Adult Learning and Capacity Development in IDRC: A Concept Paper

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I - Introduction: issues in capacity development

The following concept paper attempts to provide a frame of reference for understanding capacity development in the context of IDRC. It uses the theories, principles and approaches of learning theory, adult education and institutional development, anchoring these within the analysis of a cross-section of 40 IDRC projects[1].

The paper is intended for use within IDRC, as background for planning and evaluating capacity development as it applies in Centre policy , programmes and projects. Although it is built around an analysis of how capacity development/CD appeared[2] to be understood and used in the reviewed project files, and with what apparent outcomes, the paper itself is not intended to be read as a critique of practice. Rather, it attempts to elaborate what "capacity" means, and what constitutes its "effective" development, as a tool for the Centre in assessing what it needs to have in place, and what it needs to have done, in order to realize progress on the capacity development dimension of its mandate.

1.   How Learning Relates to Capacity Development[3]

Capacity development and learning, while obviously related, are not the same things. The first is a more *instrumental concept*, capacities tending to be "for" something, specific sets of knowledge or skills needed by someone in order to get the job done, whether that job is doing research or living a better quality of life. Capacity development, therefore, implies someone deciding on his/her own, or for someone else, that a particular knowledge or skill is needed, and *intervening* in some way to enable its acquisition.

Learning, on the other hand, is something intrinsic, *a natural, internally-driven and personal process* of coming to understand, and to better manage, oneself in the social and physical environment. In this sense, learning is cumulative and functional, a pre-condition for increasingly more effective and independent living. It is not necessarily, however, purposive or directed by the learner. For this reason, it is not always positive; a person can learn dysfunctional behaviours, for example.

Learning happens as an individual confronts, consciously or not, challenges to his or her beliefs, practices and ways of knowing (knowledge system). It involves *bringing together* the various, often disparate, bits of information from the environment *and interpreting* them into increasingly meaningful and stable patterns. These patterns are the explanatory concepts or "hooks" used to guide behaviour. As one matures, learning more often

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[1] The sample included 30 projects drawn from a list of 150 projects, covering all time periods (1980-2003), all sectors (under former Divisions and current PIs) and all regions; and another 10 projects from AFNS/ASRO reviewed in 2002 in an earlier phase of the work.

[2] "Appeared" is used deliberately here, and throughout the paper reflecting the fact that the data used, and their interpretation, are based solely on the available files. There were no interviews. As noted elsewhere, Centre project files are very weak in the writing up and reporting of capacity issues.

[3] Except where a direct quote or reference is made, this paper does not footnote a large number of references to the literature. It is expected that a separate document will be developed listing some of the more relevant writers, texts and web-sites.

involves *consciously seeking out* more effective ways to order new information within existing conceptual frameworks, where this makes sense and strengthens or consolidates effective patterns; or learning may involve adapting those existing frameworks to a new situation – new because the environment has actually changed or because one is better able to understand its nuances.

Because, by definition, *existing knowledge and explanatory patterns* are satisfying -- in a sense, safe -- learning can also involve finding ways to *avoid or ignore any challenges to them*, without actively testing their logic or resilience. This "negative" learning is more likely to happen the less self-confident or more under threat a person feels; or where previous learning or change experiences have been in some way dysfunctional. This kind of dysfunctional experience with learning inclines people, especially adults, to learn to protect the integrity of their ideas, actions and sense of self by closing down, instead of exploring and assessing self-critically. This kind of learning, then, is often reflected in improved obstructionist skills and defensive explanations, or failing to learn altogether. Such a response can come from villagers as well as professionals, from anyone whose perception of self is so firmly tied to a field of practice or world view that any attempt to shift the paradigm is seen, not as a change opportunity, but as a personal threat.

➔ *Learning underlies capacity*. It is the process through which a sought-after body of knowledge or set of skills is acquired. It is this fact that makes capacity development such a tricky issue for an intervening agent. Capacity objectives can be set, and opportunities for learning provided, but what is learned, to what level of competency and how sustained it is are ultimately in the control of no one but the learner – and not even totally then.

Capacities, then, cannot "be developed" as such; they can be encouraged, guided and facilitated and, where care is taken to meet certain best-practice conditions, may very effectively develop from within. The position taken in Outcome Mapping with respect to results is especially pertinent to capacity results:

- ▪ Expressed in IDRC's outcome mapping terminology, then, the Centre might expect, like or hope to *influence and record* capacities, but should not expect, like or hope to *produce or control* them.

Institutional Learning

Learning also underlies our ability to live and work together, in *natural and socially constructed institutions* (families, organizations) *and communities*. While much individual learning happens spontaneously, *collective learning* requires considerably more intention and planned intervention, mostly from within, but also from outside. Members have to learn to accommodate one another, to compromise, if they are to avoid the chaos of each one moving along separate tangents or, perhaps, domination by the strongest.

Learning is needed to, and enables, the creation of *shared explanatory maps* and *agreed norms of practice*; it is the basis for evolving an environment in which people can engage in knowledge generation and exchange for a purpose, on behalf of the collective good. Learning toward a common goal requires members articulating their individual "explanatory systems" in ways which allow the joint analyses, assessments and negotiations which give an organization its identity or culture.

To sustain an institution, or a coherent body of research development within it, *collective learning has to happen more than just once*. Members, singly and jointly, need to become proficient in <u>continuously</u>:

- *monitoring and evaluating* their own activities;
- *sharing* what they have found;
- *interpreting* one another's actions and their consequences with respect to implications for the whole; and
- *negotiating* among their different values, needs and priorities.

Although IDRC works ultimately with individual learners, it is with collective learning that it is most typically concerned, seeking changes in institutional, sector, or community capacities to act on, and for, sustainable development. However, given the complexity of these learning tasks, of forming or reforming social connections, it is important to ask what a donor, and a project, can effectively do from the outside to promote this learning. Most important in answering this question is to understand institutions as *organic,* and *institutional development* as, inherently, a *human resources development task*[4]. This means facilitating members, collectively, in identifying challenges, strengths and goals; modifying attitudes and values; and altering professional and management practices as relevant and appropriate.

From this starting point, the task becomes one of helping members, and clients, work through the process of asking good questions and finding valid and viable answers; of *creating ambiguity* about their collective mandate and individual roles and then working to reduce it. The challenge for IDRC in this is to facilitate, and to avoid directing, the agenda. Any project has to meet the research and development priorities of all its stakeholders, including those of the Centre. In other words, it has to be *relevant*. *Appropriateness* as a condition of effective CD, however, also requires capacity development activities to be consistent with what we know about promoting basic *organizational learning*. This means supporting:

- a distinctive and self-sustaining organizational culture, one capable of generating and applying *lessons-learned* and adapting to changing environments;
- a long-term and consistent perspective on the development responsibility and professional mandate of the institution, including the implications of these for its structures and functions;

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[4] The reference to human resource development here is not to HRD-cum-staff development, but rather to the idea that institutional development concerns processes of human beings learning things, separately and together. It is, therefore, a human capacity – not a structural – matter.

o open and interactive lines of internal (staff) and external (client, beneficiary) communication, including attention to strong feedback loops;
o actions to build community trust; and
o solid conceptual and methodological research, research management and dissemination practices.

Any institutional development exercise involves far more than the physical or financial resources. It requires, to some degree, support to processes of *unlearning established language and norms*; of breaking from current patterns in order to then formulate new intellectual, attitudinal and values perspectives, which are more compatible with the projected innovation.

One useful concept here is that of "theories of action"[5]. These are the logical constructs which individuals use to decide their own behaviour and to explain or predict the behaviour of others. Some of these theories of action are conscious, the rules we *espouse* (for example, that interpretation of data must be objective); others are unconscious or unarticulated, the rules we *apply* (such as researchers sometimes declining to interpret data in ways likely to create negative reaction from powerful policy-makers). To the extent espoused theories and theories-in-use are in accord, there is cognitive and affective harmony in the person, and in the institution. To the extent that the espoused theories and theories-in-use are in conflict, there are likely to be problems with respect to coherent, cooperative and integrated individual or institutional action. Capacity development for projects aimed at introducing institutional change needs to include activities to help participants explore what the relevant *espoused* and *in-use theories of action* are, expose the contradictions and bring them closer together.

➔ It is critical in all of this that institutional development interventions are clear about *the degree of change anticipated*. The more significant the change or innovation is, the more systematic, comprehensive and long-term the facilitating intervention needs to be[6]. The level of effort will depend, for example, on whether the aim is:

- to enable an institution or group to better manage a single project or to generate and sustain a nationally-focused development research agenda;
- to create new operational (management) or knowledge (scientific) categories or refine existing ones;
- to evolve fully different professional values (shifting from experimental design to participatory research, for example) or better manage those already in place (including interactive methods in its case studies); or
- to develop new management, staff and client relationships or improve current ones.

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[5] Argyris and Schon. 1978. <u>Organizational Learning: A Theory of Action Perspective</u>. Addison-Wesley, Don Mills Ontario.

[6] One Centre project involved the fairly simple production of best-practice management videos for institutional recipients in ASRO, for example. Another spent a decade developing and fostering creation of an information sciences training centre for West Africa.

The degree of change expected should then guide the reach of capacity development action required: how many and what people inside; and how many and who in the institution's referent community (policy, client, beneficiary) should be included as targets for new learning.

2. Strategic Thinking for Capacity Development

Conceptualizing capacity development as an inherent part of development action in the ways suggested above implies having, or deciding to seek out, a *strategy* for incorporating it as a recognized, necessary and integral part of all Centre programming and projects. A fundamental concept of CSPF-2000/05 is that the "acquisition and use of knowledge" is the key to development progress. This implies, in turn, that *capacities to do research, and to use research, underlie the work of the Centre* and, from there, that *capacity development is necessarily among the Centre's core responsibilities*.

"Knowledge for development", in this sense, provides (or at least implies) an operational definition of *capacity for development* which is broad and dynamic, and includes abilities for systematic investigation, reflected practice, dealing with challenges to received experience and, deriving from all of these, acquiring new learning from the experience of facilitated change. Being able to do these things, as researcher and research-using practitioner or policy-maker, includes the ability to seek out better ways, to conceptualize, generalize, interpret and innovate.

All of these involve learning, and a role for the Centre in facilitating learning. In this, experience leads to certain *development-related principles of CD strategic thinking* built around the need for all projects to:

(i)   *allow people to learn*, by providing opportunities for them to participate in the meetings, access the information and join the networks where ideas and examples are available to acquire and exchange;

(ii) *enable people to learn*, by supporting and providing advisor expertise to research projects through which they can learn-by-doing; and

(iii) *facilitate people's learning*, by creating for them, or supporting their participation in, formal education and training programmes and providing on-site mentoring arrangements.

A **first** such principle of strategic thinking for capacity development, is that interventions should enable the strengthening and creation of individual and institutional capacities not simply to pursue this year's research agenda, but to continue to generate new research agenda and sustain progressively stronger expertise as an integral part of the research for development enterprise.

Second, all ways of knowing (basic information, analytical, conceptual), ways of organizing knowledge/explanatory frameworks (indigenous, scientific, cultural) and ways of manipulating knowledge through multiple skill sets (policy-making and decision-taking, technical and social analysis, interpretation, negotiation and marketing) count. They are all legitimate dimensions of applied development-related inquiry and should be supported by the Centre through its projects.

Third, capacity assumptions and implications necessarily underlie all Centre policy and programme action and, as such, *warrant being made explicit* if they are to be effectively followed up by well planned and funded CD intervention. Following are some policy statement from the CSPF-2000/05 and their CD implications.

- The stated intention to: "support the production, dissemination and application of research results …explore new opportunities and build selectively on past investments" implies:

    - available capacities for doing the producing, disseminating and applying;

    - taking action to determine that the capacities required to do research in these new problem areas are available or that methods and mechanisms for generating those capacities are in place; or

    - the Centre providing these capacities in appropriately targeted, learner-centred ways; and

    - pursuing a variation of the traditional "phase 2" approach.

- The stated intention to: "devolve responsibility" to Southern institutions for development-related research implies support to these institutions to more fully recognize and act effectively on responsibilities (which are already theirs) through capacity interventions to:

    - generate attitudes confirming the importance of development research;

    - mobilize the political will and human resources to sustain this research;

    - strengthen strategies to fund and manage the research.

- The stated intention to enable "multidisciplinary teams (to) collectively focus on research issues", following a strategy which "starts with the problem and determines what knowledge and which disciplines can contribute to its solution" implies a significant breadth and depth of capacities on the part of both researchers and practitioners. It suggests unlearning sector/discipline-based thinking and learning to create the new mindsets, knowledge paradigms and methods underlying innovation.

In this context, senior scientists and policy-formulators engaged in governance, biodiversity and social learning may not need further academic training. However, they may well need to:

- find better ways of exchanging ideas, approaches, attitudes and knowledge across disciplinary lines;

- develop strategies of thinking which more effectively integrate social, economic and environmental factors;

- change their perceptions about the need for including previously marginalized groups in decision-making in order to increase the chance of solutions being effective and sustainable;

- strengthen skills in communicating, negotiating and resolving conflicts across different communities of interest, to more accurately frame and clearly express complex issues in user-accessible form; and

- use information and communication technologies more creatively in reaching marginal groups.

In the same context of multidisciplinary teams, local practitioners, marginalized communities, vulnerable groups being mobilized as participants in social change and resource management programmes may not be able, or want, to engage in higher education degrees or technical training in the natural sciences. Nevertheless, their ability to participate effectively is likely to require their learning to:

- apply basic research-type skills e.g. of situation mapping, problem analysis, data collection and interpretation;

- acquire knowledge and research skills within and across sectors/disciplines;

- learn to use/manage ICT as tools of information exchange and action; or

- gain confidence and capacity in communication, negotiation and conflict management.

▪ The stated intention to mandate PIs to act "as networks that link researchers to address specific problems and to set a research agenda", and thus serve as part of the Centre's operational structure, implies the *capacities* to do this. Depending on the level and point at which researchers, especially the least strong, are expected to "address" problems and "set" agenda,

- PIs need strategic approaches to confirm availability of the relevant skill sets and knowledge bases for doing such networking, or need to know how the required skills and knowledge will be put in place; and

- the Centre needs, collectively, to see that PI's have these strategic approaches before them.

