DEVELOPMENT RESEARCH IMPACT: REACH

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The views expressed in this paper are those of the author not of IDRC.

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(Cerstin Sander, International Research Development Centre (IDRC), Ottawa, Canada, April 1998)[1]

Who has seen the wind?
Neither you nor I:
But where the trees bow down their heads,
The wind is passing by.

(Christina Rossetti, 1830-94;
Who Has Seen the Wind? stanza 2)

Abstract

With governments cutting budgets and promoting accountability, the demand on official development assistance to show results and returns on investment within a funding cycle has been growing. The development community is responding to what is fundamentally a valid call for accountability. As we are working to refine concepts and methods to assess impact, we are also working on identifying what are reasonable expectations for impact.
Looking at goals for development research, it becomes evident that the intended developmental change is often beyond the direct sphere of influence of a research activity. The author outlines issues in accountability and development research impact assessment; introduces 'reach' as impact of development research; illustrates reach assessment with findings from impact studies; and concludes with suggestions for impact assessment as learning accountability and reach as a concept to facilitate assessing and designing for research impact.

INTRODUCTION

Development impact assessment is driven primarily by accountability. As we are working to refine concepts and methods to assess impact, we are also working on identifying what are reasonable expectations for accountability in development assistance.

[1] The author thanks Fred Carden, Sarah Earl and Terry Smutylo for their critical comments on earlier drafts. The content of the paper, however, remains the sole responsibility of the author.

For IDRC, its partners and supporters, research is a key ingredient to development. The idea is that support to development research leads to the capacity to generate and apply knowledge to foster development.[2] The focus therefore is on development research and how to assess impact in that context.

In this paper, the author offers a conceptual contribution to the assessment of development research impact based on work in IDRC's Evaluation Unit. The following sections highlight some of the context, discuss issues of accountability and impact assessment in development research, and introduce the concept of 'reach' as a dimension of impact.[3] Reach focuses on the expressions of influence of research ideas, process, and findings. The paper concludes with suggestions for impact assessment in the spirit of leaming accountability and reach as a concept to facilitate assessing and designing for research impact.

CONTEXT: Adjusting to Changing Forces

The context for development research has changed over the decades. This has implications for what, and how, impact can be assessed. One change, for instance, is that, over time, development research has taken more account of social complexity and has, consequently, itself become more complex: it has become increasingly multidisciplinary and comprehensive in approach (e.g. systems research); has been more accepting of sources and approaches conventionally disregarded in traditional western science (e.g. indigenous knowledge); and it has become more interactive with those who used to be only the subjects of research (e.g. participatory and action research).

More dominantly, however, the question is for what and to whom development research is accountable? The current context for international development research is defined by competition for scarce resources and the related necessity for accountability. These have lead to various efforts, and sometimes contortions, such as restructuring and downsizing, reflection on institutional environment and niche, and reinvigorated efforts in monitoring and evaluation.[4] Accountability has changed from being primarily input-output measures to having to demonstrate high performance in the sense of efficiency, effectiveness, and, in particular, impact. The latter tends to be framed in terms of return on investment.

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2 For information on IDRC see the web site at http://www.idrc.ca

3 'Dimension of impact' rather than only 'impact' is a deliberate choice here because the apparently simpler term 'impact' is an aggregation of multiple dimensions of impact. Much of impact assessment will tend to focus on one or two dimensions of impact, more or less clearly specifying them, but subsuming them under the general term impact.

4 This is not to say that reflection and evolution in approaches have not previously occurred. In development research, examples are the move to participatory approaches and action and systems research. Actual budget cuts and threats of potential further cuts do, however, create a context for substantial adjustment.

Much of the contemporary literature on results-based management, performance measurement, impact assessment, public accountability etc. identifies two forces behind the emphasis on these trends in ODA: a) the move towards an arms-length regulatory style of government in many industrialised countries; and b) budgetary constraints. The two combined have lead to a climate requiring increasing public accountability, including priority-setting in spending, and a rationale for government involvement.[5] A related element are current ODA trends such as the shift to emphasising trade and the polit-economic models of developed countries in the form of deregulation, decentralisation and governance. For development research funding, the question boils down to the comparative advantage for government spending in this area vis-a-vis relegation to the private sector,[6] and within which research areas funds are best invested.[7]

The preeminent accountability demand is driven by creating, or maintaining, political support for ODA to development research; it focuses on return on investment and the public barometer on aid.[8] Humanitarian assistance, peacekeeping, and landmines on the one hand, and trade revenues on the other, sell well in the political arena. The former has a human face and appeals to the good Samaritan, while the latter involves direct benefits to the public whose tax dollars finance ODA.

