APPROPRIATE TECHNOLOGY IN COMMUNITY DEVELOPMENT

Johnson X. Palakkappillil and M.P. Antoni

Abstract

This paper presents a development project implemented in a rural community in Kerala in 1999. The programmes undertaken in the project were for solar energy and drinking water. Two important features of the project have been participation of the community and use of appropriate technology. The community was actively involved in every process in the project from planning to completion. Use of appropriate technology meant adoption of technology that is user friendly, cost-effective and acceptable to the community. A visit to the community and interaction with people five years after the completion of the project, confirmed that the two features of community participation and appropriate technology contributed to the success in the implementation of the project.

Introduction

When indices of development are considered the state of Kerala in India is referred to as a model. One of the crucial elements that ensure quality of life is access to safe and sufficient water for drinking and other basic requirements. The state, blessed with an average of 3000 mm rain annually still suffers from acute shortage of water during the summer season (between February and April). Another issue of concern is that of insufficiency in energy sources, especially for home lighting. The latter becomes a serious matter in the context of the high literacy of Kerala with the presence of school or college going students in every home for whom home lighting is a basic requirement for accomplishing their academic tasks.

The comprehensive legislative framework to address all development issues is provided by the 73rd and 74th amendments of the Constitution of India, which were meant to bring the government to the doorstep of the people through a very broad and workable kind of decentralised planning and development. On paper, this framework

remains the best India can offer. However, in practice the existing political system has not helped its growth. Nor has the civil society in the country grown to take it to its logical conclusion. However, there have been successful experiments in the field of decentralised planning and development in some states like Kerala. The left front government led People's Planning Programme in Kerala (1996-2001), did yield results in development, which have made people powerful. But, they have taken place only in certain pockets.

Against this background, this paper presents a case study on community development efforts undertaken by one of the live-labs[1] of the Rajagiri College of Social Sciences. The case has a crucial element of technology in the community building process. It also tries to focus on a prominent, but often sidelined issue in development, that of the depleting natural resources, their exploitation and degrading environment which seek solutions, and alternative models and paradigm of development. The case presented here is a project that has tried to look into this issue of bringing in alternatives, which are people and environment friendly, participatory and sustainable.

Community Development and Role of Technology
Community development processes in India began as a planned programme at the national level in 1952. The initial focus was more on physical and monetary indicators of development and it was felt that organising a community and giving some role to the people would help in improving the physical quality of life. However, the early experiments with the stress on science and technology, which emphasised technology transfer as *the* means and community processes as a tool for that, did not bear the desired fruits of development. Somewhere, something, somehow did not function to make the desired qualitative improvement in life to trickle down to the lower rungs of an otherwise backward society.

Since the initial programmes of community development, theories have been reversed to rethink on development – to put people before projects, to think 'as if people

mattered' (Schumacher 1973). India did succeed in setting up structures for this framework of development through the 73rd and 74th constitutional amendments, which led to the reestablishment of decentralised governance.[2]

All the same, after ten years of its re-introduction, the success stories of development through local self-governance have been few and far between. The various experiments to organise people and enable them to govern themselves have been found as an inconvenient task for people generally used to the comfort of benefactor-beneficiary pattern of development. The efforts of the state machinery in aping the community processes initiated by the voluntary sector have very often become *anti-developmental* by the very nature of its imposed community processes and development agenda. It is in this context that a rethinking on the community processes in development and the relevance and usefulness of technology for the same are discussed in the light of a community experiment.

Appropriate Technology in Community Development

Technology that is *appropriate* and conducive for development is not a new concept in development parlance. Way back in 1973, Schumacher said that "… the dynamic approach development, which treats the choice of appropriate, intermediate technologies as the central issues, opens up avenues of constructive action, which the static, economic approach totally fails to recognise" (Schumacher 1993:153). Schumacher's reference to appropriate technology as intermediate technology seems to have been more concerned about the labour and employability aspects than the question of the nature and user (the technically illiterate layperson) friendly technology which would add to the sustainability question of a development project. A more comprehensive description of appropriate technology is given by Chakroborty (2004). Appropriate technology, according to him, is user friendly, cost-effective, acceptable to the community, and based on proven technology. Secondly, the skill for operation and maintenance of the system of appropriate technology can be transferred to the users' group by minimum training and the cost of operation and

maintenance is within the affordability of the user's group. Thirdly, materials and fast moving spares are easy available through dependable out-lets.