3. Strategic Action for Capacity Development

If, as proposed above, capacity development is at the heart of IDRC's rationale of supporting indigenous groups and institutions to do their own research by helping them learn how to do it, then it follows that the Centre needs to *define sustainable development and the activities intended to influence it, **in learning outcome terms***. Both the planning for, and the results of, capacity development activities need to be defined by indications of:

- changes in awareness, information, understanding, confidence, attitudes or motivation, and, ultimately, behaviour; and

- assessments of how these changes are enabling individuals, communities, organizations or institutions, as researchers and research users, to better manage themselves and their environments in durable ways.

Defining sustainable development in capacity terms suggests a subtle shift in thinking about projects, out of a "research-for-development" framework and into one perhaps more accurately described as "development-through-research". It is a shift most clearly evident in the increasing attention being given to action and participatory research methodologies, research undertaken by policy-makers, communities and practitioners in support of their own systems change purposes and application.

This implies more than a simple change in the language, from projects "delivered to" Southern institutions, teams or individuals to their being "undertaken by" them. It also means ensuring that, in addition to adequate funding, the specific knowledge and skills required for research implementation and use are available. In some countries and sectors, this means strengthening existing research systems; in others, it means creating those systems. This, in turn, means being able to analyze where the capacities are available and where they are missing, and of what kind and quality they are, both in the particular sector *and* in the connections between sectors and between research, policy and practice.

Capacity is, in this latter sense, a connectivity issue and capacity analyses need to take into account both the demand side (what knowledge and skills are needed to do the research relevant to addressing the development problem) and the supply side (what knowledge and skills are available for doing so, in the immediate vicinity of the project, in the wider regional community, and globally). Capacity analyses also need to project into the medium to long term where the core concerns of the research sector/development

theme are leading and over what time period (e.g. is a project a one-off event or does it require a long-term commitment?).

From a development standpoint, therefore, it is important that projects be conceived, designed, implemented and assessed in terms of the wider research capacity "environment" as well as the specific needs of the project or even PI.

II - FACTORS INFLUENCING QUALITY AND REACH OF CAPACITY OUTCOMES

A. Relevant Objectives and Appropriate Mechanisms [7]

Relevance

          In the context of capacity development as used here, relevance concerns the degree to which an activity is consistent with the priorities of those involved with, or affected by, it: the person who learns, the institution trying to change and IDRC as the agent intervening to catalyze both. The more clearly IDRC, with these others, can articulate the rationale for particular capacities being important to strengthen, *and do so in terms of concepts of development and advancing the research agenda*, (a) the more likely, and the more likely effective, will be the attention and resources applied to getting CD interventions right; and (b) the better basis there will be on which to assess capacity outcomes i.e. in terms of changing the status of those priority conditions.

Generally in Centre projects, relevance in development terms of the CD rationale is not a problem. Where it is referenced, usually in the Appraisal, it is quite clear and direct. For example:
  o A health policy project in Latin America intended to enable regional researchers to engage in a new and important area of health systems research at a critical time of impact on health delivery due to decentralization, privatization and globalization.
  o A 4-week governance institute initiated in Africa on politics, health and society addressed a serious situation of diminishing social and health status and services in the region, traceable in large measure to national governments and donors inadequately taking into account political and societal factors in designing and implementing interventions – and using inadequate frames of analysis for understanding the problems in the first place.

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[7] Differentiating relevance and appropriateness is useful insofar as it provides a hook for assessing what makes a CD activity stronger or weaker. Thus, for example:
Building the capacity of geotechnology researchers in Guinea was relevant from a development perspective because the problems of uncertain and unstable geophysical conditions in Conakry were serious and needed to be better understood and addressed on a sustained basis. The co-operative and formal education-based mechanism chosen to do this was probably appropriate because it enabled reasonably consistent, interactive and comprehensive mentoring and senior-level training tailored to the wider needs and conditions of the responsible ministry. The relevance of the project, however, in terms of the broader goal of moving Guinea into the modern scientific community after a prolonged period of isolation caused by conflicts and severe under-development was probably more tenuous; so too its appropriateness was qualified insofar as its reach was narrowly focused, the single degree awarded was only at a masters level and two other staff were provided minimal nonformal training.

Expected capacity outcomes of an Infant and Child Mortality small grants project in the Philippines were relevant in aiming to reduce infant mortality and do it through support to "outlying" institutions close to implementing agencies which would then be able to reach poorest communities, because both were recognized priorities to which the national health system had a commitment. The methodology of the project was appropriate insofar as it mentored health service delivery agencies in the context of their work, focused on analytical skills and interpretation of research results which they could use in the local context.

Relevance is related to the concept of ownership. People are more likely to engage in, take responsibility for, and assume the right to *adapt* a learning task when they recognize and agree that it meets their own priorities as *actors* in the wider development agenda and as *learners* in the specific CD effort. In this sense, the capacity goals of a project need not simply be relevant, they must be *seen* to be relevant -- to the values, priorities and needs (for knowledge, skills, actions) of all of those expected to engage with, support and acquire them.

➔ It is not always clear from Centre projects that this last criterion is met. While the capacity rationale and goals are often reasonably explicit in an appraisal, they are as often as not only implied in the proposal or PS. In these cases, the Centre's CD goals may have been strong and well-argued, but to the extent they were not shared by the research recipients, in learning outcome terms, they would have been harder to realize.

- Adults learn more proactively and systematically where they collaborate in the exercise, and they do this where they know where they are trying to go and how the activities are expected to get them there.

This is critical where a project has long-term expectations beyond the immediate end-of-project objectives. Communities in a project in Malawi were asked to assess current practices with respect to how they were caring for people living with HIV/AIDS. They were more likely to have made an effectively use-oriented assessment because they knew that the end goal was to help them learn how to provide this care more effectively and sustainably (through the intervention programme to which the data would lead), not simply to answer researcher questions.

It is in this respect that participatory research is meant to be especially strong: expected capacity outcomes are derived in large measure from the user's own research activities, which define and build them.

o The conceptual framework of the Fondo Mink'a project, for example, suggests that strengthening the capacity of organizations to work with poor rural communities in ways which are congruent with the principles of empowerment, equality, and sustainability that they espouse, is a powerful way to promote genuine and effective development. As they conduct research into, and improve their understanding of, how such change happens, and how the dynamics of poverty and exclusion work globally and locally to affect people's capacity to act, these organizations at the same time strengthen their own capacities to unlearn previous ways of thinking and acting and learn new ones.

o Participatory development communication/PDC through the banana/NRM project in Uganda enabled farmers to strengthen and apply, in a permanent way, their capacities as analysts and decision-makers in an agricultural sector with considerable potential for health and economic development, but serious economic, biological and management problems. Those farmers would then learn

to address, to share and to facilitate the up-take of the PDC approach with other farmers. It is a good example of a learner-based capacity development model.

Appropriate Mechanisms

Appropriate mechanisms are those which:

(i)   recognize who and where the learners are and what they are expected to learn, in content and scope; and

(ii)   are designed according to sound adult learning and social change principles.

Several aspects of appropriateness are discussed here as important to effective capacity activities.

1. *Consistency with the Theory and Practice of Adult Learning*

To a major extent all learning, whether done by children, adolescents or adults, involves the same basic process of exploration, testing and inquiry. The distinction among individuals according to age is important insofar as internal maturation and external life experiences imply changes to inherent capacities, acquired learning tools and self-perceptions, which will facilitate, and sometimes impede, learning. These are the characteristics which any effort to develop capacity – to facilitate learning from the outside – *must* take into account and around which it needs to be designed and implemented.

a) Characteristics of adult learners. While presumably self-evident, it is important to make explicit the fact that IDRC's target learners are adults. In this, they have certain characteristics of note:

- o   For the most part, they are volunteers to the capacity activity, either not compelled to be there at all or, if the job demands attendance, not required necessarily to engage with energy or cooperation. They can leave, remain passive or collaborate on a par with those trying to facilitate the action.

- o   They are people who have, and have invariably used to good effect, significant capacities for independent thought and self-directed action. Although previous learning experiences may incline them to defer to the authority of the intervention, any such notions of dependency will invariably block productive learning.

- o   They have significant life and learning experience, positive and negative, through which they will define themselves, and filter their perceptions of new ideas, and in terms of which they will respond to the capacity activity. These will serve either as impediments or facilitators of their ability and willingness to engage.

- They have a range of functional, and some dysfunctional, learning tools to bring to bear in engaging with, and perhaps avoiding, the learning event. They may not be fully aware of what tools they have, or what they lack, but the nature of the capacity mechanism and ways in which the tasks are presented will serve to bring out the strengths and the weaknesses to positive and negative effect.

- They learn most effectively in climates of respect, equality, challenge and transparency – climates in which they are, in effect, treated as peers with equal right and responsibility for defining and managing the learning experience.

b) Learner-centred activities. For all of these reasons, capacity development activities are more effective where they are *adult learner-centred,* specifically tailored to/integrated into the real world of those involved (researchers, practitioners, policy-makers, farmers) and taking into account and accommodating any factors or conditions which might facilitate and/or impede the learning.

c) Readiness to engage. Because learning is a personal process, the *readiness to engage* with capacity activity is a critical condition/determinant of effectiveness. For individuals to engage with, monitor and guide their change-oriented activities in the ways usually expected by IDRC interventions, they typically need a minimum of on-hand capacities: the ability to read and communicate ideas, to handle abstract concepts and systematically order ideas, compare and contrast options, project possible future outcomes. They need a certain degree of self-confidence to think critically, engage in problem-solving and negotiate.

- Readiness in this context is not a fixed characteristic. Participants can be helped to *become ready* to engage with new ideas and behaviours through an approach which starts where they are and actively helps them move forward.

- Capacity activities are thus more successful where participants are included in determining what is to be learned and for what reason - in other words, where planning and monitoring are integral parts of the initiative so that learner inputs are directly linked to the selected learning mechanisms and methodologies.

d) Culture of learners. Capacity activities are more successful in a broad sense where facilitators and participants are, to at least some extent, peers - sharing common field experience, culture, life situation, work responsibilities; and where there is a long enough commitment of time for learners and facilitators to explore issues and test ideas/practices together, in the relative security of the learning setting (e.g. workshop, project).

e) Learning environment. Most adults, where free to choose, come to a learning activity reasonably keen to learn. Their ability to do this will be enhanced or diminished, however, by how c*onducive the learning environment is* -- the quality of the psycho-social, cultural, linguistic and physical setting. Effective capacity development interventions need to be sure that anyone targeted for change, individually and

collectively, has what he or she needs to feel secure (and this will be person-specific) – or ensures well-facilitated actions to enable them so become secure.

Margin[8]:

- Creating a conducive learning environment includes the provision of *margin*: *the intellectual, emotional, social, economic and physical "space"* a person needs in order to make the effort, and take the risk, of engaging in a learning for change process. The concept of margin reflects the fact that any learning, any innovation, makes demands on the person affected, however educated or socially disadvantaged s/he is.

- Most people will bring to a learning event more-or-less of their own sense of margin: the more, and more positive, learning experiences they have had in the past, and the more tools and resources they have for accessing and managing innovation (e.g. time or economic security to experiment, literacy, communication or computer skills), the more resiliency they will usually have in confronting and dealing with the uncertainty of new situations. The opposite is also the case. Capacity planners need to differentiate among targeted learners, especially where the objectives of the capacity development task represent major psycho-social or behavioural change.

- Projects themselves provide margin by securing the resources for experimentation and, presumably, job security for those researchers whose pilots fall short or fishermen whose stocks die.

- *Good quality facilitation* is that which provides margin by using learner-friendly methods (e.g. small group discussion with cultural or professional peers); or extra learning "hooks" (e.g. guidelines for a new methodology or case studies to stimulate creative compare-and-contrast thinking). It can be as simple as ensuring that when village women are asked to participate in action research activities, they have someone at home to care for their children. It can be as complex as ensuring that they have access to non-written information where they are illiterate, or strategies to mitigate the impact of cultural norms which preclude them expressing opinions in public.

2. Specifying the Learners

Taking adult learning principles as described above into account requires knowing who the learners are. This seems basic, but is not often very clear in IDRC projects who the

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[8]H. McClusky proposed this concept in 1963 (*The course of the adult life span.* In W. C. Hallenbeck (ed.), Psychology of adults. Chicago: Adult Education Association of the USA), related to educational gerontology. Its value is wider than this, however.

full range of targets of capacity development are – or should be. In large measure, this situation reflects a two-fold dynamic: because capacity implications of the project as a whole are not often clearly mapped out, at the planning stage, those expected to change in some way, as a requirement and/or result of the project, have not been flagged.

At the end of the day, the learner is the individual who is being mentored, participates in the workshop or study visit, enrols in the Masters programme.

- Ultimately, the learning-focused interaction with that person needs to be relevant and appropriate to his/her interests, responsibilities and readiness to engage.

That said, the individual is rarely the actual end point of the Centre's CD concern. Rather, it is the research task and the development problem: the *capacity* to be built is that which is needed to advance research on established development priorities, or to create locally-available, good quality research venues able to keep research expertise alive and growing.

The learners are, in effect, the conduits to these ends. Developing capacity interventions in ways which meet them as both unique learners and means to other ends, requires a fair amount of sorting out – mapping – of the capacity objectives and availability environment. Invariably, capacity requirements and capacity targets are multiple and interactive (one person's change impinging on/required for another's); many of the learning objectives are typically more implicit than explicit.

Even a few examples indicate that getting the broad categories of potential learners and their learning, right can be complicated.

- The agro-pastoralist project in Yunnan, was aimed at strengthening stakeholder capacities to understand what was happening to make extension ineffective, and it addressed at least four very different types of learners and their unique perspectives on both the reality and the power relationship within it:
  - *researchers,*
  - *extension agents,*
  - *farmers*
  - and, presumably, the *political-business community*.

