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LEARNING FROM THE POSITIVE TO REDUCE RURAL POVERTY AND INCREASE SOCIAL JUSTICE: 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 justice, and influencing policy and institutional changes are being missed as a result of not learning enough from situations where positive changes in development indicators have already taken place. After a review of research on monitoring and evaluation (M&E), positive deviance and studies of 'success' stories, three case studies of positive change are presented. These are the spread of bamboo tubewell irrigation in Bihar, changes in agricultural research and extension policy in Nepal, and the spread of groups and group-based organizations/federations in Nepal. General lessons include: (1) effective institutional innovation is always new and social arena specific, (2) many opportunistic social entrepreneurs are always present in arenas of positive social change, and (3) there is always purposive selection of what to observe, what to measure and what to publicize. Practical implications include: (1) strengthening social science research on understanding change in agricultural and natural resources systems, (2) selecting people for research and development intervention situations based not only on technical competence but also a track record of interest in social justice development principles, and (3) strengthening a broader concepts reflection and learning within current research and development interventions chan is currently practiced. While learning from the positive is a simple idea, it is always challenging to implement as it inevitably questions the histories, past explanations and perceptions of some scientists and development planners, especially those who promote a mainstream, formulaic approach to the design and promotion of best policies and best practices, and a simplistic, non-political/cultural approach to the transfer and scaling out and up of technology and institutional models.

INTRODUCTION

In recent years, there has been a growing interest in making agricultural and natural-resources projects and programmes more effective in reducing rural poverty, increasing social inclusion, and influencing policy and macro institutional change. This interest is illustrated by new methods for scaling up technology, the promotion of best or good managerial practices, workshops and manuals on learning and change, new action-research projects and new research projects to understand policy and institutional change. Much of this thinking is couched within the framework that development is a rational, logical, linear, problem-solving exercise. While many studies have critiqued this positivistic approach to understanding social change (e.g. Clay and Schaffer, 1984; Ferguson, 1990; Mosse, 2005), it is still the dominant framework in many development policy and research discourses.

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This paper is not a further critique of that dominant framework, or a denial that the framework is not useful on occasions. Rather, it suggests that development opportunities are being missed by not placing more emphasis on learning from situations where positive changes in development indicators have already taken place. The idea is simple: learn from the positive – purposely seek out and learn from past political and cultural situations where positive changes have already occurred. The entry point for this analysis is situations where there is sufficient empirical evidence to support the view that positive changes have already taken place. This is a very different approach from much mainstream development thinking, where the entry point is to investigate the outcomes of past development intervention, using a range of monitoring and evaluation, impact assessment and other tools, and then focus on learning positive and negative lessons from these planned interventions. Learning from the positive does not discard mainstream learning, but it is a broader approach and focuses on how past positive changes actually came about – irrespective of whether any planned development interventions were present.

In this paper, institutions mean the rules of the game and the players are the organizations (public, private and civil society) and people who play on a field that is generally sloping in one way or another and where the goal posts often move and the boundaries are sometimes unclear and difficult to see. We are interested in who did what, where and when during the game where positive outcomes occurred. While the metaphor of a game is useful, it does have limitations. For example, with a game, there is generally some agreement about what the game is, and what determines the start and end of the game. In the political and cultural contexts of development and social change, these issues are continuously negotiated. The term 'technique' is used to refer to 'hardware' such as a plant variety, a tubewell, a computer, and 'technology' to situations where the technique is embedded in specific social institutional contexts. For example, the individual ownership and sole use of an irrigation tubewell by a farmer would be a very different technology from a situation where an irrigation tubewell was owned by group of landless labourers, who sold the water to farmers. Policy practice refers to the outcome of official policy statements and regulations and the actual way these are implemented and transacted.

PLANNED REFLECTION, LEARNING AND CHANGE IS DIFFICULT

One reason for suggesting that learning from the positive should be given more attention is because it is now generally recognized that formal learning and change in development intervention situations is notoriously difficult and problematic. The idea of learning and change is central to the earliest of project management procedures (Baum, 1982; Gittinger, 1982). Management guidelines for the cycle of project preparation and implementation have always included monitoring and evaluation (M&E) and other learning and change components. The idea that projects can be arenas of learning for policy analysis is well illustrated by Rondinelli (1992). The framework of project cycle management was extended to policy management in the 1980s. However, the 'problems' of getting M&E and learning procedures 'well implemented' are well documented and persistent (Biggs and Smith, 2003). The

deep-seatedness of these problems is illustrated by a recent World Bank publication on good practice, which says 'M&E systems have been weak in World Bank Agricultural Knowledge & Information Systems and the AKIS programmes that they support' (Alex and Byerlee, 2001, p. *v*). This is in spite of the World Bank being one of the primary promoters of useful, well-written project/policy design and management manuals for over 30 years. There is a rich literature that explores efforts to bring about effective M&E, learning and change (e.g. Horton *et al.*, 2000; Gurung and Menter, 2004; Merrill-Sands *et al.*, 1989; Rhoades, 2005). However, a recent review of natural-resources research projects funded by the UK Department for International Development (DFID) indicates that many of the same problems persist despite their being repeatedly observed and reported in the past (Lenne and Thomas, 2005).

Some light is shed on these issues by project management literature (Analoui, 1994) and by literature that investigates why aid and development organizations and individuals behave as they do (Crewe and Harrison, 1998). Such investigations are not new. For example in a small book of cautionary tales in the 1970s, Thomas (1975) investigated why irrigation policy and practice in Bangladesh promoted major canals and deep tubewells, when technical and economic assessments suggested that surface and shallow tubewell sources were more in the national interest and far cheaper. The study argued that the interests of bureaucrats in the large, powerful Bangladesh ministry of canals and irrigation, commercial interests of local and international contract engineers, as well as the institutional arrangements of aid procedures at the time resulted in such 'inappropriate' policy practice. One could argue that this was just a one-off example of bad, 'clumsy' technical assistance and that those in research and aid arenas have learnt lessons and changed. However, one might be cautious about coming to such conclusions after reading a fisheries study by Lewis (1998) in which it is shown how a partner institution – engaged to monitor and help the implementing agencies learn and change – had to resign from the partnership project as the parochial interests of the implementing agencies were becoming more important than achieving the overall poverty reduction goals of the project. In much the same vein, there is a growing ethnographic literature of R&D actors. Rossi (2004) observes though that many of these studies (like cautionary tales) appear to concentrate on situations where development activities have gone wrong rather than investigate when and why positive things have happened.