An important aspect of appropriate technology is that it should maintain a sound relationship between human beings and their environment. Heidegger's thought provoking *The Question Concerning Technology* is referred to in this context, viz. "technology is not an accumulation of machinery, but a relationship between humanity and Earth that challenges the existence of everything by forcing it into the production/consumption network" (Davis 1991:130). While this aspect of technology is becoming more and more relevant today, a pragmatic approach would go for the *via media* between the hands-off-management, and the capital intensive, anthropocentric and environment dominating management. The choice, then, falls on what we try to define as appropriate technology, which balances (if not builds up) and sustains the relationship between humans and the earth, and going beyond Heidegger, between humans themselves.

People have to be the centre of appropriate technology. Ownership of the technology by the people is an important factor of appropriate technology. This is related to what is referred to as proven technology. By the tradition and experience of the generations, people know that certain technology is apt and can work. It might require refinement, which the modern development can help. Local people, struggling on a daily basis with their needs, understand those needs better than anyone and can therefore suggest or in fact, invent the technological innovations necessary to meet those needs. Not only that, local people can prioritise solutions to save precious funding and labour. Planners and those who want to help others grapple with food and energy problems are wise to include local people in the early stages of project vision. The result is consistency in the carry-through of the work by locals and continued maintenance and interest in the well-being of the project over the long haul.

Often the critical factor of people-centredness is not seriously taken care of in the use of technology, especially when transfer of technology takes place. Transfer of Rural Technology (TORT) and Rural Technology Development (RTD), even today are seen

more as something to be handed over to the people, invariably putting people at the *receiving* end. The continued insistence on the sanitary latrines requiring large quantity of water for maintenance introduced to terrains with water shortage is a typical example. Another example of such blind technology transfer is that of bringing tap water from far off rivers to remote areas, leading to the neglect of traditional water resources, dependence on external sources and regular failure in the delivery of the service. In such cases, the technology proven to be successful in one area is transferred without assessing its feasibility in the selected area and without looking into the experience and resources of the people and the locality.

The Mundanmudi Experience

A good illustration of the use of appropriate technology in rural community development is that of the Mundanmudi experiment undertaken by the Rajagiri College of Social Sciences, Kalamassery, Kerala. The project was initiated in 1997 and completed in 1999.

The Locality

Just at the lower range of the Western Ghats, as one travels from Kochi international airport towards the High Ranges of Idukki district, one finds Mundanmudi, a scenic village, nestled in the lap of two regal hills, viz., Mundanmudi and Mullaringad. It is about 75 km. away from Kochi airport, and for all purposes, hill-locked but for the entry side from Kochi direction. Though buses come up to the local bazaar of Mundanmudi, the air is still rich and pure, a real relief from the sooty stuffy air of the industrial Kochi. At an average altitude of 900 metres, the Mundanmudi mornings, especially, during the period between October and March, taste misty. The nearest township, directly connected to the state highways, is Vannapuram, 7 km. away, where the office of the local self-government (Panchayat) is situated.

The Agency and the Philosophical Framework

Rajagiri College of Social Sciences, started as an educational institution for the professional training in social work, expanded its activities to the developmental

programmes at the field level. One of its initiatives in this regard was the establishment of the partnership with CASP – Community Aid and Sponsorship Programme (Pune) - in 1982. The unique tie up of an educational institute for social work training with a practice based organisation like CASP, resulted in the unique Rajagiri-CASP venture which has pioneered the child-family-community development paradigm in Kerala, and has spearheaded the child rights movement in this part of the country. The tie-up has over the years matured into a model in partnership, resulting in about 2500 child sponsorships, and about 14 partnerships with the local bodies and almost as many with other educational institutions.