- In the medicinal plants project in India :

  - *organizations with villager representation*, primarily NGOs, would participate in design of projects and undertake "participatory processes to gather social and gender related information";
  - *NGOs* would more effectively organize collectors of medicinal and aromatic plants (MAPs);
  - *local communities* would practise improved growth and management of MAPs by applying research results;
  - as a "network-based research" project, *an existing MAP network* would do better work; and

  o *State governments and donor agencies* would better target research in this area, and design and develop better large scale livelihood projects.

  ▪ The main capacity goal of the Malawi HIV/AIDS project was the enhanced ability of communities to care for their AIDS-orphaned children. Community, in this case, was holistically defined as those *people, families, health and social service workers and agency (UNICEF, World Vision) personnel in a position to support at-risk children – or who could be in such a position* with training support. In this case, the use of a PR methodology might have been optimistic, when even knowing who was to learn what, for what end, and starting from what level of readiness, was a major task.

For all three examples, of course, the individuals and sub-groups within each broad category would be identified, and be understood with respect to learning readiness, priorities and needs.

3. Clarity of Capacity Objectives

Enabling the generation or strengthening of capacity requires determining, in as detailed a way as possible, what is to be learned. This means that, in addition to identifying the development impact and knowledge generation goals of the project, it is also necessary to be clear about the changes in capacity expected: what changes in attitudes, knowledge, skills or behaviours/practice does IDRC hope to influence, and on the part of which people, groups or institutions.

a) Types of knowledge: This means trying to break down the broad capacity objectives into specific learning contents or tasks -- what the person will need to know, think and/or do in order to be considered to be moving toward the intended objective; and to do this in ways which will <u>both</u> guide the selection of appropriate capacity development mechanisms and methods, <u>and</u> enable indicators of outcomes to be identified. These learning contents will invariably include acquiring the *different types of knowledge or ways of knowing* which underlie the usually more comprehensively expressed capacities sought i.e.:

  ▪ the *factual knowledge* involved in becoming more aware, better informed;

  ▪ the more complex, *conceptual knowledge* that enables placing pieces of information in context, exploring ideas, looking for reasons behind situations, determining linkages between discrete data bits; and

  ▪ the most *proactive kind of knowing* that enables creative, independent and self-reliant action, adapting behaviours/practices according to calculations and mitigation of risk, collaborating, integrating and negotiating.

b) Degrees of competency: As used here, these different ways of knowing are generic in the sense of being discipline or context free; the necessary conditions of being able to live

effectively. They then become tied to the specifics of the capacity development focus of the research or development agenda. This way of looking at capacities suggests the idea of *degrees of competency*: from basic, fairly static control over an idea or skill knowledge, through to the capacities at the core of "learning to learn" -- information seeking, situation analyzing, decision-making and implication assessing, along with the internally-generated self-confidence and motivation needed for doing all of these.

By way of example of this last point, a Community Control of Acute Respiratory Infections project in Cuba implied at least three degrees of competency in its several capacity development objectives:

(a) Most basic, task-oriented training was provided for participating doctors and nurses in the methodology of the data collection; for home visitors and social workers in interviewing techniques; and for junior research team members in statistical analysis relevant to epidemiology study. None of these people were intended to become professional researchers able to conceive and manage independent studies through the training exercises.

(b) Family doctors, nurses and home visitors involved in one sub-group of the study, however, were given training in health education techniques related to recognizing ARI severity, in registering and reporting incidents and in case management for better guiding parents. These professionals were expected to be able to do their jobs not just better from then on, but in a different, more proactive, way as a result of the education programme they were given.

(c) Parents were to be able to recognize symptoms of ARI and take corrective actions, implying the knowledge to see ARI in a holistic systemic way, a change in attitude about the inevitability of certain childhood illnesses, and a possible change in expectations about their ability to play an interventionist role in the health of their children

Although implied here, as with most projects, the actual capacity expectations were not detailed as ways of knowing or levels of competency. Tied to project objectives, capacities were expressed in terms of specific new bits of knowledge to be gained, skills to be strengthened, and attitudes to be developed. The PLaW participatory development communications project in Uganda was somewhat more explicit about the learning outcomes to be realized by farmers:

- *new attitudes/motivation*: appreciating their ability to reflect jointly on common problems and seek solutions;
- *new attitudes/motivation*: recognizing that learning through shared information is a slower, but more sustainable, form of learning/change than seeking "answers" through top-down traditional extension;
- *new knowledge*: becoming aware of the power of collective decision-making; -- this related in turn, to -

- *new behaviours*: creating a farmers' association as a result of shared decision-making; and
- *new behaviours*: using improved soil and water management technologies.

Researchers also acquire capacities, of course. In this case,
- *new knowledge*: that demonstrations are important opportunities for farmers in exposing them to options;
- *new attitudes/motivation*: recognizing that communication tools need to be of varying types to allow different users and uses to engage with them; because ---
- *new attitudes/motivation*: farmers are not all of-a-kind – marginalized groups within them e.g. women require specific attention to know how best to communicate;
- *new attitudes/motivation*: accepting that participation takes time if it is to be effectively "hands-on";
- *new behaviours*: shifting from a top-down push-out extension model to a participatory one; and
- *new behaviours*: developing and using communication tools

c) Capacity sets: Many projects identify capacity outcomes only in terms of the "final product" e.g. competent agronomists, collaborative resource managers, environmentally-sensitive economists. These are not so much capacities, however, as *capacity sets,* complex arrangements of knowledge, skills and attitudes. Such sets rarely arrive fully formed at the end of a project experience, of course, unless they are almost there initially and the CD task was simply a matter of fine-tuning. Indeed, a capacity set may not be evident at the close of a project at all, but emerge some years later as the learning and practice experience is tested, integrated and consolidated.

It is probably rare that an IDRC project will involve learning tasks and outcomes of all types and levels. Most people with whom IDRC works will have capacity sets which included the component capacities to some, if not a high, degree. CD here becomes a matter of adaptation, altering existing ways of knowing to accommodate new research or research application issues.

That said, it is important that project planning recognize that the multiple types and levels of capacity are there. The more accurately these final comprehensive capacities can be broken down into their constituent parts, the better the project will be able to assess:

  ▪ what is already place;
  ▪ where the emphasis to facilitate new learning should be;
  ▪ in what order of priority; and
  ▪ through what mechanisms and methods.

To the extent there is not at least a notional understanding of what the range of implicated knowledge dimensions is, the ability of any monitoring or measurement done to explain progress on the "bigger picture" capacity or research outcomes – or the lack of them - will be lessened.

d) Adaptation: One issue of capacity important for Centre projects to note, in this respect, is in fact the *need for adaptation*. All innovations, by definition, require at least some – and sometimes considerable -- unlearning and relearning.

- o It is not necessarily automatic, for example, that scientists can cross disciplinary boundaries to work intersectorally; or that policy-makers can engage open-mindedly with research data which show current policy to be in error; or that users and providers of health services can willingly and ably think and act in systems terms.

- o It is not often the case that the policy, regulatory or knowledge-managing institutions of these people are immediately ready and able to shift gears to accommodate the novel goals or processes of research, and its consequences.

- o Increasingly, projects are collaborating with subsistence producers or marginalized communities who are poorly educated and non-scientific in their orientation; people no longer intended simply as the beneficiaries of science, but the practitioners of it. In Outcome Mapping terms, they are the "boundary partners" in the various PI versions of action and participatory research. Demands on these people and groups for new or different ways of knowing, often at fairly sophisticated levels technically (e.g. sustainable water use management) and generically (e.g. generating new data), can be especially high.

To the extent Centre projects do not go beyond broad capacity categories to define objectives in *learning outcome* terms, they limit effectively dealing with needs for adaptive learning. Thus, for example, a small Phase 1 health policy project in Latin America aimed at creating researchers in several countries with "the necessary skills, competence and experience in conducting health systems research" to sustain a new field of health systems research; and to do so at a level which would allow the Centre to "assess the capacity of the research team" before committing itself to a large second phase.

The project's expectations for enhanced capacity for analysis, problem-posing and solution searching, and cross-sectoral communication needed in a *health systems perspective* implied a fairly *sophisticated and broad range of new knowledge* in several health and social fields; *attitudes supportive of open inquiry and paradigm shifts* about the interactivity of all of these; and new *methodological skills in interdisciplinary data collection and analysis*. While no doubt clear in the mind of POs and others in the field what these several capacities would look like in practice, the project design did not detail such a breakdown, at least not so as to serve as a template for assessing readiness for, and risks of, a phase two.

What we know from research on implementation of innovations is that users are most likely to *adopt* when they can *adapt*. They are most likely to sustain learning on a new technique or approach, where they can adapt it to their own needs. Some variance

should, therefore, not just be tolerated, but highlighted when setting capacity objectives and encouraged – indeed celebrated -- during implementation.

4. Linking Learning with Practice
Adults can and do tolerate considerable ambiguity in learning/change settings. To a large extent, the challenge of working through ambiguous or contrary situations is a key catalyst to the learning process. As suggested earlier, however, and especially for people with more limited *margin for risk*, meaningful and sustained learning is typically a function of perceived relevance to needs and priorities.

The more a learning activity is grounded in the reality of a learner, linking theory to practice and unknown to known, the more likely it is:

- that accommodations and adaptations between existing and new conceptual frameworks and behaviour patterns will be made, and

- that various components of the learning task will build incrementally on, and reinforce, each other.

➔   In this respect, all IDRC projects would be improved if they more explicitly integrated capacity development activities into those of research, dissemination and application, since these are invariably well-grounded. This integration needs to happen at the outset, in initial conceptualization and planning; and incrementally, the focus of CD activities adapted as new capacity gaps and opportunities are identified and/or initial capacity benchmarks are met.

Such integration can happen by making sure that any researcher training is such that it links participants directly to the realities of the field from which they will be collecting and interpreting their data and seeking to have their results applied. The infant and child mortality project in the Philippines, for example, provided three potentially powerful CD mechanisms for its researchers in terms of such context-based action:

- support to field-visits to actual sites of mother-child practice;
- pilot projects enabling them to test their field-based action with communities and families; and
- advisors supported by local partners to help mentor the researchers in the field.

Further, each sub-project was able to determine for itself what activities and mechanisms were required, suggesting a further degree of context-specific flexibility in the training provided to researchers. Linkages were maintained among the subprojects, and networking between researchers and local health official/users was encouraged – both of which served to keep the analyses grounded.

From another perspective, linking capacity to research and development outcomes can happen by creating a capacity development "package" of inter-related mechanisms. An

inland fisheries research project in Nepal met both present and future objectives for creating national capacity to handle reservoir fisheries through:

- post-graduate training in Canada for senior technical and policy people;
- short course training for junior technical staff in immediate research application skills;
- training for sustained application of the technology (cage culture) through outreach to fisher communities and strengthening the Fish Growers' Association; and
- workshops and publications to serve the broader dissemination task of "encapsulating the current state of knowledge" for wider use.

Maintaining an effective and adaptive balance among the sometimes competing CD and research agendas is not necessarily an easy task, of course. Time and budgets, focus and priorities, levels of attention and commitment are all, in different ways, finite. Capacity issues will generally tend to suffer in any competition with those of the research, especially given the often nebulous and labour intense nature of capacity activities. The more expressly capacity objectives and activities are integrated into the overall activity, however, the more possible it will be for balances to be worked out. For this reason again, transparency and collaboration in planning and monitoring of CD is key. Recipient researchers, project managers and IDRC POs, together with their respective institutions, need to reach general consensus as to what a viable and relevant balance is, and continue to negotiate this as activities evolve and priorities change.

5. Multiple CD Levels through Multiple Intervention Stages
To reiterate a critical point about capacity development: depth and sustainability of any learning are direct functions of time, practice and adaptation. *Learning is, by definition, a phased phenomenon*. This is very much the case for most of the implied and planned capacity goals of IDRC projects, both at the micro level with respect to the sophistication of knowledge and skills intended for the individual learner; and at the macro level with respect to the movement of the *capacity wave*, from those learning to do research, to those learning to use its results.

As early as the mid-80s POs were indicating the difficulty inherent in initiatives such as farming systems research and rapid rural appraisal with respect to the capacities required and the need to support them incrementally. They recognized, and correctly so in learning and change theory terms, that:

> "there will be different degrees of expertise and some in the group will be subordinate to others"; that the capacity to act cooperatively would be an important criterion for "…finding people who are prepared to put the time and imagination into developing a good first project…"; and that they must be "prepared to start several smaller projects which will become a sub-network initially", and to develop from there in finding "a few capable, technical people who are really interested in this area and back them up with training and putting other people in with them who will become infected with their enthusiasm. The location and the specific research topic is less important than the technical knowledge and the enthusiasm of the staff." (Memo, Banta to Davy/86)

Some projects address this issue of *staged development* by what, in learning terms, might be called an *advance organizer*: an activity aimed specifically at preparing the setting and the people for the learning which will happen by assessing learner readiness and laying out the main dimensions (content, steps, incremental objectives) of the learning task.

- ▪ Preliminary research support activities (e.g. RSPs, pilots) serve this function where they aim specifically at creating a base of shared understanding and engagement with the partner or recipient organizations, one on which the need for, and goals of, a main project can be built.

- ▪ While not typically used as a tool for capacity development in this way, the pre-project RSP of the Participatory Management of Mangrove Resources/PMMR project in Cambodia appeared to have been effective as an *enabling mechanism* for introducing the knowledge and skills critical for local participation – into the <u>development</u> process of the project, not just its eventual execution.

- ▪ In a similar vein methodologically, the second phase of a natural resources project in the Philippines was to proceed incrementally through "an iterative process of training, analysis and action" to identify people already working with fisher communities on issues of organization around legal rights and resource management, strengthening their capacities in participatory methods of situation analysis and diagnosis, supporting their work with communities to produce detailed analyses, strategic plans of action for specified problems, and to implement and evaluate the impacts of these "with backup support". (Memo, Tyler/91).

