

Choosing the Right Projects

**Designing Selection Processes for
North-South Research Partnership Programmes**

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Authors

Priska Sieber is a senior researcher and educational consultant at the Institute for International Cooperation in Education (IZB) of the Teacher-Training University of Central Switzerland (www.zug.phz.ch/izb).

Thomas Braunschweig has worked for many years as a research fellow and consultant in the area of priority setting and decision support in research organisations. He is currently with Alliance Sud (www.alliancesud.ch), the Swiss alliance of development organisations.

KFPE

KFPE is dedicated to promoting research partnerships with developing and transition countries. In this way, it wishes to contribute to sustainable development.

It is engaged in Swiss scientific policies and is committed to promoting the interests of researchers and their affiliated institutions on both a national and international level. It furthers development oriented research and elaborates research-strategic concepts. In this context, it ascertains that partnership principles are followed, that the quality of research is assured, and that the interests of all partners are respected. KFPE is a commission of the four Swiss Scientific Academies.

Address

Schwarztorstrasse 9, CH-3007 Bern
phone +41 31 311 06 01, fax +41 31 312 16 78
kfpe@scnat.ch, www.kfpe.ch.

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Contents

Foreword	7
Acknowledgements	9

Introduction	10
Towards a new paradigm for development-oriented research	11
Principles of North-South research partnerships	12
What is the purpose of this Manual?	13
What are the costs of a selection process?	15
What is in the Manual?	16
How should one use the Manual?	17

Part I: Core Elements

Module 1: Involving Actors	21
1-1 Subjectivity and Objectivity	22
1-2 Roles and Responsibilities	23
1-3 Consensus Approach	26
Module 2: Defining Selection Criteria	29
2-1 Basic Principles	30
2-2 Information Sources	32
2-3 Structured List of Criteria	33
2-4 Additional Criteria	37
Module 3: Deciding on a Methodology	39
3-1 Choosing a Method	40
3-2 Checklist Method	40
3-3 Scoring Methods	41
3-4 Weighting Criteria	42
3-5 Using Thresholds	44
Module 4: Organising Proposals	47

Part II: Step by Step

Module 5: Development of Proposals	51
5-1 Call for Proposals	51
5-2 Prior to Full Proposals	53
Module 6: Evaluation of Individual Proposals	55
6-1 Eligibility Check	56
6-2 In-depth Evaluation of Proposals	56
6-3 Consensus on the Proposal Marks	59
Module 7: Synthesis and Ranking	63
Module 8: Decision and Notification	67
8-1 Decision Making	67
8-2 Notification and Contract	68
8-3 Monitoring and Evaluation	69

Annex

Annex 1: Abbreviations	73
Annex 2: Glossary	74
Annex 3: Structured List of Potential Criteria	78
Annex 4: Literature and Links	84

Foreword

Current processes to select research projects and programmes for funding are strongly influenced by themes and institutions that mainly reflect the priorities of the so-called “North”. A more comprehensive selection process is necessary for research projects based on partnership principles and cooperation between industrial and developing countries, as they aim to elaborate scientifically sound solutions to development-relevant problems while strengthening research capacity in developing countries. But how can one adequately assess the degree to which such projects meet standards both with regard to scientific quality and development relevance?

The Swiss Commission for Research Partnerships with Developing Countries (KFPE) took up the challenge of addressing this issue and launched a project to analyse project selection processes applied within the framework of North-South Research Partnerships (NSRPs) in Switzerland and abroad. In Switzerland, both the Swiss Agency for Development and Cooperation (SDC) and the Swiss National Science Foundation (SNSF) have garnered a fair amount of experience with research partnerships. SDC and SNSF have been offering common NSRP programmes since 1992 and have thus often been confronted with the conundrum of integrating development relevance and scientific quality. But the KFPE’s project is also the logical continuation of its efforts to define principles for research in partnership with developing countries¹. Indeed, the KFPE wanted to find ways of operationalising these principles more effectively and integrating them into selection processes.

The challenge for the current Manual was thus to develop a selection process that makes it possible to take explicit and equal account of three requirements – the need to meet high standards with regard to scientific quality, development relevance, and adherence to partnership principles. How can these very different objectives be dealt with in the selection process? The Manual shows how to involve actors from different areas and with different backgrounds, how to translate the various objectives of NSRPs into a coherent and meaningfully structured set of selection criteria, how to weight these criteria, collect relevant information from different sources, apply a formal methodology to sorting, processing, synthesising, and comparing the information collected, and how to genuinely incorporate the perspective of the South at various steps of the selection process.

¹KFPE, 1998. Guidelines for Research in Partnership with Developing Countries: 11 Principles. KFPE, Berne.

The aim of the present publication is thus to help develop adequate selection processes within the context of NSRPs, ultimately resulting in improved quality and impact of such projects. The Manual is therefore mainly intended for institutions and persons who evaluate and finance NSRP projects. But it may also be of interest to researchers who wish to apply for funds, since a more profound knowledge of such selection processes makes it easier to elaborate a proposal. In order to meet the various needs of these readers, the Manual was conceived as a flexible tool. Its modular structure makes it possible to either integrate individual steps into an existing selection process or to completely rethink a process and redefine it.

