**Empowerment for Sustainable Development:**

**Building upon Local Creativity and Entrepreneurship**

**in Vulnerable Environments**

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If we can understand the process by which a poor person — man, woman, child or old — feels empowered, we can explore the ways in which sustainable options for poverty alleviation can be identified. A story we heard recently may help clarify this point.

There was a street performer who used to earn his living by entertaining people with the help of an able disciple. They performed very skillful acrobatics. The joy people got on seeing their performance was not just because the performers were very skilled. It was largely because they were in­volved, as spectators, in the act. The onlookers were part of the performance in that sense.

One day a thief was passing by. He saw the performance and was greatly impressed with the skills of the performers, particularly the disciple’s. The disciple’s body was very supple and he could endure a lot of pain. The thief thought that if he could lure the disciple and make him an accom­plice, he could break into big houses, jump over big walls and amass lot of wealth. After observing the performance a few times, he approached the disciple and asked him to join him. The thief promised the disciple an attractive share in the loot. The disciple agreed.

One day after a lot of planning, both of them went to loot a big mansion with tall walls. The idea was that the disciple would climb the wall, jump into the compound and then open the gate from inside so that thief could come in. They thought this way they could perhaps carry away a large amount of loot without making much noise and attracting attention.

On the appointed day, both of them went to the mansion, which was to be looted. The disciple started losing his nerve. The thief exhorted him to climb because he had performed much harder tasks in the past. After a lot of goading, the disci­ple climbed the wall. The thief asked him to jump down. But the disciple would just not do it. The thief implored him, tried to shame him, pestered him, but to no avail. The disciple finally asked him to clap if he wanted him to jump. After all had his master not made the spectators clap whe­never he had had to perform a difficult act?

The disciple was empowered by the claps of the spectators. He did not realize that the power was within him and not in the hands of spectators. But so had he been trained. This is the crux of the matter.

How do we ensure that poor people do not become more dependent in the process of development, rather than autonomous? How do we avoid their performance becoming contingent upon ‘external clap­pers’? If an endogenous and sustainable development process has to ensue, it is necessary that we realize the paradox of depend­ent development. Since *we* define the problem, we also define a role for *ourselves* as problem solvers. Ironically, this notion of participation implies participation of spectators’, i.e., outsid­ers’ participation being institutionalized. But not vice versa.

People cannot be just the clappers. When to clap and when not to, is as important as the question of whether to clap at all. The nature of participation of outsiders in people’s plans, thus, will determine how empowering the development process is likely to be (Gupta, 1992).

A transition towards sustainable development requires recognition of the fundamental contradiction between the strategies which build upon what people do not know or have and the ones which take people’s knowledge systems as the basic building block. It is the latter process of building upon people’s own creativity that will bring about a liberating alternative.

This paper is organized into four parts. In Part One, the concept of empowerment through the linkage between two-way commu­nication and two-way power is discussed. Since the process of empowerment will vary in different situations of vulnerability, the nature of risk and strategies for coping with risk are dis­cussed in Part Two.

The framework for understanding sustainability through empower­ment, poverty alleviation through value addition in local innova­tions and networking among innovators is discussed in Part Three. The lessons — ethical and organizational — for overhaul of the global developmental strategy of sustainable development are elicited in the conclusion.

**Part One: Empowerment through recognition of and respect for rights of local knowledge to resources.**

Development ( see Fig:1) has been defined as a process of widen­ing the decision-making choices and extending the time frame of the households (Gupta 1981). Most sustainable technologies re­quire a longer time frame to be viable. In the shorter time-frame, a higher discount rate would exclude most technologies that generate small returns but with lower externalities.

Fig : 1

 **Development Models**

 Time Frame

 Short Long

 Narrow Non- Vulnerable

Range of Choices sust

 Wide Oppur. Sustainable

 non

 sust

The matrix helps us see the goal of development as a movement from non-sustainable or opportunistic options to sustainable options.

Access to resources, skills and technologies, institutions and cultural networks makes a considerable difference to achieving sustainable outcomes. The communication between the people and the professionals or the managers of development projects and programmes influences the range of choices that different social groups can exercise. The ability of people to extract informa­tion, provide feedback or influence the design of the dialogue depends upon the respective power that the two ends of the commu­nication channel have.

The interplay between communication and power at the grassroots level is illustrated in Figure two. On one axis we have one-way, two-way and no-way power, and on the other axis we have the same dimensions, but of the communication process (Gupta 1980). Power is defined as the ability to change the other’s behaviour or response in accordance with one’s own preference.

Fig : 2

Power

 One Way Two Way No Way

Communi-

cation

 One Way Authori- Impossible Street

 tarian Singer or

 Tom Tom

 beater

 Two Way Farmer **Empowerment** Collegial

 training learning

 Centre

 No Way Power of Impossible Indifference

 Silence

*One-way communication — one-way power*  exists in an authoritari­an arrangement. It is obvious that any exchange in this frame­work cannot be sustainable. A large number of top-down projects or programmes suffer from this limitation. Since there is no feed back, poor people often either ignore, or become indifferent or sometimes rebel against the oppressive structures. In the last case, one-way power is accompanied by two-way communication — protest being the way of communication from the side of the disadvantaged people.

*One-way communication — two-way power* is impossible because those who have power are unlikely to restrain the exer­cise of the same indefinitely.

*One-way communication with no power either way* is a case of street singers or tom tom beaters. These people perform their roles with almost zero ability to change the context or message. The providers or originators of the message may have power but not the ones who broadcast it. The latter can neither change the content nor its frequency. Street singers may acquire power some times through incorporation of powerful myths or metaphors into their narration. In that case, it becomes an example of one-way communication and one-way weak power. But generally, such a system survives either as entertainment or as a simple informa­tion-diffusion system.

*Two-way communication with one-way power* is reflected in the usual farmers’ training centres or officially designed develop­ment programmes. While people can give their feedback, they have no ability or power to ensure action on it. Such a system sooner or later becomes unresponsive to the needs and aspirations of the people at the grassroots. The communication flow from the people slows down and eventually stops completely. The system then evolves into one-way communication — one-way power. Learning is impaired.

*Two-way communication and two-way power* is the most viable and sustainable institutional arrangement. This is an arrangement which Gandhi articulated as “Gram Swarajya” or Village Republic and Mao Tse Tung called the Mass Line approach. It is true that both failed to achieve it on durable basis. Yet, the merit of the arrangement remains. The two-way communication system may not prevent mistakes altogether but certainly avoids blunders. The power both ways ensures learning and mid-course correction. It also generates mutual accountability and authenticity in transactions. Both the ethical and institutional responsibilities are shouldered in a shared manner. People are truly empowered in this case. People can not only communicate their expectations and feedback to the planners and policy makers, but also exercise power to shape the content of policies and programmes. The initiative remains at both ends and mutual support and learning are emphasised. People’s initiatives and innovations can become the basis of public policy just as people can support some of the desirable initiatives of the external agencies or actors. Given the quality of communication and play of power at both ends, the system can be highly sustainable.