In general, the decision to move a project to a second phase, by design or default, enhances the possibility of consolidating learning in/by both the institutions and individuals involved by enabling this kind *of progressive capacity building*. Not so much a mechanism as a strategy, use of phases explicitly as a means of enabling progressive capacity development appears more often a result of good monitoring, well-served by administrative flexibility, than of strategic planning. Where this has happened, the action appears to have been both sound and effective.

➔ Unfortunately, it seems rarely the case that capacity issues have factored explicitly in many second phase decisions, and to this extent those initiatives must be seen as potentially significant missed opportunities. Nevertheless, it is an approach with a particular logic in the case of institutional development and systems building project initiatives.

National University of Laos

One apparently very good example of the need for, and potential value of thinking in terms of, phases has been the progressive work to institutionalize research at National University of Laos. The initial objective of phase 1 was that researchers would *know how*

to manage research and do it effectively. They would *develop an understanding* of CBNRM issues, *skills to do participatory research*, and *capacities for networking* with government within the context of developing policy. Not surprisingly given the challenges of the Lao academic infrastructure, outcomes fell far short of expectations. The documents available for review on this project indicate that a capacity-specific scan was not done, and so no "capacity map" generated which might have more clearly revealed the capacity "distance" and the potential learning tasks between the capacity status of the university – its level of institutional readiness – and the intended scope of capacity changes implied by the objectives.

The issue was in *not sufficiently accounting for* a low capacity starting point, *not recognizing learning as a step-wise progression*, and therefore *not allowing for adequate support and consolidation at each stage*. Phasing of the project, however, allowed the first period of intervention itself to serve this critical capacity assessment role opening the door to adjustment as it became evident that initial assumptions were incorrect.

It was not a question of no capacity development at all, however:

- Limited *knowledge results* were achieved - knowing what qualitative research was, awareness of some of the problems and advantages of different techniques, and insights into natural resource issues in Laos.

- There appeared also to be some *attitudinal change* results: a positive view of working with communities.

- While networking and policy influence were not realized, a *basis for future* networking and policy capacity development was achieved through preliminary steps to networking through contacts in Chiang Mai University among other organizations.

- Important, too, were improvements in the English-language skills necessary to access documents and interact effectively with knowledge from the wider region.

Consistent project monitoring, a flexible administrative structure within IDRC and, apparently, a basic understanding by project staff of the principles of learning, allowed a phase 2 to change the paradigm. Through a much more explicit "capacity development process", the university more broadly became the focus, as the enabling (or disabling) environment for its researchers. It would be strengthened through guidance in the articulation of its own agenda, the creation of a CBNRM information centre -- laying the foundation of a graduate programme, and outreach to its local community constituency. Researchers would know how to conduct research through being facilitated in doing it.

6. Congruence Between Objectives and Mechanisms
A last aspect of appropriateness, implied by much of the above, but important to highlight, is the need for *consistency between ends and means* -- between the outcomes

wanted and what is done to produce them. Learning theory holds that individuals, especially adults who tend more than children to intellectualize the learning process, will be ready to engage, practise, adapt and consolidate where they have the *opportunity through the intervention actually to do these things*. The contrary is also true.

Thus, for example, the presentation of new information, through seminars, workshops, and study visits may well lead participants to acquire new information, be provoked by ideas or raise useful questions; they are less likely actually to change their attitudes or practice without some other type of applied follow-up.

It would be reasonable to assume, for example, that researchers and farmers trained through on-farm research and extension methodologies would be less fully independent in their new capacities than those who were involved in a CBNRM or PLaW approach, given the difference in intensity and nature of the tasks in the learning opportunities provided.

Project researchers provided post-graduate fellowships could be expected to be more capable of *conceptualizing* development problems in their sectors and *generating* the research questions for addressing them than those involved in occasional workshops with some interspersed mentoring (assuming a similar capacity starting point).

In the case of the Uganda small grants project aimed at establishing the beginnings of an integrated social and environmental sciences research community, one important expected outcome was collaboration between the two managing institutions. From a capacity perspective, the design of the project probably served to impede this collaboration by letting each institution manage the grants in its own way. There appeared to be no structural or functional incentive for them to come together to *learn to collaborate*, assuming collaboration requires particular pro-inclusion values and fairly sophisticated skills.

Systemic change

This factor of means/ends congruence is especially complicated in those projects aiming at *major paradigm shifts* or *systemic change*; projects where capacities include not simply those needed to do better work in a discipline or sector, but those enabling fully new ways of thinking, acting and communicating.

Challenging researchers and their practitioner or policy counterparts with alternative theoretical frameworks or models of research, as a means of catalyzing different ways of understanding development, is both *relevant* in terms of IDRC programme objectives and development principles; and *appropriate* in terms of learning theory. Forced questioning of current concepts, reflection on practice and mixing of disciplinary approaches are valid and effective methods of facilitating learning and introducing innovation. These are methods most POs in IDRC *do* use in the nature of their work.

The difficulty comes in selecting the right mechanisms, and ensuring their sufficiency. Many mechanisms are appropriate to this kind of paradigm shift objective:
- o case studies providing exemplary data for the new thinking or approach;
- o opportunities to exchange with successful practitioners where they are available;
- o facilitated on-the-job support as researchers work through the changes implied by the innovation to their previous practice;
- o punctual action-research exercises to test and assess new data collection and analysis strategies; and
- o post-graduate training.

Matching the mechanism to the specific learners is one key task. Another is ensuring appropriate staggering of the learning stages, breaking down the learning/change tasks in ways which enable adequate testing and consolidation of each. This is where *sufficiency* is important. There is little point asking researchers and policy-makers to generate a consensus-based, multi-level "system" around a health policy innovation, for example, before they have had, as individuals, a chance to understand its substance and implications in their own work. There is little point in expecting them to emerge as a coherent research-policy "collective" after only a couple of joint workshops.

Case 1: Mexico

A project which should have had significant discussion of capacity was that to implement a process of generating an Essential National Health Research system in Mexico, defined as the "establishment and strengthening of an appropriate health research base and its activities". The scope of work to be done was wide, in as much as ENHR was understood to be "both a product and a process for decision-linked research", requiring that "exactly what mix of research is considered essential must be defined by the people in each country", and that it "contain some measure of (both) country-specific health research and research on global health problems".

Bringing all of this together, across different stakeholder groups from senior policy and politics, and through to the community, implied a wide range of types and levels of capacity -- an inherently capacity-oriented task of *developing* a National Plan, *creating* a national commission, *identifying, implementing* and *coordinating* integrated mechanisms for biomedical, clinical and operational health research.

- ▪ There was, however, no indication in project documents of any undertaking to assess what were the knowledge, attitudes, and skills for research generation and use needed to "bring together all the relevant groups to identify and prioritize the problems, recommend solutions and find the resources to resolve" the health problems of the Mexican population.

There is no reason why broad, learning-by-doing approaches, using mechanisms such as occasional, as-needed and unstructured advisor/mentoring and information exchange should not be effective. Indeed, people do much of their basic learning informally; it can and does produce high quality, durable outcomes. However, it is unpredictable and highly

idiosyncratic in the way each learner and learning event "match up". Within the context of outcome-oriented projects, a light-handed modality means that the learning outcomes *expected* must also be fairly light.

Case 2: Uganda

The integrated environment research small grants project in Uganda had:

- a clearly defined institutional development capacity goal;
- less well-defined capacity objectives in terms of expressed learning outcomes; and
- very informal approaches to supporting the intended learning.

The primary expectation of the programme was broad, to sustain and promote a social science research base in Uganda and, through this, to sustain, augment and strengthen the major university and research institutions as research bases. These are complex, system-level, outcomes. Of the 6 project objectives, however, only that objective dealing with learning computer-based research analysis was cast in learning terms. The others only *implied* learning insofar as the grant recipients in doing their research would be:

- assisting in the *rebuilding of the development-oriented research capacity* in the social sciences in Uganda;
- *focusing the attention of junior researchers* on environment and resource management;
- *enhancing the possibility* of such young scholars *to pursue higher degrees*;
- *enhancing dialogue* between social science researchers and senior policy makers; and
- encouraging a *greater degree of research coordination* between the two administering institutions

These objectives were not more fully elaborated than this, however. Specifically what the capacities underlying the objectives would look like beyond, one assumes, the theoretical knowledge, methodological skills and professional research attitudes necessary to be integrated into the social sciences research "world" and build the Ugandan SS research "community" in the process, was not clear.

Limited detail would not be a potential problem however, had the *mechanism* meant to enable these objectives to be progressively worked through, been more structured and facilitative. In this case, it seemed that the researchers were expected to become capable, independent social scientists, at a fairly sophisticated level, on the basis of quite limited support. Awardees in one recipient institution were selected through competition on the basis of proposals and, while these were sometimes adjusted on the basis of comments from the selection committee, there did not seem to be a high level of facilitative interaction with them then or after.

The other set of researchers, in a second recipient institution, was selected on the basis of application for inclusion as part of on-going studies within the research centre, rather than for conducting stand-alone studies. They were given some specific training in research methods; and the institution had an informal link with Queens University. Though not much more, these arrangements do suggest students in this case, had *more focused facilitation and informal mentoring*. And outcomes for this group, in fact, appeared to be better, reported as:

- Increased knowledge in the areas of their studies and opening of new grounds for further research in general;
- Improved conceptualization and writing skills;
- Increased confidence and boldness in presenting their arguments.

Also indicating increased capacity: more of them were admitted to regional and European post-graduate studies.

B. Setting Capacity Development within a Policy Frame of Reference

As suggested earlier, the presence or absence of capacity development policies, whether corporately or at programme level, plays an important part in *establishing the place of CD* in project thinking, action and outcomes.

Theoretically sound, comprehensive, coherent and clearly stated capacity policies, complemented with wide dissemination and shared officer commitment, can serve to legitimize and guide the kind of conceptualization and planning required to generate good quality input and sustained learning outcomes.

- Well publicized pro-CD policies tend to justify time and money spent on capacity scans, design of appropriate mechanisms and CD-focused monitoring of their implementation.

- Explicit CD policies, based on lessons learned, help avoid capacity support activities that are little more than series of haphazard, small-scale and once-off exposure opportunities or training exercises.

- Chances for creating a consistent, cumulative *capacity package* are invariably going to be greater where discrete activities are proactively assembled under a thematic umbrella – something a well-articulated CD policy perspective, even at PI level, has strong potential to enable.

It is interesting to note in this respect that the centre's PS/PAD Appraisal (itself an expression of existing policy concerns) does *not* include a required capacity section. Requiring capacity development dimensions, or their absence, to be explained in the conception, planning and articulation of project rationale and expected results would, at

the very least, help put the topic "on the map". It might also encourage capacity outcomes to be systematically addressed in action, monitoring and measurement of "success"; and the assumptions to be tested, and benchmarks to be reached, clearly specified.

➔ *For these reasons, the presence of, adherence to and evolution of good capacity-friendly policy is a critical factor in enabling and measuring effective capacity action, and it is crucial if IDRC is to be able to claim capacity outcomes.* Requiring and tracking project references to explicit or implicit capacity-related policy in justifying and guiding their design and action decisions allows the Centre corporately and programmatically to prove and improve its capacity-for-development mandate.

Reference here is to the *whole of the policy environment*, as policies refer to capacity directly and indirectly. For example, Centre thinking with respect to research utilization, grant size, cooperation with Canadian researchers, funding of NGOs, networks, what constitutes legitimate research, or even programme-management ratios – all of these can affect whether and how IDRC officers think about and deal with capacity development.

➔ A strong CD policy might enable *staged phases of a project* to explore the potential capacity requirements and human resource availability for new research concepts, themes or methodologies; or it might permit the project to provide space (i.e. margin) for new researchers and institutions to prove themselves. Projects such as

- the governance institute in Africa (to lay the basis for the GEH PI),
- the policy system of "continuing dialogue" in Latin America for ENHR, and
- the small grants for integrated sustainable environmental development in post-war Uganda were three which might well have benefited from a clearer "capacity for innovation" policy of some form.

Programme Areas with Strong Capacity Policies

Tracking the evolution and effectiveness of capacity policies *in programme areas where these are strong* would help establish capacity development as a serious area of expertise able to guide wider in-house and partners' capacity efforts. Participatory research in its variants (CBNRM, PLaW, Minga and SUB) is a prime example of this. Conceptually, these programmes *express capacity as the basis of their development and research paradigm*, framing projects in terms of the ability of targeted communities to analyze, reconceive and act on their social, institutional and physical environments. Methodologically, they give legitimacy, scope and resources to learning as an integral part of the research agenda.

➔ **Although different in the details of their design and outcomes, overall CBNRM, PLaW, Minga and SUB appear to be stronger than the project norm in facilitation-of-learning terms and have good potential to form a strong "capacity knowledge platform" for the Centre.**

Utilization of research, the linking of newly generated knowledge to practitioners able to apply it to good advantage, is another area where capacity-encouraging policy can orient attention and generate lessons. In this regard, most policy focus has been on the research/researcher side, urging design, delivery and, especially, dissemination of projects in ways which foster application[9]. Policy reference to the capacities of research end-users to access, assess, adapt and internalize (learn) the new knowledge generated is also critical, however, to encourage completion of the circle. Drawing together the experience of projects which have addressed this dimension of the research cycle is important in building such a policy from the bottom-up. PR again is relevant here (see sustainability section below). So, too, are action research projects which develop intervention programmes (e.g. ARI in Cuba, community care of people with HIV/AIDS in Malawi, maternal and child care in the Philippines).

There seems to be no hesitancy in projects being justified on the basis of long-term commitment to institutional strengthening, small grants arrangements and network building, irrespective or region or sector. Collaboration with multiple partners, practitioner/user communities and series of advisor-mentors is common; cooperative arrangements with Canadian expertise reasonably so.

It is important that these projects should also be based as much on statements of capacity development policy as they are on research policy, in order that they avoid being shells of change expectation without the coherent capacity content to make it happen. Building and maintaining a Centre-wide base of capacity best-practice in these areas is a way to enhance quality and accountability; doing this requires enabling policies.