This Manual also aims to trigger a debate on how to improve a procedure that is not easy to implement. It hopes to strengthen the dialogue about selection processes so that projects can better meet the diversity of requirements inherent to NSRPs. The KFPE therefore welcomes comments and feedback on the present Manual (kfpe@scnat.ch).

Bern, July 2005

The Working Group: Bruno Stöckli (leader), Jon-Andri Lys, Jürg Pfister, Jacques-André Possa, and Jacqueline Schmid

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Jon-Andri Lys
(Executive Secretary, KFPE)

Introduction

Towards a new paradigm for development-oriented research

A major paradigm shift has been taking place in development-oriented research that focuses on the nature of knowledge production and the social validation, diffusion and utilisation of knowledge. The linear model of scientific innovation – based on the view that a problem crops up in reality, is then addressed by science, which then finds a solution, which is then applied in reality – has been replaced by models insisting on the continual interaction between science and society, on learning processes, and on networks². In development-oriented research, science is now perceived as a system of innovation that produces knowledge in interaction with the social context for which research results will be relevant. Such an approach helps to „overcome linear conceptions that see science as a starting point for innovation, and that relegates policy implications to the end of the analysis“³. According to some scholars, the closer the interaction between science and society, the more likely it is that a new kind of science will emerge, for which terms such as Mode-2 knowledge production, contextualised science, and socially robust science have been coined⁴.

This more holistic approach to knowledge creation and technology development is also advocated for North-South research partnerships⁵. At present, however, two distinct approaches dominate North-South partnerships. The first refers to cooperation on North-driven scientific projects between researchers working in different countries. The second concerns the resources granted and programmes implemented to contribute to developing and strengthening scientific capacity in the South. The two approaches have different objectives and are managed differently: they „have had little intersection.... Merit-based science is by definition aimed at creating excellent science no matter where in the

²Spaapen J. 2001. North-South Research Partnerships: Possibilities and Pitfalls. In: RAWOO. Utilization of Research for Development Cooperation: Linking Knowledge Production to Development Policy and Practice. RAWOO-Publication no. 21. The Hague.

³Velho L. 2002. North-South Collaboration and Systems of Innovation. In: The Royal Netherlands Academy of Arts and Sciences. North-South Research Cooperation. Amsterdam, p. 26.

⁴Gibbons M., Limoges H., Nowotny H., Schwartzman S., Scott, P., Trow M. 1994. The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies. Sage Publications, London;

Nowotny H., Scott P., Gibbons M. 2001. Rethinking Science: Knowledge and the Public in an Age of Uncertainty. Polity Press in association with Blackwell Publishers, Inc., Malden, MA.

⁵Velho 2002: see footnote 3

world it is being conducted; research aid for development focuses primarily on building capacity and only secondarily is consideration given to whether excellent science is being funded.”⁶ The Netherlands Development Assistance Research Council⁷ considers that the main reason for the asymmetry in the process of producing research-based knowledge is the fact that priorities as perceived in the North often take precedence when research is co-produced with the South.

This is an unsatisfactory situation for North-South Research Partnerships (NSRPs), which try to adopt the holistic approach mentioned above and therefore attempt to reconcile very different goals. Simultaneous pursuit of objectives related to scientific quality, development relevance and genuine North-South partnership involves significant trade-offs (i.e., more of one can be achieved only at the expense of another). Funding agencies with NSRP programmes are faced with this problem particularly when choosing the most promising research projects for funding.

Principles of North-South research partnerships

In this Manual, NSRPs are defined as activities comprising “a combination of result-oriented research activities and capacity-building components at the individual and institutional levels, or both levels simultaneously... They should be based on mutual interest, trust, understanding, sharing of experiences, and a two-way learning process. In an ideal partnership, all partners will work together on an equal footing at all stages and levels. This is particularly important during the agenda-setting process, when research projects or programmes are being designed, as well as for implementation and management”⁸. In principle, NSRPs should enable exchange and mutual learning on the basis of complementary skills and knowledge and therefore lead to an increased quality of research as well as to building of research capacity in the South and in the North. NSRPs should also enhance the transfer of results to stakeholders of development at different levels, as well as to the international scientific community, thereby increasing the relevance and recognition of research originating from and conducted in the South. Moreover, NSRPs can contribute to intercultural exchange and learning⁹.

⁶Wagner C.S., Brahmakulan I., Jackson B., Wong A., Yoda T. 2001. Science and Technology Collaboration: Building Capacity in Developing Countries? RAND Science and Technology, Santa Monica, CA, p. 2.

⁷RAWOO, Netherlands Development Assistance Research Council, 2001. North-South Research Partnerships: Issues and Challenges. RAWOO-Publication no. 22. The Hague.

⁸Maselli D., Lys J.A., Schmid J. 2004. Improving Impacts of Research Partnerships. Swiss Commission for Research Partnerships with Developing Countries, KFPE. Geographica Bernensia, Bern.