Development research, in contrast, is a hard sell. Compared to relief efforts, it is hardly a news item: it addresses the important, not the urgent; it seeks to address context and factors rather than symptoms; and it aims to contribute to long-term and sustainable solutions, not to temporary alleviation. The 'selling strategy', however, focuses on promises of development modeled on ideas and realities of developed countries such as growing economies and political pluralism with

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5 These are eloquently discussed in the literature (see, for example, Chelimsky et al., 1997; House 1993; Alston et al., 1995:19).

6 On this issue, see, for instance, an article discussing the experience in agriculture research in the UK which reports that the British private sector is not picking up the slack left behind by government pulling out of applied research because it is no longer considered a public good. (Thirtle, et al., 1997)

7 *Science Under Scarcity* (Alston et al., 1995), co-sponsored by ISNAR, is a prime example of a response to this context and presents an overview of the issues followed by economic assessment tools to help identify priorities in planning.

8 Disenchantment with ODA, e.g. for its failure to deliver a developed Africa and in the context of cuts to the social systems, are strong undercurrents despite important transformation within ODA (in research, e.g. systems approach, action and participatory research). Hope and interest tend to be put into private sector links and new hope sectors such as peace building and reconstruction and governance (see also Picciotto, 1997). This coincides, and may in part be caused by, crises in sectors such as education and research, probably in part an expression of an overall disappointment or disenchantment with the system (see also House, 1993:34;58): the graduate of higher education can no longer count on a guaranteed job, prestige and good life style. This reverberates for development research: research support institutions such as IDRC were created in a climate of an accepted value of humanistic principles. While in education and higher education it is more the quality than the value that is being questioned, in research it is the role of government and the notion of research as a necessary public good - the trend is toward private sector R&D or private sector sponsored research.

corresponding foreign policy trends. In the public eye, more than two decades of ODA have not delivered these; rather, the gap between rich and poor is growing and the media report in rising numbers on economic crises and wars.

With accountability pressures growing, granters and grantees tend to interpret their need for information according to the holders of the purse string. Governments funding ODA ask for results and performance. Donors feel they need to show developmental impact as that was the justification for their receiving public funds and their missions are framed in those terms. Recipients struggle to provide information on developmental impact. Impact assessment then accounts for money spent and is used primarily as a political instrument of legitimisation[9] but contributes only limited learning value to decision making.

The question is how to respond when the accountability demands exceed the sphere of influence of the supported activities. With development as a social change process aimed at improving people's quality of life in a sustainable way, developmental impact is aggregate change consisting of many smaller changes. Research impact is rarely directly linked to the aggregate level, rather, it is an element in the overall change process.

SHAPING DEVELOPMENT RESEARCH ACCOUNTABILITY

Impact assessment reflects the accountability agenda of those in authority (House, 1993, chapter 3), but there are different agendas and different purposes for impact assessment. In international development research, accountability can be classified into three spheres: academic, public, and developmental.[10] These spheres are clearly interrelated and have levels within them, such as the government, the public and the consumer.

They represent different values, interests and requirements, and, therefore, require different information and/or different presentation of information. Developmental impact as one sphere of accountability will have different criteria depending on who defines them, e.g. donor, recipient government, or public. It can be assessed in different ways and requires different answers for different audiences; e.g. the local farmer does not care if the overall GDP of the country has increased if it has made no difference to her/his standard of living.

For impact assessment, and evaluation more generally, this is an important aspect related to the basic rules of the purpose of evaluation, its audience, the information needs, and appropriate data collection methods. No single approach or framework can address all purposes; complementary and synergistic approaches need to be combined and focused on issues and information needs of clearly defined audiences. At the same time, the focus carries an inherent tension: it can mean that an

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9 See House (1993: 32-34) on evaluation as legitimisation.

10 See also House (1993: 35-38) for a similar but more general accountability framework.

assessment is set up in such a way that it will only find what it set out to find. For instance, by looking for economic growth, one foregoes learning about the changes, such as in capacity of individuals and institutions, that contributed to this growth. There is a role, however, for both these types of assessment.

The spheres represent at times competing demands of accountability or performance. For instance, academic rigour and excellence can satisfy academic accountability, but good academic performance does not guarantee the use of research findings nor any form of developmental impact. On the contrary, development research that is conducted with villagers collecting and interpreting data and results, and that is presented to them in a format that makes sense, can have impact. Yet, it may not be accepted in academic circles as sufficiently rigorous science or a contribution to the field that warrants a publication, degree, or promotion. A researcher can be stranded between competing demands of academic career, on the one hand, and research funding requirements on the other.