C. Focusing CD through Planning and Evaluation

        The effectiveness of any learning event, planned or spontaneous, is ultimately a function of the idiosyncrasies of the learner: his/her capacities, experience and intentions. However, as indicated in the several factors above, interventions can enhance or diminish the arbitrariness this implies. These are *conditions which can be planned for, managed and adapted to counter the challenges and build on the strengths* of individual idiosyncrasy. Content, relevance and quality of instructional materials; knowledge, methods and attitudes of facilitators; management and appropriateness of training facilities and materials -- all of these affect a person's ability to engage with the learning event and change in some way as a result of it. All of these can be acted on, but *require good planning and monitoring, both of which are, therefore, key overarching factors in effective capacity development*.

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[9] Research explicitly on what the necessary capacities for innovating are, and for enabling them, has had but a brief, and not especially ground-breaking, history in the Centre through PRISM. In major part, the weakness was one of focus, projects tending to take a more mechanistic "innovation as technology" bent rather than a learning-based one. Nevertheless, the idea was a good one.

Planning

Planning in terms of capacity, and for capacity development, must be a first main step toward effective action. On the surface this is perhaps self-evident, but in many if not most of the research projects reviewed for this study, such planning for capacity change was not evident. Planning is key to ensuring that what the project does, in attempting to promote or strengthen capacity, is consistent with effective adult learning.

Capacity interventions, whether in a scientific agency, coastal village or health policy network need to:

- confirm each participant's *sense of self, self-worth and intellectual integrity*, especially where what s/he brings to the activity reflects a world view or life experience different from those of the innovation;

- be *congruent with the existing readiness, capacities, needs and priorities* of participants, separately and collectively identifying those particular incentives which make the effort to learn *relevant* to each;

- present a reasonable balance between *the known* of where people are now *and the unknown* of where they expect to move, a balance between a challenge wide enough to motivate action, but not so risky as to paralyze it; and

- define a *secure, appropriately guided and long-term change environment*, one in which the new facts can be practised, adapted and consolidated with adequate margin for risk taking.

➔ Planning for capacity development is critical for *making the logic of the exercise explicit.*

- The more explicitly underlying capacity assumptions and goals can be articulated at the outset, in collaboration with the participating actors, the more purposefully they can be adapted throughout the process, and the more likely it is that the links between what is a) expected to be learned, b) what is actually facilitated and c) what is eventually achieved, will be stronger.

Upfront conceptualization and planning is necessary to expose or make explicit:

- the assumed links between the changes expected and the learning processes/tasks underlying them;

- the multiple "targets" of these changes, the individuals and communities, bureaucracies and institutions, policy bodies, research networks or development "sectors" expected to demonstrate improved capacity; and

▪ the types of learning activities, mechanisms and methods, expected to get them there.

Intervention Risks

The act of intervening with people's ways of knowing and acting is inherently intrusive. Even if it works well, it is risky, because genuine learning is permanent. Previous patterns of understanding and action may remain at some level, but can never be returned to with the same certainty or in the same way[10]. Participatory research is especially sensitive in this regard, where the intention is not simply to generate new knowledge, but to do so in ways that will be transformative for those involved, usually the most marginalized with little room (margin) to manoeuvre. In the case of the Yunnan Agro-Pastoralist Livelihoods project, for example, the political environment was high-risk; the team had to build trust and overcome suspicion of outsiders caused by previous corruption while at the same time catalyzing genuine resource-use analysis.

Transparent planning can serve to reduce the risk, especially where it is shared. Being open about assessments of current capacity weaknesses and assumed capacity needs, allows decisions about the objectives, speed and sufficiency of the planned change to be jointly-controlled. This is another reason PR can be so powerful as a learning-for-change methodology when it enables those at risk genuinely to make the assessments of risk, needs, and benefits, and direct the agenda.

Capacity Scans

➔ Planning both feeds into, and comes out of, *capacity scans -- and undertaking such scans is therefore crucial for any capacity development activity.*

No project would be developed without at least some environmental assessment of the nature and extent of the development problem or issue, and of the need for, and availability of, research-generated knowledge about it. The same should be true for the capacity development dimensions of a project: what and where are the gaps in capacity, and what are the current, and required resources to fill them?

▪ Scans should identify what the readiness conditions and margin-provision needs of the project are, based on the objectives; the human and other resources available; and how and in what sequence existing capacity strengths can be build on and new ones created.

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[10] The ethics of intervention become especially critical to attend to in this regard. Learning outcomes may be directed, but cannot usually be controlled. This is especially true for incidental learning which can be quite harmful e.g. a person may learn how to manipulate conflict through enhanced negotiation skills, rather than how to resolve conflict. Participants can learn, in a poorly executed training activity, that they have no valued knowledge. Facilitators at the very least need to be aware that unexpected outcomes can happen, and they must proactively look for signs of this, and try to mitigate negative outcomes.

- Scans also ask whether the external conditions are in place for ensuring appropriate informal and facilitated access to the information and opportunities needed by learners to experiment with new ideas and behaviours as these evolve. Are there resources and opportunities to sustain the learning and application process after the project ends?

- Scans also are important in determining the full nature of the change implied by the research or development task. Not all change implies the same type or level of learning; not all learning requires the same type or level of intervention. Some aspects of sustained socio-economic or environmental development are relatively modest, technical inventions rather than fundamental social or sector innovations. Others imply significant paradigm shift.

  - Any intervention or innovation is more conducive to adoption and learning when it can be broken down into sequenced or discretely handled components. Each component can then be assessed and tested on its own terms, and the task as a whole can be dealt with on a reasonably incremental basis. Divisible change does not demand complete up-front or radical departure from current thinking or behaviour, before having a reasonable picture of its wider implications. This is why what are sometimes called sturdy or fixed innovations, "all-or-nothing packages", are often difficult to adopt; they resist adaptation.

- A serious analysis of the whole of the innovation should include asking both how fixed the expected changes are, and how they can be made flexible. How might the elements of the new research methodology, set of resource management practices or approach to interacting with policy structures be sequenced as discretely negotiated learning tasks? Negotiated here is in the sense both of an individual trying to fit a new idea into an existing conceptual framework, and of multiple stakeholders trying to accommodate a new way of working together which effects them all in different ways.

Appropriate Mechanisms

➔ Planning is necessary to ensure *congruence between objectives and actions*.

Planning enables analysis and disaggregation of the learning tasks and matching them with appropriate learning mechanisms and methods. As detailed elsewhere, different ways of engaging with learners should reflect different expectations about, and will tend to produce, different kinds and depths of learning outcomes.   It is critical to match the mechanisms to the project and institutional environment, the learners, and the capacity objectives**.**

o *Unstructured and informal interventions* -- putting people together in a meeting, sending them to observe other research, having them visited by an expert, sending them illustrative documents -- reflect the expectation, and often the fact, that involvement in a research project or associating with experts are, in themselves, learning experiences -- albeit not very focused, time-sensitive or predictable in learning outcomes.

- They are appropriate where capacity objectives are fairly loose: where project planners and managers believe the necessary capacities to get the work done are in place; can assume that learning-by-doing will happen because participants are willing and able to learn from one another, ask questions as needed and reflect on the experience; and where nobody expects dramatic changes in people or groups.

o *Structured and nonformal interventions* -- bringing people together and facilitating their participation in systematic discussion of an issue, sending them to work with a peer in a planned research activity, organizing regular and incremental input from a dedicated mentor, setting up a systematic document exchange and feedback network -- reflect the expectation that learning can be catalyzed and guided toward agreed and planned outcomes in cost effective and efficient ways.

- They are appropriate where capacity objectives are clear, needed to fill the gaps of knowledge or skills in the research itself or its application; and are relevant to the development priorities of both the learner and the intervening agent; and where the particular mechanisms are consistent with those outcomes.

o *Formal interventions* – sending people to pre-arranged education programmes where criteria for admission, curriculum content and standards of learning are set by the certifying institution – reflect the expectation that advance of a research discipline or sector, in the context of a development priority, requires creation of a generic knowledge and skills capacity base relatively independent of the immediate needs of a project.

- They are appropriate where there are serious weaknesses in the availability of capable researchers or practitioners and, typically, in the capacity of the local education systems to provide access to researchers or practitioner-mentors, in a consistent way; and where the needs of the project can be met by other means, since formal training often takes people away for a relatively long period for studies not readily tailored to or controlled by the specific tasks of a project.

Iteration and adaptation

➔ Planning allows for *iteration and adaptation*, core criteria of good CD activity.

While many Centre projects have purposive capacity development elements built into the intervention, all probably expect that learning-by-doing will happen, particularly given the relatively high hands-on professional monitoring of POs. It is an expectation, and an approach, which makes sense and should be effective <u>as long as</u> the project makes explicit reference to assumed and expected capacities, and as long as monitoring is in place and systematically confirms capacity development.

Projects strengthen research-related capacities where they are iterative. Even where it is assumed that adequate learning is happening informally as participants engage in the research, monitoring should be such to, from time to time, nudge this learning in certain directions with responsive PO or consultant advice; and, where particular gaps in, or opportunities for, knowledge or skills development are revealed, arrange specific structured learning events.

Without some kind of initial planning, this kind of adaptation around a basic core of capacity development strategic   thinking will not be possible. Iterative change must be married to clear thinking at the beginning of a capacity development process, in order to be productive i.e. in order *not* to be simply random or chaotic events.

D. <u>Monitoring and Evaluating Capacity Development</u>

The effectiveness of capacity development activities is directly enhanced by regular monitoring of what and how well people are learning – not waiting for the end of the project and expecting to see a completed capacity set, and not simply assuming it will happen because the activities are being provided and people are showing up.

In the context of IDRC projects, measuring capacity development outcomes is not always straightforward, of course, given the multiple points and ways in which it is expected to happen – and no doubt does often happen – spontaneously. Even in projects that use workshops and short-course training, it is rarely a matter of someone being formally taught something and expected to demonstrate that the learning actually "took" through a test of some kind. Because capacity results happen in multiple ways and are of varying types, such outcomes need to be assessed with equal flexibility.

Monitoring in Unstructured Environments

How can PO's or others charged with monitoring progress on capacity proceed, in a relatively unstructured monitoring environment?

▪ *At the micro* level of the individuals who participate in workshops, on study visits, in mentoring relationships: ask what difference the participation has made in their knowledge, attitudes and/or practice, with respect to where they started and where they had expected to be, and from the perspective of the facilitator/provider, the institution/community and, especially, the learner him/herself.

▪ Since individuals are rarely the ultimate aim of an IDRC project, *at the meso level*: ask what difference the experience of the project, and specific activities, has made to the way the project was designed, executed, disseminated and its results applied. Can deficiencies and successes in the project as a whole be linked in any way to what people were, and were not, able to do in interacting with it; in the ways in which they interacted with the CD aspects of it?

▪ Both micro and meso focuses require systematically and consistently asking questions and observing behaviour during and at the end of learning periods; in terms of the specific CD activity (workshop or project), and in longer "sustainable development" terms. They need to look at different kinds of learning: from recalled information, through simple skills, to conceptualization and evidence of independent research or practice action.

   • It is important that capacity monitoring and evaluations not simply ask good questions about what is being learned, but also ensure thorough answers. The evaluation of one capacity-intensive project in Africa, for example, appropriately questioned what the training had actually involved; whether the media had really reached the right people and were effectively followed-up; whether the idea of bottom-up ideas genuinely worked. Unfortunately, it appeared that the answers stayed at a relatively superficial level of reported feelings of satisfaction; this is important information for IDRC, but not sufficient to verify that learning took place or with what degree of permanence.

   • Without pushing further to ask about or look for the specifics of what was *different* about what people knew and did and *why* these changes happened, assessment of learning sustainability is not really possible. Nor is tying learning outcomes to facilitative inputs – leaving IDRC with few lessons learned.

▪ **At the *macro level*, assessments of capacity outcomes are also important and, not surprisingly usually more difficult, to make.

   • One AFNS project in the Philippines made a reasonable stab at it. Drawing a link between training and improved behaviours, the final report of a seaweed research project noted that researchers, "backed by intensive research training in Canada on improved methods of assessing the natural seaweed stocks", were able to identify appropriate species and sites for the successful cultivation. In turn, through their "persistent provision of

extension services", forty-five farmers were able to "produce large amounts of seaweed which they (were) selling as seed stock".

These outcomes, defined as changes in knowledge and behaviour, at the individual level of basic technical skills through to mid-level management of actions, are fairly clear. Less evident, but important from the macro-level, might have been further questions:

o   Were these changes of the kind and degree needed for/expected by the project and the participants. In other words, were project objectives helped through the CD as much as was expected?

o   Were there signs that the depth of learning was such that it is likely to persist, the new knowledge remembered and new behaviours continued to be practiced? Was there any evidence of these leading to further learning or adapted behaviour (suggesting consolidation of learning and effective control over the changes)?

o   In light of the answers to these questions, were the initial capacity objectives of the project relevant and appropriate in the first place; the right ones for sustainable action/development of the sector? Where does the Centre have to go next to further evolve capacity in the field, with whom and how?

Monitoring Weaknesses

➔ In general, there is little evidence to suggest that IDRC is strong on measuring capacity change or tracking its own efforts to support it.

Two particular weaknesses are evident in project reporting in terms of revealing what has actually changed as a consequence of its CD interventions and, from there, what it has/could learn from the experience or could claim credit for having achieved:

a) reporting as capacity results what are, in fact, simply completed activities e.g. workshops held, participants involved; and

b) extrapolating as new development *practices*, what may be more simply expressions of *new knowledge* i.e. assuming that because participants say they have learned something, they have actually done so in a way that goes beyond factual recall to influence attitudes and/or behaviour.

Both of these are weaknesses insofar as they make cause-effect links between inputs and outcomes *without looking for progress-marker evidence of them*. According to the PCR of a project to strengthen Indigenous management of their education (Community Education in Indian Populations/Ecuador), for example, the project "above all contributed to train junior researchers and practitioners. Members of the indigenous community were directly benefited in this regard", and thus "the major impact of this project in terms of

capacity building was among members of the community". At least according to file documents, this assessment left a number of capacity outcome questions:

- o   What did the reported capacity actually mean in terms of the ways people interacted with the school, each other or their wider environment?