⁹KFPE, 2001. Enhancing Research Capacity in Developing Countries. Geographica Bernensia, Bern.

Thus, compared to non-collaborative research, North-South research partnerships are often perceived as a potential source of added value with regard to a number of aspects. However, in reality and practice NSRPs often have shortcomings, including in particular the problem of asymmetries or lack of balance between North and South in the partnerships¹⁰.

To support reflection on balanced and genuine NSRPs, the Commission for Research Partnerships with Developing Countries (KFPE) has developed 11 principles for research partnerships between industrialised and developing countries (see Box 1). The principles have been published as guidelines for funding agencies and applicants.

Box 1: The 11 Principles of North-South Research Partnerships

1. Decide on objectives together
2. Build up mutual trust
3. Share information; develop networks
4. Share responsibility
5. Create transparency
6. Monitor and evaluate the collaboration
7. Disseminate results
8. Apply results
9. Share profits equitably
10. Increase research capacity
11. Build on the achievements

The 11 principles can also be considered a sound basis for evaluating the quality of partnerships in NSRP project proposals. The challenge is to properly incorporate the principles into the selection process and consistently link them with considerations of scientific quality and development relevance (see above).

What is the purpose of this Manual?

This Manual aims to help design, revise, and implement rigorous and effective project selection processes in North-South research partnership (NSRP) programmes. It is intended for programme managers working within the context of such programmes.

A recent survey of the KFPE among a range of funding agencies and a review of the relevant literature revealed that many funding agencies and programme executing institutions¹¹ find it difficult to deal with the com-

¹⁰RAWOO, 2001: see footnote 7; KFPE, 2001: see footnote 9; Maselli et al. 2004: see footnote 8

¹¹As funding agencies often outsource the administration and management of such programmes, e.g. to research institutions, the selection process is usually performed by these institutions. The Manual will apply the term "programme executing institutions" (PEI) for the institutions that are in charge of the selection process.

plex challenge mentioned above when choosing the most promising NSRP proposals for funding. There seems to be a strong need for procedures to systematically assess and combine the potential contributions of projects to a programme's objectives of development relevance, scientific quality, and genuine partnership. Accordingly, the Manual focuses on these aspects and offers detailed guidance for programme managers: it shows how to integrate such diverging aspects into the process of choosing the right projects for a NSRP programme.

The Manual takes into account the multiple objectives of NSRPs and aims to provide guidelines for how to translate the various objectives into a coherent set of selection criteria, how to meaningfully structure the criteria, and how to attach weights to them in order to deal with the trade-offs involved. The Manual also suggests suitable priority-setting methods and outlines how to collect appropriate information for assessing project proposals (see Box 2). All these are important steps in the design of systematic and formal selection processes for NSRP programmes. They go far beyond purely technical or scientific questions and involve major reflections on an agency's goals and policies.

Box 2: The Manual provides guidelines for

- involving actors from different areas and with different backgrounds;
- translating the various objectives of NSRPs into a coherent and meaningfully structured set of selection criteria;
- attaching weight to these selection criteria;
- collecting the necessary information from different sources;
- applying a formal methodology to sorting, processing, synthesising, and comparing the information collected;
- genuinely incorporating the perspective of the South at various steps of the selection process.

The Manual also analyses where the 11 KFPE principles can be incorporated into selection processes, how they can be put into practice, and contextualised. The partnership principles are relevant at every step of the selection process, implying that it is indispensable to incorporate the perspective of the South at every step of the selection process and that Southern research partners need to be assigned an active role (see Box 2). In particular, the principles must be adequately reflected in the selection criteria. This is a tricky venture, as selection criteria are derived from the NSRP programme's objectives. The key question is: does the programme define a good research partnership as an objective in itself – or does it require that partnership activities should contribute to objectives such as development relevance, research success, and capacity strengthening? In this Manual, we argue for the latter. Consequently, we suggest taking into account the 11 partnership principles for each of the selection crite-

ria when assessing NSRP project proposals¹². The Manual outlines what this means in practice.

An additional major goal of this publication is to contribute to further dissemination of NSRP principles and hopefully to their more systematic use when selecting, implementing and evaluating NSRP projects.

What are the costs of a selection process?

Designing and applying rigorous and systematic selection processes involves significant costs. First, an investment is necessary to design the process. These are one-time expenses which appear worthwhile as they increase the transparency of the process and standardise procedures, thus diminishing downstream costs. Second, there are recurring costs related to the application of the selection process. These costs vary widely depending on the total funds available to the NSRP programme, the complexity of institutional arrangements, the specific requirements for accountability, and the programme's aims. The present Manual should help to keep these costs at a reasonable level.