The philosophy of partnership for participatory development programmes, in the words of the Rajagiri-CASP Chairperson, Fr. Jose Alex, is that of mutual give and take. "Partnership in Social Work … aims at benefit sharing, i.e., improving the quality of life, caring for those in need and protecting the rights and freedom of the individual…is a joint venture in which both parties jointly own and manage the project/programme" (Alex 1998). The developmental approach, adopted by the Rajagiri-CASP endeavour in addressing people's needs, destroys the dichotomy of benefactor and the beneficiary to form partners in the development process. It stresses the process aspects as much as the product or outcome aspects. It calls for shared vision and mission regarding development and requires mutual respect and understanding with a commitment to make the partnership work.

It was the Japanese government partnership in Rajagiri-CASP sponsorships that provided this great opportunity for experimentation in rural community development. When Rajagiri-CASP approached them for supporting the development programme, a way was opened under the Japan Government's Grant Assistance for Grass Roots Projects (GGP). The Rajagiri-CASP, as the agency undertaking the development programme, decided that the area chosen would be such that it has no way of access to electricity and water. Mundanmudi was proposed as the ideal community for the programme by a partner-organisation of the Rajagiri CMI Management, the Sisters of the Adoration of the Blessed Sacrament, who had a small centre at Mundanmudi for

working with the people. Mundanmudi fulfilled all the conditions that were set forth for the project by the sponsoring and implementing agencies, viz. landlocked, no roads, no assured water supply in many pockets, no possibility of power supply (the state being the sole agency in control of electric power supply and it being an encroached area of the forest, which the forest ministry and the government could not easily condone).

The Process of Building Partnership around Technology

From its experience in development partnership, the Rajagiri College of Social Sciences had come to the conclusion that a social survey would set the development process on the right track, if done with care and involvement of the people. It would help identify the expressed needs of the people. Hence, once the decision on the choice of the locality was taken, it was decided to collect the socio-economic data of the locality. This was envisaged as not merely a scientific process to collect data, but going beyond that, a means to ensure initial cooperation, need identification, and sustainability of the process (Braden 2000: 237).

An important item of data collected during the survey was the source of lighting used by the people during the night. Kerosene lamp was the most common source of light used by the people in Mundanmudi. As many as 97 per cent of the households in community depended on this source of light.

Households in Mundanmudi by the Source of Light during Night

Source of Light	Number	Percentage
Kerosene lamp and candle	363	76.7
Kerosene lamp	97	20.5
Solar	9	1.9
Candle	3	0.6
Gas light	1	0.2
Total	**473**	**100**

It was an accepted fact among the community members that they could not expect electric supply in the near future. It also revealed that except 10 families, all of them usually managed with a single source of light during the night. Cost involved for this source of light for an average of two hours per day was Rs.10-15 per week. Besides, barring 10 households who had access to TV, 370 of the total 473 households were in the habit of using transistor radios, the battery cells costing them on an average Rs.20-25 per month.

The survey showed that 83.09 per cent of the households in the community (393 out of 473 families/ beneficiaries) were in favour of installation of domestic solar lighting systems and were willing to contribute 30.82 per cent of the total cost. (i.e. Rs.2,700 for solar and Rs.85 for labour cost). Drinking water situation was also studied. As many as 421 households depended on water from the streams flowing from the hills. These were exposed to contamination, causing health problems and used to go dry during the summer months.

The next step is usually a preliminary community meeting in which the data collected through the survey are presented and this becomes a solid educative process in which people come to know about their Strengths, Weaknesses, Opportunities and Threats (SWOT). People began responding to the facilitating role played by the CASP-Rajagiri staff for the formation of people's organisations. The findings of the survey were presented in the public meeting, which set the tone for the community's participation and involvement.