UNDERSTANDING PROCESSES OF POSITIVE CHANGE

Learning from positive situations is not a new idea. However, Sternin (2003) recently summarizes the approach succinctly, suggesting that we learn from the behaviour of those people who give rise to positive deviance. In a statistical distribution, there are observations on both sides of an average. Why not investigate and learn from situations that give rise to observations on the positive side? This was done by Tendler (1997) in a region of Brazil, where case studies were investigated where many positive changes in development indicators had taken place, while in surrounding regions few positive changes had occurred. She concluded that if the development actors at the time had used the current 'best practice' manuals to guide their work, many of the

positive outcomes would most likely not have happened. Another case of learning from the positive comes from Bangladesh. In the early 1970s, after independence, a great deal of 'unplanned' innovative development activity was taking place in rural areas. The Ministry of Rural Development coordinated study teams from a wide range of organizations to investigate rapidly what was happening, how and why, and what could be learnt for development planning and intervention (Yunus and Latifee, 1975).

There is a long tradition of learning from development successes (Jain, 1994; Krishna *et al.*, 1998; Messerschmidt, 1988; Uphoff *et al.*, 1998[1]). However, a problem with some of this literature is that it (1) gives a privileged position to the idea that 'successful' development comes about primarily as a result of planned development, (2) places undue attention on attributing causation to outside actors and funders, and (3) portrays development as a gradual process that goes through stages. This is well illustrated by the research of Uphoff *et al.* (1998) covering 18 detailed case success studies and reflections from a wide range of other development experiences. The authors conclude their analysis of development processes by using a metaphor of a child growing up and going though stages of development. Another study of development successes is that of Jain (1994) which researches the management reasons for success in 11 large-scale development organizations in Asia. Significant findings of the research questioned the prevailing populists' 'participation' advocacy of the time as it found that these successful development organizations had well-managed substantial hierarchical institutional structures.

In recent years, there has been a growing interest in analysing success stories in rural development. Much of this has been stimulated by the use of a national innovation systems framework to investigating agricultural and natural-resources R&D systems. A recent study by Hall *et al.* (2007) is broader than the Jain (1994) and Uphoff *et al.* (1998) studies in that it sought (like Biggs and Messerschmidt, 2005) to understand the growth of a whole sector (or subsector) of the economy where pro-poor development was integrated with the global economy. In the comparative analysis of eight cases, the authors identify two distinct innovation trajectories or systems as shaped by initial conditions: (1) orchestrated trajectory and (2) opportunity-driven trajectory. In each of these two types they identify a number of phases. In their discussion of intervention options, they place emphasis on the context-specific nature of institutional arrangements and processes that constitute a capacity for innovation. A major conclusion is that intervention emphasis needs to be placed on *principles of intervention* rather than on *prescriptions of intervention*. This is similar to the conclusion of Tendler (1997), in the rejection of formulaic best practices, and preset management indicators and guidelines.

Some of the growing literature that seeks to understand past positive innovation processes (Biggs and Messerschmidt, 2005; Douthwaite, 2002; Hall *et al.*, 2004;

[1] Krishna *et al.* (1998) and Uphoff *et al.* (1998) form a publication-pair: the former giving the case studies, and the latter the analysis and lessons learnt from those case studies. In this paper, we mean both studies when we cite 'Uphoff *et al.* (1998) '.

Ochieng, 2007; Van Mele *et al.*, 2005) is controversial, as it leads to the analysis of alternative explanations of past processes of innovation, and often questions dominant histories of attribution. This is well illustrated by Ochieng (2007), who examines 'the role of positive deviance in Kenyan agriculture of the last 75 years to cast doubt on the alleged authoritarian sources of policy advice and mandates from the outside'. In discussing the implications of current conditionality of some international aid associated with agricultural development, he traces and evaluates the impact of positive deviance in Kenya's agriculture to show that 'conditionality was neither a necessary nor a sufficient condition for innovations in Kenyan agriculture . . . innovative ideas can come from a wide spectrum of stakeholders – the key challenge lies in the early recognition of such efforts by public authorities and institutions, and in building effective coalitions to mobilise them for their development and uptake'.

Finally, we are not suggesting that management techniques that build on the positive do not exist. For example, in the Appreciative Inquiry (AI) development management literature there is explicit reference to the need to appreciate what people are already doing (Hammond and Royal, 1998). However, as Messerschmidt (2007) notes, while many recognize that AI methods have been effective in some situations, there is surprisingly little formal assessment of why, when and under what historical and political/cultural contextual conditions these management methods have been effective.

WHAT IS POSITIVE?

Of course, this type of research begs the question: what is meant by a positive change, what is success? Current impact assessment is giving rise to considerable research in this area. However, that is not the focus of this paper. Rather, we are interested in investigating social processes that have already given rise to positive changes in development indicators. Our research is therefore complementary to those who are developing development indicators. However, we readily acknowledge that what is meant by 'success' and 'positive' is socially constructed. This was illustrated well by Mosse (2005) who showed how a rural development project, which had been seen by one of its promoters (DFID) as a successful flagship project for promoting participatory approaches to rural development, became a 'failure' when DFID changed its criteria for determining 'success'. The project continued later with its goals and activities reformulated; however, in many respects the data on the ground were the same. For the sake of this paper, we suggest that broad existing indicators and local indicators of economic poverty, social inclusion, gender relationships and equity are often sufficient for the purpose of learning from the positive. As we shall discuss in the Nepal groups case study, adequate data may often exist that positive changes are taking place in such things as improved gender relationships, but there are strong reasons why some actors are not wishing to recognize that these changes are taking place, let alone publicly recognize and learn from the people who are bringing about these institutional changes.

