

Draft

**Learning from the Positive to Reduce Rural Poverty:
Institutional Innovations in Agricultural and Natural Resources Research and
Development***

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SUMMARY

This paper argues that opportunities for reducing poverty, improving social inclusion, and influencing policy and institutional changes are being missed as a result of not learning sufficiently from development practitioners who have been effective in bringing about positive changes in the past. Cautionary tales, positive deviance, innovations systems and aid ethnographic literature is reviewed. Three agricultural and natural resources case studies of positive experiences are described. These cover the spread of bamboo tubewells in eastern Bihar, changes in rice research policy and the rice innovation system in Nepal, and the spread of groups and group based organisations and federations in Nepal. These are used to illustrate how institutional innovations at macro levels came about and gave rise to positive development outcomes. Implications for innovations theory and for rural development practice are discussed.

INTRODUCTION

In recent years there has been a growing interest in how agricultural and natural resources projects and programmes can be made more effective in reducing rural poverty, increasing social inclusion and influencing policy and institutional change. This interest is expressed through manuals and workshops on learning and change, new action research projects and policy studies to investigate, develop and test new approaches and procedures. Much of this thinking is couched within the dominant framework that development is a rational problem solving exercise. While there are many studies which have critiqued this view¹, it is still the dominant framework used in development policy and research discourses. This paper is not a further critique of dominant frameworks, but rather a suggestion that there is another approach, that can compliment the mainstream, problem solving, linear approaches. The idea is simple. Learn from the positive. It involves purposely seeking out and learning from past and contemporary political/cultural situations where positive things are occurring, and learning from the way different actors are already being effective in bringing about positive changes. The entry point for this analysis is finding situation where, on the surface positive changes are taking place. This is a very different entry point from much conventional poverty and social inclusion analysis where the preoccupation is with describing how bad the situation is, and what are the barriers and constraints to change. It is also different from focussing on assessing the outcomes of early planned interventions. In this later case there is often preoccupation with reporting on planned indicators, describing average outcomes, and then listing problems and constraints as to why outcomes were not as good as forecasted. Only too often there appears yet another list of problems of bad planning, corruption, and how different types of parochial interests dominating over development goals. This is followed by a list of recommendations, many of which have little chance of being implemented as suggested. Learning from the positive, does not discard learning from the outcomes of past planned interventions; however, it opens up the possibility of looking for different things. This is learning from actors who have already been effect in existing political, economic and cultural environments in bringing about significant positive changes.

PLANNED REFLECTION, LEARNING AND CHANGE IS DIFFICULT

¹ For some of the earlier critiques see Griffin, and Clay and Schaffer.

Learning and change is generally hard and problematical. The starting point for much analysis is an assumption that rural development actors want to increase the relevance and effectiveness of development interventions. However, development activities take place in political and cultural contexts where this may not be a good assumption. Besides the agendas of political actors, there are the parochial interests on the part of different actors. These parochial interests might be the interests of specific Ministries, specific research programmes, specific donors, NGOs etc., not to mention the egotistical and career ambitions of specific people in these organisations and groups. Analysis of these issues is not new as well illustrated by Thomas in a chapter of a book of cautionary tales in the mid 1970s. He was trying to explain why in Bangladesh irrigation policy and practice resulted in the promotion of the most costly forms of irrigation, from a national development perspective, rather than in the promotion of more relevant and cheaper alternatives. He found there was a commonality of interests between the dominant irrigation ministry, the donors, the exporters of machinery, and the consultants involved. The authors of the book of cautionary tales expected (hoped) that the book would be read and there would be learning on the part of development practitioners.

Similar themes concerning the motivation and interests of development actors are now being taken up in the growing ethnographic literature on development practice². In the rural development literature, we have Rhoades' recent study that examines the outcomes of efforts over many years to promote the substantial inclusion of economic and other social science analysis in natural resources R&D programmes. Gurung and Menter examine the outcomes of the promotion of concerns for gender analysis in an international research centre. At the policy and M&E level, Horton, Mackay, Anderson, and Dupleich look at the impact of a large programme to improve the planning capacity in these areas. They found little impact at the policy level, while individuals had benefited from the training. These studies found that often the language and rhetoric of the advocacy was taken on board, but there was little meaningful change underneath. Some of these findings are not new, but reinforce the findings of earlier studies, such as the ISNAR impact assessment in the mid 1980s of about 30 multidisciplinary poverty oriented on farm farming systems programmes in 9 countries (Merrill Sands, et al.). A recent review and assessment of some major DFID funded natural resources research project shows problems of a lack of effective poverty reduction outcomes, lack of significant interdisciplinary and institutional collaboration, etc (Lenne and Thomas). In the light of these types of findings, one cannot help but ask why there is so little learning.

Refreshingly, what is new about some of the current ethnographic research is that they are looking inside the black box of research and development agencies and investigating the reasons for the "non adoption" by development and research practitioners of lessons from the past and of approaches and methods aimed at making their work more relevant to development goals. This type of research is not only confined to local actors in developing countries, but also focuses on behaviour of major donor agencies such as the World Bank. It is paradoxical after all, that after years of advocating and promoting project cycle management tools; with their emphasis on learning and change through M&E methods, a recent new manual on

² See Rossi, Mosse et al.

good M&E practice for agricultural projects noted that in 2002 there was very little M&E in any World Bank funded projects³.

One of the responses to the mixed outcomes of past efforts has been the development of new action research projects and policy research designed to make development efforts more effective. Hopefully these will come up with some useful innovations that will be effective. However, there is at least one complimentary way of proceeding, learning for the positive, and that is what we will be discussing here.

LEARNING FROM THE POSITIVE

Learning from the positive is not new. However, recently Sternin has made the approach very succinctly by using the term positive deviance. If you think of a statistical distribution, there are observations either side of an average. Why not investigate and learn from the situations that give rise to the observations that lie on the positive side of the curve. In the governance literature Judith Tender's research has rural development case studies of how and why in a part of Brazil many positive things were happening, whereas in the surrounding districts there was widespread corruption and nepotism. Significantly she concluded that if development actors at the time had used the current "best practice" manuals to guide their interventions, then in all probability these positive outcomes would not have come about. In Bangladesh in the early 1970s, after independence from West Pakistan there was a great deal of innovative rural development activity taking place. The Ministry of Rural Development coordinated a wide range of study teams to quickly investigate what was happening and what could be learnt for those development initiatives⁴. Douthwaite's recent book on understanding processes of rural mechanisation includes, not only stories of very misguided development actions, but also detailed case studies of where technical innovations spread, and detailed analysis of the actual role of different actors over time. In the late 1990 Krishna, Uphoff and Esman asked key actors who had been involved in major "successes" to write up their personal reflections. They then drew out overall lessons from the case studies. The pioneers of the national innovation system approach to national science and technology policy is a case of where the intention of the study was to understand the relationships between science and society that had given rise to rapid economic growth in Japan (Nelson, Freeman)⁵. In the field of rural development Jain examined the management and the institutional contextual dimensions of a range of major programmes in Asia which, by many criteria could be seen as contributing significantly to rural development goals (Jain, 1994, 1996). In Nepal Messerschmidt (1988) analysed why a UNICEF/Small farmer development agency project to revitalise the handmade paper industry has been so successful. So there is a large literature that looks at positive experiences.