Various Levels of Organisation: The primary level of organisation is that of Neighbourhood Groups (NHGs) – the tried and tested method in Rajagiri-CASP community development programmes. What distinguishes the NHG from the usual community development processes is its inclusive nature, that is, it covers all sections of the local community and provides equal representation of men and women, rather

than restricting the participation to a particular 'beneficiary group' or to women alone, as is the case with most of the development and welfare schemes.

Following the system of the NHGs, families of the locality were grouped into neighbourhoods of 30-40. The NHGs gathered and elected a male and a female representative. The representatives of the NHGs at the Panchayat level together with the elected representatives of the respective wards, the Panchayat president and a representative from the facilitating organisation formed the central committee, or the village development committee, called the *Mundanmudi Grama Vikasana Samiti*.

Development of Partnerships: As the programme evolved, it was found necessary that partnerships be developed at various levels. The basic one was between the Rajagiri-CASP and the people of the project area. Partnership at a different level was forged between the Panchayat, the people and Rajagiri-CASP. There was also a partnership on the financing side of the project between the Japanese Government and Rajagiri College. The college also facilitated the process in such a way that funds available with the primary and secondary levels of the three tier system (Vannappuram Grama Panchayat and the Elemdesom Block Panchayat, i.e. government fund) could also be channelised into the project.

The Progress, Problems and Resolutions

As the partnerships developed and the community organisation got underway, the facilitators (CASP-Rajagiri staff) held discussions with the people on the two vital issues they wanted to address – those of light and water. It was the organisation that presented to the people the idea of solar energy for light. The technology was new, hitherto not familiar, if not unheard of. There was mixed response to the proposal. And some of the community members did not venture to opt for the technology, just because they were apprehensive.

The programme was devised in such a way that it was decided to pool all possible resources and make the facility of non-polluting brighter light to all concerned homes.

After pooling all the resources in project, viz. allocations of the Grama Panchayat, Block Panchayat, and the funding from the Japanese Government, each individual household which opted for the project had to pay Rs.2,700 for installing one home-lighting system consisting of two CFL lamps and a plug point for radio or a black and white TV.   The actual full cost at that time was around Rs.13,000. As already mentioned, the beneficiaries were those who could not get access to electricity. The participatory process led to the decision of providing the facility of solar lighting to 393 households that fulfilled the criterion, on a *first come-first served* basis. Within the available funds it was the maximum number of units that could be provided.

There was an initial spurt in the activities with the installation of the new technology. People became enthusiastic about this technology, which incurred no running expenditure, had no problems of power cuts and did not pollute the air.   However, some got so enthusiastic that they tried out some devious means to get more than one unit allotted, whereas the community resolution was that no household was to be provided more than one unit. And some did succeed, but the community took note of it and there were allegations and dissatisfaction. The development agency had to actively intervene to mobilise the community to act against this deviance.   And it was the community's consensus that made those who deviated to fall in line with the norms set by the community. Also the role of the NHGs in resolving the issue was remarkable. It followed two methods in solving the issue. One was informal discussion where the deviant households were persuaded to hand over the extra unit/s to the deserving households and the other was the legal method where the development committee went to court and succeeded legally.

Regarding water, it was found that the locality had sufficient natural water resources. The practice prevalent in the community was to collect water either directly from the source, at times walking 100 to 500 metres, or if affordable, to connect one's home to the source by a hose-pipe.   Problem occurred in the summer when some of the sources became dry or had less water.   It was felt that some sort of storage can solve this, and people indicated that, if storage tanks were constructed at the higher levels

of the sources, water could be made available to people at the lower levels of the hills without the support of any mechanical device merely by gravitational force. A resource team identified seven sources, and charted out possible spots for storage tanks and the route for distribution. It was a kind of a major discovery – a resource, which they already had, was now going to reach their door-steps with the use of a very simple method at no additional recurring expenditure. People got energised and small groups got into action for building the tanks and cleaning up the sources.