METHODOLOGY

To explore what can be learnt from positive situations, three case studies are purposely selected. Criteria for selecting case studies in this type of research are a critical part of the exercise. In studying 11 large successful development organizations in five Asian counties, Jain (1994) used a type of Delphic technique, where 'Given the difficulty in using a single criterion for defining success of development programmes the organizations were chosen not on the basis of *a priori* criteria but on the judgments of a number of scholars and senior managers who have been involved with development organizations for many years.' The Uphoff–Krishna criteria are also based on expert advice, as reflected by the comments, 'We would have liked to include a dozen more, but these eighteen cases are among the most important and impressive examples of scaled-up, sustainable rural development. We doubt that there are eighteen other cases in Asia, Africa and Latin America that, taken together, would be as broadly significant as these,' (Krishna *et al.*, 1998, p. 4). Whether other observers would agree with their judgement on that is not the subject of this research. However, the purpose of the research, as regards the audience to which the results are directed, has important implications for selection criteria and focus of the analysis. In the case of the Uphoff–Krishna study, one of the main audiences was the aid and Western academic community that saw development as a technical, managerial and nurturing exercise – hence, their emphasis on linking 'success' to outsider involvement. The research was undertaken at a time of declining interest in rural development and their study was designed to help reverse this trend. This is reflected in their conclusions: 'During the last two decades, rural development has been an increasingly neglected priority in economic development circles. Aggregate economic growth based on neo-orthodox prescriptions of private industrial and service investments and globalized market processes has become the reigning solution for problems of economic development.' They concluded, 'Enough successful work has been done and documented to provide reliable guidance for achieving rural development, not just for the few but for the majority,' (Uphoff *et al.*, 1998, p. 214). In the recent study for the World Bank, Hall *et al.* (2007) used the following five criteria to select their eight case studies, which reflect current World Bank's development interests: (1) strong growth niche sectors, (2) strong patterns of growth, (3) strong integration into global markets, (4) traditional sectors with developments further up the food chain and (5) sectors that provide employment opportunities for the poor.

It can be seen that the selection of case studies reflects the purpose and audience for the analysis. This study is no exception. The following criteria were used in order to illustrate the argument that more can be learnt by studying situations where development indicators have changed in a positive way. The Nepal group case study also explores some of the implications of conducting this type of positive deviance research in a more extended and systematic way, and explores some of the issues that arise.

Case study selection criteria

(1) Significant positive changes were taking place in some development indicators.

(2) They relate directly to current concerns of 'scaling out' and 'scaling up' of technology, methods, micro-institutional models, and good and best practice.
(3) They illustrate the difficult nature of how to assess 'successes' and 'positive' change and how to attribute cause and effect.
(4) They are sufficiently well documented in public-domain literature to make them empirically credible.
(5) They are from different historical times, to illustrate that lessons from earlier times can have relevance to contemporary development policy situations.
(6) They illustrate how significant institutional and policy innovations took place, which were not foreseen as part of formal development planning and formal research activities.
(7) An additional criterion was introduced for research methodology reasons: the studies are from situations where the author was present at the time, but not a significant actor in what was happening. Consequently, the author was aware of some of the broader historical, political, economic and cultural contextual issues in which these case studies are embedded, but does not have a personal professional interest in presenting one narrative rather than another. Of course, this does not mean that biases do not come into the analysis; however, by taking situations where the author had some broad background knowledge, it reduced the chances that important historical and contextual cause and effect relationships were not taken into account. It also helped reduce the chances that relevant 'counter-factual' explanations were not introduced and discussed.

CASE STUDIES

Spread of bamboo tubewell irrigation in Bihar

The first case study is taken from Eastern Bihar in the early 1970s – 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 labourer households, many of whom were obligated through patron–client relationships to wealthy landowners by debt, interlinking markets and many other ways (GOB, 1969; Ladejinsky, 1969).

The main focus of irrigation policy in the region was the canal system associated with the Kosi barrage. In the late 1960s, the government sponsored a minor irrigation programme promoting a package of technology of a shallow steel tubewell and a pump set. To be eligible for government credit, farmers had to have collateral and sign up for the fixed package. What actually happened as regards the spread of irrigation was very different from what the planners had in mind (Appu, 1974; Clay, 1980). Essentially, rural innovators, some research-minded farmers, artisans, traders and landless labourers started to unpack the package and created new techniques and new institutions. One of the most interesting technical innovations was the bamboo tubewell: artisans made low-cost bamboo tubewells and sunk them on farmers' holdings, which were often made up of scattered plots. Diesel pump sets were mounted on bullock carts to serve several bamboo tubewells. As part of this process, institutional

innovations took place and service markets for sinking bamboo tubewells, pumping 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 it was wanted, the spread of the bamboo tubewell was a positive story. It also helped improve rural livelihoods for the poor by increasing employment for landless households, especially in the winter period when food and employment were scarce. Because of the service markets for water and pumping, and the smaller scale of the technology, it was more accessible to smaller farms and sharecroppers than other sources of irrigation water. The reason for including this case study is not so much as an example of informal R&D by people in rural communities – which has been well documented elsewhere (e.g. Clay, 1980) – but because it also illustrates processes of institutional innovation at the policy and macro level.

On seeing these new technical and institutional innovations spreading, the Kosi District Commissioner organized a special programme for their promotion. This was no easy task. At the time, development thinking in India was dominated by the top-down promotion and scaling up of 'one size fits all' and 'best practice' packages. Bureaucracies were created and instructed on how to manage and monitor such programmes. However, not only did the Commissioner effectively promote the bamboo technology, the associated micro manufacturing and sinking industries, the institutions of water, pumping, and associated markets in that region, but he also had a much wider impact on informing irrigation policy and practice in the country and internationally. This was achieved by getting an article published in the most widely read and influential policy and development information sheet in the country, *The Economic and Political Weekly* (Appu, 1974). The fact that the article was written by an innovative bureaucrat made it all the more influential because it was written in a style and a language that was in use among Indian and international planners, policy-makers and development practitioners at the time. While the 'scaling up' of the bamboo tubewell technology took place mainly in the private sector, the rate of its spread was increased as a result of the social entrepreneurial behaviour of this public-sector actor, who created macro-level institutional innovations which were relevant and effective at the time in the Indian political, technical, cultural and economic environment. It is significant that this particular bureaucrat of the Indian Administrative Service had a long history of being committed to issues of equitable development, as illustrated by an article on the way earlier benefits of irrigation developments and green revolution policies in the Kosi area had been unfairly distributed as a result of ignoring the need for land tenure reform and other types of institutional change (Appu, 1973).