What constitutes "success" is frequently contested. This is well illustrated by assessments of the outcomes of the forestry policies in Nepal to promote community forestry user groups for environmental and community development goals. By some

³ This observation was given in Alex and Byerlee. A review of the lack of learning on the part of writers of new management manuals is given by Biggs and Smith.

⁴ The Ministry published quickly the reports coming from the studies. Some were called rushed reports, others quick reports. An example is the study by Yunus and Latifee on why a local cooperative was working well, while so many at the time were taken over by elites, and or were corrupt.

⁵ The national innovations framework has been used recently in natural resources analysis by Hall, Biggs and Matsuert and several case studies are included in Hall, et al.

observers it is described as a great success, and a model that should be promoted all over the world. For others, while it is seen as environmentally successful as forest coverage has increased, the impacts on poverty reduction and social inclusion are very mixed.⁶ Another problem arises when donors and other assessors change their criteria of success, as illustrated by Mosse (2003).

In addition to earlier studies that learnt from past positive situations there are some new development intervention methods that provide guidelines for building on the positive; for example Appreciative Inquiry (Hammond and Royal, and Whitney and Trosten Bloom).

There are three main places where we might look to observe and understand how actors have been effective in bringing about positive change. First, where planned intervention (policy, programme, project or activity) contributed in some way to a positive outcome. Second, where planned interventions contributed to positive outcomes, but these things occurred unexpectedly or because the positive outcomes came about in spite of the plans. Third, positive things happened, but this was not as a result of coordinated planned interventions. Of course one could go in circles here by arguing that all outcomes are due to the “policy” environment. However, I hope we can avoid that detour. In this paper we are concerned with learning from actors in all three situations; especially the last two situations.⁷

CASE STUDIES

To illustrate the argument being made in this paper I have chosen three case studies. They have been chosen with the following criteria in mind⁸. First, they are from different times. One describes an innovation process that was taking place over 30 years ago, and the others look at more recent periods. The older case study is included to show that some processes of change have relevance to contemporary political economy contexts. Second, to show that selecting criteria for assessing “success” and “positive” changes is always difficult and problematic, as well as being time specific. Third, I was present in the locations where these changes were taking place, but not a significant actor in what was happening. This means I am aware of some of the broader political, economic and cultural contextual issues in which these case studies are embedded. I have also had a chance to reflect and look back at what was happening in a broader and more detached way. Fourth, The case studies are sufficiently documented to make them empirically based and credible. Fifth, prima facie evidence suggests that these were changing social situations where positive outcomes were

⁶ See Biggs, Gurung and Messerschmidt for a review. Rent seeking, parochial interests, and other reasons for why donors, government agencies, and others who influence forestry policy and development practice did not given more attention to being effective in promoting poverty reduction and social inclusion agendas are investigated in Biggs and Messerschmidt, 2003)

⁷ This is not to say that negative outcomes are not interesting, and that we cannot learn from them. Paradoxically, there seems to be more interest in understanding ways in which corruption, rent seeking, nepotism, etc takes place, and why planned interventions “fail” than analysing how effective people have been able to bring about positive change in the real world of political and parochial interests in which they work.

⁸ Hopefully readers of this paper will be able to provide other case studies and document their own experiences; thereby we can build up a firmer and more substantial empirical data base. The gender and social exclusion assessment of groups and group based organisations in Nepal has at least 12 case studies where many of today’s development goals, as illustrated by the Millennium Development Goals are being improved (Biggs, Gurung and Messerschmidt). In Nepal there many more positive cases that can be documented.

occurring. Six. They illustrate processes of institutional innovation at the macro policy and institutional level that relate directly to issues of “scaling up” of technology, micro institutions and new research and development methods and techniques.

Spread of Bamboo Tubewells in Bihar.

The first case is taken from Eastern Bihar, one of the poorest and most socially differentiated parts of rural India. Very large family holdings existed side by side with smaller holdings and sharecroppers. Over 50% of the rural households were landless labouring households, many of whom were obligated to larger landowners in debt and in other ways. The main irrigation emphasis in the region was the canal system for the Kosi barrage. In the late 1960s the government sponsored a minor irrigation programme promoting a package of technology of a shallow tube well and a pump set. To be eligible for government credit farmers had to sign up to the fixed package. What actually happened as regards the spread of acres irrigated was a story very different from what the planners had had in mind⁹. Essentially rural innovators, some research minded farmers, artisans, traders, landless labourers started to “depackage” the package and created new technology and institutions. One of the most interesting innovations was the bamboo tubewell. Artisans made very low cost bamboo tubewells and sunk several of them for farmers who had scattered plots. Pumpsets were mounted on bullock carts to serve several bamboo tubewells. Markets in pumping services and water quickly developed. It was not long before the bamboo tubewells were irrigating more land than the government canal irrigation system (Biggs, 1981). As regards making irrigation water available to farmers where and when they wanted it, the spread of the bamboo tubewell was a success. It provided rural livelihoods for the poor by increasing employment for landless households; especially in the winter season when there was little employment as few crops had been grown previously. Because of the service markets and smaller scale of the technology it was more accessible to smaller farms and sharecroppers. One of the reasons for including this case study is because it is an example, not only of informal R&D by people in rural communities, but also of the institutional innovative behaviour of the local District Kosi Commissioner. When he saw these new technical and institutional innovations spreading in the field he organised a special programme for their promotion. This was no easy task because at the time development thinking in India was dominated by the top down promotion of “one size fits all” single packages. Bureaucracies were created and instructed to manage such programmes. Not only did the district commissioner effectively promote this bamboo technology and the water markets in his region, but he also had a much wider impact on informing irrigation policy and practice in the country as a whole. This was by getting an article published in the most widely read and influential policy and development information sheet; the Economic and Political Weekly (Appu, 1974). The fact that the paper was written by an innovative bureaucrat made it all the more influential because it was written in a style and in the language that was in use amongst planners and development practitioners at the time. The “scaling up” of the bamboo tubewell, took place mainly in the private sector, however the rate of their spread was increased as a result of the behaviour of a social entrepreneur in the public sector who created institutional innovations which were

⁹ This was well documented in a thesis by Clay in the early 1970s and written up for more general readership in a widely read CERES publication (Clay, 1980). Other documentation includes Domman, Appu, Biggs 1981. It would be interesting to see what has now happened in ground water irrigation and who has benefited over the last 30 years.

relevant and effective in the local political, technical, cultural and economic environment.