Some people willingly parted with their land and water resources for the common cause. However, once a few tanks were completed, the enthusiasm began to fizzle out. The project was getting stuck at that and no further action could be taken. Trenches were to be dug and pipes to be laid. It was at this juncture that the community level organisation tried out a strategy. It requested the Rajagiri College of Social Sciences, under which the Rajagiri-CASP community programmes work, to hold the annual social sensitisation camp for the freshers (new social work trainees of the college) at Mundanmudi. It highlighted the potential for student learning and the impact it could have on the project. The college authorities readily agreed with it. And a ten-day National Service Scheme camp of social work students was held at Mundanmudi in December 1998.

The students' camp was made the site for the community to gather together and chalk out action plan so as to accommodate them and to make use of their presence in completing the project. The neighbourhood committees in-charge of implementing the project were revived, and they got involved in planning the work sites and programmes. On their arrival, the students were given the tasks they were to carry out, and the very presence of the student community working for the cause of the locality was inspirational for the local community to put their acts together. A clear target of inaugurating the first water supply scheme was set for the end of the ten day camp. With the full involvement of the people at the end of the students' camp the project was inaugurated by the minister for agriculture, who also happened to be the

local representative to the state legislature. This worked as a catalyst and furthered action in completing other projects, barring one.

The programme, planned towards the end of 1996 and launched by mid-1997, was completed in 1999. The work, especially the one related to water supply, was a grinding one, which involved repeated efforts at organising people and motivating them to complete it. The two projects (solar energy and water supply) together cost Rs.54,48,560 in actual cash payments and almost 20 per cent of the same amount in terms of labour contributed by the people. The organisational efforts led to the pooling of local resources to the tune of Rs.20,55,480 which includes the manpower cost of student volunteers who worked for 8 days in the field. This supplemented the Japanese grant of Rs.33,93,080.

The Impact on People's Life

After five years of the implementation of the solar light and drinking water project, Mundanmudi is still not very different externally. It has not yet become overly urbanised; nor have the transport facilities to the village increased much. Electricity has not reached the project area even today. However, people's life has changed a lot. The process of organisation, set in motion through the introduction of a technology, has improved the quality of the life of the people, without the usual debilitating impacts of pollution. The responses of the majority of the people were very positive. Most of them felt that the arrival of the new technology has brought great relief to them and changed their life.

Beneficiary Groups

Students: The group that has benefited the most from the project was that of the students. Children of Mr. Antony, the NHG central committee president, vaguely remember the olden days of kerosene lamp and fumes, and the difficulty with homework and learning at home. It was a rare thing to be studying at night. The new pattern of learning at home has become familiar for the new learners. Now they are able to use the night-time to learn and do their homework.

Women: The greatest blessing that has happened to the women is the accessibility of water at a few meters from their doorsteps. The routine of the pre-project times had fetching water as a prominent, time consuming and tiring task. Now since that has gone, women are having relief from a back-breaking chore and more leisure.

Families: A casual conversation with some of the people who had benefited from the project revealed that people are now having more and higher quality time at home, with the twin advantages of the lessened stress related to the water problem and the facility of brighter light with no side effects of the fumes of the erstwhile kerosene lamps.

Case of Ambily's Family: Ambily is a student of the final year of undergraduate programme in Commerce. She narrated her experience with the new technology. Ambily feels that she has benefited a lot from it. She traces a steady progress in her academic performance since the installation of the solar light in her house. In its absence in the past, when she did the school final, she could just get pass grades (252 out of 600 marks). But, with the arrival of the brighter light, in her pre-degree examinations after two years, she was successful in scoring grades above first division. Now as a B.Com. student she hopes for better results and to be the first aspirant for a professional course (MBA) from the locality. Her father and brother vouch for this fact. The brother, a diploma holder in engineering, felt that the solar light helped him in improving his records and drawings during his training. The family finds more leisure time now since the running water tap is at their door-step. The mother expressed great relief, compared to the olden days when she and her girl

children had to make umpteen trips to fetch water for their daily use, each trip requiring more than 15 minutes. The girl children did find more time for their study with this single change brought in their life-style.

