dealt with by the Appropriate Technology cell at BARC." In practice this meant that policy implications of rapid survey information about agricultural technologies were not dealt with at all, as the status of the cell in the BARC and its staff composition gave it "predictably" little clout in relevant policy arenas. Such an example is particularly relevant to the current mainstreaming of Participatory methods.

In summary, the early 1970s in Bangladesh represented a time of major political and institutional changes. The ability to develop and apply techniques

to address social and technical issues derived substantially from that specific context. Appreciating that link presupposes some detailed awareness of the actors and institutions involved. There is little reason to think that Participatory methods derived or abstracted from it will be the sufficient or even necessary ingredients of a rural technology development strategy.[8]

5. COALITIONS IN TECHNOLOGY DEVELOPMENT — COPING WITH COMPLEXITY, CONFLICT AND CHANGE

As the case studies above suggest, technology development processes typically involve conflicts over the direction, pace and significance of change. The development and spread of methodological innovations have also historically been a less clear-cut, more politically and institutionally nuanced affair than is conveyed by the didactic texts that come to represent and codify a given approach.

More specifically, the outcomes of these processes have repeatedly been shaped by what protagonists have done beyond a narrow technological or methodological field of activity. Faced by the recurring problems of complexity, conflict and change, actors in technology development have used similar strategies to gain information, control and continuity. These patterns seem pervasive enough to justify closer attention. They also have potentially important consequences for the way technology development projects are approached, practically and conceptually.

(a) *Complexity*

A recurrent criticism of attempts or calls to deal more fully with the "realities" and complexities of organizations or of technology development processes is that there is too much potentially relevant information to assimilate within resource and time constraints. Project management approaches for dealing systematically with conflicting interests have recognized the need to identify and deal with key players, while excluding others, to keep a survey manageable (Overseas Development Administration, 1995).

Grimble and others, for instance, propose a quite elaborate set of procedures for identifying, verifying, selecting and "managing" stakeholders in natural resource-related projects (Grimble and Chan, 1995; Grimble and Wellard, 1997). A systematic sequence of steps is described in building up a picture of the web of interests with a view to anticipating and avoiding or neutralizing conflict. This account presents the person(s) conducting the stakeholder

analysis as notably detached, even when engaged in conflict resolution and similar activities. While this may be a useful and important *corrective*,[9] in many cases the process will be rougher and readier. In effect, what stakeholder analysis aims to do is to make more conscious and systematic the informal business of making contacts, networking and forming alliances that is inseparably tied up with the formal component of carrying out appraisals and surveys. The combined picture is predictably less crisp than the guidelines because once these contacts have been made, they serve as key points of reference, sources of further information and key sources of legitimacy, authority and continuity. It follows that it is problematic completely to separate information gathering and analytic activities from the more elusive ones of eliciting and building support around a particular objective or set of priorities.

This tension — between an essentially technical and a more political approach to the institutional context in which technological development occurs — persists to some extent in recent Overseas Development Administration (ODA) guidelines. On one hand, stakeholder analysis can

> help to identify relations between stakeholders which can be built upon, and may enable "coalitions" of project sponsorship, ownership and cooperation (Overseas Development Administration, 1995).

On the other hand, the rest of this document has some unreality about it, with a tacit assumption that "the project" and its objectives predate any survey of the site or, alternatively, any substantive consultation with those involved. While "the tools and exercises.. can be used in a participatory fashion," this is manifestly not their primary purpose. The guidelines are essentially directed toward the efficient extraction of social data to avoid committing funds where local opposition militates against "success." Coalition "building" is relegated to a time in the future, and there is no suggestion that doing a stakeholder analysis might itself contribute to, or even *presuppose*, the constitution of a coalition of support.[10] In light of this it is unsurprising that the coalition-building implications of a stakeholder methodology have not been much elaborated on.