- o   To what extent were new capacities a result of the project – which essentially trained people in research methods, as data assistants – rather than other factors in the project environment?

- o   How far beyond the parameters of the project did the capacity development go? Did, for example, people benefit because the education programme improved, and did the programme improve because of the better insights generated through the research?

- o   Were any such insights sufficient to enable new curriculum design and delivery <u>skills</u>, or just a new awareness of where changes were needed? Were there, in other words, intervening capacity development activities which the project catalyzed, but did not directly influence -- could this be considered a capacity outcome of the project as such?

In terms of end-use, the post-project report indicated a decline in illiteracy from 12% to zero. Observers apparently noted more "positive attitudes toward native language and culture, a greater propensity for community organization and a greater awareness and appreciation of intercultural differences". All of these would be relevant and important outcomes from a development perspective in indicating change on the part of end users in attitudes, knowledge and, perhaps, behaviour. Links between this apparent increased capacity and the actions of the project remain questions which might have been explored.

Indicators

The fact that a project facilitates a process of learning does not necessarily mean new awareness, knowledge and skills are learned – at least to the level of actually changed behaviour. Capacity development monitoring and evaluation, for IDRC, need to include *indicators* of some sort, especially where the learning concerns expected changes in attitudes and behaviours. It is a standard of reporting on results most agencies are beginning to be held to – though not always successfully.

The PMMR project in Cambodia, for example, noted as indicators the "increased understanding and capability of local (people) in the protection and conservation of coastal and natural resources", and many showing signs of better "understanding their positions in accessing and using their mangrove and fishery resources". These appeared to be results, however, and the indicators of this increased capacity were that local community teams were able to "facilitate a participatory process, enabling others to learn and make decisions" about sustainable management of the protected area, and villagers using their own initiative in analyzing problems were "voicing their ideas and solutions".

In terms of adult learning principles, it is important also for indicators to be worked through *with learners*, as a capacity development in itself: what do they consider relevant indicators of progress toward their intended goals, and what progress markers would they consider adequate to monitor this?

Also, indicators can be looked for in the more abstract sense of the internal logic of the CD action: comprehensiveness of initial plans, quality of delivered inputs and validity of underlying assumptions and linkages. Where actual changes cannot be ascertained through observed indicators, the idea of *congruence can be used to gauge the likelihood of outcomes*. If the conditions of internal means-ends logic, input quality and adult learning criteria have been met, learning might reasonably be considered to have occurred. If these basic conditions of adult learning have not been met, there is little reason to expect that learning has occurred. At the very least, however, participants should be interviewed to get one of the most basic level of indicator: their opinions of whether and what learning (change in knowledge, attitude, behaviour etc) occurred.

Tracking Long-Term Results

Finally, capacity development initiatives are part of the Centre's overall development mandate, of course, and at this corporate level capacity outcomes need to be judged in terms of whether and how they facilitated the kind of learning able to bring about and sustain development; and to sustain the research enterprise itself. This implies two things.

> First, the importance of long-term follow up assessments, across several types of projects, a programme or the life of an institution to *track persistence of changes generated* i.e. institutionalization. This should include also the *assessment of cost-effectiveness*, a measure of *perceived* value, relevance and viability with respect to changes achieved.

> Secondly, a widening of perspective away from just the project as a vehicle for capacity development and onto the Centre overall in terms of its ability and effectiveness in CD policy-making and agenda-setting.

E. Sustainability

Sustainability may be a core determinant of genuine development, but it is an uncertain measure and in many ways intangible: what is to be sustained, by whom, for what reason, how long and at what cost? Whatever else it is, however, learning is *at the core of sustainability*. Sustaining innovations means that individuals and, especially, groups understand what the innovations are and what they imply; and that these individuals continuously and progressively adapt the innovations to suit changing environments through action-reflection, negotiation and accommodation.

Factors Affecting Capacity Sustainability

Inclusion

Sustainability is facilitated by a range of capacity-related criteria, and by what we know of factors promoting adoption and implementation of innovations. One of these criteria is ensuring all those expected to change are included in the learning process.

Some features of the infant mortality small grants project in the Philippines suggested strengths and challenges in this respect.

- On the plus side, some *users as learners were accounted for*, with researchers developing means of persuading mothers and families to improve health practices for children through preliminary assessments of factors affecting their learning, and the effectiveness of different approaches to facilitating this learning with respect to public health issues.

    - Their *knowledge of public health practices was also measured*, an indication of attention to capacity of users at "knowing that" level.

- On the other hand, there did not appear to be any explicit activity aimed at dissemination, adoption and implementation *to government agencies* responsible for implementing programme changes, toward enabling uptake by these officers as target users.

    - Aside from the actual participants in the study, it was not clear that the CD dimension considered what public health officials themselves may have thought about the knowledge-generated results, the feasibility of adopting and implementing new procedures on a wider scale, and whether they needed to acquire new capacities for this.

    - None of the analysis appeared to consider the perceived cost-benefit to public health agencies of changing practice, including the changes in knowledge, attitudes and practice which, it was hoped, would enable implementing the results. There was no evidence of continuity of access to research expertise beyond the end of the project – which would have been an indicator of sustainability of capacity.

Clarity

Sustainability within any sector, including capacity development itself, can be facilitated by helping stakeholders (researchers, research users etc) "learn to learn": to develop the values, attitudes and skills of persistently and consciously seeking information, analyzing situations, taking decisions and assessing their implications. The farming systems research approach was, in itself, a good example of the importance of being clear about the ends and means of any capacity development initiative, and raising the question of

when a mechanism or methodology was enough, or too little, with respect to sustainable development capacity (as distinct from research) outcomes.

FSR projects appeared to be both clear and successful in their aim of training farmers to a point where they could effectively engage as participants in the testing of agricultural innovations.

➔   Notably, however, they appeared also fairly clear that *this was the extent of the capacities expected*. It was not apparent that questions were raised as to whether or how farmers persisted in generalizing their learning beyond that frame e.g. that they applied an experimental mindset to *all* of what they did as producers, managers, community members – or whether they should do so.

▪   If it is intended that this more independent level of learning happen, it has to be planned for, facilitated and consolidated. It *might* happen incidentally, but cannot be expected to.

Congruence

In means\ends congruence terms, it would matter whether project extension officers focus only on the tested technology/practice (i.e. the answer) or engage farmers in *thinking through* the formulation of that technology (i.e. the questioning process). To the extent they do the latter, farmers would be more likely to know *why*, in addition to *that,* a particular farming strategy works as it does. Important to understanding the critical core of the research results, it might be the ability of farmers to question, test and adapt the technological innovation, rather than the innovation per se, which "works", and these capacities, along with the process of strengthening them, would then need to be integrated into any dissemination exercise.

Support

Capacity outcomes are more likely to be considered sustained where there is evidence of changes being supported – *institutionalized* - in the policy or operating system itself, on their own or through the project. The development of new capacities is a necessary condition of sustained change. It is not, however, usually sufficient without *complementary support* to change in the wider environment where those capacities are expected to be applied. This is, essentially, the provision of margin for experimentation, and innovation.

"Environment", here, is meant broadly to include any condition which influences someone's ability to exercise his/her new learning. This can include:

▪   how other people respond to, or interact with, the expression of new ideas and behaviours;
▪   whether workplace norms or regulations support application of new skills;

- the availability of structures and resources for supplying or making use of novel products or practices.

All of these are issues related to the matter of *institutionalizing change beyond the immediate individual, project or moment*.

One explicit way of addressing the issue of *up-take capacity* is actually to support agencies which do it. In the example of FSR above, a project which facilitated extension officers and supervisors in assessing and improving their manner of addressing farm innovation practices, and their methods of interacting with farmers, were more likely to sustain the system's ability to reproduce itself than simply dealing with farmers' capacities alone. Both the inland fisheries/Nepal and seaweed/Philippines projects attempted to move in this direction by strengthening development of producer co-operatives.

Participatory Research: capacity for using research

Much closer now, perhaps, to a serious attempt to address the issue of linking knowledge generation with utilization are the action-reflection *PR projects* as a group. In the ideal, PR has particularly good potential for enabling a "virtuous circle" of research generation and use capacity in the context of a single project by shifting the perspective. More than simply a matter of the same people being both researchers and research result users (as in FSR), participatory research expects people to learn and change in their capacity to handle their own development problems by generating, resolving and acting on their own research questions. In this respect, it is an especially powerful, and also risky, strategy of research-as-learning.

While most projects, reasonably, are not fully PR in this sense, an increasing number are somewhere along a continuum of ethnographic-action-participatory research, moving generally toward the PR end. As such, they involve a range of capacity-related concerns, including fairly significant changes to fundamental development paradigms.

Participant learning in the case of most of the Minga, CBNRM and SUB projects, for example, cannot be limited to the generation of knowledge about the immediate environmental or conflict resolution problem. They need also to be concerned with the relevance and viability of the action-reflection, research-cum-learning activities to all aspects of community members' lives, including how to manage these effectively post-project. Capacity development here means moving the point of impact well beyond the occasional workshop and the time parameters of "a project" as such.

Participatory research is distinguished by two underlying tenets:

1. W*ho* asks the questions, does the analysis and interprets the results is as important as what those questions, analyses and results are.

2. The *who* must be those people actually having to deal with the development problem. Because these are typically people without research skills and traditionally marginalized within the system, use of concentrated mentoring, building trust and an equitable relationship through expertise in both the relevant research area and in facilitating adult learning makes sense.

There are risks, of course, particularly in respect of undermining local ownership and genuine learner-centred processes. Significant time, therefore, needs to be given to:

- context-specific situation analysis from the participants' perspective;

- step-wise information gathering from, and reporting back to, project staff on what the strengths, weaknesses and need for new directions to the research work are;

- constantly confirming shared objectives and adapting methods as relevant to addressing priorities.

"More concretely, it is important to verify, and provide the resources to ensure, that local government officers and farmers can communicate in each others' language (linguistically and culturally); that community members have some skills in negotiation before being asked to engage in joint decision-making with land-owners or ministry offices; and that women are given protected space to talk and act openly, without such often restraining pressures as mixed-gender activities. People with little or no access to a world beyond their immediate context may also need help to recognize the comparative limitations of that context; and to clarify and articulate the nature of problems they see, but have not been able to manage successfully. They may need help to access the resources - the information and skill tools, the budget and space - to act effectively. Especially, they will require support to reduce their levels of risk by recognizing the value of self-critical thought and providing compensatory and insurance arrangements against technology failures" (quoted from a draft paper on learning prepared for Minga, 2002).

At all levels, then, participatory research is necessarily learner-centred, and all actors are necessarily considered learners. The need for congruence between ends and means require the intervener and the target community to share the same understanding of the methodological ground rules and expected outcomes. Together, they are successful only when they unlearn or adapt formerly different, perhaps dysfunctional, ways of thinking and acting, and undertake the task of learning new ones.

In the case of the agro-pastoralist livelihoods project in Yunnan, extension agents and scientists had to develop conceptual knowledge, democratic attitudes and facilitative behaviours consistent with the philosophy and processes of collaborative farmer-centric participatory research. At the same time, they had to be able to use this methodology in working with farmers to develop jointly a better substantive understanding of local livelihood dynamics – in order, eventually, to deliver more relevant and appropriately interactive services.

Participatory research has two main risks: of being too structured as a research activity to allow the kind of fundamental social change learning typically reflected in the project

rationale and goals; and, on the other hand, of being insufficiently structured and facilitated to promote effective learning within the agreed objectives of the project. In this, PR projects, like all others, need to be cautious about *what is learned*; they can fall short in helping to develop capacity, where people "participate" as little more than expert data provider and/or collectors.

Methods based largely on focus group discussions, with the analysis of these data done by the project researchers and fed back to the community for validation, might well enable a considerable amount to be learned by the community about what was happening --mirroring back its own self-generated data. They are likely to learn less about how to control the process of reflective analysis for purposes of change. Participation, and thus utilization of results, will be stronger in projects which include as researcher staff those community agents expected to develop and implement an eventual intervention programme or to continue the particular analytical processes the project introduces.

PR can fail in this by being too informal, using mechanisms such as mentoring, study visits and community-based analyses which do not take into account issues of learning readiness, step-wise development of confronting, adapting and assimilating new ideas and practising new skills.

The PLaW project in Uganda was an example of a probably very effective capacity-for-knowledge utilization intervention in this respect, farmers expected to become more empowered and capable through by engaging in the research cycle and facilitated through strongly adult learner-centred methods, each objective broken down into learning process steps. Phase 1 had "created the forum and facilitated the farmers to develop a communication plan" to enable sharing their knowledge with one another. Phase 2 provided more learning time for participants, the first not having allowed for a "farmer's learning period". Phase 2 addressed the need for a mix of communication tools; the provision of more demonstration opportunities for hands-on experience; strategies for helping farmers "scale-out" their learning to other, especially more marginalized groups.

A dilemma for IDRC, as a research-support organization, is how far outside the research-for-development box into application-for-development it is appropriate to move. At what stage does support to the capacity to use research as a tool for local development become support to that development as such. This concerns both resources (application projects are potentially much longer and expensive), but also its own internal capacities, and those of its resource partners and networks to act.

III   MECHANISMS IN SUPPORT OF CAPACITY DEVELOPMENT

        This section is intended to anchor the preceding principles and issues of capacity development best practice in some of the main mechanisms IDRC uses to deliver its CD actions. [11]

Institutional Strengthening and Development

Institutional development is included here as a mechanism rather than a capacity category or target because the point of the exercise is usually not the institution itself, but the broader end of research-for-development as a policy-credible field of activity. In very few cases does IDRC undertake actually to create an institution as such, or even to strengthen the whole of an institution. Rather, the more usual aim is to institutionalize *the research enterprise* in some way; to generate a core of intellectual knowledge, skills and attitude/commitment in an institutional base so as to enable a new line or approach to development-oriented analysis to become established for the long term.