The analysis and documentation of this process of the spread of bamboo tubewells and water markets in Bihar contributed to a major redirection of irrigation policy in Bangladesh towards the promotion of shallow tubewell technology and irrigation water markets (Jalal *et al.*, 1974). However, some of these positive outcomes now have to be put into a broader context, as it is now known that water from shallow tubewells has given rise to widespread arsenic poisoning within the Gangetic and Brahmaputra deltas.

Change of agricultural research policy and institutions in Nepal

The second case study is taken from Nepal. This is a case where the local staff of a project – originally designed to develop participatory plant breeding methods for high-potential ecological conditions – not only contributed in a major way to poverty reduction and improving social inclusion, but also helped bring about significant changes in agricultural research policy and the architecture of the formal national agricultural research and extension system.

In late 1997, a client-oriented participatory crop improvement (PCI) project 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 rice grown by farmers was sold and the region was relatively uniform as regards physical and socio-economic conditions. An eye-opener for the project staff in the first year was a farmer livelihood survey that showed not only a great deal of agro-climatic variation (and that many farmers were not growing rice under high-potential conditions), but also great diversity in social and economic characteristics – many households were food deficient, and many poor cultivators and labourers came from socially excluded groups. This revealing survey was originally planned as a benchmark and data-collection exercise for monitoring purposes and an *ex-post* impact assessment. However, in reality it turned out to be far more than that – the survey enabled an investigation into the causes of poverty and social exclusion, and provided much of the empirical basis for a major reframing of the goals and purpose of the project. At about the same time, DFID (the main outside funding agency) was placing greater emphasis in its international natural-resources research programme on poverty reduction and livelihood improvements. The Nepali project staff changed the project (and logframe) significantly at that point, and started to monitor annually the effects the project was having on local poverty conditions, gender equality and social inclusion. Rice varieties introduced by project staff and selected by farmers have spread, as have varieties emanating from the project's participatory plant breeding methods. The significant poverty reduction impacts have been well documented and the estimated economic rate of return to the project's financial costs are high (Joshi *et al.*, 2006). However, it is not these short-term poverty reduction impacts and the economic efficiency of the crop improvement methods that is of primary interested here, important as they are. Rather, it is the processes that gave rise to the wider range of 'unplanned' long-term policy and macro institutional changes that the project staff helped to bring about which we want to investigate. These policy changes and the way they occurred were not envisaged in the original project design, or even in the early project reformulation after the 'eye-opener' poverty livelihoods survey in the first year.

Three major positive changes were: (1) formal recognition by the national agricultural research system of 'informal R&D' activities, and the creation of institutional mechanisms for collecting and using information from the informal system. In the past, longstanding problems for the government's agricultural research programme had been (a) how to acknowledge and assess varieties that continuously come over the very long open border with India (and from elsewhere) through

farmer-to-farmer exchanges, trader networks and other methods, and (b) how to encourage the development and assessment of varieties and other new technologies which come out of the informal R&D activities of farmers, artisans, public-sector scientists in their private lives, and from participatory plant breeding programmes. This formal recognition came about when changes in the national varietal release procedures allowed data from NGOs (non-governmental orgaizations), private research organizations and farmers to be used in national release decisions and in extension programmes.

(2) Creation of methods for effective collaboration among government, NGOs and farmers at the village and higher organizational levels. This is well illustrated by the creation of letters of agreement (LOA), which came about only after local district agricultural officers, NGO staff and farmers had been working together 'informally' during the early years of the project, and then decided they needed something more formal to set out understandings and agreements. While LOA were being used in other institutional settings in Nepal, considerable national publicity was given to these specific LOA between major partners (a leading national agricultural research NGO, the district agricultural office where a highly respected senior bureaucrat was in charge, and the senior planning officer of the national agricultural research council). Because of this high-profile event, it is reasonable to argue that this project activity played a significant role in legitimizing the use of LOA throughout the whole agricultural research and extension system. This was no mean achievement, as it took place rapidly in an administrative environment where there was not only a great deal of hostility and animosity between such groups, but where there was also in the past little accountability in meeting agreed undertakings. Significantly, these LOA were 'locally owned' as they came into existence as a result of the actors involved seeing the relevance at that time for these types of formal arrangements. Part of the reason for the rapid spread of LOA was that they were developed within the local system, by respected civil servants, NGOs and farmers as part of their normal daily work. There had been no special training on such skills[2]. Significantly for the argument of this paper, in some districts where the Maoist conflict was high the LOA were not used, as informal arrangements were preferred for a range of trust, political and security reasons in those situations. Significantly, this did not mean that the project did not continue in those areas, although some other government programmes had stopped.

(3) Scaling up of a participatory plant breeding and farmer seed production approach. The project was scaled up to all the major rice-growing districts on the *terai* and to several hill districts. The 'scaling up' took place in an opportunistic way. In the original project, there had been no plan for 'scaling up' of the new methods of participatory varietal selection and plant breeding. However, the local project staff proactively contacted staff in parallel government and donor programmes and projects, and jointly developed new institutional working relationships. This was a

[2]At the time there were other large-scale government and donor projects in the agricultural sector which had as a goal the development of such procedures for farmer–NGO–government partnerships, but which were not doing very well in achieving their project objectives.

major achievement in an institutional environment where different aid agencies, government departments and NGOs still pursued their own narrowly focused agendas with their own hierarchical management structures, and all too often gave only lip-service to creating effective lateral and horizontal institutional arrangements.

From an agricultural research policy and long-term institutional change perspective, these were important changes which were not part of the original, or modified project. Influencing and helping to change national policy and institutional arrangements came about as a result of the social entrepreneurship and innovative behaviour of the local project staff. They sought out and created opportunities as they worked. Only they knew enough about the power relationships in the policy and development arenas to see and make opportunities for action. Almost without exception, effective actions in the policy and institutional arenas were never planned (i.e. they were not in the annual work plan as based on the logframe); however, once shown to be an effective way forward, the logframe and annual plans were changed accordingly each year. Within the project, there was a culture of continuous institutional innovation. The effective orientation of the project towards poverty reduction, gender and social inclusion came about as a result of the national staff wanting to take the project in this direction. Key staff members had a long track record of commitment to social justice goals. This was also reflected in the choice of NGOs with whom they worked. These NGOs had people in them who had long-term track records of being effective in addressing social inclusion, gender and empowerment activities. Many of the effective influential actors in this case study had know each other for 30 years or more and some had worked in the same organization at some stage in their careers.