Accountability standards and measures for research, other programmes, or industry used in developed countries have limited utility when applied to development research. Development research impact assessment is closer to development impact assessment[11] than it is to research impact assessment. The body of literature on the latter, with methods such as bibliographic measures of peer reviewed journals, cannot serve the context and needs of development research adequately.[12] The next section explores selected issues in development research impact assessment in more detail.

ISSUES IN DEVELOPMENT RESEARCH IMPACT ASSESSMENT

Looking at goals for development research, it becomes evident that the intended developmental change is often beyond the sphere of influence of a research activity -- not seldomly, their achievement would require the equivalent of a silent revolution.[13] While the research is an elementary contribution to the intended change, it cannot directly influence many of the determining factors. It is therefore seldom in a position to cause or take credit for developmental impact.

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11 Development impact assessment (DIA) in contrast to environmental (EIA) and social impact assessment (SIA), which are typically ex-ante assessment. (See also Vanclay and Bronstein, 1996)

12 See, for instance, Kostoff (1996?) for a comprehensive review of tools. One of the issues is that researchers in developing countries have limited opportunity to publish in renowned international journals.

13 This in contrast to the better congruence of scope of concern and influence in most private sector R&D to which development research tends to be compared. Industrial or commercial R&D tends to operate within well-defined sectoral and organisational parameters where the client of the research is also its user. Benefits are measured in monetary values such as profit, market share, and client satisfaction, all of which can be completely detached from societal or developmental benefits. Approaches and results differ when development or advocacy rather than a for-profit approach are involved. This is not to say that no learning or adaptation can happen between the two sectors, but the differences as well as the similarities need to be taken into account.

Rather, the research activities are in a sense the proverbial 'drop in the bucket', and, although designed to be relevant and timely, are only sometimes the obvious drop that makes the bucket 'spill over'.

It is important to be able to demonstrate that 'drops filling the bucket' are relevant and necessary contributions. The critical question is

> "not whether a particular project created an immediate revolution, but whether the knowledge and capacities generated have enabled the institutions and actors responsible for action to move more effectively toward their own development goals in a progressive way." (Bernard and Sander, 1997: 5)[14]

Seen as part of a larger system, research contributes to it, helps it move forward with new knowledge / approaches / technologies, or keeps it from falling back, for instance by preventing further degradation of resources.[15] The challenge is to measure the extent of this contribution as a return on investment -- where return can be defined in terms other than the financial capital of the initial investment. Return can be other forms of capital such as increased research capacity or shared control over resources. Building various forms of capital is necessary to feed into economic growth and other developmental changes and innovation and change are usually collective not individual.[16]

> The set of Figures ❶a to d illustrates that developmental impact is dependent on factors other than research which implies that the scope of concern of research development projects by far exceeds their scope of influence. They also illustrate that impact is not necessarily only linked to outputs but can also be linked to research process (Figure 1b); that there can be time lag between the research and its use[17] (Figure 1c); and that not all research leads to impact but can feed subsequent research and ultimately contribute to impact (Figure 1d). These aspects are discussed in more detail in the subsquent paragraphs.

Development research is often distinguished from 'conventional' development projects as being one or several more steps removed from developmental impact.[18] (e.g. see Hardie 1988; Horton 1988) The widely accepted description is that it is applied research which contributes to development.

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[14] See also Collinson (1992) who suggests that one should not expect every research project to have developmental impact.

[15] See also Alston (1995:11) discussing the role of research as only one element in economic development and that its contribution is sometimes to maintain a status quo.

[16] See also House 1993: 58; Horton, 1986:463.

[17] See also Alston (1995:26).

[18] With participatory and action research on the one hand, and research components in 'conventional' development projects on the other hand, the lines have become increasingly blurred in recent years.

Support to development research generally emphasises building the capacity for developmentally relevant applied research in developing countries.

[insert figure 1]

Applied research captures a range from developing or adapting technologies or production processes to building or enhancing conditions for development such as regulatory frameworks and policies. Support to research for development consists of assistance for various factors or complements -- some of which are applied technologies directly relevant to development or ones that are still applied but are less directly implementable, such as policy research; and others which focus on building individual or institutional capacity for development research or research networks. (see also Horton, 1988)

They have different impact potential. Research often contributes to improving indirect inputs to development, such as policy research, research on natural resource management, or building capacity to conduct such research. These are among the factors which affect health, nutrition, economic growth, standard of living, etc. Successful impact in terms of demonstrated enhanced capacity or a new or changed policy, however, still does not guarantee the broader developmental impact which depends on a multitude of factors.