*Two-way communication with no power either way* is the system of lateral or collegial learning. Farmer to farmer learning takes place informally. This is a very powerful medium of knowledge buildup though it can also be demoralising sometimes. This hap­pens when the dominant peer group reinforces despondency and cynicism rather than hope and experimentation.

*No-way communication with one-way power*: In general, one can assume that power cannot exist without articulation. However, when poor people decide to exercise the power of silence, for some time, a situation of one-way power with no-way communication can indeed arise. The case of no-way communication and no-way power is an alarming situation when indifference and cynicism become pervasive at all levels.

Empowerment is thus a process of conceding the right to question and communicate alternative opinions to disadvantaged communi­ties. The only limitation of this definition is that it presup­poses that those who have power will willingly share it with others. This definition also masks our — the external resource provider’s — powerlessness in understanding and uncovering the creativity and entrepreneurship of knowledge-rich and economical­ly-poor people. The latent power of the creative people can manifest through institutions that permit two-way communication and two-way power. However, the process of such an empowerment will vary in regions with different vulnerabilities.

**Part Two: Coping creatively: Institutional and Technological Risk adjustments in varying Vulnerable Environments**

Rural households have to diversify their strategies of resource use to survive not just individually but also collectively in any high-risk environment such as deserts or hills. The pattern of diversification is closely linked to (a) the nature of initial endowments of the family, (b) access to factor markets like land, labour, capital and product markets including technological choices, (c) historical process through which the portfolio or combination of various resource-use strategies has evolved in a given ecological region and among different classes, (d) cultural and institutional mechanisms (kinship, caste, religious, ethnic or other interest groups) guiding individual as well as collec­tive behaviour for economic and non-economic purposes, festivals, rituals and religious performances etc., and (e) the nature of the state and its delivery systems. Analytically, the relation­ship between the pattern of diversification in a given ecological context and the social exchange relations has to be established in a manner that the effect of changes in one on the other can be measured.

The nature of risk:

The drought and flood prone regions, hill areas and forest re­gions are inhabited by people who use diversified resource strat­egies to deal with risks. The sources of the risks can be envi­ronmental, institutional, social, cultural and even political; not to mention market weakness or failure. Some of these risks can only be appreciated: there is little one can do in the short run. Some can be influenced. In other cases the risk-inducing factors can be manipulated. It is obvious that the same risk may have some components which can be influenced, appreciated or manipulated (Lethem et al, 1980). The strategies for risk ad­justment at the household level can be strengthened or weakened by public policies as well as various organizational or market interventions.

Portfolio Diversification and Vulnerability

The variability in social interactions will also depend upon the extent of ecological variabilities as evident from the portfolio characteristics of the households. The households could have four kinds of portfolios of economic activities. If we take average income on one dimension of the matrix and variance in the income on the other, the four possibilities can be represented as follows (Fig 3):

 **Risk/ Variance and Return/ Mean Matrix**

Fig : 3

Mean or Average Income

High Low

 High

Variance

 Low

We can see four kinds of portfolios viz. High Mean - High Var­iance (HM-HV), High Mean - Low Variance (HM-LV), Low Mean - High Variance (LM-HV) and Low Mean - Low Variance (LM-LV). HM-HV portfolios imply that households have such enterprises which generate very high income but also have high fluctuations. If households prefer such enterprises, they should then be able to reduce the variance by controlling fluctuations or insuring against the same. Their access to institutions should ensure their ability to meet the expected high input requirement of such portfolios and their control over resources to reduce the fluc­tuations should imply their stronger power over institutions. The nature of networks such households would have among them­selves and with other social groups as well as institutions (private as well as public) will be characteristically different from other groups as we will see below. The incentives for bringing such people together would be different from those that bring together people with other kinds of portfolios.

HM-LV portfolios would comprise enterprises that give high income with low fluctuation. Households with such portfolios would obviously have very high control over resources and institutions and also accumulate maximum surplus among all the groups.

LM-LV portfolios characterize households having low technology or low input-intensive enterprises such as local varieties of crops, local breeds of livestock with low but stable demand. These households are generally subsistence oriented and can break even with some difficulty. The culture and social ethos of such groups are bound to be governed by stable institutions, networks and cohesive leadership. There will be limited incentives for entrepreneurship and deviance.

LM-HV portfolios are the characteristics of most vulnerable households. These households would have such breeds of livestock or crops which are vulnerable to environmental and market fluc­tuations leading to very low surplus. In fact most of the house­holds with such portfolios would have deficits in their budget. Their dependence on other social groups and informal institutions like moneylenders or traders is enormous. Their vulnerability often acquires highly exploitative forms dividing them into different sub-groups or mutually conflicting identities. Collec­tive action, for economic purposes, among such people is extreme­ly difficult. For cultural and social purposes, they have per­haps one of the strongest indigenous institutional infrastruc­ture. Their tacit knowledge base is rich and often includes confluence of self-abnegating images. There are, however, excep­tions, particularly artisans and pastoralists. Such groups may have a stronger self image and are also less vulnerable in re­gions where some demand for their products exists. The risks spread over space, sector and season or time also need to be appraised carefully to understand the evolution of institutional or individual solutions.

Spatial hazards are the area-specific contingencies. These are the risks which emerge due to presence or absence of certain endowments. Seasonal hazards refer to risks over time, mainly concerned with climate and location interactions. Sectoral haz­ards broadly refer to risks associated with economic activities. Transport, communication and agriculture sectors face greater incidence of sectoral hazards. Seasonal hazards consist of abnormal monsoon, flood, stormy wind, hailstorm etc. Spatial hazards would require identification of territories which suffer from region-specific hazards.

Low mean or low average return and high variance or fluctuations in the output characterize the most vulnerable portfolios. Such households diversify their resources options but at a very low level of subsistence. The first step towards ameliorating their impoverishment is to reduce the variance in their portfolios while simultaneously improving their average performance. If there is a choice between achieving both the goals, it may be better to reduce the variance first and increase the average income subsequently. This implies priority to certain kinds of insurance of enterprises in the short run. In the absense of the insurances, the experience has been that poor disadvantaged groups have not been able to utilize the entrepreneurial options.

There is, however, one exception. It relates to a subset of disadvantaged communities which is extremely knowledgable and continues to take risks and generate innovations regardless of the availability of insurance or external income-earning oppor­tunties. It is to this creative subgroup that we turn to, in the next part.