(b) *Conflict*

In a context of conflict over the direction of change, coalitions have tended to coalesce around themes, whether broad or narrow ones.[11] In plant breeding, particular crops have often served as thematic focal points, as in the case of the "rice coalition" responsible for the International Rice

Research Institute's rice breeding initiatives, and the rice promotion campaigns in the Philippines and South Korea (Anderson *et al.*, 1991; Burmeister, 1987). Shorter term, more specific coalitions may coalesce around a particular aspect of technological change and diffusion, such as a disease control program (as noted by Tendler, 1993).[12]

In contrast to the term's use in political science, coalitions here are informal, with a broad and typically diverse membership drawn from all those associated with technology development processes. Coalitions are not, then, comprised exclusively of scientists, academics, technology users or rural entrepreneurs, but embody alliances, more or less close and permanent, between people with compatible interests in given situations. There is a network of formal and informal information linkages within a coalition, and between members of a coalition and outsiders.

Boundaries of coalitions are open, in two important senses. First, they are not spatially specified: the membership and activities of a coalition typically extend beyond local, regional or national borders. Second, coalitions are not socially specified: they can cut across conventional boundaries such as those of class and party affiliation. Some situations may find powerful local elites and local poor people, or radical environmental activists and neoclassical economists in the same coalition. In another situation, of course, these groups may well be in opposing camps.[13] Coalitions are thus both more flexible and case specific, and less predictable, than might be assumed.[14]

Finally, the individuals who get involved in a given coalition can be expected to do so for a wide variety of reasons. These may include ambitions to improve or defend personal or professional status, various kinds of political or ethical commitments, and so on.

(c) *Change*

Coalitions come together for specific reasons at specific times and later they dissolve. While they are active, though, they encourage continuity of personnel and ideas. Members tend to share understandings or narratives about what has gone on before, as well as sharing objectives. This concern with orthodox histories can exclude alternative views. Dominant coalitions are able to accommodate inconsistencies in their past positions by reference, for example, to "second generation effects." Members of an opposing coalition may argue that these are precisely the effects they were predicting and warning about in the first place (Biggs, 1990).

Temporarily, coalitions may be more important than whatever catalyzed their formation. Jeanrenaud

and Jeanrenaud (1996) have argued, for example, that Participatory appraisals in rural Scotland led indirectly to the formation of groups that have proved of much greater significance than the quite limited direct products of the surveys themselves.

So the development coalition is a curious, opportunistic grouping, loosely constructed through friendship and other ties, reflecting both idealistic and self-interested impulses. It is pervasive enough to pass unnoticed but remains remarkably significant in affecting the outcomes of development processes, as well as in influencing the way those processes and their histories are seen (Biggs and Smith, 1995).

6. COALITION BUILDING FOR PARTICIPATORY TECHNOLOGY DEVELOPMENT

If we accept the prominence of coalitions in technology development arenas indicated above, this seems to have a number of key implications.

The currently growing dominance of Participation as a methodology for development initiatives of all types should not be allowed to prevent critical reflection of the kinds we have reviewed. Pressure to limit such analysis can perhaps be expected to increase as PRA is increasingly established as a mainstream approach.

It is important to look at what is going on *around* the techniques themselves if, as suggested here, the main determinants of outcomes lie not with the choice of method but with the institutions and protagonists in which those choices are made.

There is nonetheless a strong tendency for too much confidence to be vested in the techniques themselves. Training needs to counter this by emphasizing that the methods are merely tools, not recipes for success. This can best be appreciated in historical perspective. This in turn implies deconstructing to some extent conventional accounts of the development of both technologies and methodologies.

Stakeholder type approaches to project management and conflict resolution vary considerably. Some are essentially technocratic in conception. On the other hand, stakeholder analysis can potentially provide a valuable entry point for a more realistic engagement with the politics of managed change.

Looking back over the relatively rapid evolution from predominantly government-based development initiatives to the current variety of nongovernmental and hybrid organizations, the idea of coalitions provides a potentially useful way of framing questions about technology development and accountability (Biggs and Neame, 1995).