In the mid 1970s the spread of bamboo tubewells for irrigation and drinking water purposes was seen as a positive occurrence according to many of today's development criteria. However, it was not known at the time that the water may have poisoned with arsenic. The widespread arsenic poisoning in Bangladesh and West Bengal from shallow tubewells might also exist in Eastern Bihar, which sadly throws a different light on what was seen as positive situation in the 1970s.

Policy Changes and Institutional Innovation in the Nepal Rice Improvement System

A second case study is taken from Nepal. This is a case where, almost unwittingly a project had major positive effects on bringing about significant changes in rice research and the institutional structures of the agricultural research and extension system.

In late 1997 a client oriented participatory plant breeding project was started in Nepal. It was designed to adapt and develop cost effective methods for improving rice varieties available to farmers in high potential agro climatic conditions. The project was premised on the grounds that on the Nepal terai (plains) most of the grain grown by farmers was sold and that the region was relatively uniform as regards physical and socioeconomic conditions. An eye opener for the project staff in the first year was a farmer livelihood analysis which showed not only a great deal of variation in agro climatic conditions, but also great diversity in social economic characteristics: many household were food deficit and many poor cultivators came socially excluded groups. This survey was originally seen as a benchmark and data collection study to assess the project's impact at the end of the project. However, in reality it turned out to be a poverty monitoring survey. In this case it monitored the project's assumptions and claims to development relevance. At about the same time the main outside funding agency, DFID was placing greater emphasis on poverty reduction and livelihoods improvements. The project staff changed the project (and log frame) significantly at that point. The project continued to monitor annually poverty conditions and impacts at the village level. The poverty reduction impacts have been well documented and the estimates of economic rates of return to the project have been high¹⁰. However, the project had a far wider range of positive policy and institutional impacts that had not been envisaged in the original project design. These were: 1) The formal recognition of the informal R&D systems on the terai, and the creation of mechanisms for using information from these informal R&D systems in formal R&D systems. For example, a long standing problem for the formal government rice improvement programme is how to acknowledge varieties that continuously came over the very long open border with India through farmer to farmer, trader and other exchanges, and to take on board varieties that come out of farmer breeding activities. 2) Changes in the National Varietal Release Procedures. These changes allowed data from non government research institutions and farmers to be used in making national release and varietal promotion decisions. The membership of release committee was extended to include research NGOs, farmers and project staff. Something that had only taken place, if at all, in a token way in the past. 3)

¹⁰ A summary of the numerous reports, articles, assessments, etc are given in Joshi, et al.

Creation of methods for effective Government, NGO and farmer collaboration, at the village and more importantly at higher institutional levels. After local district agricultural officers, NGO staff and farmers had been working together “informally” in the early years, they drew up more formal Letters of Agreements (LOA). These new institutions gave rise to the legitimisation of such LOA throughout the agricultural research and extension system. This was no mean task in an environment of much hostility between these types of actors. 4) Creating methods and institutional arrangements for extending the participatory plant breeding and seed production approach to all the major rice growing districts and several hill districts. The way the “scaling up” took place, was opportunistic, in the sense that the project had no plan for “scaling up”, but the local project staff contacted another parallel government programme and jointly developed new ways of doing things. Again no mean task in an institutional environment where still different aid agencies, government departments, NGOs pursue their own hierarchical management structures, with often only tip service to creating effective “lateral” linkages.

From a policy and long term institutional reform perspective these are very important outcomes¹¹. However, they were not seen as goals of the original project. Furthermore, almost all of the policy and institutional changes came about as a result of the social entrepreneurship and innovative behaviour of the local project staff. With national policy and institutional change in their minds, they took opportunities as they came along. To a large degree, only they knew enough about the power relationships in the policy and development arenas, to see and know opportunities when they arose. Almost without exception, effective actions in the policy and institutional arenas were never planned (i.e. they were not in the annual work plan based on the log frame). However, once shown to be effective, the log frame and annual plans were changed accordingly each year. In the project there was a culture of continuous institutional innovation. In Nepal social exclusion at the village level is a critical issue for understanding causes of poverty. In this regard project staff increasingly worked with poorer and marginalised groups and with a local NGO which concentrated on social empowerment issues. Paradoxically, while the project has contributed significantly to policy, institutional and social inclusion goals, it has not documented or analysed how it played a significant role in these processes^{12*}. However, while this might be seen as a single country case study, there are generalisations that could help inform similar policy and institutional reform discourses in other countries; especially in Asia. A further paradox is that in donor and government discourses in Nepal on poverty reduction strategies, policy change and institutional reform one does not often hear mention these positive changes that are already taking place on the ground. This is an interesting observation, given that rice is the most important crop in the country, and profoundly influences not only agricultural productivity, but also the livelihoods and welfare of a very large number of poor people.

Groups and Group based Organisations and Federations in Nepal

The third study concerns an overall review of groups and group based organisations in Nepal. This exploratory study was undertaken as part of a larger Gender and Social

¹¹ The project also developed and adapted participatory plant breeding methods, with international collaboration with rice improvements researchers in other countries. These aspects of the project are widely written up in journal articles by project staff. For example see Joshi, Sthapit and Witcombe.

¹² This being done now. See Joshi, et al., 2005

Exclusion Assessment for the National Planning Commission, DFID and the World Bank¹³. Different types of groups have existed in Nepal for many years. The way these have been organised and managed has always reflected the local political, cultural, economic and technical environment. The promotion of groups has been the major implementation instrument of all government, donor, NGO and other development agencies. There are forest user groups, micro credit groups, irrigation user groups, health user groups, road and bridge building groups, and many, many more types of sponsored groups. We attempted to get an overall estimate of the current number of groups promoted by development actors and reckoned it must be at least 500,000¹⁴. In Nepal development groups can put into three main categories. 1) Common property management (CPM) groups. These would be forest user groups, surface and tubewell irrigation groups. 2) Service delivery groups. These would be the micro credit groups, health groups etc. 3) Social mobilisation groups. These are groups that form around specific social issues. For example land rights, abolition of bonded labour, squatter rights. These groups often work with actors who use an array of non formal education methods. While there is considerable overlap between these categories, the agencies who promote them normally concentrate on the main function first. For example NGOs that promote different forms of non formal education often are associated with social movements groups. Agencies concerned with rural finance issues work with savings and credit groups as well as groups formed to gain access to outside credit. In the study we were particularly interested in groups and group based organisations that had given rise to positive outcomes, as regards poverty reduction, gender, social inclusion and effective influence in policy and development arenas.