Risk and Social Exchange Mechanisms:

In different ecological regions various kinds of constraints would become dominant and, therefore, there is a need for eco-specific mix of strategies and social structures. However, there are some patterns in the ways people come together and resolve conflicts in market-dominated versus nature-dominated regions. The former regions are the well endowed, irrigated, low risk, high population density pockets. Since there is a larger surplus available with people, the market forces are stronger and often provide support which otherwise would have to be derived from social institutions. The nature-dominated regions include drought, flood, forest or hill areas where people have to rely on rain or other natural resources for their livelihood. Some of the key contrasts are mentioned below ( Fig:4)

Fig:4

 **Market dominated Nature dominated**

1. Communication

system Digital Analogical

2. Pooling of

resources Very low Very high

3. Reliance on

common

properties Low Very high

4. Settling of

books of

account Very short term Long term

5. The proportion

of women

headed or

managed house-

holds Very low Very high

6. Women

participation

rates Very low Very high

7. Reciprocities Specific Generalized

8. Empowerment Material Knowledge resource

 resource-based and culture-

 based

In high population density, market dominated regions the people can manage their needs (both expected and unexpected) especially by relying on markets or their individual reserves/inventories. If a guest comes unexpectedly, one can always get things from the market or immediate neighbourhood (where community structures exist). In nature-dominated regions such possibilities are limit­ed. One has to rely on informal co-operation. Similarly, if it rains on one side of the village and not on the other, the pool­ing of bullocks and implements may become necessary so that scarce moisture is not lost.

The pooling of resources is a logical necessity in nature domi­nated regions because the cost of individual maintenance of inventories would be very high given the uncertainty in the environment. The institutions which generate expectation of co-operation and provide legitimacy for collective action have to evolve to make collective survival possible.

The communication systems involve metaphorical or analogical style in the nature-dominated regions largely because the ambigu­ity and ambivalence provide the space for personal meanings. Unlike digital communication which is in terms of yes or no, or other precise categories, the analogical communication requires messages to be coded in culture-specific metaphors. The com­pliance of collective decisions is much higher in analogic sys­tems than the digital ones.

The reason for a very long timeframe in settling IOUs is the understanding that various exchanges are actually not settled but merely carried forward. Given variabilities in endowments, exchange in one resource market may be settled against another resource. Generalized reciprocities dominate over the specific ones in nature-dominated regions. It is very difficult to work out the equivalence between thatching of a hut by someone with ploughing of fields by another. It is for this reason that the book of accounts is settled in the long term and in generalized reciprocal form.

The proportion of women headed or managed households is invari­ably more in these regions because of the high male-migration from these regions to market-dominated regions. This has impli­cations for the choice of technology, nature of social institu­tions and sustainability of any particular organisational design.

The empowerment process in nature-dependent comunities in vulner­able regions is quite different from the market-dependent, low risk environments. In the former case, it is knowledge and cul­ture-based while in the latter it is material resource-based empowerment that may work.

**Eco Institutional Model : 4-A (Access, Assurance, Ability and Attitudes)**

The relationship between the variables on X and Y axis in Figure 5 can be one to one. Or, each variable on one axis can be relat­ed to other variables on X and Y axis (Fig.2).If we know the parameters of two dimensions on X or Y axis we can speculate upon the parameters of the third dimension. For instance, if we know (a) what type of access condition exists vis-a-vis market re­sources in a given situation and (b) the distribution of skills and abilities among various groups, the type of assurances both vertical and horizontal required to generate sustainable resource use can be anticipated. The **horizontal assurances** refer to others’ behaviour vis-a-vis one’s own at a point of time and the **vertical assurances** refer to the future returns from present investments. The attitudes are both the result or the outcome of the experience with resource utilisation and also the causal influence on the response to institutions. The attitudes provide a cultural basis of institutional working.

**Fig : 5**

**Eco-Institutional Perspective**

 Ecological Institutions Technology Culture

 resources

 / I \

 space Time Sector

 where when what

Access \*\*\*\*\* \*\*\* \*\* \*

 /Vertical

Assurances \* \*\*\*\*\* \*\* \*

 \Horizontal

Ability \*\* \*\* \*\*\*\*\* \*\*

Attitudes \*\*\* \* \*\* \*\*\*\*\*

All the four As i.e. access, assurance, abilities and attitudes, must be satisfied in a system level intervention for it to be sustainable. The advantage of the framework is if we know any two dimensions we can speculate about the third. And if we know three, we can speculate the fourth. Let us take the case of a technology for plant protection. It is useful for me to use biological pest control, if I have some assurance about others’ behaviour. But if I did not, I might spend more on chemical pesticides, and increase the cost of plant protection of others as well. Further it is not enough to have access to technology and skills or ability to use it, if assurances are not available. Likewise, the culture of collective survival vis-a-vis individual survival would also influence the sustainability of technology as well as institutional arrangement. Culture is the glue which holds the traingle of access, assurance and ability together. The empowerment of people cannot take place unless their access to resources, institutions, technology etc, assurances available to them from formal and informal institutions and skills to convert access into investments or outputs are synchornised in culturally adapted manner.

There are mechanisms developed to have other assurances. People in Andhra pradesh villages receiving herdsman from Rajasthan have an informal arrangement for deciding whose fields should be penned this year by whose herd. An assembly of village elders negotiates with the scout party of the pastoralists about which herd will stay in whose field. The obligations of payment to a village common fund, herdsman or the farmers are also spelt out (Wade, 1980). Friendly relations among the visiting herdsman and the local settled populations cannot always be taken for granted. There have been many cases of violence against pastoralists around grazing in forests ( with or without sanctuaries), pri­vate fallows, roadside fallows, at inter-state borders etc. There is a Supreme court Judgment permitting unrestricted right of pastoralists to move from one state to another. However, weaken­ing of assurances from state or host village communities obvious­ly increases grazing pressure on more marginal uninhabited lands leading to ecological crisis.

The improvement in access or assurances only will not help if the skills of the pastoralists to use available opportunities do not simultaneously improve. Most pastoralists can inject medicines or vaccinate their animals themselves. But there remains a vast range of traditional medicine systems or knowledge about combina­tion of stress fodder and feeds during drought which remains to be properly analyzed, screened and diffused.

The type of common property institution which may emerge here may have both **episodic** and **continuous** or **concurrent** rules. The epi­sodic rules refer to directions of behaviour which become import­ant only in the times of crisis. These are actually meta rules which provide guidelines for evolving rules in such institutions. The specific rules may of course vary from crisis to crisis. These rules are not even recalled many times in the normal times. The continuous or concurrent rules refer to the ongoing direc­tions for behaviour. Even here the equivalence of returns and fairness of distribution may first be evaluated at the level of kinship or lineage group. Only later it may be evaluated across groups and resource markets. Cross compensation or subsidization may be practiced more on moral grounds than just on economic grounds. For instance, not letting anyone sleep hungry may implicitly be understood as a collective responsibility only at a small neighbourhood level.

**Part Three: Grassroots Technological and Institutioal Innova­tions for Sustainable Development: Building Upon Local Knowledge Systems**

Erosion of knowledge is a much more serious problem than the erosion of natural resources. We can probably reverse the declin­ing productivity through watershed projects or other resource conservation strategies. However, erosion and regeneration of knowledge and resources have to be seen in a single-multiple generation framework.