Finally, the pervasiveness of coalitions in technology development arenas suggests that specific

account should be taken of the interpretive, organi-zational and, ultimately, ethical questions they raise. It appears that the effectiveness of coalitions will often be a key determinant of the long-term impacts

of promising technical innovations. It follows that coalition-building should be a priority for individuals and organizations participating in technology devel-opment.

NOTES

1. Notably Participatory Rural Appraisal (PRA), Parti-cipatory Technology Development (PTD) and Community-based Sustainable Development (CSD), which have not always been clearly differentiated (Bush, 1994). From now on we will use the generic term PLA unless referring to a specific method.

2. The capital P indicates an activity with many of the key characteristics now associated with a consciously Participatory approach. It leaves open questions as to the different ways and extents various people come to participate.

3. For a fine exception see Farrington and Lobo (1997).

4. For example, introducing "off seasons nurseries" to speed up the process.

5. For a detailed account of another instance in which an alliance of interest groups formed around the promotion of a specific research agenda, see Anderson *et al.* (1991).

6. The two coalitions remained opposed, however, with subsequent implications for the establishment of the International Rice Research Institute. See Note 5. One feature of the process by which the new wheat varieties were introduced was the high degree of participation by beneficiaries, both in drawing up relevant projects and in their subsequent modification. Punjabi farmers played dominant roles in determining the direction and content of pro-wheat agriculture policy, advocating price supports, subsidized inputs, marketing facilities and investment in infrastructure. Moreover, many of the methods associated with PLA, such as consultation and research with farmers in the field, group discussions, and scientists living and working with farmers, were extensively used. Many of those projects funded by the Ford and Rockefeller Foundations had features, such as the involvement of a wide range of stakeholders — planners, policy makers, farmers, researchers, donors and others — which are now incorporated in Process projects (Overseas Development Administration, 1992). As in the later case study, methods here still have the status of tools, being used by various actors, for specific purposes, in specific instances.

7. The introduction to Yunus and Latifee (1975) gives a detailed account of the way new methods were developed and used. See also Biggs (1995).

8. While by no means absolute or universal, some such assumption seems to be implicit in PLA's concern with methods, noted above. In particular cases, "problems" are commonly attributed to the fact that these methods are

being applied badly, routinely, ritually, with the wrong attitude, and so on. While sometimes or often valid, the analysis thus risks getting narrower when it needs to be broadened.

9. I.e. to an *ad hoc* approach to contacts and influence. The level of detachment that is appropriate *and feasible* will vary from situation to situation. What is not useful is a highly idealized image of The Project, set apart in time and space, and eminently "manageable" (see Long and van der Ploeg, 1989).

10. The politics of stakeholder analysis may be usefully compared with the politics of evaluation exercises. See Nigel Norris's (Norris, 1997) comments on the conse-quences of these on resource and power distribution. The conduct of such exercises *as if* there were no such consequences, and expressions of surprise when recom-mendations are not implemented or are misinterpreted "for political reasons" cannot indefinitely postpone the question of the evaluator's own responsibility for the frequency of these outcomes. On the implications for development practitioners see Biggs (1997).

11. Rather than being shaped by, say, specific party political positions or particular economic interests. While the latter may of course intersect with them, coalitions are to be distinguished from vested interests pure and simple.

12. This specific, purposive focus is the reason for avoiding the term network, which seems more open as regards both function and duration. In the practice of the natural sciences, notably, there is a long tradition of information networks being established (Plucknett *et al.*, 1990). As typically portrayed, however, these lack the value-driven, strategic aspects of coalitions as described here.

13. As exemplified by the anti-road coalition in the United Kingdom.

14. The concept of contending coalitions can be inter-preted in terms of the "agency" or "actor-centered" analysis of rural development set out, notably, by Norman Long. A feature of this analysis is its focus on social actors which may be either individuals, or groups (Long and Long, 1992, p. 23). In the field of technology development, the concept of coalitions potentially provides an account of how, in concrete terms, individual actors become group actors (by participating in coalitions), and of how these groups or coalitions themselves interact to generate various outcomes.

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