The spread of groups and group-based organizations and federations in Nepal[3]

The third case concerns the findings of a recent exploratory study of groups and group-based organizations in Nepal. The research focused on learning from and building on positive recent experiences. It was undertaken as part of a larger Gender and Social Exclusion Assessment for the National Planning Commission, DFID and the World Bank. The study was exploratory in two ways: (1) it was the first attempt to assess the outcomes of sponsored community development groups and the growth of alliances and federations, across all sectors of the economy – earlier studies had mainly looked at case studies or concentrated on single sectors (e.g. forestry, micro finance, irrigation, cooperatives); and (2) it explored how to conduct 'positive deviance' research on policy and institutional change in a more formalized and systematic way across a number of sectors.

On the methodological side there were some interesting findings. First, there was no problem in finding situations where substantive positive changes had taken place. The researchers had their own experiences of working in Nepal for many years which helped. In addition, interviews with senior bureaucrats, aid donors, and reviewing newspapers gave rise to a broad range of examples that could be investigated. However, we were surprised by the extent to which some actors denied that positive social

[3]This section is based on Biggs *et al.* (2005) and on the first version of the report.

changes were taking place, and that some prominent aid and local academic actors only wanted 'their' positive cases to be seen as important. There appeared to be a range of reasons for this. For example,

- While government officials signed up to plans and projects to promote gender equality, some people in government (and offices of donors, NGOs, and in the broader society) did not agree to such changes; consequently, even when positive changes were occurring, they were reluctant to report or acknowledge that such things were taking place, let alone be informed in an empirical way about how the processes were coming about.
- When positive developments had occurred outside of a formal policy or project, or other type of planned intervention, the changes were not recognized and analysed because they had not been 'planned', or come about as part of a policy or other interventions.
- Dominant actors in the aid community, government, academia and NGOs promoted their own 'success' stories to the exclusion of parallel and sometimes more interesting and relevant competing cases. This happened in various ways, for example: one organization had, within its history and ongoing work, activities that by many current development criteria would be described as 'positive' and 'successful'; however, it was not given prominence in the organization's publicity and self image. This behaviour was illustrated by the National Agricultural Research Council, where for many years, a part of the fishery section had worked with poor fishery households, not only on developing improved fishing technology but also helping to established secure access rights to some lakes. Fishing in Nepal is traditionally carried out by members of ethnically excluded groups. This significant and effective 'positive deviant' behaviour within the Council was not given a high profile in publicity about its achievements, since the Council still saw achievement and success by conventional research criteria in, for example, plant breeding and soil science. The important point is that the non-reporting and non-publicizing of these types of positive activities were not as a result of insufficient information being available in the public domain.
- Another factor which affected our search for positive case studies was the political context. While the study was underway, Nepal was in the middle of a violent conflict. This influenced the way any information on technical and institutional change was revealed, described and the social processes explained.

However, even with these problems, it was possible to undertake the research in a systematic way.

Different types of customary (indigenous and traditional) groups have always existed in Nepal. In recent years, these have been augmented by sponsored, outsider-initiated groups. The way group members interact and manage their lives reflects the local political, cultural, economic and technical environments of which they are part. The promotion and sponsorship of groups has been the major implementation strategy of all government, donor and civil society development interventions. Although difficult and rife with data problems, we attempted to estimate the number of sponsored

groups. This was partly to provide an overall framework for policy analysis. In this area, there was a tendency for each sector to see itself as the most important sector that should provide the overall 'mother' group, under which other groups should be affiliated. We estimated that there was probably at least 400 000 sponsored groups in 2004 in a country of about 24 million people. In Nepal, there are three main categories of groups: (1) common property management (CPM) groups – e.g. forest-user groups, surface water and tubewell irrigation groups, micro-hydro groups; (2) service delivery groups – e.g. credit and savings and other micro-finance groups, healthcare groups; and (3) social mobilization groups formed around specific social issues – e.g. land rights, abolition of bonded labour, squatters' rights. While there is considerable overlap between these categories, the people and agencies that promote groups normally concentrate on a main function so as to focus their work. In the study, we were particularly interested in situations where groups and group-based federations, and alliances had been effective in influencing macro policy and institutional change.

It was found that a great array of institutional outcomes occurred after groups had been sponsored at the village level. There was tremendous diversity in the types of federations, cooperatives and alliances that emerged. There was no single or dominant scaling-up model. Not only this, but there was no 'natural evolution' by which village-level groups got together and formed, for example, cooperatives and alliances, in any pre-planned, formulaic way. Sometimes a hierarchical management system was planned by a development agency, such as in the case of the programme for Production Credit for Rural Women; however, even here, some of the most interesting outcomes of the programme were the unplanned ways in which effective women's alliances came into existence – often initiated by local village women (KC, 2003). In the case of the farmer field school (FFS) groups formed by a community integrated pest management (IPM) project, there were no plans for a federation process; however, in some areas women's FFSs federated in an informal way and took collective action to purchase inputs and make demands for improved services from government extension offices. In some cases this led to the groups registering as legal cooperatives. At the national level, farmers and other teachers in the FFSs formed a national trainers association (TITAN). This was unplanned and came in response to a growing problem of maintaining the standards of the critical 'experiential learning' components of the programme. Increasingly, staff of other development agencies were using the term 'farmer field school' to mean any type of training contact with farmers at the village level. TITAN comes under the national IPM committee and is well respected and has won national and international FFS training contracts. The national committee coordinates a wide range of government and non-government agencies that use FFS approaches in many different sectors. Such 'scaling up' institutional innovations were never envisaged as part of the original project design, which was started only five years earlier.

In complete contrast to these types of 'bottom-up' led institutional change processes, we found a situation where a federation came into existence first and 'grassroots' groups came second. This was in the case of the Society for Preservation of Shelters and Habitation in Nepal (SPOSH-Nepal). First, members of SPOSH campaigned for squatters' rights, and then they started working with settlement groups. After

that, district committees were formed. Reviewing the way alliances, federations and cooperatives came into existence, we found that there was no general rule that suggested this was primarily brought about by government agencies, by NGOs or by private action. In addition, it was found that a particular type of organization may or may not benefit the poor and socially excluded. In Nepal in the past, cooperatives were not traditionally known as vehicles for promoting the interests of poorer people, women and socially marginalized and excluded groups. However, even in the case of cooperatives, we found some women's fisher groups (an excluded ethnic minority) and women's vegetable-marketing groups forming formal cooperatives to their advantage. These minority based groups were also effective in helping to bring about changes in cooperative legislation to make it more relevant and accessible to women and ethnic minorities.