**Scope for Regeneration**

Generational Time Framework

Single Multiple

 Eroded 1 2

Resources

 Conserved 3 4

 Eroded 5 6

 Knowledge

 Conserved 7 8

**Sustainability Combination of cells**

**of Regeneration:**

a) Poor 1 and 5

b) Very poor 2 and 6

c) Medium1 and 7 if local knowledge is incorporated in strategies of regeneration. The knowledge will also be eroded if not used.

d) Sustainable3 and 7, 4 and 8

e) Endangered 3 and 5 can happen when park or sanctuary like state-controlled conservation of resources is attempted, keeping people out of the resource. If knowledge is eroded, the erosion of resource can’t be far behind.

f) Not Possible4 and 8

g) Possible 2 and 8, if knowledge has been documented through efforts like Honey Bee and is available to people, regeneration of resources is possible within a long time frame.

Increased emphasis on providing short-term relief, employment and other means of subsistence in high-risk environments to alleviate poverty and stress erodes the self respect and dignity of disad­vantaged communities. The latters’ will to struggle and innovate gets subdued. Both the resource and the knowledge around this reource get eroded. It is to overcome this bias in development strategies that we initiated the Honey Bee network five years ago.

This network aims at identifying the innovators (individuals or groups) who have tried to break out of existing technological and institutional constraints through their own imagination and effort. What is remarkable about these innovations is the fact that most of these require very low external inputs, are extreme­ly eco-friendly and improve productivity at very low cost.

It is necessary to note here that organizations of creative people, which take of the form of networks or informal coopera­tives or just loose associations, would generate a very different kind of pressure on society for sustainable development. The spirit of excellence, critical peer group appraisal, competitive­ness and entrepreneurship so vital for self reliant development, may emerge only in the networks of local ‘experts’, innovators and experimenters. It is true that every farmer or artisan does experiment. But not every one is equally creative and not in the same resource-related fields. The transition of the developmental paradigm from a *victim’s*  perspective to that of the *victor’s* is the answer.

The organizational principles which guide collective action in different regions would obviously have some common, but many uncommon dimensions.

The institution-building process involves simultaneous interven­tion in eight dimensions of organizational change, viz: Leader­ship, Stake Building, Value Reinforcement, Clarifying Norms and rule making process, Capacity Building, Innovation and creativity, Self -Renewal, and Networking.

The Theory of Institution Building (IB) has to be significantly remodeled because of historical reasons. The IB processes were evolved to increase the capacity of third world organisations to receive funds/aid and use them efficiently and effectively. The problem was defined from an external perspective and was resolved or sought to be resolved accordingly. Such a perspective provid­ed only limited insights for strengthening the capacities of organizations which have emerged autonomously at local level.

The case of resource Conserving and regenerating Institutions and Technologies

*Resource Conserving Institutions:*

A: Multi-functional institutions of restraint, reciprocity and respect, generating collective responsibility for nature

The role of culture, religion and other collective social insti­tutions in modifying individual needs has not been adequately appreciated. There is a custom that people go to the forest together for collection of shingle wood in Bhutan on a particu­lar day. There are several implications of this practice.

a) While collecting wood on the steep slopes, if somebody falls down, there are people around to help in the emergen­cy.

b) Everybody monitors everybody else’s collection of wood.

c) Since collection of wood has to be done keeping in mind the age, health, and condition of the tree, corrective restraint helps in maintaining those conditions.

d) Some people are either too old, handicapped, weak or their requirements are larger than they can manage on their own. Groups help in such cases and carry the extra burden.

e) There are sites which might have suffered some damage due to rain, landslide or other reasons. The fact that such sites are observed together enables mobilization of the collective will for corrective action more easily.

f) In addition to the utilitarian dimensions mentioned above, the group action is its own reward when there is music, fun and laughter around.

Thus, emphasis on only the economic part of a resource would not provide sufficient information or insights for building institu­tions that can help in managing resources sustainably. Develop­ment is possible only through creative institutions which con­strain individual choices to some extent and yet provide scope for entrepreneurship.

B: Acknowledgement of rights of the ‘Others’- the sentient beings ( birds, beasts and unborn human and non human life)

In most societies and cultures, strands of philosophy are found which justify the rights of the ‘perfect strangers’ like the unborn and other living forms which provide the much needed biodiversity. It is necessary for us to understand the process through which such a consciousness is ingrained in the day to day use of resources and observance of boundaries. A folk song (heard as a part of our discussions in an action research project on watershed management in Shimoga district of Karnataka state in South India) suggests how societies have kept the germ of this consciousness alive.

Paradox of the Parrot:

In a drought year, the crop has suffered very badly. A woman is coming back from the field after picking up whatever grains she could. On the way she meets a parrot. The parrot starts staring at her. She asks the parrot why he waslooking at her so intently. The parrot replies that he was actually confused after looking at the woman’s necklace. The necklace had a green agate stone. He mistook it to be a grain. Only when the woman came closer, did he realise that it was just a stone. The woman asks him whether he had had anything to eat. The parrot retorts — hadn’t she brought all the grains from the field, even the ones which had fallen on ground? The women realizes that the parrot is hungry, and her own also needed the grain very badly. She asks the parrot to come home with her and share whatever she gave her children. But the parrot flies away leaving the woman dumbfounded.

Why did the parrot fly away? Did he realize that if he further delayed his search for grain other people would pick up whatever was left in the fields? Did he think that poor humans were so meek and weak that they could search for grains only in a limited space whereas he could fly over long distances? He thought per­haps he should leave the grain for the poor woman. May be he thought he had right over the grain so long as these were in the field. Once these were in the hands of a human being, she had the right over it (an instance of superior ethic than the one we humans use!). There could be many other interpretations.

The song speaks about a cultural system in which the right of birds is being debated vis-a-vis the right of human beings even in a drought year. Perhaps there was some reason why the tradi­tional varieties of millets or sorghum had loose set grain which was easy for birds to pick. At the same time there were elabo­rate devices to scare away birds, built to reduce the loss due to bird attack. Perhaps also people knew that the birds would kill the insects which harmed the crops. How much of the contri­bution of birds was negative and how much positive would be reflected in (a) the technology i.e. selection criteria of local varieties, design and efficiency of bird-scaring devices, (b) the spirit of co-existence with other parts of nature, and (c) col­lective consciousness as well as culturally approved behaviours.

How one interprets this song would also depend upon how one conceptualises the rights of different claimants of natural resources. If birds were also considered as legitimate stake holders in the natural resources, then the viability, sustain­ability and effectiveness of any institution would have to be interpreted very differently. Many times, resource scientists have taken a very limited view of human nature — a view which excludes the rights of other natural beings. The modern conser­vation ethic anchored on such a view seldom can produce sustain­able outcomes.

A knowledge system which generates concern for various parts of the eco-system obviously could not have evolved through just individual innovations. It would have required evolution of cultural norms, folk lores cemented by various kinds of sanctions and rewards for socially approved behaviour.

**Regenerating Insitutions**

C: The Conservation of Village Common Lands

The village common lands belonging to village councils or panchayats are often degraded in most parts of the tropical world. In India except in some areas where people and forest departments or other voluntary organizations have come together to restore the productivity of these lands, degradation continues to be the rule. Another important exception is the case where informal institutions like sacred groves or ‘Auran’ lands have been maintained by people without outside help. One reason why many externally-induced restoration attempts fail is the inabili­ty of public policy to build upon local knowledge systems whether in choice of species, rules of benefit sharing, or norms of protection. In a village near Dehgam in Ahmedabad district in Gujarat, a Sarpanch (an elected village chief), when approached by the forest department with a proposal to reforest common land, did not agree in the first instance. He negotiated with the department for an investment in a tube well in half of the common land which would be developed by him according to the plans of local people. The rest of the land was given to forest depart­ment for restoration in their way.