From the perspective of this paper, one of the most interesting findings of the study was the great array of outcomes that had occurred after groups had been sponsored at the village level. Different types of federations, cooperatives, informal groupings, etc have emerged. There is tremendous diversity in the structures of the higher level institutional models found in Nepal. There was no “natural evolution” of federations, or any pre planned process¹⁵. These ever changing models have come into existence in wide number of ways. Sometimes the federation process was planned by an agency, as was the case with some micro credit institutions, however, on other occasions, such as with the informal federations of mainly women’s farmer field school groups the process was the outcome of local people, taking collective action to purchase inputs together, or to demand improved services from government extension officers. In some cases this has led to them registering themselves as a cooperative. In some cases the federation was formed first and groups came second. This was the situation of the

¹³ For details of the larger study see Bennett. This section is based on Biggs, Gurung and Messerschmidt, 2004.

¹⁴ There are numerous problems in estimating the number of groups, due to the reality that groups come and go, overlap, etc. To get an estimate of the number of members in groups is even more challenging as people often belong to multiple groups, and what constitutes “membership” also presents challenges.

¹⁵ At least one of the major donor projects, the Production Credit for Rural Women did have planned overall hierarchical institutional structure. However, in this project, some of the really interesting institutional innovations came out of the activities of women at the village level, who got into a whole range of activities such as legal fights to address ongoing abuses of women. These significant and important outcomes were not planned as part of the project, and are still not adequately monitored understood and promoted. A recent study has looked into some of these institutional innovations (KC, 2003) however, from the perspective of this paper on monitoring and supporting positive institutional innovation, this PCRW project had not developed internal innovations, so it could promote some of the positive things it was helping to bring about.

Society for Preservation of Shelters and Habitation in Nepal (SPOSH-Nepal). At first SPOSH campaigned for squatter's rights, but then SPOSH stated working with settlement groups called unit committees. After that district committees were formed. In addition we found there was no general rule that government or NGOs or the private sector were the leaders of federation processes. As in most countries there is cooperatives legislation. However, while in Europe cooperatives are associated with socialist values, in Nepal they were not traditionally seen as vehicles of promoting the interests of poorer people or excluded groups. However, even here, we found that some women's fisher groups (often an excluded ethnic group) were using the cooperative legislation to their own advantage. These were situations where local innovators were using and modifying existing institutional arrangements to meet their interests. To some extent different, and sometimes ambiguous legislation existed concerning the registering of groups. However, for effective innovators this was part of the reality of the institutional landscape, which had to be navigated in one way or another. Sometimes this meant being effective in getting the legislation change.

Nepal is internationally well-known for its forestry policy which legitimised traditional forest user groups, after the period when the state had nationalised forests. Over time a national federation has developed. This is the national Federation of Community Forest Users, Nepal (FECOFUN) with its membership of over 14,000 groups. It has developed in its own way and has often effectively challenged government decisions. The government has given more support to another civil society organisation; Nepal Federation of Forest Resource User Groups (NEFUG). Recently FECOFUN has entered into the political arena in other ways by joining protests for the return of democracy after the King dissolved parliament and declared a state of emergency in February 2004.

The overwhelming evidence from the 12 positive case studies we examined was that effective institutional innovations came from actors in the local context. When and if outside institutional models (or parts of them) were useful, it was because they were assessed by "insiders" as being relevant in that context for bringing about change in the power structure in the local political/cultural setting. There were no "natural processes" or "hidden hands" that gave rise to a "natural evolutionary" process. There were continuous political/cultural battles taking place, with effective people and coalitions bringing about these changes.

Analysis and Discussion

Are there general lessons that can be learnt from these case studies, or are they just anecdotal stories? I think there are some generalities that can be drawn out and they are group here under lessons for innovation theory and lessons for rural development practice.

Innovation Theory and practice **Location Specificity**

The innovations we have looked at here are all location specific. They can only be understood with reference to the time, place, culture and political context in which they took place. The creation and subsequent spread of the letter of agreement (LOA) in the rice innovation system in Nepal, is in some senses not a new idea. Letters of agreement, memorandum of understanding, etc are the very stock in trade of development activities. However, here the specific nature of the LOA, the way it

evolved, who created and developed it in the local government district offices of Nepal, meant that it was a local innovation. At the time respect and collaboration between government officials, R&D NGOs, poorer farmers was not widespread. This institutional innovation provided a relevant and viable way forward. The fact that this type of LOA has now spread within the government structures to over 25 of the 75 districts in Nepal is evidence of its usefulness. Whether they become routinised, formulaic and merely provide a means of furthering parochial interests will remain to be seen. The types of group federation processes taking place in Nepal are also time and contextually specific. There has been no formula for the formulation of effective federations; each has developed in very different ways. The radical program for the promotion of bamboo tube well groundwater irrigation in Bihar flew in the face of all conventional irrigation planning at the time. These case studies therefore seriously question any innovation theories that suggest there is a linear process of research, development, testing, scaling up, and adoption of technology or new institutions. Consequently, any analysis of technology and institutional change without a full description of the role of different political, economic and institutional actors in which the change is taking place is not very useful for those who might want to draw out generalities or learn other lessons. This is especially so for institutional innovations that on the face of it appear to reduce poverty and increase social inclusion.

Multiple sources of Innovation

These case studies provide evidence that important technical and institutional innovations arise from multiple sources¹⁶. Important innovations do not necessarily come from planned and directed research, and then get passed onto “development” agencies for promotion and “scaling up”. Varieties of rice used by farmers on the terai came from research stations, from farmer informal R&D systems, from joint farmer/researcher activities, and from multiple other sources. The pumps used in the spread of the bamboo tubewells came from “outside” sources, however, the bamboo well itself and the range of institutional innovations for the exchange of services, and the “scaling up” of the wells came from within the local social and cultural environment. The new ongoing institutional innovations described here, have been just as important as any of the technical innovations, such as new rice varieties, new research approaches, etc that came from planned activities. It could be argued that the local institutional innovations were more important than the planned technical innovations. This is because in the cases we have described, it was the institutional innovations that were the critical effective innovations that gave to widespread poverty reduction and increased social inclusion.