Local Innovation for Improvement

The case of a small local innovation in improving the given technology deserves mention because it was cost effective and durable. What an individual had tried out, found application for the community taps, and it suited the terrain, and the rough common use. The lift-cock tap, initially provided by the project, did not have a stable support. A local innovation rectified this deficiency. The lift-cock tap was fitted into an asbestos-cement pipe with concrete and then fixed on a small concrete slab as its platform. In this manner the lift-cock tap was firmly fixed on the ground, which facilitated its operation. This improvement could be easily made by local innovation because of the use of the appropriate technology in the whole project.

Financial and Other Gains

As the new system took care of the needs of both lighting and TV/Radio operation, an amount of Rs. 60-85 was saved by individual families (as per the prices of 1996). This is a major saving as it constituted between 10 and 15 per cent of a family's monetary income from various sources.[3]

The majority of the families, which were forced to limit their activity to a single source of light during the night, could now have access to an additional light source, which is brighter and less harmful (light without smoke and heat). There were at least three youngsters who obtained some gainful occupation in the village as they were trained in the repair and maintenance of the new systems.

Voluntary Initiatives and Leadership

After five years, it was found that the neighbourhood groups established during the project time exist only on paper. However, it was noticed that there were various initiatives from the people themselves – both men and women – for forming SHGs.

Special mention may be made of men's SHGs in this locality, which is not very common generally. Most of the members of these SHGs are those who were actively involved as volunteers and leaders in the project related work. The SHGs were formed with the purpose of collective work for improving the quality of the life of the members, and were often centred on some income generation programme. The men's SHGs were mainly for collective farming as the focal activity.

It was also noticed that many such initiatives of group formation came from people who had held responsible positions during the project. Some of them were affirmative in saying that it was the experience that they gained as leaders in the NHGs of the water and solar light projects that enabled them to gather people together, and sustain the momentum, in spite of the odds they were facing. Close observation and interaction with the people concerned showed that, while many of them did have leadership qualities in them, it was their involvement in the projects that made them noticed and now recognised in the community as leaders. One could find from the interaction with a men's group and a women's group that they had a very systematic way of addressing the issues and organising themselves by means of regular meetings, democratic procedures and maintenance of proper records.

The convent, which was instrumental in bringing the project to this village, also got transformed from a tiny religious centre, into a centre for activities of social development. It functioned as the communication point, meeting place and centre for financial transactions related to the project.

Replicable Model

The greatest achievement of the project is that a replicable model of energy managing technology at a micro level could be demonstrated successfully. Mundanmudi, the remote village, can be considered to have found a place in the energy map of the world. It is probably the first solar village in India, if not in Asia or the world itself, in which the majority (393 out of 473) of the households are relying solely on solar energy for lighting their homes.

Experiment with Truth

The agency had to tackle the issue of being truthful in the operation, especially when it came to dealing with the bureaucracy in connection with the release of the allocated amount from the decentralised plan funds. The collective decision reached with the *vikasana samiti* was not to use any unfair means, such as bribing, in getting the allocated funds released for the project. Consequently, the project could not actually get the full amount of the allocated fund.

Recognition

The role of the implementing agency in the Mundanmudi project has been recognised in many ways. The state government noticed the achievement of the project and entrusted Rajagiri-CASP with the task of organising the community of Alacode, Idukki district, which was selected to be made into a model village during the golden jubilee year of the country's independence.

Rajagiri-CASP was entrusted by the Ministry of Non-conventional Energy, Government of India to run *Aditya – the solar shop*, supported by the government, as the Ministry's sole agency in the state to promote non-conventional energy. *Aditya – the solar shop* continues to function successfully and brings to people various modes of alternative energy tapping technologies and equipments.