The sarpanch started collecting medicinal plants from local fields, bunds, road sides, etc., and from other nearby areas for cultivation in the locally designed and locally managed common land. Very soon, the village had restored the productivity as well as knowledge system of local health linked to local biodi­versity. This is a case of eroded resource, single generation (1) and conserved knowledge (7). From the point of view of empowerment, it involved two way communication with two way power. The department agreed to change its norms, provided a tube well and resources for use by the sarpanch according to their plans. The risk has been reduced. Collective stake build­ing through clarification of norms and reinforcement of local values about health and biodiversity has helped in building institutions likely to be sustainable in future.

D: People Managed Rice Gene Bank: Restoring Biodivrsity

The biodiversity has declined in most agricultural regions but much more so in the medium upland conditions where drainage and soil fertility were good. Dr. Richharia, former Director of Central Rice Resource Institute has been a great supporter of strategies to conserve local diversity through community action and moderate value addition. He has started building up an in situ decentralized bank of local rice germplasm with the help of farmers in Karjat near Pune in Maharashtra. Since conservation without value addition may not be sustainable, he is also train­ing local farmers to make crosses and develop their own variety through selection according to their preferred criteria. Resto­ration of biodiversity through collection of local germplasm and its incorporation in a decentralized breeding programme is a unique initiative.

E: Gupta Bandh / underground check Dam for Sub-Soil water storage

In Shirgadh village of District Mehasana, Gujarat a very inter­esting initiative to restore productivity of ecological systems and generation of irrigation potential through underground check dam has been tried. Originally, the concept was developed by the farmers in Maharashtra. However, this indigenous innovation has diffused in different parts of the Western India. A site is identified in a river where the river is not very wide. A trench of about a metre and half wide is dug across the river till one finds a hard rock beneath. The sand is taken out of this and the trench is filled up with heavy clay and pounded. On the surface, one would not notice anything. The underground dam of compacted clay soil transforms the up stream river bed into a water stor­age system. On one hand, this sub soil storage charges the wells in the nearby areas, nurtures the root system of the trees and other vegetation; on the other, it provides source of ground water for irrigation.

This is a case where a local innovation developed by people in one part of the country was transferred successfully to another through a voluntary organization headed by a Gandhian, viz., Chunibhai Vaidya. However, the equity aspects were not carefully built into the design of the institution which might hinder its long term sustainability. Experiments for the sharing of bene­fits among different social groups are being tried out.

F: Emowerment through Documentaion of local Innovations, Value addition and networking : The Case of Honey Bee

Value addition

In most cases of conservation of natural resources, sufficient attention is not paid to local value addition so that higher share of incremental income is generated in the local economy. Empowerment through value addition is a concept that may help in generating sustainable market supported solutions. This is all the more important because regions of high biodiversity are also the regions of high poverty. Several factors have contributed to this linkage. A global initiative started by us, SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) takes note of the following factors to generate viable options.

(a) The regions where bio-diversity is high, (primarily due to diversity in soil, climate and other physical and social struc­tures) are also the regions where poverty levels are very high;

(b) The poverty is high because markets are often unable to generate demand for diverse colors, tastes, shapes and qualities of natural products. Products of mass consumption particularly when processed by machines have low variability because through­put by machines has to be of uniform quality.

(c)The regions of high diversity also have very poor public infrastructure (just in tandem with weak private market forces) because the people have limited surplus to attract public serv­ants, and they are less articulate and organized to create political pressure (except though insurgent movements as is becoming evident from different parts of the world).

(d)The low demand for ecological and technological skills of these communities characterizes them as ‘unskilled’ labour pool fit for being a part of the urban slums, squatters or other similar work force. Once the knowledge system is devalued, the cultural and social decline follows. The tenuous relationship with the nature is ruptured. The ecological degradation spurred by various external resource extractors is aided and abetted by many poor as well as not so poor people for whom survival in short term seems possible only through eco-degrading strategies.

It is in this context that a global voluntary initiative was launched five years ago to network the people and the activists engaged in eco-restoration and reconstruction of knowledge about precious ecological, technological and institutional knowledge systems of people.

Global networking: Honey Bee

Honey bee - an informal newsletter started three years ago is an effort to make the ‘Golden Bird sing again’. We had realized that much against the conventional understanding poor people were poor indeed, but not so poor that they could not even think. For them the experimentation and innovation was a matter of life and death given the uncertainties of nature expressed through droughts, floods and hail storms.

Honey Bee network newsletter is brought out in five languages in India (Hindi, Gujarati, Malayalam, Tamil, and Oriya) and Zonkha in Bhutan so that dialogue with the people takes place in their own language. The creative people of one place should be able to communicate with similar people elsewhere to trigger mutual imagination and fertilize respective recipes for sustainable natural resource management. The Honey Bee network is headquar­tered at SRISTI (c/o IIM-A) — an autonomous NGO — and supported by individual faculty at RM Centre For Educational Innovation at IIM-A.

We realize that the technological innovations cannot survive without institutional innovations and support structures. Hence we have been documenting the ecological institutions which have been evolved by the people to manage knowledge and resources as common property.

We insist in our work that two principles are followed without fail: one) whatever we learn from people must be shared with them in their language, and two) every innovation must be sourced to individuals/communities with name and address to protect the intellectual property rights of the people.

It is also possible to take the current global debate on biodi­versity and peasant knowledge beyond rhetoric. Our network ex­tends into 57 countries at present. Some of the colleagues have started similar documentation in their respective regions. Offers have been received for Nepali, Sri Lankan, Ugandan and Fulfuldi (Mali) version.

An experiment in People to people learning

We started the first issue of Honeybee with a note prepared by a scientist of Gujarat Agricultural University illustrating the lessons learnt by him and his colleagues from a careful study of farming innovations, traditional wisdom and localized experi­ments. This, we thought, would encourage the other scientists to make their tacit knowledge explicit. In any case nothing is gained by considering farmers as ‘know alls’ and scientists as ‘ignoramuses’. Dialogue very seldom takes place amongst people with unequal respect for each other.

We also enclosed with the first issue a letter in Hindi from a developmental worker in Bihar cautioning us about the possible hazards of documenting local knowledge. His contention was that the poor had nothing else left with them. Do we want to drain them of this resource also? Will documentation and value addi­tion not lead to a situation as in Assam where the people and workers who grow quality tea cannot afford to consume it. The best tea comes to London. Will the prospects of wider applica­tion of this technology reduce the local advantage and if not, how did we plan to avoid these dangers?