Development impact assessment, like social science, is about approximation. House (1993: 132-140), for instance, warns that assessments dealing with social complexity need to reflect that the social world does not function linearly nor according to experimental science logic and that to assess it with tools that assume either of those can create not only false assessments, but also false solutions.[19]

Development research impact assessments typically focus on one type of impact[20] captured as a snapshot suggestive of an end-point (e.g. higher income, better nutrition, less hectares slashed and burned per year).[21] They tend to be conducted ex-post and traditionally operate with the assumption that inputs *x* lead to outputs → *y* resulting in intended impact → *z* and focus their attention on the

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19 House argues that Humean and regulatory theory and methods are too simplistic and, because of that, create injustice. Not cited by House, an example of that is the systemic neglect of the contribution of women to economies.

20 See, for instance, Trexler and Byerlee (1992) whose study cites the following premise for the analytical framework: "Society benefits from research discoveries when fewer inputs are required per unit of output." Without entering into details and the debates of how such studies resolve causality or whether they are too minimalistic, the economic gauge is one-dimensional and contains a value statement of what is valid impact. This is not to minimise the contribution of such studies, but to highlight the complementary assessment that is needed.

21 According to a review of 87 ex-post impact assessments by International Agricultural Research Centers (IARCs), most centres still study primarily adoption (61%) and changes in yield (52%), followed by between 12 and 13% covering income, quality, institutional impact, and scientific impact, respectively. This is not surprising given that most of the centres in the Consultative Group on International Agricultural Research (CGIAR) are commodity-based research centres. Cost-benefit was the second most common approach used (29%) after cross-sectional surveys (32%). Only 2%, however, assessed income distribution. (Cooksy, 1997) Eccheverria (1990) lists 107 studies on returns from investment in agriculture between 1958 and 1990; most of them were conducted in the 1970s and 80s, only 8 of them prior to 1970.

assessment of *z* (e.g. as depicted by Figure 1a). In the case of a new grain variety introduced to a valley, *z* could be the growth in farmers' income. The planning assumption that a higher yielding grain leads to better harvests and therefore higher income is often considered confirmed if supporting data can be found. While frequently accounting for unanticipated effects or benefits, the studies do not tend to provide an analysis of how the impact was achieved by exploring whether potentially a very different set of factors or complementary factors were necessary, facilitating, or enhancing the observed result (e.g. has the new grain variety improved the nutritional status so farmers' families spend less time ill and paying for medical treatment, thus also improving their income?).[22] Measuring the incomes tracks a relevant developmental factor, but does not contribute to a better understanding of how rise in income came about or whether it is sustainable in the current or foreseeable context (e.g. how will they have access to the grain when the project ends? does it require more chemical fertiliser? does it replace a more nutritional local variety and lead to malnutrition? does it change the insect or ruminant population and with it incidence of disease?). To better plan for impact, prioritise and adapt for application elsewhere, questions such as how the farmers were introduced to the new grain, how did they react, why did they accept planting it, what will be their motivations or obstacles to continue planting it, etc., allow us to learn more about what, or who, were the transfer links[23] between research and the results, and about how the factors, mechanisms or dynamics for the transfer links to become engaged.

As projects, programmes, or generally interventions are not uniformly directed at creating an observable impact, such as on health or incomes, they cannot always be directly traced or credited to such impact. For instance, in research less directly linked to production, linking outputs with economic impact is tenuous at best. Alston et al. (1995: 17f.), writing about agriculture research, distinguish between 'embodied' and 'disembodied' impact, stating that

> "(..) methods of analysis presently available are much better developed for evaluating impact of R&D leading to *embodied* technological changes (where the effects are reflected fairly directly in commodity or factor markets) rather than *disembodied* technological changes (such as those commonly produced by social science research)."

They also hold that

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[22] Logframes also reflect this gap in planning; log planning usually includes impact in the form of objectives, activities and outputs to get there, and indicators to assess achievement. What receives scant attention in practice is how one gets from activities and their outputs to impact; in fact a direct link and logical dynamic that will lead to the planned for impact is assumed.