No general recommendation can therefore be made about how formalised the selection process should be and what exactly are the costs involved. However, the following principles may help to reflect on these issues:

- **Size of the NSRP programme:** The more projects from which to select, the more worthwhile it is to invest in formalising the selection process.
- **Top-down prescribed objectives:** The more a NSRP programme aims to achieve specific objectives, the more these objectives need to be operationalised and evaluated in the selection process (and in the implementation of the selected projects).
- **Independent actors:** The more actors with vested interests are involved in the selection process, the more important is a formalised selection process that can deal with different perspectives. Failing to do so may lead to unhealthy situations where a few powerful actors push their agendas.
- **Quality and quantity:** Involving a small number of actors in the selection process is usually more efficient, while a larger number of actors function more effectively.

The Manual provides sufficient flexibility to define the optimal balance among these principles when designing selection processes for specific NSRP programmes.

¹²The structured list of selection criteria in Annex 3, which is an example of the kind of criteria that can be taken into account in a selection process, include key questions inspired by the practical questions suggested in the KFPE Guidelines as a way of implementing their principles (KFPE, 1998). These questions underline that a good partnership is necessary because it contributes to a variety of research and development objectives.

What is in the Manual?

Every selection process is – explicitly or implicitly – determined by the following four core elements¹³:

1. **The actors involved:** these consist of scientists, development specialists, and project managers from the North and the South who process information and bring in their knowledge and skills as one form of information about NSRPs;
2. **The criteria applied:** a set of criteria reflecting the multiple objectives to be achieved by NSRPs, including scientific quality, development relevance, and capacity strengthening;
3. **The methods used** for sorting, processing, synthesising, and comparing the information about NSRP project proposals from various sources and of different types;
4. **The project proposals submitted:** these provide crucial information about the proposed NSRPs.

Designing a systematic and formal selection process as outlined in this Manual requires a thorough understanding of the core elements as well as accurate reference to these elements in the implementation of the selection process. Accordingly, the Manual has two parts (see Figure 1).

Part I introduces each of **the four core elements** in modules 1 to 4. Each module presents the basic ideas behind the element, suggests options for conceptualising it, discusses the implications of choosing a specific option, highlights possible difficulties, and outlines procedures for systematically dealing with the element in the context of NSRP selection processes.

Part II outlines **the step-by-step procedure** of the selection process, using the core elements. In light of the discussion and paradigm change evoked at the beginning of this Introduction, the first phase of a selection process is the development of research proposals (module 5), even though this phase is not normally considered part of a selection process. The second phase focuses on the evaluation of individual proposals (module 6), followed by the synthesis and ranking phase (module 7). The final phase deals with the decision and notification procedures (module 8). Each module presents the steps to be planned, indicates the means to support the implementation of each step, provides best practices, illustrative examples, and points to potential pitfalls.

The main emphasis of the Manual is on the **design** of a selection process for NSRP programmes. However, modules 5 to 8 occasionally illustrate how steps are implemented, in order to draw attention to important issues for the design stage.

¹³They are core elements because they convey the basic requirements of a selection process. If one of these elements is missing, a selection process cannot be conducted.

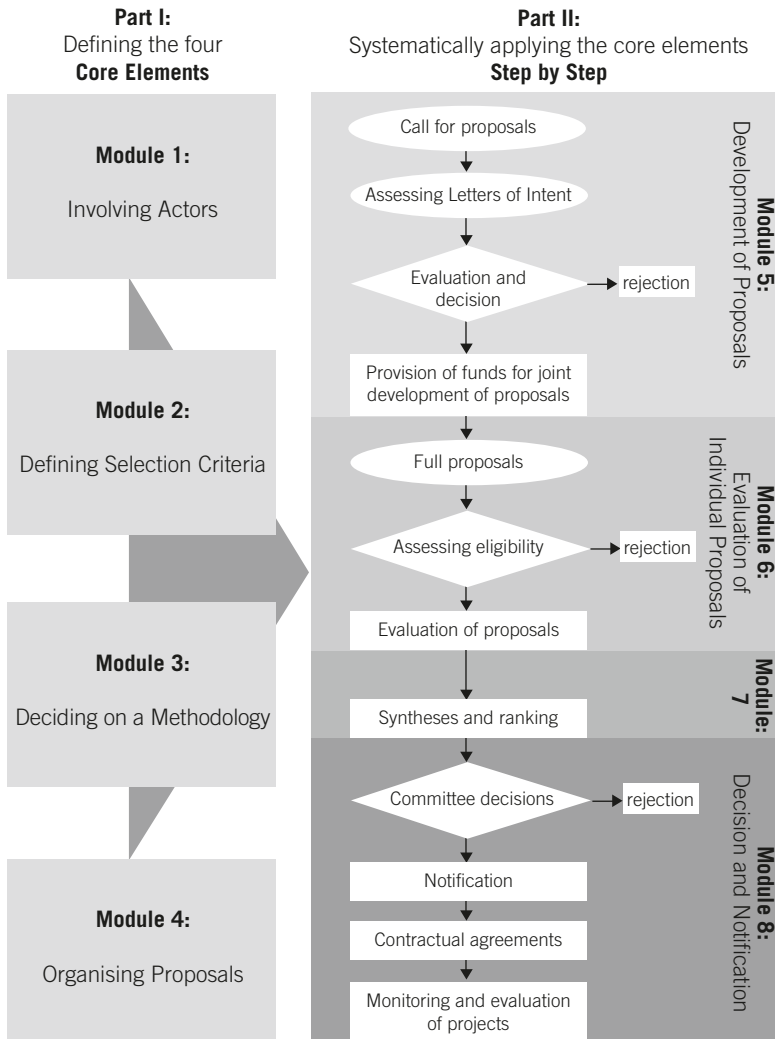


Figure 1 Overview of the elements contained in the Manual and the relations between them

How should one use the Manual?