In the second issue we began with the discussion on the Gospel of Dirty Hand enunciated by Dr. K.M.Munshi in 1951-52 providing a framework for linking the soil, the toil of the field worker and the farmer with the soul of the learners and users of knowledge. Unfortunately he did not gain much ground in the bureaucracy or technocracy. We also referred to a Griffith Memorial lecture by Mazumdar in 1925 on the ancient Indian science of Botany in Calcutta. Two masters theses guided by Dr.Y.P.Singh, way back in 1965-67 on Indigenous Animal Husbandry provided perhaps the first acknowledgement of indigenous knowledge by formal scientists. Ashis Nandy planned a large research project on ethno agriculture so that the science and culture behind farmers’ wisdom could be systematically catalogued. He could never get through the laby­rinth of bureaucracy because the ‘Green Revolution’ was serving us well in the late seventies. Shri Dharampal in a book on Indian Science and Technology in the eighteenth century (1971) brought together several travelogues written by Britishers who visited India 150 to 200 years ago testifying to the brilliance of Indian scientific genius.

These references were intended to persuade the readers that they should not develop a false pride in being involved in something very new or something very unique. The interest in learning from the peoples’ knowledge has been there in every culture and practically in every era. It is just that the elite fails to build upon these enquiries and therefore societies get trapped in a downward spiral of decay, degeneration and strife.

Honeybee also appeals to fellow researchers, activists and plan­ners in other developing countries to identify native wisdom both to inspire and also to provoke the young minds to explore. In every country a very strong oral tradition of knowledge genera­tion, validation, scrutiny and diffusion exists. Honeybee strongly believes that boundaries between formal and informal knowledge systems may often be false. The informal system may have formal rules waiting to be discovered. The formal system may have informal beliefs, accidents, or conjectures providing impetus for further enquiry.

We have already collected more than twelve hundred innovative practices predominantly from dry regions to prove that disadvan­taged people may lack financial and economic resources, but are very rich in knowledge resource. That is the reason we consider the term ‘resource poor farmer’ as one of the most inappropriate and demeaning contributions from the West. If knowledge is a resource and if some people are rich in this knowledge, why should they be called resource poor? At the same time, we real­ize that the market may not be pricing peoples’ knowledge proper­ly today.

It should be remembered that out of 114 plant derived drugs, more than 70 per cent are used for the same purpose for which the native people discovered their use (Farnsworth, 1988).

What does it prove?

It proves that basic research linking cause and effect had been done successfully by the people in majority of the cases. Modern science and technology could supplement the efforts of the peo­ple, improve the efficiency of the extraction of the active ingredient or synthesize analog of the same, thereby improving effectiveness.

The scope for linking scientific search by the scientists and the farmers is enormous. We are beginning to realize that peoples’ knowledge system need not always be considered informal just because the rules of the formal system fail to explain innova­tions in another system. The soil classification system devel­oped by the people is far more complex and comprehensive than the USDA classification systems. Likewise, the hazards of pes­ticides residues and associated adverse effects on the human as well as entire ecological system are well known. In the second issue of Honeybee out of ninety four practices thirty four dealt with indigenous low external input ways of plant protection. Some of these practices could extend the frontiers of science. For instance, some farmers put cut thirty to forty days old sorghum plants or calotropis plants in the irrigation channel so as to control or minimize termite attack in light dry soils. Perhaps hydrocyanide present in sorghum and similarly other toxic elements in calotropis contributed towards this effect. There are large number of other plants of pesticidal importance found in arid and semi arid regions, hill areas and flood prone regions which can provide sustainable alternatives to highly toxic chemi­cal pesticides. It is possible that private corporations may not have much interest in the development and diffusion of such alternatives which pass control of knowledge into the hands of people. However, an informed, educated and experimenting client always spurs better market innovations as is evident from the experience of computer industry. Therefore, we do not see that there is a basic contradiction between the knowledge systems of people and the evolution of market rules to strengthen and build upon it. However, such a model of market would be highly decen­tralized, competitive, open and participative.

Honeybee in that sense is an effort to mould markets of ideas and innovations but in favour of sustainable development of high risk environments. The key objectives of SRISTI thus are **to strengthen the capacity of grassroots level innovators and inventors engaged in conserving biodiversity to (a) protect their intellectual property rights, (b) experiment to add value to their knowledge (c) evolve entrepreneurial ability to generate returns from this knowledge and (d) enrich their cultural and institutional basis of dealing with nature.**

G: Biodiversity Contests: Building Long Term Stakes of Children and Adults

No long term change in the field of sustainable natural reosurce management can be achieved if children do not develop values and worldview which is in line with the sustainable life style. Children learn far better through competitive processes involving fun and pleasure. Accordingly, biodiversity contests have been organized for children of primary schools as well as the adults in different parts of the country.

On a given day, all these children — boys and girls — are asked to bring all the plants which they know about along with a list of their names and uses. A similar contest is organized among the adults. Prizes are given for the best performance in differ­ent age groups. For instance, in one of the first such contests organized in Madurai with the help of Mr.P.Vivekanandan, SEVA, a student of age twleve got first prize by identifying 116 plants with their uses. The adult who came first could identify 240 species.

The remarkable thing in this contest was that a child of twelve years of age had completed half the intellectual journey compared to the maximum of the local community. Unfortunately, there is no future for this child if he wants to grow as an ecologist or herbalist. He would have to unlearn all this knowledge and learn a for apple, b for boy or c for cat, etc. Any discussion on sustainability becomes meaningless when we cannot generate viable institutional choices for those who already know and have concern for local innovations and knowledge systems.

In a separate contest in Uttar Pradesh, a son of a brick-kiln owner came first with 98 species and two girls came second. The shepherd’s son in the first case or brick layer’s son in the second case pose a greater challenge to us for devising viable alternatives for sustainable development. It is well known that enrollment rates are very low and drop out rates are very high in the schools in disadvantaged regions. The irony is that eco-knowledge rich, but economically poor children from these back­ward regions have to become unskilled labourers and occupy the lowest income occupational niches in urban areas. Progressively, the disadvantaged regions are drained off not just the ecological resources, intellectual knowledge but also human resources in the form of young able-bodied people.

Part- Four: Becoming Accountable to people: Lessons and Issues

One of the fundamental problems of governance in general and natural resource-related systems in particular relates to the mutual accountability not only among followers and leaders but also among human and other species. Many of the traditional societies devised elaborate rituals of sacrifices to atone for intended or unintended injury to other life forms. Among the people, mechanisms of peer pressure have always existed, though their effectiveness has varied in different groups. Given the income inequalities, the incentives for weaker sections of peo­ple, dependent upon the affluent for their livelihood, to protest against injustice are limited. And yet it is not true that people in any village or community are against each other on all matters. For instance, there is an old convention in

many of the Indian villages that a boy and girl from within a village are not supposed to marry. They have to leave the vil­lage if they do so. We are not suggesting that there is no adultery in the villages. It is just that the legitimacy of marriages within a village does not exist in large parts of the country. This convention is usually complied with by all the sections of a village society.

Similarly there is a convention that when somebody dies, every­body in the neighbourhood joins together in the mourning. Even if there are celebrations planned, the same are subdued, post­poned or shifted elsewhere. The point we are making is that there are issues on which people cooperate because of an implicit mutual accountability though the same people may be vigorously fighting on other issues.