[23] Alston et al. (1995: 9f.) refer to transfer mechanisms, pointing out that, for agriculture research, farmers are not the only users of knowledge and that other users are becoming more significant, such as suppliers and policymakers. For the latter, however, the transfer mechanisms tend to be less established and less formalised. In assessing transfer links, they suggest three factors to be considered:

- extent to which transfer links are established (also with whom, and what is their quality)
- location, scope, and size of research
- potential for international spillovers.

> "(..) it is often easier to evaluate and prioritize commodity programs and the disciplinary components of commodity programs than it is to evaluate disciplinary programs that cut across several commodities or multidisciplinary programs that are not commodity based (e.g. natural resource conservation)." (Ibid.: 6)

This is echoed by others in the general terms that, as development research has come to more closely reflect social reality, it has become more comprehensive and complex, both in issues addressed and approaches to address them. Impact assessment has, therefore, also had to adjust.[24] (see Collinson, 1992; Trochim, 1992; Horton, 1988)

If we understand development as a change process that has no end-state and has many contributors, then, simply put, the role of research is to inject knowledge which influences the changes.[25] People and institutions are the conduits between research and development impact. Knowledge is generated when people understand and accept the research results; and knowledge contributes to change when people, organisations and institutions apply it.

Research impact are changes such as in the thinking and action of people and in culture, policies, processes, and structures of organisations, institutions and systems.[26] Impact begins with research influencing people's and organisations' roles and their responses to developmental problems. To locate and assess the impact of research then, it helps to understand if, and how, people and organisations react to it and whether they change their actions as a result of it.

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[24] Evaluation practice has adjusted at least in part, for instance with participatory evaluation approaches. Such changes in approaches to systems, participatory and action research are results of learning from earlier work. In impact assessment, notable work includes institutional assessment and institutional self-assessment (see Lusthaus et al., 1995 and 1998; MacKay et al., 1998). The revised approaches have, however, only partially been reflected in impact assessment. For instance, evaluation is aiming to be more participatory (such as participatory rural appraisal, PRA), but impact assessment does not yet study much the impact of participation. In other words, we do not yet have a good understanding of how to get from research results to impact. While we know that participation and ownership are factors, impact assessment has not provided ways of systematically assessing the changes that link research and developmental impact.

[25] Natural Resource management, as other development research, contributes to the change process by exploring how things work in a given context and how they should work differently to work better.

[26] Impact of development research is about building relationships between the research and transfer links to translate research into knowledge and its use. Impact through knowledge is about:

- *exposing the ideas* and findings (one element of access: availability; traditionally this has been done through dissemination for which there are different means, publications being the most common one in research),
- *communicating the ideas* (the other element of access: relevance; which requires more than sending a book and requires different formats for different audiences),
- the user's (or, more generally, knowledge intermediary agents' such as extension agents, politicians, administrators) *acceptance, adaptation, uptake, and making it their own.*

Based on recent work in the IDRC's Evaluation Unit, the proposition is that these responses, labelled *reach*, should be an essential part of the study of impact. The introduction of reach does not suggest that existing approaches be replaced, but that they be complemented with approaches such as reach.

REACH IMPACT

At the outset, reach was used as a largely quantitative output measure in the sense of the scope of whom a project or programme 'reaches'. As our conception of reach has evolved, it has moved from an output measure to a dimension of impact, that is, an element of aggregate impact.[27]

> Figure ❷ depicts where reach is situated in a project or programme cycle. The diagramme is a simplified window on a complex and intricate process of impact and the contributors to it. It illustrates the discrepancy between scope of concern (e.g. goals) and scope of influence: aggregate developmental impact, such as national economic growth or improved health standards, tends to be beyond the scope of direct influence of a development research project or programme. Reach is partly within the sphere of influence but also dependent on other actors and factors. Contributing and being an element of a dynamic process, reach is not fully controllable and takes on its own dynamic. The reach of a research activity stems from both research process and findings. Reach can contribute an element to an observable aggregate developmental change or contribute to a range of activities that form part of a process leading to change.[28]

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27 Reach was introduced to IDRC by a consultant, Steve Montague, engaged in the early 1990s who specialises in performance management. He has over the years applied and refined his performance assessment framework which he now captures as the 3 Rs: Resources, Reach, and Results. His reach definition is one of scope: "Reach refers to both breadth and depth of influence over which an organization wishes to spread its resources. Physical (spatial) reach is one dimension, as well as the type of groups one wants to affect. For many organizations, teams, or individuals, reach goals relate to the amount, type, and extent of clients served. The concept may also apply to suppliers, delivery partners, and other groups who are directly involved in your services or processes." In his conception reach is about the 'who' and 'where'; the common measures include partners, target segments, and market share. (Montague, 1997: 6f.)