Institutional development is among the most ambitious of the mechanisms the Centre uses to create and sustain research capacity, in terms both of the complexity of capacity development implications of research as such, and of the long-term financial responsibilities involved. It requires taking directly into account the *whole of the organizational environment* in which the specific capacity activities are happening; and ensuring, at least to some degree, the *capacity to sustain* the targeted research enterprise. As such, costs of institutional development projects are usually high and benefits hard to track, involving assessment both of the education of individual scientists and managers, as well as of the building of a "research-friendly culture" committed to professionalism, administrative competence and sound policy.

On the down-side, a number of factors put the cost-benefit of these interventions into question:

- the complex of elements involved;
- the heavy up-front budget and training commitments required;
- a very uncertain trajectory, especially in research-weak systems;
- large numbers of external variables beyond project and/or institutional control.

On the benefit side, persistent support to co-ordination and management of an institutional development process can contribute significantly both to the organization as a whole, as well as to the individual scientists involved – who, hopefully, will stay in the sector or region. Cumulatively, institutional development initiatives can extend the

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        [11] It is important to note that the data used here, and so the interpretations made, are all document/file based. In very few cases were these materials extensive enough in capacity-related detail or analysis to produce a high degree of confidence in the interpretation of what happened, why and with what outcomes, but they do provide some information which can illustrate the issues involved in capacity development.

Centre's broader capacity objectives for the sector, indirectly at least, by increasing the reach over time both to more researchers and of researchers to practitioners.

Three modalities appear in the Centre's institutional development activities.

1. Most typically, institutional strengthening is approached through *informal mechanisms*. Research and management staff are expected to enhance their knowledge and skills through conducting the work of the project, usually with unstructured, though often fairly regular, input from IDRC officers, project advisors or mentors. Many of these researchers are further linked through a co-operative arrangement of some kind with a northern body of research expertise. Thus, for example, the two Caribbean institutions responsible as partners in managing the small grants of the C-BCRM project were expected to become more capable as research managers more-or-less simply through the process of doing it, with the mentoring support of the Canadian partner and IDRC officers.

2. A second *nonformal modality* is more structured, chiefly through mechanisms of workshops, study visits and professional exchanges, physical networking and IT linkages. An institutional development project in Cameroon (Communication and Information for Rural People) was a good example of this, supporting an organization attempting to improve its communication and information to and with rural farmers. It suggested the possibility of significant impact through a coherent CD design and methodology, but also the difficulties of knowing and guiding these with respect to specific learning outcomes.

   ▪ The institutional development intent of the project was clear, and clearly *relevant* in seeking to broaden the capacities of the recipient organization more effectively to use input, and enable feed-back, from its client/beneficiary farmer communities.

   ▪ The design was *appropriate* in attempting to engage both these supply and user sides of the institutional relationship in working interactively through ways of ensuring a viable match between them.

   ▪ The methodology also appears to have been appropriate: *flexible, norm-referenced, responsive* nonformal mechanisms of radio farm-issue broadcasts, built on *field-based learner-oriented* needs assessment and *reinforced* through on-site extension officer visits, as well as more informal peer mentoring aimed at enabling *application and adaptation* of the new knowledge.

   Making monitoring for results difficult, however, expected capacities were expressed in fairly higher-level terms:

   ▪ The institution's extension officers would be able to develop, design and provide more relevant, user-accessible information to poor farmers.

- Farmers would be able to use the media effectively to incorporate and share the information in their daily work and lives.

- Objectives were expressed as products to be generated (e.g. publications) or actions to be undertaken (e.g. develop radio programmes). With the exception of training an officer as a documentalist (which presumably involved specific technical knowledge and skills), there was little detail as to what new attitudes, knowledge or behaviours underlay these end learning objectives, or how they were expected to be different from what the officers or farmers were able to do at the outset. It was not clear how much attention was given specifically to generating analytical problem-solving skills among either group, for example.

That said, there were suggestions in documentation of positive outcomes at least at the level of farmers' *knowledge* and *attitudes*. This would be an indication of improved practice on the part of the institution which was seeking to help the farmers learn effectively (less clear was the degree and potential sustainability of this learning, however).

- 75% of farmers apparently found the training programme "interesting" because it "opened their access to new ideas".

- The fact that two issues of the journal were read by especially high numbers of people, many of whom were semi-literate and despite the cost also suggests the contents were providing *relevant knowledge*, and probably at the level of suggested guides to action.

- Elaborated through nonformal training by extension officers and informal farmer exchange visits, there was evidence of some enhanced *capacity in problem analysis and interpretation*, farmers reporting the value of acquiring knowledge as equally indispensable to their successful agricultural development, as were grain and fertilizer.

3. Many institutional development projects use *mixed modalities*. Although not well defined in capacity-for-institutionalization terms, a geotechnology project in Guinea included a range of interventions targeted reasonably well to different capacity tasks.

- On-site *nonformal* structured mentoring and training support activities were geared to the immediate research needs of the project and the Ministry in developing an accurate geotechnical mapping of Conakry.

- *Formally,* an institutional base of higher-level professional and technical research capacities within the Ministry of Natural Resources, one able to open up this area of science in a country with a not yet emerging modern scientific community, would be built through provision of a Masters degree in Laval for

the principal researcher, and practical level "stages" in France for three junior engineers. Assuming Laval researchers were able to tailor and interpret their geotechnical mapping work to the Guinean human and physical resources reality, the co-operative link should have enabled context-relevant advanced mentoring on a continuous and iterative basis.

4. A last example of institutional development is one reflecting the most *formal modality* used by the Centre, one used rarely and very difficult to get right in sustainable terms. From IDRC's perspective, the project to establish an Africa Regional Centre for Information Sciences in Nigeria was at the highest level of capacity outcome: to create an institution which would develop "the solid core of higher level expertise and professional leaders in the field of information science ….essential to develop and adapt information systems to service the particular information needs of African countries effectively and efficiently".

   Eventually, the capacities produced would support research, education new information scientists and users. What this meant in operational terms was left open, to be detailed in the finalization of the Masters and PhD curricula and the various workshop and seminar programmes. There appeared to be no CD map, however, and without this it would have been difficult to assess incremental progress. In this sense, the project was a risky one, despite its being almost a decade in the making and including many appropriate CD elements.

Small Grants

Small grants is a mechanism for supporting capacity development in the Centre that reflects a quite mixed bag of purposes and methods, its appropriateness needing to be assessed on pretty much a case-by-case basis.

▪ Small grants can effectively blend support for co-ordinated and supervised research, at almost any level of sophistication, as long as the extent and nature of the facilitation is well matched to the learners' readiness, objectives and immediate environment.

▪ Through the opportunities they provide for mentoring and peer exchange, small grants mechanisms can also have multiple levels of reach, from individual through to national or even international level. The degree of capacity change, however, will tend to become lesser, the wider the net is cast, given the likely more limited ability to do facilitated targeting. However, this mechanism can easily run the risk of too much capacity outcome being *expected* of too little facilitated CD input.

Following are a few examples of the wide range of small grants designs. For the most part, their strength is in their flexibility, of reaching a reasonably wide number of people or institutions and enabling context-specific research activities. Their weakness is on the other side of that coin, in being too light-handed with informal, unscheduled learning

support, lacking perhaps the consistent structured input and feedback important to enabling weak research systems and complex theoretical or methodological change.

▪ The project on *infant and child mortality in the* Philippines, however, appeared reasonably strong in these latter respects, supporting researchers selected from non-metropolitan close-to-the-field organizations to strengthen their ability to do practice-based research on child mortality. Particular emphasis was put on re-conceiving the problems in more holistic, interactive ways i.e. in terms of how other conditions of mothers, children and families influenced morbidity and mortality outcomes. The broader aim of the grants mechanism focused beyond the researchers, however, intended to have an overall impact on health policy and health systems. For this, it established links between researchers and those agencies responsible for health intervention.

▪ Lasting through 5 phases, *the MEAwards* was a very thorough example of a major regional small grants programme, expressly aimed at developing senior level policy and practice-related researchers able to analyze and act on development problems related to population issues. It was a reasonably high ambition, implying all levels of learning: factual/information, concepts behind phenomena, how to plan, manage and present results of research; as well as generic skills (e.g. analysis, problem-solving, communication etc). But the ambition was probably more than effectively balanced by its rich resources, support coming from several donors.

Reaching a 5th phase suggests the programme worked well in terms of generating regionally-relevant capacities. Its mix of mechanisms implies the same.

o Specific learning outcomes were not spelled out, appropriately so, given the fairly open-ended nature of the thematic and methodological criteria. However, *facilitation* was reasonably strong.

- Advisory Committee members from across the region, as well as specially-contracted consultants, provided conceptual and methodological input to proposal development through sending comments, relevant literature references and documents; and through direct discussion (via on-site visits) during the course of the research work.
- Weaker researchers were supported through a pre-proposal "project development award", providing advisory and documentary support and funding.
- Specialized 2-week workshops and study groups, involved 15-20 researchers from across the region in mixed or subject-specific themes, and appeared to use reasonably sound learning principles: presentations complemented by small group discussion enabling informal sharing of ongoing work and breaking down isolation; training on the use of specialized techniques such as computers, but "always planned around substantive topics" in order to make the link with actual research needs/tasks.

- Researchers from different disciplines were trained in processes such as multifactoral analyses of child health and mortality and household survival strategies as a means of encouraging inter-disciplinary exchange, new conceptual frameworks, identification of emerging inter-sectoral themes.

o Relevance was achieved by researchers, their institutions and advisors, being enabled to interact around themes and methodologies reflecting country and regional priorities, and forging links/networks through shared interest in and developing capacities to conceive, generate and sustain research. Regional perspectives were promoted also through specialized panels at international meetings involving AC members and awardees, an informal mechanism also promoting researcher capacity through access to wider thinking and research.

o A strong use-application orientation was sought by encouraging government researchers to apply, and finding means of more actively supporting dissemination to policy users beyond simply publications. Awardees were encouraged and supported to present their results as "regional papers" for wider and more rapid dissemination – strengthening capacity as disseminators of research and building the potential for further capacity as known researchers in the region/field.

o Institutional development was encouraged through national institutions asked to serve as hosts to MEA-funded workshops, with a major role in theme selection and management.

Very different in size and scope from the MEAwards, the *Fondo Mink'a* small grants project in Latin America proposed capacity goals which were, in a way, much more complex in their intention to catalyze organizational and social change, not simply promoting learning or doing higher-order research. In this, the match between means-ends seems also more complicated and, to a considerable degree beyond the immediate influence of a "project". The project would produce:

o new knowledge about how communities solve problems/resolve conflicts;

o new attitudes or perspectives on the importance of equitable participation and readiness to engage with critical development by emphasizing the quality of processes and making decisions in situations of uncertainty; and

o new behaviour/practice, analyzing the aims, processes and outcomes of their interventions and changing their behaviour based on this learning, interacting with diverse sets of organizations, both private for profit and not-profit initiatives; dialoguing with different knowledge systems; dealing with the multiple faces of poverty.

It would realize these outcomes through small grant activities meeting fairly well-conceived criteria, and representing equally sophisticated higher-order thinking and learning:

(i)   planned outcomes would be concepts, strategies, methodologies and tools to improve intervention effectiveness -- implying a context-based analysis of the intervention;

(ii)   development and research would be blended through an action-research methodology-- implying learning-and-reflection process;

(iii)   value would be added to the intervention -- implying an attempt to create and monitor change; and

(iv)   activities would aim at institutionalizing the results – "incorporating them into normal practices" -- implying conscious attention to sustaining the learning outcomes.

In aiming to support a holistic process of unlearning and learning with respect to facilitating change, as implied by an action-reflection framework, the project's design appeared to be appropriate from a learning theory perspective. By including the documentation and sharing the learning and knowledge acquired towards institutionalization of these results to the wider community, the project seems also appropriate from the perspective of longer-term sustaining of capacity.

As a small grants project with some ambitious, complex goals, somewhat less clearly appropriate was the informality of the methodology: internet links, document distribution and unstructured mentoring. Though this last was peer and expert-guided through visits and email exchanges, it was designed as a largely responsive, as-available and as-needed mechanism, through a network of expert volunteers who would be available to assist projects in response to requests or identified need. There was also a more nonformal, through facilitated conferences.

All of this assumes a certain degree of learning-by-doing light-handedness, an approach fully appropriate for strong participants capable of, and willing to pursue, independent learning; less so in the case of smaller, weaker organizations.

Networking

As evidenced through this paper, and elsewhere, networks appear to be among the most popular of capacity development mechanisms in the Centre, flexible and, to some degree, easy to conceive. Large and varied numbers of people can be reached by bringing research experience and results to networks; and they can be reached along a range of capacity dimensions, from simple awareness through to more concrete acquisition of skills.

Networking can be among the more reliable of mechanisms in cost-benefit terms insofar as they can be as lightly or heavily structured as needed for the capacity outcomes sought. The sometimes high costs of setting them up and paying the time of senior advisors or

consultants are mitigated by the assurance of at least some level of immediately relevant impact.

The Centre in general has always expected, and tended, to be fairly proactive in seeking out opportunities for linking people to learn at some level: exposure to new ideas, motivation to engage with alternative paradigms, acquisition of broader research and research-application skill sets. Networking as a capacity mechanism is actually a process of identifying, creating and encouraging cross-fertilization through *shared learning*.

By providing opportunity for both informal and nonformal exchange, especially powerful where they allow for peer exchange, review and joint action-analysis, a network enables project researchers and staff of recipient/partner institutions to expand and hone their own knowledge and, depending on how practice-based the network is, their skills. They can also disseminate the skills and products of their work to others; and sustain research capacity in the sector or region by "staying linked".

The trick in networking, as in all CD mechanisms, is:

- *being clear* about what the expected outcomes are;
- ensuring these *objectives are relevant* to all prospective members (as volunteer-based arrangements, networks are notoriously difficult to maintain at high levels of commitment and energy); and
- matching these with *appropriate resources*.

Networking and networks, even more than small grants, are often over-burdened with expectations and under-supported with resources – especially human.