Temporary Contending Coalitions of Actors

In all cases, there were formal and informal coalitions of actors who worked together to confront and challenge existing orthodoxies of habitual and formulaic behaviour. The terms of reference for the Kosi development officer in Bihar in the early 1970s was to support, coordinate and help implement the policies and programmes of line ministries. One of these was the programme for minor irrigation and the promotion of the shallow tubewells package. In this case the Kosi commissioner did quite the opposite, and in formal and informal ways joined up with a whole range of new partners from different organisations as well as farmers, artisans and others from the

¹⁶ For an account of formal and informal R&D systems, and of the multiple sources of innovation model see Biggs and Clay and Biggs.

private sectors¹⁷. The transparent way he went about this, reflected in part by the article in the national journal, the Economic and Political weekly, was also part of the strategy to question and effectively challenge the power structures of existing orthodoxies. In Nepal, the way the rice breeding NGO formed formal and informal alliances with some senior government personnel in the rice plant breeding establishment resulted in long term and significant changes in Nepal's agricultural research policies and development practices. The growth of the powerful forest user group federation came about as part of a coalition of actors. In this strategy, an outside agency, the Ford Foundation provided some funding. However, not even the opponents of the powerful FECOFUN would say this was a Ford Foundation created institution. Ford Foundation was a member of the coalition, but certainly the staff of the Foundation were not "the drivers of change". The drivers were local social entrepreneurs who thought strategically and saw the Foundation as a possible outside source of useful support.

Transparency on the Local Ground

A theme which appears to coming out of these case studies is that there was transparency on the ground in all the local contexts. In the case of the rice breeding programme in Nepal, the log frame provided a transparent document which all the actors had access to. This, and the annual work plans were repeatedly (and often radically) changed as learning and reflection took place. In villages there were no ambiguities about what the project and its staff were doing. In various routine governments sponsored workshops, such as the government annual summer crops workshop attended by senior members of the agricultural research establishment, there were sometime heated public disagreements. In the case of the bamboo tubewells, anyone visiting the Kosi region would not only see the irrigation technology spreading on the ground, but also by asking the right questions hear about the spread of new institutional arrangements. They would also be able to gather quickly enough information to make a reasonable judgement on whether their spread was reducing poverty reducing and improving socially inclusion. Again all of the significant changes taking place were transparent. This was because the bureaucrats involved were finding room to manoeuvre within the normal structures of government procedures. They were also finding ways to be innovative and change structures. The EPW article and other publications about the Bihar irrigation innovations made them transparent in national and international arenas. I suspect at the time, although the information was available, the international community of academics, irrigation companies and consultants were not interested in these types of innovation. However, this was not due to secrecy, a lack of transparency, or a lack of information. It was due to the nature of the specific political economy of that arena of research and development, and the parochial interests of the actors involved.

Central Role of Personal Behaviour

In all cases we find the names of specific individuals keep on coming up. None of the processes we describe were in any sense situations where "evolution" or "market forces" were "naturally" propelling social change. In the case studies above, I have tried to avoid using the names of individuals. The reasons for this were to avoid "hero

¹⁷ In today's jargon, it is possible this might be called participatory, stakeholder appreciative inquiry development. This was happening in the early 1970s for anyone to see, learn from and use in their development work.

worship” or ideas of training of “leaders”. Yes, we found local heroes¹⁸, but in none of the cases we review had they been on a “leadership” course. They saw themselves as social entrepreneurs helping to facilitate processes of positive social and technical change. Most of the local heroes had a long background (both personally and in their professional work) in trying to be effective in promoting poverty reduction and social justice issues. In their approach there was never a case of saying it was “someone else’s job” to think through the consequences of the technical and social innovations they were involved in creating and promoting. If other work needed to be done they were effective in getting suitable actors into the coalition. One of the reasons why I used the term temporary coalitions is because coalitions are generally temporary, as circumstances are always changing. This is highlighted in Nepal at the moment, as evidence is rapidly appearing that some manual and mechanical shallow tubewells are producing water contaminated with arsenic. For a range of parochial reasons, some actors in drinking water and irrigation programmes are unaware of the information, or are acting very slowly. Hence, the membership of socially responsible water development coalitions is changing quite quickly.

Positive and Negative Institutional Innovations

In this paper I have concentrated on understanding processes of positive social change. This fully acknowledges that a value judgement is being used to assess institutional innovations. In research there is always a choice of what to work on. It seems a great deal of effort goes into studies, assessments, evaluations of a formulaic type, or of negative institutional innovations, such types of corruption, rent seeking, nepotism, parochial interests, etc. A choice was made here to explore ways to learn from social entrepreneurs who work in those same environments and who have found ways to be innovative and effective in socially responsible ways. We can learn from those people.

Are Institutional Innovation Processes Different From Technical Innovation Processes?

The answer is probably yes. What the case studies show is that major and significant institutional innovations came up all the time from within the local context¹⁹. Informal, unplanned R&D was always taking place in different arenas. Local actors and coalitions were finding new ways to adapt and change old and new technologies and institutions. Existing power structures were being effectively challenged and changed. Even when new methods, technologies were developed or introduced from outside, these were generally modified and changed, by local actors so as to make them useful in the local context. It appears that to be effective social entrepreneurs had to be institutionally innovative all the time. Otherwise actors in the same environment with parochial interests found ways to take over structures for their benefits. This is why “scaling up” was not a job to be done at the end of a R&D pipeline. At a superficial level it might appear that micro level institutional structures, such as methods for participatory research, or for forming and managing micro credit

¹⁸ For a description of local heroes effectively promoting gender issues in micro credit situations see Goetz, and in a wide range of groups and group based situations in Nepal see Biggs, Gurung and Messerschmidt, 2004.

¹⁹ By local, it is meant local in the social sense. Therefore local can mean the environments where policy discourses and actions take place. For example policy decisions are frequently not made in the formal institutions designated as the “policy making bodies”, such as parliaments and planning commissions.

groups, forest user groups, and cooperatives, can be “scaled up” by policy directives to form higher level institutional structures. What our case studies of positive institutional innovation showed was that these processes were as complex and challenging, as any of the processes that led to the new micro level innovations. While at the micro level, there might be similarities and minor adaptation of say Grameen Bank type credit users groups between countries, the way the Grameen Bank in different countries operates at the macro level, and effectively influence national financial policy and development practice depends on the specific institutional structures of the national situation. In the case of the Grameen Bank in Bangladesh, Von Pischke describes how staff of the Bank strategically selected Board members who represent all the major financial institutions in the country, so as to maintain transparency about its operations, and reduce the changes that “false stories” would be spread by other interest groups. In our case of rice research and promotion policy in Nepal, the local actors found ways to change procedures and institutions throughout the whole rice innovation system. The general lesson is that in each country, local social entrepreneurs will have to be equally as inventive to create effective institutional innovations that are relevant to the local political and other time specific contextual conditions. Certainly, the idea that one size can fit all, or that widely adaptable higher level institutions can be transfer between countries is an appealing but a very bad starting point. It might on occasions, have relevance for some technology innovations, but not for higher level policy and institutional innovations.

Rural Development Practice

There are a number of practical development implications that follow from the case studies and discussion so far.