The Manual's eight modules provide detailed guidance for designing a comprehensive selection process for NSRP programmes.

- If you are a programme manager and intend to develop a selection process from scratch, read the whole Manual.
- If you only wish to modify certain steps of an existing selection process or add elements to it, look for the appropriate module and section, using the module titles and grey tables.



Partnership principles:
 This sign points to issues related to the 11 KFPE partnership principles.

For instance, if you are planning to revise your selection criteria, you may want to work only through Module 2, “Defining Selection Criteria”; if you are looking for a suitable tool to synthesise the results of individual project evaluations, read through Module 7, “Synthesis and Ranking”.

The Manual explicitly refers to the 11 KFPE partnership principles whenever these principles are relevant.

Each module starts with a brief introduction to the subject. This is followed by the aim and structure of the module in tabular form, as exemplified here:

Aim of this brief introduction: To explain how to use the Manual and its ‘signposts’.

Questions	Brief answers	Section
1. What are the key topics in each module?	Read the answers in this column for a brief summary of issues addressed by the questions to the left, and refer to the box on the right to see which section to turn to.	Points to the sections where issues mentioned on the left are dealt with.



Remember:
 This sign points to issues that require special attention.


The text that follows the grey table outlines steps to be taken, offers background information, presents concepts, tools and principles of selection processes, and explains details that are important for NSRP programmes. As such programmes vary greatly in subject matter, techniques, scope, size, objectives, timeframe, institutions involved, instruments applied, and countries targeted, the examples presented do not cover all cases.

White boxes contain **additional information** of the following type:

- how to tailor a proposed tool to the specificity of a given NSRP programme, e.g. in terms of size, subject matter, or country focus;
- supplementary information on the tools proposed.

In the red boxes, **examples** illustrate how suggested tools and methods can be applied. The examples generally refer to a hypothetical NSRP programme that is thematically open and funds long-term NSRP projects.

Grey boxes offer **best practices** of selection processes, or **alternative approaches** to project selection drawn from existing NSRP programmes.

For readers who wish to work only through one particular module,  red arrows indicate links to further relevant modules and sections in the Manual.

Part I

Core Elements



Module 1: Involving Actors

A comprehensive selection process requires participation by a range of “actors”, i.e. individuals who play an active role in the different steps of the selection process. The choice of actors, the definition of their roles, and the responsibilities assigned to them strongly determine the outcome of the selection exercise because ex-ante evaluation of research is intrinsically subjective.

Aim of module 1: To offer guidance for choosing suitable actors for the selection process, assigning roles, and dealing with a variety of participants.

Questions	Brief answers	Section
1. How can I achieve an objective evaluation of project proposals?	Ex-ante research evaluations are always subjective. They only differ in where subjectivity enters and how it is processed. Skilful information management can reduce the subjective nature of evaluations, but never eliminate it.	Section 1-1
2. What roles must be assigned in the selection process?	The most important roles that need to be assigned are those of the evaluators, selection committee members, and decision makers. When deciding on the size of the group, keep in mind that smaller groups are usually more efficient, while larger groups are more effective.	Section 1-2
3. How can I promote consensus when a variety of participants is involved in the process?	A formalised consensus approach prevents or depolarises conflict situations. Preferably, this is a multistep procedure that alternates between individual assessments and group discussions.	Section 1-3

1-1 Subjectivity and Objectivity

Objectivity is preferable to subjectivity in project selection processes because funding decisions can be better defended. However, ex-ante research evaluation is about predicting how projects will contribute to the stated objectives in future – and the future is unknown.

Subjectivity obviously enters a selection process when one assesses the expected outcomes of research projects. But it also influences the process of choosing evaluators, defining research objectives, deriving and weighting criteria, selecting indicators, assessing the probability of success of the research project, estimating its expected costs, and deciding on a methodology – as all of these steps include value-laden assessments.



Remember:

Systematic application of the formal rules of a selection process makes it possible to narrow the space for participants' hidden agendas.

More information on
dealing with subjectivity
is available in
→ section 1-3
and module 3

Still, many casual observers, including some research administrators and even some analysts, mistakenly attribute objectivity to certain evaluation techniques. The greatest fallacy is in equating objectivity with quantifiability. Neither rules nor formal approaches can turn subjective inputs into completely objective ones, no matter how precise and elegant these rules may appear. Rules only differ in where subjectivity enters and how it is processed¹⁴.