The groups research in Nepal highlighted the problematical nature of what constitutes 'success' and 'positive' in development discourse. For some observers, the spread of forest-user groups and the growth of the powerful national Federation of Community Forest Users, Nepal (FECUFUN), with a membership of about 13 000 groups in 2004, represents a great Nepali success story because it has helped lead to better management of Nepal's forests. FECUFUN is known for effectiveness in lobbying government for low forest taxes. However, the evidence is very mixed on how and when benefits of the government's community forestry user programme have gone to the poorer members of forest-user groups or to traditionally socially excluded groups in forestry areas. In some situations, the spread of forest-user groups has led to increased poverty and social exclusion of some members of forest communities. On gender issues, FECUFUN has introduced a policy of ensuring a minimum of 30 % female staff, and is actively promoting more social inclusion of women in its members. While FECUFUN was not established to promote positive changes in gender relationships, it is possible that it is being more effective in this arena of social change than more high-profile government policies and aid programmes. We did not have the resources in the study to investigate these issues. In the context of this paper, the significant point is that within the activities of a powerful national forest-users organization, there are already gender changes taking place, and it is already being institutionally innovative in ways to 'up-scale' these changes.

In addition to the general and sector comparative analysis, the groups study looked more closely at 12 situations where positive outcomes were occurring. The overall conclusion was that effective institutional innovations came from actors working in an opportunistic way in specific political and cultural contexts. When and if outside institutional models (or selective parts of them) were used, it was only because they were assessed by 'insiders' as being relevant to bringing about social change in the time-specific political–cultural setting in which they were working. In addition, there were no 'spontaneous developments', no 'hidden hands' and no 'natural' evolutionary processes, or stage of growth that gave rise to effective institutional innovations and change. In all cases, it was the specific actions of specific people and specific organizations that created institutions relevant and effective to those circumstances. There were continuous political and cultural negotiations taking place.

ANALYSIS AND DISCUSSION

Are there general lessons that can be learnt from these case studies, or are they just anecdotal stories? The case studies were selected so we could explore how positive institutional and policy changes came about in three diverse situations. Three general observations are now discussed followed by three illustrations of practical implications. Readers are left to decide for themselves whether our findings and lessons accord with their own experiences, reading, reflections and empirical research, and so perhaps have relevance to their own work, and a broader audience.

General observations

The case studies illustrate that effective institutional innovation is always new and specific to the historical, political, cultural and economic arenas in which it is taking place, and comes out of the opportunistic actions of many members of an implicit if not explicit alliance of actors.

1. Effective institutional innovation has features that are always new and social-arena specific

The case studies illustrate that major institutional innovations were created within the social and political contexts in which technical change was also occurring. In the case studies reviewed, new institutions and new policies at the national level and below were not introduced from outside. While on occasions, international actors played some role, it was national and local actors who were the main people who were innovative in changing institutional arrangements. It was these actors who were influential in effectively challenging and changing existing power structures and institutional arrangements.

In the case of the bamboo tubewells, the local innovative capacity to unpack the 'best practices' of the tubewell and pump-set package being promoted by the government programme was important. However, in addition to these irrigation technology innovations, new administrative procedures – effective in the prevailing bureaucratic culture and socio-economic environment at the time – were created to help increase the spread of a technology that was already spreading[4].

The spread of improved rice varieties in Nepal came about, not only because the varieties were liked and widely adopted by farmers (including poorer households and socially excluded groups), but also because of the development of effective new government procedures for monitoring, assessing, releasing and promoting materials from the great range of new (and old) crop varieties coming from multiple sources of formal and informal research in government, NGOs and the private sector (including labourers, cultivators and traders). The ways these new institutional arrangements came into existence was not part of a pre-planned exercise. While changes had been made earlier in national agricultural policy legislation to help facilitate moves in this direction, the actual ways the policy was put into practice and the speed of change were

[4]It should not be forgotten that in the early 1970s markets in water and other services were not promoted in any significant way by mainstream government programmes in India.

influenced to a considerable extent by the national staff of the PCI project who were seeking out, making and acting on opportunities as they arose. None of these activities had been foreseen in the early days of the project, or even to some extent at later stages. These changes in policy and practice in agricultural research and extension are perhaps more important than some of the useful new varieties (and plant breeding methods) currently coming out of the main activities of the PCI project.

In the case of the growth and spread of effective group-based alliances, federations and cooperatives in Nepal, the research revealed a tremendous variety of institutional innovations in the way this was taking place. While at a superficial level it appeared there were similarities (e.g. in some situations there were similar hierarchies of administrative structures), on closer examination, the way the internal dynamics were being played out, the direction of control within the hierarchy, the way alliances came into existence, and what was seen as 'positive' behaviour and 'success' were all very different, and in all cases highly contingent upon the historical, cultural, political and economic setting of the organization.

If we relate our findings back to our earlier discussion of other research in this area, we see differences. For example, in none of our case studies was there a natural process of an organization going through stages of growth or being like a child 'growing up' with nurturing care from supportive outside agencies (cf. Uphoff *et al.*, 1998). While we were not looking specifically at the management of successful large-scale development organizations in Asia, we agree with the attention that Jain (1994) places on the importance of the contextual setting for understanding effective organizational structures and behaviour. Our findings have much in common with the study by Hall *et al.* (2007) on the growth of a sector of the economy. In that research they saw two main paths of growth: (1) orchestrated trajectory, and (2) opportunities-driven innovation trajectory. However, our case studies, while having some things in common with both trajectories, did not fit either trajectory very well, especially as regards the detailed phases under each trajectory.

Our case studies had more in common with Tendler (1997), Biggs and Messerschmidt (2005) and Ochieng (2007), who all looked at economic growth, but with greater emphasis on the details of institutional change (the actual nuts and bolts of what happened, and who did what, why and when), and placing this in a wider analysis of the historical, political, cultural and economic context of the time period under study.