Attitudes towards Development Interventions

The main thrust of this paper, is that there are generally some significant positive changes already taking place in situations of where widespread poverty and social exclusion exist. In general one of the choices for policy and development personnel is whether they search out, monitor, learn from, support and promote lessons from these situations, or whether they take other strategies. While it might be sensible and common sense to build on positive local changes taking place it would appear that this is not always done in development circles. However, as regards practical ways forward, anyone can decide whether they are going to search out the positive situations, and build on that. People who influence policy and macro institutional change can make significant changes tomorrow by asking different questions and rewarding different behaviour.

What we in the case studies is that key actors were continuously strategic in what they did. They, almost by definition were not confined to the plans, or if they were they were continuously looking “outside of the box” to be effective in the particular parochial and policy context in which they worked.²⁰

Flexibility to Encourage and Support Building on the Positive

“This short history should not be viewed as a “project”, or a pre-determined sequence of activities. In 1997, the Plant Protection Directorate and FAO reached agreement on

²⁰ Interestingly the importance of researchers being continuously strategic in development actions was one of the main conclusions by Taylor (2005) when discussing bridging research and policy from a UK perspective.

a set of broad goals and plans for the initial activities. Subsequent activities were planned year by year, taking account of the results, which had been achieved, and the emerging needs and opportunities. In this way the IPM program in Nepal has “evolved” at a rate which was quicker than anybody expected, and it has taken a shape which could not have been predicted five years ago.” (Bartlett, 2002, p. 16)

This summary of a review of an IMP farmer field school project in Nepal could be used to describe many of the outcomes of our case rice participatory plant breeding project. To some extent they were both “the right projects in the right place” However, in the case of the rice project, it was significant that the project staff were able to completely change the project in the first year. However, key to this and the other case studies was the ability of the actors involved to respond in an institutionally innovative way to opportunities as they arose. This is a far cry from monitoring to keep within a tightly formulated planning process, which does not encourage innovative behaviour to take unforeseen opportunities as they arise or are looked for.

Circulation of Ethnographies of Positive Case Studies

As we noted earlier there is a growing literature on positive case studies. What we are not speaking about here are project/donor sponsored write ups of “successes”, which sometimes result in guidelines of “best practice”. While on some occasions this literature might be well done, what I am speaking about here are studies that have looked in depth at the processes that actually took place in specific location and gave rise to positive outcomes. The work by Judith Tandler and Anne Marie Goetz are good examples. They looked at situations where on the surface there were positive things taking place, then worked back to who did what were and when. They were not pre-occupied with adoption or impact measurement, or with trying to attribute outcomes to a particular project, programme or policy. They were interested in understanding how positive outcomes came about.

This paper has argued that generalisations are difficult, and in the case of socially relevant and effective institutional innovations, they are generally specific to the particular contextual setting. In support of this position, the greater promotion of ethnographic and historical studies would be useful. For example, it would be useful if those who talk about promoting a green revolution in Africa, as if it was a simple matter of developing and promoting technology, would read the chapter in Sivaraman autobiography of his personal experiences as a top administrator in the Indian government during the time of the green revolution. He describes what was done with incredible centrally controlled planning,²¹ massive subsidisation of agricultural in high potential areas, and huge support from very rich and powerful international NGOs. At a more micro level, Duffs study of the spread of axial flow threshers in the Philippines and in Thailand shows how the promotion of the same technology in two different political, social and economic environments had very different impacts on poverty reduction criteria. There are many more ethnographic type studies of actual

²¹ In addition, from a scientific point of view, the rapid spread of high yielding wheat's was partly due to chance, as the scientists at the time did not realise at the time how “very widely adoptable” the varieties introduced from the Mexican wheat programme were under a vary wide range of growing conditions in India, Bangladesh Pakistan and Nepal. While at the time government and aid agencies were promoting package of high levels of inputs, farmers were doing their own adaptive research and developing locally specific agronomy practices; sometimes for very poor agro climatic conditions.

processes of positive change that could be part of a basis for reflection, learning and change.

Broadening Monitoring to include positive deviance analysis

At the project level, this would mean asking questions like: What important socially responsible significant things have been taking place in the project, that were unplanned, but unforeseen opportunity arose and project staff responded to these events. What actions were taken? Another question that might be asked is: Over the last year, what have you learnt from other projects in the same region, or in the same type of work, that contain ideas, institutions, or technology which are more relevant to your social responsibly goals than some of what you now have in your project. How have you already capitalised on this information and changed your project?

Initiation of New Studies

Another practical way forward is to initiate new studies to explore positive deviance situations. When starting the work on groups and group based organisations in Nepal we were asked questions like: How will you find positive case studies, will they be representative, etc. We found it was far easier to find important positive case studies than we expected. At the time of the study there was a comparatively free press, and by review of local newspapers over a year or so, pointed to most major positive case studies. Another method we used was to ask key informants in major sectors what was happening in that sector. These interviews were interesting as they often also threw into relief how different interviewees had very different views of what “positive” meant. These interviews highlighted the need for criteria for assessing positive change. As we were looking for situations where gender relationships and social inclusion had improved, many of the automatic responses saw success in project goals, area under crops, groups contacted, etc. However, that information was also very valuable to us. On occasions, it was clear that although a key informant interviewee considered themselves as sector wide knowledgeable, their knowledge was often quite parochial, and “out of date” as regards what was actually happening in that sector and what currently happening on the ground. This held especially for the staff of international major donor funded projects. However, all these experiences told us that, in order to get the information we wanted we had to be innovative and use a variety of social science methods. There are far more documents that outline these types of actor/ethnographic methods for use in development situations²²

CONCLUSIONS

The positive approach being suggested here is not new. The three case studies suggest we can learn the following four personal lessons from past effective practitioners. They are: 1) Be creative within a flexible poverty reduction and socially inclusive framework, 2) Continuously learn from positive experiences, both from within your own context and from parallel outside situations, 3) Think strategically, and search out opportunities, and 4) acknowledged and effectively addressed pressures from parochial interests as they will always be there.

BIBLIOGRAPHY

²² For example see Mosse et al, Messerschmidt (1981), Mosse, 2001, Biggs and Matsuert, Gellner and Hirsch.

Abed, F. H. And A. M. R. Chowdhury, 1997, **The Bangladesh Rural Advancement Committee: How BRAC Learned to Meet Rural People's Needs Through Local Action**. Chapter 3, pp 41-56 in Krishna, A., N. Uphoff and M.J. Esman (eds), 1997, *Reasons for Hope: Instructive Experiences in Rural Development*. West Hartford, Conn: Kumarian Press

Alex, G., and D. Byerlee, 2001, **Monitoring and Evaluation for AKIS Projects: Framework and Options. AKIS Good Practice Note**. The Agricultural Knowledge and Information Systems (AKIS) Thematic team, Rural Development Family. Washington: World Bank. (This is available at the WB web site.)