Given the fundamentally subjective nature of ex-ante research evaluation, careful selection of actors – i.e. bringing in different perspectives and tapping the best available expertise – and transparent definition of roles and responsibilities will help to reduce subjectivity. In addition, you should choose methods for systematic processing of subjective data; this will make it possible to agree on what information is truly relevant to the funding decision. This is further discussed in Module 3 as well as in the consensus approach suggested in section 1-3.

1-2 Roles and Responsibilities

A formal selection process contains several roles and responsibilities, all of which need to be carefully defined and communicated. An individual may be assigned more than one role. A further important point to consider is the question of the size and composition of the groups described below: they heavily depend on the specific features of your programme, particularly on available resources for carrying out the selection process and the number of proposals submitted. Regarding the size of the group, a general rule is that while smaller groups are more efficient, larger groups tend to make decisions that are more effective.


Evaluators:

Evaluating research proposals is undoubtedly the most important and demanding task in the selection process. Research evaluation is usually performed in a peer-review process involving experts in the subject matter of the research under review. These experts are expected to provide an independent assessment on the potential merit of the proposal. In particular, their role is to evaluate the extent to which a proposed project meets the selection criteria that represent the programme's objectives and requirements. Experience shows that a minimum of three evaluators should be involved in order to reduce the subjectivity of the individual assessments.

Ex-ante evaluations require considerable skills, knowledge and experience. Ideally, evaluators of North-South research partnership projects should be experts in many things at the same time: in the subject matter

¹⁴Shumway R.C. 1981. Subjectivity in Ex Ante Research Evaluation. *American Journal of Agricultural Economics*, 63, 169-173.

of the project, the proposed research methods, the approaches selected for disseminating the outcomes, and the planned capacity strengthening activities. Furthermore, they should be familiar with the partner countries and institutions concerned, and have gained sound experience of North-South partnerships. Because such experts are rare, alternative approaches to project evaluation are proposed in section 6-2.

For more information on the evaluation of proposals, see
 *module 6*

Supplementary Information: Independent Assessments

Evaluators are expected to provide an independent assessment on the potential merit of a research proposal. However, they always argue from a specific point of view. Choosing experts as evaluators, therefore, means to be conscious of possible biases before selecting experts and to be alert to biases in the evaluations received.

Especially in narrow research areas and/or small research communities, experts may be in some form of relationship with the applicants, a fact that may reduce their eligibility as potential evaluators – e.g. they may be an applicant's close friend or rival, they may have a proposal under review within the same area of research, etc. Hence, it is crucial to address the problem of potential conflicts of interest when selecting individuals as evaluators: each evaluator should be asked to indicate whether they might see such a conflict of interest. Example: see red box below.

Example of a Conflict of Interest and Confidentiality Declaration

I, the undersigned, declare to commit to strict confidentiality and impartiality in fulfilling my tasks as an evaluator.

I declare that I have not submitted, nor am I directly or indirectly involved in, a proposal under the call for proposals.

I am aware that my participation in the evaluation of the following proposal(s) may create a conflict of interest:

I also declare that I will not reveal any detail whatsoever of the evaluation process, of its outcomes, or of any proposal submitted for evaluation in the selection process for which I have received an evaluation mandate without the express written approval of the PEI.

Place and date: Signature:

Involving Evaluators at the International Foundation for Science (IFS)¹⁵

IFS sends evaluation requests both to independent evaluators and evaluators who know the applicant. While some evaluations by people who know an applicant are more like letters of recommendation, others are critical and constructive. People who know applicants often have access to a different type of information than independent reviewers; this can be helpful for instance when trying to assess the level of institutional support for a candidate, as such evaluators may know when an applicant has exaggerated his/her qualifications and network.

¹⁵For more information about IFS: <http://www.ifs.se>

The selection committee:

The selection committee's role is to recommend the most promising project proposals to the decision committee (see below). Their responsibility includes organising independent evaluations, synthesising individual assessments based on a chosen method(s), and ranking the proposals according to the scores obtained in the evaluation process. Selection committee members may occasionally have to provide and integrate their own assessment of specific criteria.

The selection committee may appoint one or several proposal coordinators among its members and assign the responsibility for individual proposals to these coordinators. In such a case, the committee processes the proposals based on the preparatory work and advice of the coordinator(s).

The selection committee is usually a body of three to eight individuals composed of experts from PEI and/or external people with adequate expertise¹⁶. They must be experts in a relevant field and have the (foreign) language competence necessary for reading, understanding, and discussing the project proposals. Achieving gender balance is a principle that should also be taken into account.

The decision committee:

The decision committee's role is to make the final funding decision. Their responsibility is to review the recommendations made by the selection committee, make sure that the project portfolio is in line with the programme guidelines, and allocate the funds to the chosen research projects. The decision committee will probably also assume a role in defining the programme objectives and choosing further actors for the selection process if necessary.

The decision committee is usually a body composed of the management or of high ranking officials from the PEI. It may also include representatives of the donor organisation(s).

¹⁶They may come from universities, institutions in developing country, diplomatic missions in the target countries, or from development agencies. They should serve in their personal capacity and not as representatives of their institution unless they are members of the donor organisation or the PEI.