The degree of conflict among different groups may also not be similar in different resource markets. For instance, a farmer who is dependent upon common land only to a very marginal degree may not have as much stake in its management as someone who is primarily dependent upon the same. However, in real life, the stakes of the resource independent person may be there because of other socio-political reasons. The accountability framework which is only resource centered (for instance, among irrigation water users, graziers on common land, users of a common forest, etc.) may not last very long. This is a counter intuitive in­sight which emanates from the study of some of the sustainable resource management institutions.

While primary accountability may remain restricted to a resource group, secondary accountability to a larger group on more basic values and processes may be equally important. A multi-market, multi-level framework of accountability (Gupta, 1985, Ostrom, Feeny and Picht, 1989) would help evolve sustainable institutions for collective resource management. The accountability towards next generation and those who don’t vote (birds, animals, other living beings) needs to be generated through cultural means.

a.) In the classical theories of management information system, it is argued that the data and information flow through two inverted pyramids as shown below:

(Figure )

The assumption here is that information processing capaci­ties are much higher at the higher level of organizations and therefore, the data is minimum at the top while informa­tion is maximum. There is some truth in this framework. However, it has to be appreciated that local knowledge systems and awareness of their dynamics is highest at the local level. The data about available choices, past experi­ence, the risks and chances etc., may be highest at the higher level. In such a case, the above diagram will get inverted.

(Figure )

The information will be highest at the bottom whereas data of a certain kind may be limited. In on-farm research this relationship is often violated. The design of the experi­ment may be determined at the top while the bottom levels entrusted with mere responsibility of laying out the trial. I know of a case when a crop related trial involved sowing a particular variety early in the season. In that year, there was good rain in the monsoon season and thus the harvesting season got delayed. The result was that original plan of sowing a particular crop had to be changed by the farmers due to delay in sowing. The field scientists, however, still went ahead with the trial because that was the in­struction from the top level. Such a practice not only reduces the credibility of the field scientists but also makes the farmer doubt the actual intention of the research organisation.

This is not an unique case. The on-farm research methodolo­gy developed by IRRI and CIMMYT do not provide explicitly the scope for contingency treatments in the experimental approach for high risk environments. The accountability to the clients or lack of it becomes apparent through such conceptual inadequacies.

b) Monitoring access implies designing counters and not corridors (Gupta, 1990).

In any exchange between people and the members of an organi­sation providing some resources or information, it is natu­ral that information will not be available equally to both the sides. In the process some intermediaries are bound to emerge who will try to reduce the transaction cost of one or both parties. These intermediaries/touts would find their task difficult if the entire exchange was taking place across the counters in an open and accountable manner. The emergence of corridors is an inevitable consequence of institutionalization of intermediaries of this kind. The accountability towards people can thus be monitored by looking at the quality of arena or structures available for exchange and the extent of transaction that took place in the legitimate and open quorum.

c) Long queues and short rules:

Whenever resources are scarce the queues are bound to arise. The issue is, how to define the eligibility rules for stand­ing in the queue. Through whom should one monitor the data on exclusion (Gupta, 1981, 1990):

 i) Those who manage to elbow out the rest of those who could not participate either because they did not know or they would not participate.

 ii) Those who were not eligible because they had either too much or too little of the resources,

iii) Those who were in great need, knew about the availability but could not wait to get in the queue.

iv) Those who decided to boycott the queue given their past experience.

The implications for accountability of an organisation are obvious because the kind of queues, eligibility rules, scope for exclusion etc., which are designed, determines who stands in the queue and who doesn’t. Collecting feedback through those who had vested interest in the exclusion of disadvantaged people would certainly give one kind of signal as compared to the signal obtained by monitoring through the excluded ones. In the case of Narmada project, the campaign by the project affected people conveyed messages very dif­ferent from those conveyed by the beneficiaries of the project. It is a different matter that both the sides have excluded some of the fundamental options that should have been considered (Gupta, 1991).

d) Monitoring ‘deviance’ to build self-design potential of developmental organisations is sine qua non of building up organ­isational learning systems (Gupta, 1984, 1991).

One of the implications of eco-specific planning is to have a wide range of variety in both organisational design, policy content and delivery systems. However, tendency of centralized monitoring systems to concentrate on uniform standard indicators reinforces the risk averse compliant behaviour amongst the functionaries in organisations.

The creativity can express through diversity and pluralism. The insistence on standard indicators not only curbs creativity but also prevents organizational adaptation to ecological diversity. The accountability to people having cultural diversity necessary for maintaining ecological diversity can be measured through space for creative de­viance in the developmental organisations. In fact, sometimes the deviants have to assume the role of, ‘organi­sational insurgence’. One challenge before organisational leaders is to find out how to spot, sustain and strengthen organizational insurgents (Gupta, 1982)? It is inevitable that many of these deviants standing for ecological diversi­ty and structural pluralism (i.e. the philosophy of reaching the same goal through several routes) would be in a minority in their respective organisations.

To prevent marginalisation of these creative deviants, a networking among themselves and with other sympathetic individuals and networks may be very necessary. A network of such deviants could sustain each other by providing critical feedback, monitoring their errors, extracting lessons each failure and moral of each success (Gupta, 1991).

e) Postponing organisational reforms till people organize and create pressure groups:

Many times in public bureaucracies as well as NGOs, lack of public protest or collective organisation is interpreted as a sign of their complicity and acquiescence in the organisa­tional actions. Lot of unaccountable and non-responsive organisational actions get legitimacy on this account. The cost of organisation by the people and the nature of state response is seldom taken into account. There is no doubt that people have to organize but till they do so, public organisations do not get a license to pursue their own agendas irrespective of social and ecological consequences.

The strategy of reform only under intense popular pressure is not only very costly but also not very sustainable in the long run. This is particularly so when the protest groups are dominated by the violent extremists. In many parts of the developing world, the ecologically vulnerable regions like forest, mountains and dry grazing lands are becoming the habitats of extremist groups who do not believe in the non-violent, democratic and peaceful ways of protest. It is seldom recognized that Gandhian path of protest had a funda­mental strength. The structure of governance based on non-violence could not be autocratic or insensitive to minority concerns.

There is a need to generate, and strengthen such learning systems in organisations which produce liberating alterna­tives for the people as well as the professionals in organi­zations.

f) Converting marginal investors into developmental entrepreneurs requires developing public or common risk absorption mechanisms:

 Different classes of farmers and labourers face different degrees of risk, have different historical experiences of success or failures and thereby have different futures expectations.

 Very often by assuming much lesser degree of investment risks in developmental programmes, the planners pass on the entire burden of risks on the investors. Implementing officials at time quite judiciously recognized this and thus did not choose the poorest for the purpose (At least they deserve commendation for this!)