Mr. Antony Varkey (alias Joy), who took the responsibility of guiding the *Mundanmudi Gramavikasan Samiti*, was recommended by the organisation for Acharya Vinobha Bhave National Volunteer Award – 2001, instituted by the National Foundation for India, New Delhi. And he won this prestigious award consisting of Rs. 25, 000.00 and citation for leadership at the grass-roots level.

Developmental Insights for a Community Worker

The brief discussion of the case can provide some insights for the development worker. Many of them are already theorised, but still worth adumbrating in this context.

Participatory Technology Development

A technology can easily become appropriate to a situation, when efforts are made to tap the indigenous models and adapt them. The technical expertise of the people can be increased by using and building on their own knowledge systems. Then the people rediscover the folk knowledge and wisdom, and reinforce a sense of community identity (SAARC 1992:54). It may mean decentralisation, "which would allow us to determine for ourselves how to use technology appropriately" (Manes, 1986: 128). In this process technology gets demystified.

This became true in the case of both the technologies adopted at Mundanmudi. In the case of water, it was literally a simple local practice, refined and reinforced by collective thinking and improved upon in consultation with experts. In the case of solar energy, it was a technology that was brought to the people from outside. However, the process of familiarising made it quite acceptable and popular with the community. In contrast to the reluctant start applications for solar energy (which was provided on a first-come-first-served-basis as decided by the community), in the end it was not possible to accommodate the later applicants.

The success of this advanced technology in a rural community also was on account of having local personnel trained to be equipped with the knowledge and skill for maintenance and trouble shooting. When something went wrong, there were people within the community who had the required know-how at hand. This is a key issue in introducing technology in community development.

Introduction of Social Catalysts

The SAARC document on development speaks about the creativity of the local people as the starting point in the catalysing process (SAARC 1992). While this is

true, it may not be sufficient. The implementing agency of a development programme should have the creativity to introduce suitable catalysts at appropriate times for sustaining the movement. In the case of Mumdanmudi, the social sensitisation camp of the Rajagiri College students did this task. It was during a lull period in the project that this idea was mooted and the effect was the renewed involvement and enthusiasm of the people.

Involvement of All Power Centres

While this was a very target specific project, it could succeed in those terms, only because all stakeholders were brought into the programme with due roles and due recognition, and the project was made an all party programme, against the usual trend of any development programme being a ruling party programme. Besides, care was taken to involve the local leaders of all sorts – religious, political and community. The leaders of the block and village Panchayats, the local parish priest (being a predominantly Christian area) and opinion leaders within the community were all involved in every step of programme and were given due recognition.

Role of Facilitator

Social mobilisation often is more an induced process than a spontaneous response. Hence, the need for external (or internal) facilitator is accepted (SAARC, 1992). However, it seems that this vital link is missing in today's development context of decentralisation in India. Whether internal or external, the facilitator should be equipped to initiate and sustain the process. It calls for effective training. Experience and insight may complement, but really cannot substitute effective training. The need for trained personnel in government sponsored development processes has to be emphasised.

Sustenance of Development

It has been found that the process envisaged to sustain the development activity – especially with reference to the availability of water – has slackened in its functioning. Although water was being made available, there were minor

neighbourhood bickering and small tasks related to maintenance that were hindering the water supply project from reaching the expected level of excellence as a community development programme. The reason for it could be found in the hasty retreat of the development agency, as it had no funds to maintain personnel for continued support and facilitation till the process got stabilised. Usually the funding agencies and the participants in the benefits of development neglect this vital issue. Mundanmudi experience underscores the need for continuing the facilitator's catalyst role till the process stabilises and the need for resources to support it.

Cooperation among Stakeholders

Cooperation among all the stakeholders, especially of the people who are the direct beneficiaries of the specific project, is necessary for the success of a project. Though this sounds almost like a platitude, it needs to be highlighted because it can be realised only with the aforementioned process of stabilisation. While this is said in reference to the sustainability of the accomplished project, the process calls for cooperation of all stakeholders, viz., the local administration, community power centres, voluntary leaders, supporting organisation and funding agencies. The major focus of cooperation in this case had to be between the rival and opposing political parties/alliances, between the primary and secondary levels of local administration (gram Panchayat and block Panchayat), and the community that stands to gain the end benefit of the project.