Supplementary Information: Additional Roles

It may be useful to designate a **moderator** who takes over the role of moderating and reporting during the consensus finding, synthesis, and ranking steps. This is particularly useful if a considerable number of actors with diverging opinions are involved in the selection process. The moderator should preferably be an officer from the PEI or an external person. He or she coordinates inputs for the discussions and take notes during meetings. He or she is responsible for ensuring that the selection committee is able to amalgamate the individual expert views, for mediating in case of disagreements, and for structuring information for the consensus report.

In order to continuously review and improve a selection process, an **observer** can be appointed to critically appraise aspects related to both management and content of the evaluation procedure. This role should be given to an independent expert. The role of the observer is to provide advice to the management of the PEI on the conduct, fairness, and equity of selection processes, on ways in which procedures could be improved, on the evaluation criteria and weightings used in the sessions, and on the way in which the evaluators apply the criteria. The responsibility of the observer is to accompany all phases of the selection process, whether these are carried out on location or remotely. Observers do not express views on the proposals under examination or on evaluators' assessments of the proposals.¹⁷

¹⁷European Commission, 2003. Guidelines on Proposal Evaluation and Selection Procedures. <http://www.cordis.lu/fp6/find-doc.htm> (March 2004)

1-3 Consensus Approach

Many priority-setting methods emphasise participation because selection processes normally improve when several people with different views and knowledge work together. As a rule, however, the difficulty of arriving at a shared view of an issue increases with the number and diversity of stakeholders. This is true when it comes to defining selection criteria (module 2), weighting the criteria (module 3) or assessing individual projects in the light of the criteria (module 6, 7, 8).

A consensus approach may be applied at different phases of the selection process
→ *Module 2, 3, 6, 7, 8*

Supplementary Information: Arriving at a Final Assessment¹⁸

Achieving a consensus is attractive for two reasons. First, such discussions help ensure that relevant information possessed by individual group members is made available to the whole group. Second, consensus is desirable because it leads group members to feel that they “own” decisions that they make as a group and – where applicable – will do all they can to assure successful implementation. If consensus cannot be obtained, participants can either vote or calculate averages in order to achieve a compromise.

A formalised consensus approach will prevent or depolarise conflict situations and help build commitment to the final result. The process is preferably designed as a multi-step procedure (Figure 2).

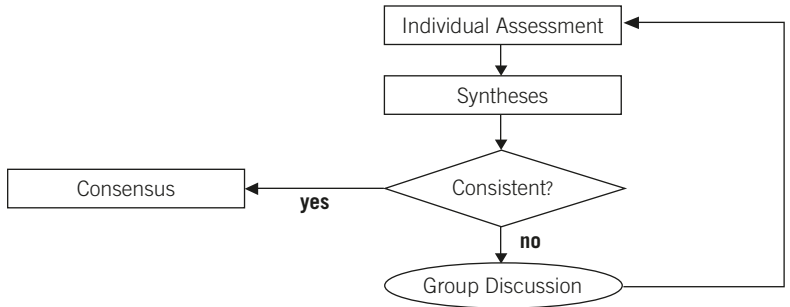


Figure 2 Steps in a consensus process

¹⁸Dyer R.F., Forman E.H. 1992. Group decision support with the Analytic Hierarchy Process. Decision Support Systems, 9, 99-124.

Consensus can be achieved by using the following steps:

1. Every participant completes his or her assessment (e.g. marking and weighting) on an initially prepared form.
2. All answers are collated and listed in a synthesised form, visible to all participants. If quantitative assessments need to be given, the synthesis should include the average of the individual assessments and the standard deviation (as a consistency measure).
3. Participants can then compare their own responses with those of the others in the group, and every member can give the reasons that led them to make a particular assessment. This step aims at eliminating misconceptions and increasing mutual appreciation of assessments. The interaction should also decrease the gap between participants' views.
4. Steps 1 to 3 are repeated until participants are in a position to agree on a joint assessment, reaching a standard deviation that is close to zero.

If the participants are not able to meet physically, consensus can be achieved using a quasi-Delphi procedure by mailing the synthesis and responses (steps 2 and 3). If disparity between the individual answers remains substantial after several rounds, it might be necessary to organise a meeting after all, as face-to-face interaction is more conducive to reaching common ground.

Module 2: Defining Selection Criteria

Criteria can be thought of as the link between the NSRP programme and the research proposals. Upwards, selection criteria reflect what is important to the programme because they are directly derived from its objectives. Downwards, selection criteria measure how project proposals can fulfil the programme's objectives, as they analyse the expected research results.

A well-defined and coherent set of criteria, therefore, is a key to choosing the most promising research projects for a given programme. The criteria also facilitate internal and external communication on funding decisions. If clearly communicated to applicants who are developing new research proposals, the set of criteria also helps to ensure that proposals meet the requirements of the NSRP programme and focus on its objectives. Moreover, the criteria can also be used for the monitoring and evaluation of project implementation.

Aim of module 2: To offer guidance for developing and meaningfully structuring selection criteria related to your NSRP's programme objectives.