28 An example is the invention of the cathode ray tube which, decades later, made the invention of television possible - a technology which has itself created fundamental socio-economic changes and has paved the road for others.

[insert figure 2]

The initial questions that an assessment would ask interpreting reach as scope are:

- who has been reached? (including disaggregation of social groups etc.)
- how many have been reached?
- how have they been reached - by what means (e.g. training, extension, etc.)?

Reach as a concept of impact adds four threads of questions:

- how do we know they have been reached; how is reach manifested -- is there evidence that they are acting, speaking, thinking differently?
- are the manifestations different for different groups in different roles? (e.g. gender, age, class and user, beneficiary, intermediary such as extension)
- do these manifestations suggest relevant potential influence towards the intended developmental goals?
- also, who has not, but should have, been reached for the objectives to be achieved, achieved more effectively, or enhanced? i.e., who should have changed behaviour, actions, thinking?

The quantitative element remains, but now consists of two aspects: a) the disaggregated quantification of how many in what social category or relationship; and b) any meaningful quantification of the manifestation of the reach (e.g. whereas the Minister previously never referred to the water quality in the lowlands, the speeches and briefs since the presentation of the research report and subsequent consultations contain on average one reference to that situation).

The qualitative element becomes much stronger even if we stay with the observable manifestations of reach. It is no longer just a question of counting and classifying the names on a distribution or participation list; the question has become what they have made of the information they received or of the process they were a part of -- how has it changed their perspective or approach? how have they used it? and with what effects? These can be externally observed to a certain extent, but are also subject to perspective, perception or assessment of individuals of themselves or of others.

Manifestations of reach can include elements of economic assessment such as income growth. Only for a limited number of cases development research links directly with developmental effects at an aggregate level. For the majority of cases, the most direct link is in expressions of change in actors, such as moving towards sustainable income growth, which is what reach captures.

Conceptually and methodologically there is another element to reach impact assessment which asks 'what is influencing reach?' It is expressed in the questions:

- what are the factors that helped or hindered reach?
- what does reach impact contribute to developmental impact?
- what are the factors that helped or hindered reach leading to further developmental impact?

This analytical element is introduced to identify factors, variables, or conditions which account for reach and further aggregate developmental impact. At the project level, these are applicable only

to the specific context, which is, among other things, bound by time and space. Taken over series of studies, patterns are expected to emerge and to document experience informing us what questions to ask and what considerations to pursue. Overall, the results of such studies are geared to learning by the development practitioners and decision makers.

The difference between reach as scope and reach as impact is akin to that between receiving and accepting; between hearing and listening; between exposure and adoption. It is not a new idea. In agriculture extension 'uptake' is used in a similar fashion. In communication, 'effective communication' is a similar idea.

What is new, however, is the suggestion that reach should be thought of as a valid form of impact, rather than as an aspect of output as it has been used in the notion of scope. In development research this is relevant in that it allows us to increase our understanding of how knowledge generated through research is, or is not, transmitted and - by specifying catalysts, factors, or elements of an aggregate developmental impact - how it contributes to the change process that is development.

The proposition is that by understanding and assessing reach, we trace the multiple, often non-linear chains of events linking the researchers and their findings with the other actors who are essential to change, and look for evidence of changes along the way. While the developmental impact at a goal level is often beyond the scope of a research activity, assessing reach can show the contributions of 'planting ideas or knowledge' and offer indications that changes are happening which point in the right direction. Reach allows us look at how impact evolves and lets us capture what changes happen between the inputs/outputs and the developmental impact. Through evidence of reach, we can point to observations of developmental change, or potential for change, by using qualitative and quantitative data to create logical links and informed extrapolation in contexts where cause and credit are shared by multiple factors, one being research.

FINDINGS FROM STUDIES

Some examples from recent studies illustrate what an assessment of reach highlights.

In impact studies conducted for IDRC over the past year,[29] the main factors cited as having hindered or helped reach included: appropriate goals and congruence between them and project design; quality of leadership; stakeholder participation; nature of the product; dissemination; and planning for utilisation integrated in project design (Bernard and Wind, 1998, section 4).

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[29] Four global studies focus on impact related to specific areas: commercialisation (ongoing), peace & conflict (see Bush, 1998), policy, public good / quality of life (Bernard and Wind, 1998), and information and communication technology (Graham, 1998a and 1998b). Another two are geographically defined (Egypt, Motsi, 1997; and Southern Africa, Gouda and Kandil, 1997) and explore the same impact areas as the global studies.