Many, if not most, projects make some reference to the expectation of sustainability through durable associations, linkages or networking among researchers, beneficiaries or research-result practitioners. Few fill-in-the-blanks with respect to the activities necessary to make this happen. One outcome of the *AIDS orphan project in Malawi* was an anticipated network linking universities, NGOs, communities and families; how this would happen other than through the process of doing the project was not detailed. There were no specific networking capacity development actions taken and any prospective links could be more realistically described as "increased coordination" than networking.

It may be that a light-handed connection is all that is wanted, of course.

- The community-based *Indigenous education project in Ecuador* was part of network of similar IDRC-supported indigenous education research activities in the Andean region, and while it was not explicit that the project would enable this particular group to network with the others, the knowledge generated was expected to be shared through joint meetings – in itself an informal way to stimulate capacities of exchange. Funding for this was to be provided from FAD to cover costs of a meeting with all indigenous projects "to discuss results".

- The *Fondo Mink'a* small grants project was expected to mobilize stronger networking among participating organizations around their development work, but in a fairly informal way: reflective analysis of their individual practice (i.e. using research to improve practice) was expected to generate new knowledge (research results) which would then be disseminated/shared within the sector.

Some projects make the link more strongly between expectation of networking behaviour and the need to facilitate it.

- The C-BCRM project in the Caribbean, for example, anticipated that the small grants mechanism would promote the beginnings of an informal network of scientists through "information sharing activities" such as joint workshops, a newsletter and some field visit exchanges of project leaders. Modest funds were provided for this, mostly for use by project leaders.

- One example of a specifically structured CD-based approach to enabling network participation was the vegetable research and development project in Tanzania which took a step-wise approach to developing the necessary capacity to network (the kind of layering of capacity levels which needs to happen in any CD intervention to ensure dealing with different learning stages). In this case, the expected capacities of the project were identified as those which would allow four Tanzanian vegetable researchers, and through them their institution, to be accepted as competent counterparts for the core AVRDC team of the CGIAR network. On the way, the four would become more proficient in research related to the needs of Tanzanian agricultural community and, therefore, contribute to its emerging network of cross-sectoral expertise in plant breeding, vegetable production, soil and water management.

Short-term Training and Study Visits

Most projects use the mechanisms of nonformal short-term training and informal study visits as a means of creating awareness (exposure to new ideas) and modest learning of skills (typically communication, technical or dissemination).

- It is less clear what the usual *methods* of these exercises are with respect to the application of learning principles, and thus it is difficult to assess their real effectiveness as capacity development tools.

Nonetheless, provision of expertise to a research activity on-site, where carefully tailored and facilitative, can produce well-matched, directly applicable learning opportunities, as well as a useful window for IDRC into the project where there is an advisor able to provide feedback *about* where further capacity inputs, and adaptations of the research, are needed.

Study visits are probably the more problematic of the two mechanisms, chiefly because they are usually *designed* as an informal modality, but expected to *act* as a nonformal one.

➜ With often little expressed matching of learner, learning task and site exponent or model, study visits frequently tends to assume too much learning with weak facilitation. Participants are expected not simply to become informed or aware of new ideas by seeing examples and talking to practitioners, but actually to become committed to those new ideas (attitudinal change) and alter their policy or practice accordingly (behaviour change). These levels of learning may happen, but instances are probably rare enough to raise serious doubts as to cost-effectiveness. Such sophisticated changes of attitude and behaviour can rarely be realistically expected without serious attention to the learning dynamics inherent in the diffusion-adoption/adaptation-implementation of innovations process.

A short description of a study visit by Cambodians to Thailand under the PMMR project auspices illustrates what might be considered a "good" such capacity development mechanism:

> "The learning objectives were clear and the programme was well thought out in relation to the needs of the PMMR project. Direct Cambodian-Thai translation helped greatly to build strong connections at various levels….The participation of the commune and village leaders was one of the main focuses (and) turned out to be very inspirational. (Cambodian) participants explained that the reason this tour was so interesting was that many aspects related so closely to (their own) situation" (Advisor TR/99).

Not earth-shattering, just sound advance organization, relevant content effectively delivered, and adequate follow-up. Specifically, if study visits are to meet realistic capacity development goals, this means:

> clear and shared goals need to be established for all participants (visitors and hosts) as to what is to be learned and why;
> visitors need to be "ready" with appropriate language and communication skills, a base of existing knowledge and experience and the ability to question and assess;
> hosts need to have the facilitative skills and ability to articulate the "what and why" of their practice;
> adequate post-visit time and opportunities need to be provided for facilitated consolidation and application of whatever new learning happens.

Consultant/Advisors

As indicated throughout this paper, use of consultant advisors is common as an informal, sometimes nonformal, mechanism in the Centre. They provide both technical and monitoring support, most typically on issues of the research as opposed to capacity development as such. Very few, it appears, are contracted for their adult education or

institutional strengthening expertise, nor are the facilitative methods to be used (e.g. lecture, interactive, document-based) usually identified.

The most significant use of this mechanism is in those projects which actually build advisor/mentors in as on-site live-in research-cum-capacity development facilitators.

Larger AFNS projects appear to have done this frequently, within the context of programme (as opposed to project) support. Senior scientists in their own right, and tasked also usually with generating local and regional networks, this type of on-hand, dedicated input to capacity development by advisors was both time and personnel costly, but no doubt effective where the individual also had appropriate adult learner-friendly facilitative skills.

Latterly, more of the change-intense PR projects appear to be using similarly intense mentoring.

For the PMMR project in Cambodia project, mentoring was at the core of the methodology. In terms of capacity development, the strength of the approach was:

- in its continuity, integration and iteration; consistently in place and comprehensive in perspective, fulltime experts appeared to provide a good balance of responsive and proactive technical advice in planning research, arranging fieldwork, collecting and analyzing data, writing reports;

  in assistance to the development and evaluation of workplans, and the design and implementation of personnel training activities;

  in administrative support, liaison with other institutions and agencies, and preparing and submitting technical reports.

The similarly PR-based agro-pastoralist project in Yunnan assigned an apparently fulltime consultant advisor, someone specifically responsible for organizing timely and flexibly tailored capacity development interventions for research partners.

This type of capacity-focused resource support is not the norm in the Centre, nor likely can it be given the financial and time costs implied for programme staff overseeing selection and management of the arrangement. It is, nonetheless, an appropriate mechanism from a learning-for-change perspective, in a situation where a basic readiness for implementing a PR research-cum-development agenda could not be assumed[12]. It is a mechanism consistent with the point of departure of participatory research designs which shifts the paradigm toward creating that readiness, by being hands-on and interactive.

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[12] It is also one presumably justifiable only on the grounds of a long-term commitment both to the sector in that country, and to promoting the new PI methodology. Variations on this mechanism seem, in fact, to have become more common with the evolution of PR though Minga, SUB, PLaW and the several CBNRM off-shoots.

Questions have correctly been asked about ownership of the agenda where the advisor role is extensive and, especially, where the recipient organization or group is relatively weak. Advisors are, for the most part, paid and contracted by IDRC, presumably because they have expertise in the subject area and hold views about research and development consistent with the project/Centre. As outsiders with the task of intervening on thinking and action, mentors have an effect on what others learn and do not learn by virtue of the knowledge, skills and priorities they carry with them. While they may be "in" the context, they are by definition not "of" it; no matter how capable they are, they have their own agenda and commitments beyond that frame. In terms of both adult learning theory and development philosophy, setting the agenda, asking the questions, interpreting answers and deciding on actions are fundamentally matters of ownership, and a sense of ownership promotes effective learning.

Enabling the actions and the ownership to reside with the learner/project recipients, sound facilitative methods are critical. This implies certain rules of mentoring, true for any situation of advisory input, whether PO or contracted resource and whether on long or short term placement (although probably especially on the former since these people are harder to ignore). These include the basics of adult learning facilitation indicated in the earlier section, including giving sufficient time to step-wise information gathering from, and reporting back to, project staff on what perceived strengths and weaknesses, or needs for new directions to the research work.

According to feedback from the C-BCRM project in the Caribbean, the value and conditions of advisor visits related directly to good learning facilitation practices: that details and timing were sufficiently planned to enable preparation, to know in advance the 'criteria' used by the visitor; that they bring value-added by giving attention to the content and methodology of the project (as opposed to simply checking administrative details); that visits be long and frequent enough to go into issues. Where meeting these criteria, visits gave researchers credibility in their home institutions, allowed local people (peers, stakeholders) to "know the face" of the programme and its status as a regional exercise.

Getting the task right is not easy for the additional reason that advisors also need to balance the priorities of the "learners", at whatever level of formality this is, with the requirements of their Centre-set terms of reference. For some, it is a less than satisfactory tension:

> "In theory, it would have been desirable to focus on developing people's ability to translate intuition (e.g. the researchers' ability to gauge farmers' situations and impact on them of the research) into rigour. A few statistical methods were taught and a few participatory head-scratching sessions were held. In the final analysis, though, more of the latter type of session should have been held; the need to give attention to more pressing logistical and administrative issues was the limiting factor and the legacy left is not as strong as it might have been."

➔ For all advisor/mentors, then, having the "capacity for capacity development" is key. This includes Centre officers, as well as Canadian and other Northern "experts", South-South linkage arrangements, study visit and on-site *stage* facilitators.

Graduate Education

Post-graduate degrees are typically the most contentious among the capacity development options in terms of cost-benefit. Where well-handled (selected, focused and monitored), support to such training is invariably labour intensive for all concerned. As educational endeavours, especially PhD level degrees are ultimately individual matters, outside the purview of even the most conscientious programme, donor or sending institution to manage fully. At the very least, they require a long-term commitment, and cost-benefit may be undercut when IDRC moves away from a field soon after funding such capacity.

On the other side, where well-handled in an area where IDRC expects to be for the long-term, the quality can be high and provide a major contribution to the analytical scope and development impact of research in that sector, discipline or development theme. There is little doubt that high quality, independent research capacities are underpinned by senior academic level education, in terms both of the knowledge participants bring to bear, as well as of the capacities to acquire, invent and exchange new ideas. Education at this level also tends to enable the kind of international and interdisciplinary networking important to generating new paradigms of both research and development thinking.

Even participatory research draws at some point on people with expertise at this level. Conceiving organizational change and resources-management problems; how these interact with, and their implications for, social integration or livelihood sustainability; and presenting this within a framework reaching beyond the immediacy of the moment and of local conditions all require the knowledge and ability to think, plan and assess at fairly abstract levels. It requires being able to see the importance of the specific on its own and as part of a wider whole. If projects do not themselves support capacity development of this kind, they certainly are appropriate in bringing such conceptual capacity development assistance to the projects through mentoring and advisors.

The dilemma or challenge for IDRC has always been how to ensure sufficient capacity at this level, both for the immediate needs of a current project and as a base of longer-term indigenous research and policy generation. How, in what areas and to what depth should support be given to the creation of sophisticated capacity versus creating basic research capacities for practitioners?

In this respect, the potential weaknesses of funding post-graduate training are somewhat mitigated by having them serve multiple capacity agenda, building them into a co-operative project, for example, or tying them into a capacity-oriented network. In these cases, the focus is actually on wider goals of institutional, sector and/or thematic (e.g. CBNRM) development through on-going North-South professional exchange of researchers able to tailor learning "on-the job" and "in-location" and so integrate new knowledge, skills and practice. The learning the graduate students do is guided by, and feeds back into, this wider agenda.

In the case of an Inland Fisheries project in Nepal, for example, the "high quality" of the project was at least in part a function of the degree training done and its being "knit" directly within project objectives, consultant time allocated to combined graduate student research supervision, project monitoring, senior staff advice. "The interlinking of the degree awards with the field activity … was particularly successful in obtaining more rigorous research standards, greater personal interest and good quality supervision input into the project"[13]

IV CONCLUSIONS

Effective capacity development is rarely an accident. Where it occurs, it is because careful thought has been given to determining what capacity outcomes are needed, to planning their resources and to assuring buy-in of all those involved as facilitators and learners. In other words, CD is successful to the extent it is "on the table" along with the research before and as a project commences, as part of the project conceptualization and development process itself.

Effective capacity development occurs where:

▪ The capacity goals are stated clearly and agreed;

▪ Capacity goals are disaggregated in terms of types and degree of knowledge, attitude or behaviour change anticipated (or, as in PR, it is agreed that outcomes will be left open-ended, to be worked out through the process);

▪ Capacity development activities are learner-centred - matched with participants' learning characteristics and needs and accorded appropriate resources;

▪ Organizers use appropriate facilitating mechanisms, matched with consciously capacity-oriented monitoring and evaluation.

Developing the capacity of IDRC programmes to deal effectively with capacity development is, in itself, a task requiring policy attention, resources and followup. Different programme areas already display differing capacities to deal effectively with CD, the strongest being those where learning is part of the research process, and purposefully and systematically facilitated as such.

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[13] Bajaj, M. "Survey and Assessment of IDRC's Completed Projects: Social Policy, Public Goods and Quality of Life Issues – Case Study of the Inland Fisheries Project". IDRC. Jan/98. pg 2

Acronyms
AFHN: Asian Fish Health Network
AFNS: Agriculture, Food and Nutrition Sciences Division, IDRC
ARI: Acute Respiratory Infection
AVRDC: Asia Vegetable Research and Development Centre
C-BCRM: Community-based Coastal Natural Resource Management
CBNRM: Community-based Natural Resource Management
CD: capacity development
CGIAR: Consultative Group on International Agricultural Research
CPSF: Corporate Programme and Strategic Framework
ENHR: Essential National Health Research
FAD: Fellowships and Awards Division, IDRC
FAO: Food and Agriculture Organization
FSR: Farming Systems Research
GEH: Gender, Equity and Health
ICT: Information and Communication Technology
ISD: Information Sciences Division, IDRC
MAP: medicinal and aromatic plants
NACTAR: National Centre for Training and Allied Research, Nepal
NRM: Natural Resources Management
PAD: Project Approval Document
PCR: Project Completion Report
PDC: Participatory Development Communication
PI: Programme Initiative
PLaW: People, Land and Water
PMMR: Participatory Management of Mangrove Resources
PO: Programme Officer
PR: Participatory Research
PS: Project Summary
RSP: Research Support Project
SUB: Sustainable Use of Biodiversity