There are many ways in which people adjust with the risks of pest and disease problem in crop, livestock, trees etc. Most of these collective risk absorption mechanisms have become weak over time due to ill-designed public interven­tions. Since individual and collective mechanisms have not been renewed, many enterprises have either become unviable or have been pursued in resource degrading manner. The case of livestock species composition in most of the tropical semi-arid and arid regions is very instructive. Decline of public investment in collective risk absorption mechanisms coupled with decline in alternative means of subsistence, has forced pastoralists to shift their herd composition from cattle to sheep. It is not that the pastoralists do not realise the implications of this shift. It is just that in the absence of alternative risk absorption mechanisms and declining public investment in food distribution system, they have no other alternative to survive in the short run.

Without entrepreneurship at individual or collective level, no lasting solution can be found. Given increasing budget deficit in most developing countries, the state commitment for public funded interventions is severely declining. In such circumstances either market or common property inter­ventions have future. The market interventions are unlikely to emerge given high transaction cost in dealing with large number of marginal investors. We are left with only the option of common property interventions. Sustainable choic­es, therefore, have to be evolved by using scarce public resources in strengthening common property institutions rather than creating new bureaucracies.

g) Monitoring context changes the content:

As mentioned in the beginning of this part of the paper, the context monitoring can make a substantive difference in modifying organizational culture. It can also be a very powerful tool for increasing accountability.

There is a famous story of Akbar and Birbal. When asked to shorten a line without rubbing it, a longer line was drawn adjacent to it. The context was changed. Very often we monitor the content without even realizing the enormous variety of differences in the meanings which may emerge because of the differences in the context.

It is important to realize that by monitoring the context i.e., the setting in which a programme had to be implement­ed, we would inevitably design better policies, programmes and projects. But the reverse is not true. The tragedy is that often we monitor only the content. The result is that despite highly heterogeneous implementation of the policy, the solution often is, more of the same.

In a watershed project which contexts do we monitor — the ecological restoration; institution building fusing people’s knowledge systems and culture with watershed organization; a bureaucratically implemented soil and water conservation project in which people’s responsibility is just to protect what the developmental officials create; an attempt to involve local panchayati raj institutions and political institutions in conceptualizing entire developmental plan­ning on watershed basis; or some other perspective?

The meaning of activities i.e. **content** of the programme would change depending upon the **context** in which we view it’s role.

The answer to the question about which context to monitor can only be given by various stake holders in a given natu­ral resource management project or programme. However, the fact that monitoring context will make a difference is premised on the experience of successful projects. The leaders of these projects have seldom bothered about the precise content of the actions because of the scope for creativity made available at grass root level. Since there are problems which the implementing officials face in deal­ing with outside organisations and other social forces, the leader by focussing on these constraints assumes a facilita­tive role.

h) Camps and campaigns, the ultimate weapon in the arsenal of developmental planners to ‘shoot’ the ‘targets’ confirm the contempt that planners have towards the concept of participation.

Often in the name of decentralized planning and implementa­tion, bureaucratic machinery chooses to organize camps and campaigns to demonstrate its apparent anxiety to deliver results through people’s participation. But what do these camps and campaigns really achieve?

- The participation ends where it should begin

- Routine is converted into celebration

- People are immobilized in normal times such that every camp generates a greater need for still another camp.

- Tolerance or hemostatic level of people as well as bureaucratic officials, increases so much that unless the camps or the campaigns were held, system do not perform normal activities. People as well as officials getdesensitized.

-People often interpret the camps as a sign of helplessness on the part of senior officials who fail to galvanize their machinery to act in the absence of these (the camps).

- Need for internal tension to generate pressure for action is met probably by creating external pressure through these camps.

Nobody need be reminded about what happened after the camps or campaigns were over. Some of the patently obvious acts of routine nature in various organizations/delivery systems had to be recalled and celebrated through camps e.g., a bank celebrating customer - service week or district collectorate organizing mutation camps.

There is a need to systematically catalogue various camou­flage attempts to seek participation of people. While one can understand periodic reminders about major objectives of any organization, treating them as substitutes for regular activities betrayed sincerity.

But if the larger system does not improve, the camps are essential. When the author had an opportunity to look at the draft guidelines for national watershed development program­me, one of the suggestion made was to begin the formal process with mutation camp so that the problem with regard to titles to land could be speedily settled.

h) How to generate capacity amongst poor to monitor governmental programmes/projects and organizations?

Organizational leaders often pass on the blame for ineffi­cient and ineffective functioning of developmental program­mes on to the lowest rung of bureaucracy. Credit, unlike blame, seldom trickles down. In the process, the distrust amongst leaders and followers in public organizations tran­scends the organizational boundaries and is manifested in the relation between organizational functionaries and the poor clients.

How do we identify role for desired target group to monitor the extent to which programme reached following subsets of target group:

 a) Desired but devoid of technological skill or re­source potential for using the project/programme resource.

 b) People with potential but not belonging to the normatively defined category of desired group.

 c) People neither having potential nor belonging to the desired group.

Figure below illustrates the dynamics of participation in any rural development project.

Governmental efforts for generating potential amongst the desired target group would also need to be monitored to test the intentions of planners.

k) Information is Power : Sharing data among people may generate accountability as well as demand

What were the suggestions of the people regarding various structures and what measures have actually been taken and why should be displayed with the help of maps so that people can see the rationale if any in the official design. Like­wise, who have been selected for on farm trials, study visits, distribution of various subsidies etc., should also be shared widely.

l) Will markets act as monitors of misery?

Those who believe in equilibrium economics assume that markets monitor better, who should get what and where de­pending upon the demand and supply. Is not it true that market forces often in coalition with bureaucratic forces and state power lead to a system whereby only certain types of needs of certain classes of rural society in only cer­tain regions were responded to?

Markets can indeed settle at lesser cost and greater effi­ciency who should get what, when and how in a context where interpersonal differences in access to resources and infor­mation are marginal or guided by the respective acumen rather than the historical legacies. In all other cases the argument for people’s collective institutions to manage this function rests. I must caution that state very seldom would perform these functions efficiently unless accountability structures are alert and open.

The reliance on market forces in monitoring misery is useful to the extent that the exclusion and the cost at which some people or certain needs are excluded can be judged at a very low cost through markets. But it is obvious that not all needs will be cleared by the market for want of adequate purchasing power or ability among consumers to use non-market inputs. Thus, the role of networks, common property institutions, not-for-profit organisations, NGOs and consum­er groups. No one organisational form will fit all kinds of contexts and consumer needs.

m). How to monitor ‘the monitor’?

 Very often the developmental interventions as well as the developmental programme managers become incapable of being monitored by the people (with small ‘p’). It is very cru­cial that if poor were to become partners in developmental experiments, they must have incentives and capacity to monitor the interventionist. It has enormous learning advantage for both the sides. In addition to being a very important means of generating valid knowledge in a social setting, the process of mutual monitoring or what could be called as a surveillance mechanism also ensured genuine democratic culture. Unless and until leaders in a group were subjected to these mechanisms, it is quite likely that they would become autocratic and insensitive to the interest of the poorer members. First step in this process was to demystify our own assumed expertise in the matter.

End Notes

1. The paper presented in the International Workshop on Empowerment for Sustainable

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