These findings throw into question simplistic notions that once good widely adaptable techniques (or micro-level institutions, such as micro-credit groups) have been developed by research, it is a simple matter then of designing projects or policies for their scaling up and scaling out. The case studies suggest that, as regards effective institutional innovation, the serious social science 'research' begins and can only be conducted within the specific political arena where the changes are taking place. In this context, the promotion of 'scaling up' or 'policy' lessons from other countries and time periods need to be seen as part of political activities, where such information is being promoted selectively by actors wishing to direct change and concomitant benefit streams in one direction rather than another.

2. There are generally multiple opportunistic social entrepreneurs present who extend practices and become a source of new innovations

In all the case studies, the agency of people and specific groups was in evidence. Things did not just happen. Nowhere was there a 'spontaneous' diffusion, a 'natural evolution' or a situation where 'market forces' or 'ethical considerations' were 'naturally' propelling social change. Individual people and groups were searching out, finding and creating opportunities and taking action.

In the case of the bamboo tubewells, there is well-documented evidence of how this came about at the village level (Clay, 1980). In the analysis here we have referred to the social entrepreneurial behaviour of the Kosi Commissioner – this was a highly respected bureaucrat who had a long history of analysing and addressing issues of social justice as reflected by an earlier article (Appu, 1973), in which it was shown that existing land distribution and other rural institutional equities prevented the 'trickle down' of economic benefits from green revolution policies and practices in that area. In some senses then, it appears that the commissioner created effective institutional innovations at the bureaucratic and macro-level when unforeseen opportunities arose to help promote a pro-poor irrigation technology, both in that part of Bihar, and more generally.

In the case of the development of pro-poor rice varieties and the major policy and institutional reforms in Nepal, we also find opportunistic behaviour on the part of the staff of the PCI project to direct change in a pro-poor direction. The national coordinator of the PCI project used the information of the 'eye-opener' benchmark survey to reorient the project in a pro-poor direction, and subsequently developed project partnerships with people and organizations that had track records of commitment in social justice issues. Significantly, the local project manager was also internationally recognized as one of the pioneers in developing and using cost-effective participatory research methods. So, in both the Bihar irrigation and in the Nepal agricultural research policy cases, we had effective people at the policy level who were not only highly respected in their professional area, but were also known for a long-term commitment to addressing social justice issues. Out of the Nepal groups studies, one case illustrates well this point of long-term commitment to social justice and a high standing in their own area of professional skills. This was the spread of access to fishing rights to socially excluded groups in the Pokhara region. The scientists at the local research station actively not only developed relevant lake fishing technology, but also strongly supported the fishers' federation's action to secure long-term assured access to local lakes. These findings concerning respected professional competence and a track record of commitment to social justice issues are similar to those of Jain (1994), Tender (1997), Uphoff *et al.* (1998) and Ochieng (2007). Ochieng (2007) speaks of individuals, whom he calls 'positive deviants', who challenged and changed mainstream policy practices. When assessing the evolution of the Swynnerton Plan in Kenya, he says, 'While much has been written about the Plan and its impact on postcolonial Kenyan agriculture, relatively little is known about its evolution, especially the role that a few "positive deviants" in the Colonial Administration and Agricultural Service played in its formulation and implementation.' Like us, he found that there were many positive deviants in different parts of an implicit alliance of people that brought about positive

change. Goetz (1996) speaks of 'local heroes'[5] at lower levels of organizations, who are important in addressing the harsh political and cultural realities in which they work.

In all our cases, there was no single 'champion' that led these changes. In the case of the bamboo tubewells, the District Commissioner was important, but without the artisans and farmers who created the bamboo technology in the first place, and continued to change it, and those who changed market institutions, he would not have had a context (or alliance members) in which to be innovative. In the case of the change of agricultural research policy and practice in Nepal, while the local project staff were important, none of the changes would have come about without the creative changes in institutional arrangements by leading senior bureaucrats at the district and regional levels, who played key, but sometimes unacknowledged roles in the changes taking place. In the groups research, we found repeatedly that where positive changes were taking place there was a range of acknowledged and unacknowledged important players. Sometimes, the ongoing government–Maoist conflict made formal acknowledgment of what was actually happening on the ground even more problematic, and dangerous for those involved.

So we conclude that, while recognizing that personal agency is important, to give privileged attention to one or two people overlooks the importance of other actors on the playing field (who may or may not be seen) at the time.

These findings throw into question some current mainstream advocacy of creating and training local leaders and champions at the policy and macro levels. These cases show that high-level professional skills and a track record of demonstrated interest in social justice issues were already present when working with outsiders. These people were not trained or created to bring about these institutional changes.

3. There is always purposive selection in what to observe, what to measure and what to publicize

In this paper, it is argued that development opportunities are being missed by inadequate learning from the institutional change processes that took place in situations where positive changes occurred in poverty, social inclusion, gender and equity indicators. The case studies help illustrate issues involved in observing and learning from the positive. One issue is about the availability of and access to sufficient information. Some critics of this approach argue that unless data on positive change have been collected in a systematic and rigorous way, then one cannot go ahead with this analysis. In Bihar in the early 1970s, official statistics on areas under irrigation were notoriously unreliable. However, at the time there was no serious dispute over the relative magnitude and importance of irrigation as a result of the spread of bamboo tubewells. In Nepal, the poverty, gender and social inclusion impacts of the PCI project were well documented in impact assessments and international journals, as were the changes in agricultural research policy and practice that the project helped bring about. The 12 positive group situations analysed in the Nepal study on gender and social inclusion were supported by available existing empirical evidence in the public

[2]For a description of local heroes effectively promoting gender issues in micro-credit situations, see Goetz (1996), and in a wide range of groups and group-based situations in Nepal, see Biggs *et al.* (2005).

domain. While in all of these cases, some might argue that more information, collected in a systematic way is needed (and this might be a legitimate point), the point here is that sufficiently robust information on positive change may well be available, but it is not used as the entry point for positive deviance analysis. In addition, in development intervention situations, positive things may be happening which are known about (if the right questions are asked) but are not acted upon.

The case of the government changing policy practice to promote bamboo tubewell irrigation illustrates how available information was used by a bureaucrat, who was also interested in influencing national and international debates on effective and efficient pro-poor irrigation policy. Likewise, the national project staff of the PCI project used robust information in the public domain to influence policy effectively. However, in the groups project in Nepal, we have noted the reluctance on the part of members of the government and development community to recognize and investigate positive situations, unless it could be seen as part of a project or policy 'success' where the main attribution could be made to some past development intervention.