The factors can be categorised into: context, design, capacity, and motivation. They pertain to the project, the funder(s), and other stakeholders, all of whom operate in different contexts, have different approaches, capacity and motivation. Their agendas and actions converge to factors that either facilitate, hinder, or, in some cases, counteract each other.

One factor analysis indicated, for instance, that projects with high impact tended to have positive contextual factors, but that projects with negative contextual factors could still have impact. It also showed clearly that research will not prevail by virtue of its excellence alone; it needs to be 'marketed', that is to be connected to its contextual users. Development research projects still rather commonly focus on relevance and research excellence with the assumption that activities and their outputs plus dissemination of results would lead to the desired impact. While relevance, timeliness,[30] and academic rigour of the research are facilitating factors for research impact, none of these qualities necessarily lead to impact. (See Box 1 for further discussion of the factor analysis.)

The juncture between research and use is subject to several tensions related not only to the specific development context but also to the research and research funding systems as well as the understanding of the research profession.[31] As development research continues to move from

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30 Timeliness or timing could be seen as critical factors in deciding for or against funding a project. It is, however, also a criterion difficult to assess — readiness for a product or change can often not be gauged as too many factors come into play and reactions cannot easily be modeled. Even in apparently simple cases, conditions can change and render the research results useless until conditions prevailing at the design stage reoccur. For example, a cast iron technology research project developed a way to use domestic inputs to produce cast iron cheaper than with the prevailing method which used imported inputs. During the research, the price for the import inputs decreased and the 'import substitution technology' was no longer viable, at least for the time being, until the price would increase again. In industry, presumably, such a project would have been put on hold or cancelled as soon as the price change occurred. In development research, the delayed potential developmental impact is incurred for the benefit of maintaining and enhancing local research capacity. (Kandil, 1997)

31 Issues of research, its use and impact include:

- funding cycles and grant size; e.g. how much impact one can expect to see at the end of a relatively short funding cycle?; if a time lag can be assumed, what can be done to ensure the research remains part of an accessible knowledge pool? what support do researchers have to disseminate findings and diffuse knowledge? how much impact can a relatively small research grant 'buy'? are funders willing to invest more in dissemination, demonstration and networking or generally the 'soft' skills and activities that are often needed to bring the research to those who can act as 'transfer links'?
- the focus in development research projects has tended to be too exclusively on 'research' and its activities neglecting the application of research for developmental gains. Case evidence discussed in this section shows that where impact is not pursued as part of the project, it is less likely to occur, indicating that impact needs to be a mode of operation rather than an only end goal.
- research and research 'marketing' require different skill sets.
- there is an inherent contradiction in incentive systems for researchers: academic vs. developmental; most systems in which the researchers work reward the peer reviewed

(continued...)

building research capacity as one form of 'developmental capital' to research that itself has to result in demonstrable social change, research can no longer be relegated to university offices, laboratories and publication in research reports. The role moves closer towards that of think tanks, lobby, and advocacy groups. The focus becomes less the skill to research the policy reform, for example, but to influence relevant stakeholders with the research process and/or findings. Development researchers and their funders have to become more savvy at influencing with ideas.

The IDRC studies cited earlier indicate that aggregation of findings from case studies conducted using the same framework identifies patterns pointing to issues for consideration in planning and assessment. As development research deals with the social world, however, none of them will provide recipes of critical factors valid in every context, nor a constellation of factors sure to lead to success. As Bernard and Wind (1998: 4-39f.) point out, "factors tend to interact, and produce compound effects in the context of a project. Moreover, a single factor may be critical to the reach and impact of one project, but produce only a negligible effect in another." A larger set of studies can, however, "draw out other broad conclusions and questions about the factors that facilitate or inhibit reach and [,by extension, about further, aggregate] impact."

BOX 1 Factor Analysis

The coordinators of one of the studies assessing some twenty projects state in their synthesis analysis (Bernard/Wind 1998: 4-40):

"In looking for trends within and across the cases, it is clear that the projects with relatively higher levels of impacts (Mexico, Nepal, Benin) have higher numbers of positive factors which (...) facilitated their impacts. On the other hand, the projects with relatively low impacts (India: Food, Guatemala, Thai: extension) had several negative factors listed, and those are in the key areas of research quality, the nature of the innovation and, each had a problem with the researcher not having an impact-oriented mind-set.