Appu, P. S., 1974, "The bamboo tubewell: a low cost device for exploiting ground water". Economic and Political Weekly. Vol. 9 (26).

Ashby, J.A. and L. Sperling, 1995, 'Institutionalizing Participatory, Client-Driven Research and Technology Development in Agriculture', *Development and Change*, Vol.26, pp.753-770

Barlett, A., 2002, *Farmers in Action: How IPM training is transforming the role of farmers in Nepal's agricultural development*. Jakarta: FAO. The FAO Program for Community IPM in Asia

Bennett, Lynn, 2004. **Nepal Gender and Social Exclusion Assessment (GSEA). Concept Note** (Revised April 2004), World Bank, Kathmandu

Biggs, S. D., 1990, "A Multiple Sources of Innovation Model of Agricultural Research and Technology Promotion", World Development, Vol.18 (11), pp. 1481-1499

Biggs, S.D., 1981, Monitoring for re-planning purposes: the role of R & D in river basin development, in Saha, S.K. & C.J. Barrow (eds.) River Basin Planning: Theory and Practice, Chichester: Wiley, pp.325-342.

Biggs, S.D., and Clay, E.J., 1981, Sources of innovation in agricultural technology, World Development, Vol.9, No.4, pp.321-336.

Biggs, Stephen, and Harriet Matsuert, 2004, **Strengthening Poverty Reduction Programmes Using An Actor Oriented Approach: Examples from Natural Resources Innovation Systems**. AgREN Network Paper No. 134. London: Overseas Development Institute (available at: www.odi.org.uk/)

Biggs, Stephen D., Sumitra M. Gurung, and Don Messerschmidt, 2004, **An Exploratory Study of Gender, Social Inclusion and Empowerment through Development Groups and Group-Based Organisations in Nepal: Building on the Positive**. Report submitted to the Gender and Social Exclusion Assessment (GSEA) Study, National Planning Commission, World Bank and DFID, Kathmandu (Version 2, November 2004), 153 pages plus appendix

Biggs, Stephen D, Don Messerschmidt, 2003, **The Culture of Access to Mountain Resources: Policy Processes and Practices**. Livelihoods Support Programme,

Working Paper No. 7. Food and Agricultural Organisation (FAO), Rome. (http://www.fao.org/sd/dim_pe4/pe4_040501_en.htm)

Biggs, Stephen and Don Messerschmidt, 2005, "Social Responsibility in the Growing Handmade Paper Industry of Nepal," *World Development*, Vol. 33, 11. (November).

Biggs, S. and S. Smith, 2003, "Paradox of Learning in Project Cycle Management and the Role of Organizational Culture." *World Development*, Vol. 31, No 10, pp 1743-1757

Clay, E.J., 1980, 'The economics of the bamboo tubewell: dispelling some myths about appropriate technology', *CERES*, Vol. 13 (2), pp. 43-47.

Clay, E.J. and Schaffer, B., (eds.), 1984, Room for Manoeuvre: An Exploration of Public Policy in Agricultural and Rural Development, London: Heinemann.

DFID, (nd), Research Funding Framework 2005-2007. London: DFID

Dommen, A. J. (1975). The bamboo tubewell: a note on an example of indigenous technology. *Economic Development and Cultural Change*. 25, 483-489.

Douthwaite, Boru, 2002, *Enabling Innovation: A Practical Guide to Understanding and Fostering Technological Change*. Zed books (ISBN 1 85649 972 3)

Duff, B., 1987, Changes in Small Farm Paddy Threshing Technology in Thailand and the Philippines, F. Stewart (ed), Macro Policies for Appropriate Technology in Developing Countries, Westview Press, Boulder, Colorado, pp. 95-139.

Earl, Sarah, Fred Carden and Terry Smutylo, 2001, *Outcome Mapping: Building learning and Reflection into Development Programmes*. Ottawa: IDRC (ISBN 0 88936 959-3)

Freeman, Christopher, 1987, *Technology Policy and Economic Performance: Lessons from Japan*, London: Frances Pinter

Gellner, David and Eric Hirsch, eds, 2001, *Inside Organizations: Anthropologist at Work*. Oxford: Berg

Goetz, A. M., 1996, Local Heroes: Patterns of Fieldwork Discretion in Implementing GAD Policy in Bangladesh. *IDS Discussion Paper 358*, Brighton UK: IDS, University of Sussex

Griffin K.G., (1979). *The Political Economy of Agrarian Change* Macmillan Press, London.

Groverman, Verona, and Jeannette D. Gurung, 2001, *Gender and Organisational Change: Changing Manual*. Kathmandu: ICIMOD, GPO Box 3226, Kathmandu, Nepal

Gurung, B. and H. Menter. 2004. Mainstreaming Gender-Sensitive Participatory Approaches: The CIAT Case Study. In: Pachico, D. (ed). *Scaling Up and Out:*

Achieving Widespread Impact Through Agricultural Research, Cali, Columbia: Centro Internacional de Agricultura Tropical (CIAT).

Hall, A., G. Bockett, S. Taylor, M. V. K. Sivamahan and N. Clark, 2001, "Why research partnerships really matter: Innovation theory, institutional arrangements and implications for developing new technology for the poor." *World Development*, Vol 29, 5, pp. 783-798

Hall, A.J. et al, eds, 2004, *Innovations in Innovation: Reflections on Partnership, Institutions and Learning*. Patancheru 502 324, Andhra Pradesh, India and Library Avenue, Pusa, New Delhi 110 012, India. Crop Post-Harvest Programme (CPHP), South Asia, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), and National Centre for Agricultural Economics and Policy Research (NCAP). (ISBN 92-9066-461-4)

Hammond, S. A. and C. Royal, (eds), 1998, *Lessons from the Field: Applying Appreciative Inquiry*. Practical Press, Inc, P O Box 260608, Plano TX, USA. (ISBN 0-9665373-0-0)

Horton, D., R. Mackay, A. Anderson, and L. Dupleich, 2000, **Evaluating Capacity Development in Planning, Monitoring, and Evaluation: A Case from Agricultural Research**. *Research Report 17*. The Hague: ISNAR.

Jain, P. S., 1994, "Managing for Success: Lessons from Asian Development Programs", *World Development*. Vol. 22 (9), pp. 1363-1377

Jain, P.S. (1996). 'Managing Credit for the Rural Poor: Lessons from the Grameen Bank'. *World Development*, Vol.24 No.1 pp79-90.

KC, L.M., 2003, A Qualitative Analysis of Production Credit for Rural Women (PCRW) and the Federation Process. Kathmandu: UNICEF.