Thus, there is an issue here, not so much about whether sufficient information is available and in the public domain, but rather one of what information is revealed, observed, deemed as reliable, and what information is relegated to being called anecdotal, insufficient and unreliable. This is more about whose history is being constructed and told, and how causation is attributed. It is even possible that the 'success' story of the bamboo tubewell irrigation is not written about more widely in the development literature because it cannot be described as the outcome of a planned intervention by a government, donor or NGO actor. In the case of the PCI project, a national person used his skills to use 'positive information' to help bring about far-reaching changes in agricultural research policy. So, while learning from the positive might seem quite straightforward at one level, it raises many serious issues at a deeper level, such as, what is seen as 'success' and 'positive', what it is legitimizing as alternative explanations, histories and perceptions of social and institutional change; it is challenging other frameworks of how and why knowledge is created and promoted, and it also challenges other frameworks for attributing cause and effect relationships. Conventional 'gold standard' criteria for assessing whether good or bad investments were made in the past, such as conventional *ex-post* economic rates of return estimates, start to come under new scrutiny, not only as estimates of past costs and benefits are revised in the light of new data (fully recognized by Griliches, 1958), but also as the relevance of such frameworks for assessing many development goals and international public goods is questioned. This is not the place to discuss these issues, as it would require a review of academic literature from many different disciplines.

Significantly, none of the positive outcomes we describe in our case studies came about as part of achieving formulaic, preset, generalized managerial results-based performance targets. This is not to say that innovation may not come from people working in such managerial systems, but rather that innovation comes from multiple sources as our cases studies show. This should be food for thought for those engaged in the development of results-based performance indicators (especially quantitative ones) in science and technology systems. Significantly, the developers of such managerial

systems will get little moral support from professional statisticians as reflected by The Gladwyn Lecture to the British Association of Statisticians of 2006, where it was said that one of the biggest current threats to the integrity, theory and practice of statistics were the demands for quantitative, statistically based managerial information by senior-level managerial staff in the public sector (Lievesley, 2006).

Practical implications

In addition to the three general observations above, there are three practical implications of our analysis.

1. Strengthening social sciences research on understanding change in science and technology policy and practice

A practical implication of recognizing that research on positive institutional innovation at policy and macro levels would be to strengthen social science capabilities in natural-resources systems to research these issues. The entry point would be where positive changes have taken place in development indicators. This would be a different type of inquiry from forms of ethnographic research that investigate the problematic nature of the whole aid and research enterprise. It would also be different from research that is concerned with assessing and evaluating past development initiatives.

As we have seen, there is a growing social science research literature on the behaviour of development and research actors and their relationships with different groups in society which could inform such studies. There is also a long tradition of this type of investigation (Buvinić, 1986; Long and van der Ploeg, 1989; Hirschman, 1967, 1995; Tendler, 1997). In addition there is a substancial research methodology literature now available (Biggs and Matsaert, 2004; Gellner and Hirsch, 2001; Lewis and Mosse, 2006; Messerschmidt, 1981; Mosse *et al.*, 1998; Mosse and Lewis, 2005). However, a note of caution: it is only rarely that all or some of the results and conclusions of such research are not contested in some way by some actors. Even when analysing positive situations, there may well be actors who claim and assert that different factors should have been taken into account and that cause and effect occurred in different ways. Sometimes people's careers and access to funds are affected, not to mention professional egos and status. Some of these issues are well illustrated in the publication of a recent study of how a large donor-funded rural research and development project in India went from being assessed as a great success to being described as a project with serious flaws that needed major replanning. In this case, the issues could not be resolved in an agreed way by the parties involved and recourse was made to the university research ethics panel long established to oversee such issues (Mosse, 2006).

2. Planned intervention based on technical competence and ethical development principles

The second practical suggestion is that planners and others involved in intervention analysis should not only have professional skills based on technical expertise, but also evidence of a track record of professional concern with social justice issues. One might

say this is very mundane, and known. However, it is also a conclusion come to by Hall *et al.* (2007), who suggest that interventions should be based on development principles, rather than on formulaic approaches and prescriptions, such as the promotion of 'best practices'. At a management and organizational level, the implications of this suggestion are that agricultural research and natural-resources organizations might need to change the composition of their staff portfolio to take on professionals trained in ethnography, history and political science in order for the organization to have professional skills to inform decisions on policy and institutional change both within and outside of the organization. As regards staff recruitment or potential research partners, simple methods could be developed to check if the person or organization had, not only technical skills, but also a track record of effectiveness in addressing poverty reduction and social justice issues.

3. Strengthen current reflection and learning based on empirical analysis of positive situations

At the project level, some very practical implications would be the broadening of monitoring to include positive deviance analysis. This would mean asking questions like: 1) what important development outcomes have occurred that were unplanned and came as a result of project staff or partners taking up or creating unforeseen opportunities? 2) Over the last year, what have the project staff learnt from other projects (including those in other sectors) in the same region, or in the same type of work, that contain ideas, institutions or technology which might be more relevant to their project goals than some of the activities now in the project? 3) How have you already capitalized on this information that came from 'outside of the box'. Management monitoring techniques would need to be in place to encourage staff to look outside the box and be able to respond in a positive way to these types of questions.

CONCLUSIONS

The thrust of this paper is that more can be learnt from situations where positive changes have already taken place in poverty reduction and social justice. As we have pointed out repeatedly, this is not a new idea. However, we conclude by observing that while this is not a new idea, it is always challenging to implement, because it inevitably questions the histories and perceptions of some scientists and development planners, especially those who promote a mainstream, formulaic approach to the design and implementation of best policies and best practices, simplistic, apolitical views concerning the transfer and scaling out and up of technology and institutional models. However, the theme that reflection and learning is difficult is not new either as reflected by a quote from a book on agricultural rural development policy written 20 years ago, which ended on the note: 'Thus there is an absolute need for self-awareness and self-criticism in policy-making processes,' (Clay and Schaffer, 1984, p. 192). However, one thing that has changed since then is that we are living in a world which has rapidly become more globalized – a world where the social justice costs and implications of not responding quickly to significant available knowledge from any

source may have far greater and far more reaching global implications than in the world of 20 years ago.

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