Keeping in mind the overall types and degrees of impacts that each project had, we can look across the factors table to see if there seem to be any patterns relating different factors to (...) impact. For instance,

. Personal motivations and mindsets: A couple of factors deal with the personal approaches and priorities of the people involved in the research project: motivation of actors and researcher mind-set. Quite obviously, the attitudes and approaches of the project personnel are key to the degrees and quality of impacts the project has. In two-thirds of the projects that had medium or high overall impacts, the motivation of key actors was noted as particularly positive in the case studies. On the other hand, a problem with the researcher attitude was noted in all four of the projects which had low overall impact.

. Planning for Utilization: Four of the projects seemed to have explicitly planned for the utilization of research results, including the three which had high degrees of impact, and one which had a medium degree. Of the projects that were criticized for not having planned for the use of research results, one had medium impact, one had medium-low, while the other three had low impact. Planning for impact seems to be an obvious way to enhance a project's prospects of achieving it."

[31](...continued)

prestigious publication better than developmental impact of research and publications are the comparatively lower performance risk.

IN CONCLUSION

This paper has outlined issues in accountability and assessment of impact of development research. As a conceptual contribution to development research impact and its assessment, it introduced the concept of reach as impact contributing components to further, aggregate developmental impact. Reach assessment was illustrated with some study lessons to date.

This is part of a discourse on ODA accountability that the development research community along with its partners and stakeholders ought to shape to reflect shared values and the realities in which they work. The suggestion is to create an understanding and acceptance of reach as a valid type of research impact, with research being one of many necessary contributions to developmental capacity. Reach is offered as a concept to capture data to advance our understanding on where, when, and how research leads, or contributes to, any element of aggregate developmental impact.

It is not useful to apply 'industry standards' to something that does not operate and does not play the role of industry. Attempting to comply with blueprint demands of accountability across sectors, which, despite much rhetoric in the development discourse and politics about good governance and other aspects, culminate in economic growth terms and trade statistics, can create false measures and incentives.[32] By zeroing in exclusively on developmental impact expressed as one value, we are measuring using a single, aggregate standard that does not reflect a full and dynamic picture, nor reveal much insight into how it continues to evolve.

Impact assessment that explores reach as well as aggregate developmental impact and the factors that facilitate or inhibit them provides performance feedback to stakeholders that demonstrates a realistic cognizance of factors and can identify actions towards solutions. It also helps to expand and inform issues lists for assessment. 'Best practices' and other types of recipe books are hard to come by in a work environment where variables change, often dramatically, within and between projects. Checklists have been one of the responses in such cases, favoured for their simplicity and clarity. The simplicity is at the same time one of their major drawbacks. In contrast, a set of key factors offers points for reflection to help identify issues for project design and negotiation and for designing appropriate monitoring and evaluation systems. Programme staff often have their informal list of points which become a part of their professional mind set. Reach impact assessment can inform these mental lists.

The adoption of reach can also influence the perceptions for the role of research and refine how we think about research project design. This can be done more easily when we have a conceptual framework of impact which will inform project design and be informed by project experience as we go along. The findings from the IDRC impact studies suggest that we should move towards impact

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[32] For illustration purposes, this could be seen as akin to measuring the value of a grain solely by its market price -- instead we need to have additional information about its qualities to assess its value to us such as its nutritional value, ease of storing / required storing conditions, growth conditions, and interaction with soils.

design versus mechanism or output design, such as focusing on research results. Project or programme design tools typically used in international development, such as logical frameworks, focus on inputs, activities, outputs and impacts but, in practice, have not encouraged planning for the link between outputs and impact. In design, reach invites reflection on who needs to be involved, in what capacity, at what stage to create the conditions for developmental impact and what manifestations need to be monitored to gauge progress.

As an assessment concept, reach suggests a learning accountability approach to impact -- in what context and how did it happen as well as what happened. Reach is suggested as a concept to help better understand the actors and factors that account for impact, so as to learn about the contribution of research in creating a conducive context for more sustainable, aggregate developmental impact. The latter is itself beyond the scope of direct influence of development research activities or ODA in general and tends to be much further away in time. It may even look very different from what was imagined at the time of planning activities for change. Impact, to the extent that development research can be accountable, is about succeeding in changing the thinking and actions of those actors who are anticipated to influence developmental impact at the aggregate scale. The dynamic processes that are development are best understood by looking at changes in actors - their ways of doing and thinking or understanding.

Reach broadens the scope of what impact is. It thereby broadens the scope within which the work of development researchers is legitimate and valid and for which they can earn credit. Such legitimisation also creates space for contributions by development research as what is seen as valid and legitimate receives more attention.

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