Krishna, A., N. Uphoff and M.J. Esman (eds), 1997, *Reasons for Hope: Instructive Experiences in Rural Development*. West Hartford, Conn: Kumarian Press

Joshi, K.D., Biggs, S., Gauchan, D., Devkota, K.P., Devkota, C.K., Shrestha, P.K. & Sthapit, B.R. (2005). The evolution and spread of socially responsible technical and institutional innovations in a rice improvement system in Nepal. *Discussion Paper*, CAZS Natural Resources, University of Wales, Bangor, Wales, UK (Draft August 2005)

Biggs, S., Gauchan, D., Devkota, K.P., Devkota, C.K., Shrestha, P.K. & Sthapit, B.R. (2005). Institutional Innovations in the Nepal Rice Improvement System. pp. 93-97 in Harris, D., Richards, J. I., Silverside, P., Ward, A.F., Witcombe, J.R., (2005). **Pathways out of Poverty**. *Aspects of Applied Biology* 75. Published by the Association of Applied Biologists, c/o Warwick HRI, Wellesbourne, Warwick CV35 9EF, UK

Joshi, K.D., Sthapit, B.R. and Witcombe, J.R. (2001) How narrowly adapted are the products of decentralised breeding? The spread of rice varieties from a participatory plant breeding programme in Nepal. *Euphytica* 122, 589-597.

Lenne, J.M. and D. Thomas, 2005, Opportunities for Increasing productivity and reducing poverty through crop-livestock integration in sub-Saharan Africa. pp. 99-108 in Harris, D., Richards, J. I., Silverside, P., Ward, A.F., Witcombe, J.R., (2005). **Pathways out of Poverty**. *Aspects of Applied Biology* 75. Published by the Association of Applied Biologists, c/o Warwick HRI, Wellesbourne, Warwick CV35 9EF, UK

Lewis, D.J., 1998, **Partnership as process: building an institutional ethnography of an inter-agency aquaculture project in Bangladesh**, chapter 6, pp. 99-115 in Mosse, D., Farrington, J. and Rew, A. (eds) (1998) *Development as a Process: Concepts and Methods for Working with Complexity*. ODI and Routledge, London and New York.

Merrill-Sands, D., P. Ewell, S. Biggs and J. McAllister, 1989, Issues in Institutionalizing On-farm Client-oriented Research: A Review of Experiences from Nine National Agricultural Research Systems, Quarterly Journal of International Agriculture, Vol. 3 (4). pp. 279-300.

Messerschmidt, D., (ed), 1981, *Anthropologists at Home in North America: Methods and Issues in the Study of One's Own Society*. New York: Cambridge University Press.

Messerschmidt, D. A., 1988, "Success in Small Farmer Development: Paper Making at Pang and Nanglibang, Nepal". *World Development*. Vol 16, 6 pp. 733-750

Mosse, D., 2001, Social Research in Rural Development Projects, pp. 157 –182 in Gellner, David and Eric Hirsch, eds, 2001, *Inside Organizations: Anthropologist at Work*. Oxford: Berg

Mosse, David, 2003, **Good Policy is Unimplementable? Reflections on the Ethnography of Aid Policy and Practice**. Paper prepared for the workshop 'Order and Disjuncture: The Organisation of Aid and Development' held on 26-27 September 2003 at the School of Oriental and African Studies (SOAS), University of London (www.soas.ac.uk/departments/departmentinfo.cfm?navid=455).

Mosse, David, 2005, *Cultivating Development: An Ethnography of Aid Policy and Practice*, London: Pluto Press

Mosse, D., Farrington, J. and Rew, A. (eds) (1998) *Development as a Process: Concepts and Methods for Working with Complexity*. ODI and Routledge, London and New York.

Nelson, R. R., 1993, *National Innovation Systems*, New York: Oxford University Press

Rhoades, Robert E. 2005, **Seeking Half our Brains: Reflections on the Social Context of Interdisciplinary Research and Development**. In M. Cernea and A. Kasam (eds). *Understanding Culture in Agriculture*. Oxford, U.K: Cab International

Rossi, Benedetta, 2004, "Order and Disjuncture: Theoretical Shifts in the Anthropology of Aid and Development". *Current Anthropology*, Vol 45,4, pp. 556-560

Sternin, J. (2003). Positive deviance: A new paradigm for addressing today's problems today. *Journal of corporate citizenship* 5, 57-62

Sivaraman, B., 1991, *Bitter Sweet: Governance of India in Transition*. New Delhi: Ashish Publishing House. (Chapter 11. Green Revolution, pp. 291-337)

Taylor, M. (2005). Bridging research and policy: A UK perspective. *Journal of International Development*, 17, 747 – 757.

Thomas, J.W., 1975, **The Choice of Technology for Irrigation Tubewells in East Pakistan: An Analysis of a Development Policy Decision**, in Timmer, P.C., J.W.Thomas, L.T.Wells and D. Morawetz, 1975, *The Choice of Technology in Developing Countries: Some Cautionary Tales*. Harvard: Center for International Affairs, Harvard University. pp. 33-67.

Von Hippel, E., 1988, *Sources of Innovation*. New York and Oxford: OUP (Learning selection: "people make changes to a technology and then select and promulgate these they find beneficial". From Douthwaithe p. 220)

Von Pischke, J. D., 1992, "Finance at the Frontier," *Grameen Dialogue*, Vol. 12, pp. 1-5

Westendorp, Annemarie and Stephen Biggs, 2003, Strengthening Social Capital in Agricultural and Natural Resources Innovation Systems: The Case of the Community IPM Farmer Field Schools (FFSs) Programme in Nepal. School of Development Studies, University of East Anglia, Norwich, UK. (March 19th 2003, Draft Paper)

Whitney, Diana and Amanda Trosten-Bloom, 2003 *The Power of Appreciative Inquiry: A Practical Guide to Positive Change*. San Fransisco: Berrett-Koehler Publishers Inc. (ISBN: 1 57675 226 7)

Tendler, J., 1997, *Good Government in the Tropics*. Baltimor: The John Hopkins University

Uphoff, N. and M.J. Esman and A. Krishna, (eds), 1998, *Reasons for Success: Learning from Instructive Experiences in Rural Development*. West Hartford, Conn: Kumarian Press

Yunus, M., and H.I. Latifee, 1975, A report on Bamoil Co-operative Farm, Comilla, Locally Sponsored Development Programme Series: Report No. 3, Rural Studies Project, Department of Economics, Chittagong University, Bangladesh. (Published by the Ministry of Cooperatives, Local Government and Rural Development, Government of the People's Republic of Bangladesh), 72.

Yunus, 1997, The Grameen Bank Story: Rural Credit in Bangladesh. Chapter 1, pp. 9-24 in Krishna, A., N. Uphoff and M.J. Esman (eds), 1998, *Reasons for Hope: Instructive Experiences in Rural Development*. West Hartford, Conn: Kumarian Press