Ownership: The local bodies need to own and continue to sustain the process. Unless the local bodies own the development processes already set in and take interest beyond political affiliations, there is always the possibility of a set back. In fact, the effort should be to build and strengthen people's organisations in such a way that it ensures the continued participation of the local bodies in the development process.

Beneficiaries of a project should be enabled to take responsibility and pay for the cost of maintaining the project. If this element is lacking people seem to miss the value of the facilities they are availing of, and it also leads to the wastage of precious

resources (like water in the present case). It is also a must that they realise the advantages they derive and utilise them for further development.

Impact on Quality of Life

It needs to be further explored how the immediate gains obtained from the introduction of the new technology have affected the quality of the people in the long run. For instance, how do the women use the extra time that is at their disposal as a result of the development, especially water at the door-step? Availability of potable water at the door-step has freed women from the back-breaking job of fetching water and provided safe drinking water. To what extent has it contributed to the improvement in the health situation of the people? Such questions are to be explored in order to assess whether the introduction of the new technology has achieved the development goal improving the quality of the life of the people.

Further, the people themselves need to be made aware of the gains so that they are able to capitalise on them, sustain and continue with the development process. As Braden points out: "Sustainability of a development intervention can only come about if the intervention emanates from an expressed need of the beneficiaries, they have been involved in the design and implementation of determined intervention, they have a counterpart investment of labour, money or time and they have a long term vision of the benefits to be derived from their continued interest and maintenance of the activity undertaken" (Braden 2000:237).

Notes

[1] Live-labs are practice units of the Rajagiri College Social Sciences, which try to translate the theories and principles of social work and community development into practice. They provide working models and avenues for the students of Social Work for practice.

[2] The two amendments to the Constitution have the objective of decentralisation of power to the elected representatives of the people at the local level. The 73rd amendment pertains to the constitution of, and election to the village level bodies in rural areas, and the 74th amendment pertains to urban local bodies.

[3] As per the report of the initial survey conducted in the community, the mean monthly income of the lower income group - 131 (27.70%) families - was not more than Rs. 250 p.m., and of the next 146 families (30.87%), not more than Rs.500 p.m.

References

Alex, Jose, 1998, "Partnership that Works" in *CASP Newsletter*, Vol. XVI, No.2

Braden, L. Roger, 2000, *Destination Man,* Pune, Ulhas Latkar Publishers

Chakroborty, Prakriti Kumar, 2004, *Issues in Technology Transfer in Rural Water Supply and Sanitation Sector*, http://ddws.nic.in/data/papers/paper1.htm

Davis, John (ed.), 1991, *The Earth First: Reader*, (Indian edition, 1995), Bombay, Gibbs Smith Publisher

Kunnumkal, Mathew C., 2004, "Transfer of Rural Technology for India's Growth" *Journal of Rural Development,* Vol. 23, No. 1, 99 – 113

Manes, Christoph, 1991, "Technology and Mountain Thinking", in Davis, John (ed.), 1991, *The Earth First: Reader* (new Indian edition, 1995), Bombay, Gibbs Smith Publisher, 128-132

SAARC, 1992, *Meeting the Challenge: Report of the independent South Asian Commission on Poverty Alleviation,* (Indian reprint), Bhubaneswar, Centre for Youth and Social Development

Schumacher, E.F., 1993 (first published in 1973), *Small is Beautiful*, London, Vintage Publications

Johnson X. Palakkappillil, Faculty Member, Department of Social Work, Rajagiri College of Social Sciences, Kalamassery, Kochi – 683 104. Email: jprasant@rediffmail.com
M.P. Antoni, Project Manager, Community Aid and Sponsorship Programme, Rajagiri College of Social Sciences, Kalamassery, Kochi – 683 104