Questions	Brief answers	Section
1. How do I handle multiple objectives when developing the set of criteria?	Multiple objectives such as development relevance, capacity building, and potential success of research can be handled by structuring the set of criteria hierarchically, based on a careful analysis of means and ends relationships. Particular attention should be paid to competing objectives located at the same hierarchical level.	Section 2-1, 2-3
2. What information is required to define criteria?	Clearly stated programme objectives are crucial for developing selection criteria. Experience gained in NSRPs is a source of further information. This information can be tapped from the literature and/or gathered from stakeholders familiar with NSRPs.	Section 2-1, 2-2
3. What additional criteria are there which are not directly derived from programme objectives?	Some criteria come from political or formal programme requirements such as ethical issues, balanced regional distribution of projects, gender balance, and maximum length of proposals. These criteria should be treated differently in the selection process.	Section 2-4

2-1 Basic Principles

Defining and structuring criteria is more of an art than a science. Useful principles do exist, however, as summarized below.

‘Criteria’ is a generic term referring to the attributes and objectives considered relevant to a given decision making situation¹⁹. Based on this definition, NSRP programme objectives are the logical point of departure for systematically developing criteria. NSRP programmes typically pursue multiple objectives related to research, development, and partnerships. Thematic and sectoral objectives might also be included (Figure 3 below).

However, programme objectives are often phrased in rather general terms and are therefore of little immediate use for evaluating research projects. To generate a consistent set of criteria that reflects the objectives of your NSRP programme, we suggest that you break down the objectives into criteria and sub-criteria, in order to give them operational meaning. To do so, apply the principles of hierarchical structuring²⁰. More general criteria are linked with more specific criteria to build the hierarchy. At the lowest level, indicators are assigned to each criterion to measure the potential impact of the proposed project.

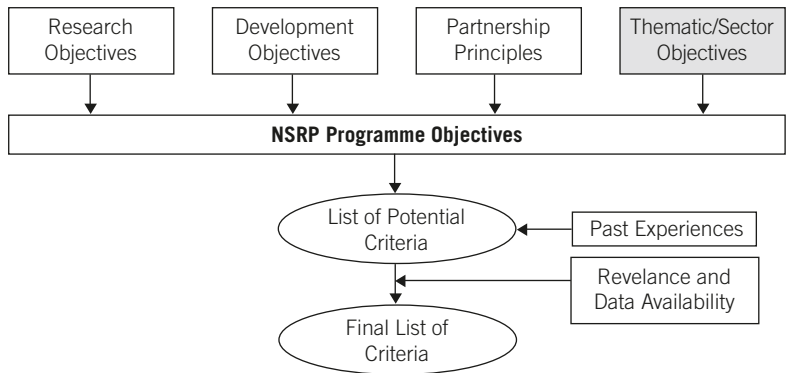


Figure 3 Conceptual framework for identifying selection criteria for an existing NSRP programme²¹

¹⁹Romero C., Rehman T. 1989. Multiple Criteria Analysis for Agricultural Decisions. Elsevier, Amsterdam.

²⁰Keeney R.L., Raiffa H. 1976. Decisions with Multiple Objectives, Preferences and Value Tradeoffs. John Wiley, New York.

²¹Adapted from Braunschweig T., Janssen W., Rieder P. 2001. Identifying Criteria for Public Agricultural Research Decisions. Research Policy, 30, 725-734.

Two principles can be taken into account in addition to the above-mentioned process of structuring criteria²².

1. The first principle is to **distinguish between means and ends**. Always ask the following question: “Why is this criterion important?” If the answer is: “It is simply important”, the criterion is an ‘ends criterion’ and should be placed at the top of the hierarchy. Otherwise, the answer shows that the criterion is a means to achieve an end specified in the answer. Repeat this procedure for the element identified in the answer, and so on. Of course, a particular means can affect more than one end (see example below).



Remember:

Failing to identify the real objectives (ends criteria) might lead to difficulties in the subsequent evaluation, due to overlapping and redundant criteria.

One objective of NSRP programmes could be to promote high scientific quality in research projects. “Why is this important?” The answer may be that if scientific quality is inadequate, dissemination and adoption of the results will be limited, or the reputation of the research institution will suffer, or future research funding will be more difficult to obtain. In this case, ensuring scientific quality is a means to foster the adoption of results, sustain the institution’s reputation, etc. On the other hand, the answer to the question why adoption of results is important may be: “It is simply important”. Thus, adoption of results is an ‘ends criterion’.


2. The second principle for structuring criteria is that of **specification**. In this case, ask the question: “What specific impacts should be achieved?” The answer – which may consist of one or several specific impacts – will help you to clarify objectives and revise criteria.

What kind of impact on capacity strengthening should be achieved? The answer may be that capacity should be strengthened at the individual level, or a the institutional level, or in different areas such as in management of research projects and networking, etc. The sub-criteria and indicators should be formulated accordingly.

Supplementary Information: Thinking about Additional Criteria


You may want to use the following two additional principles to stimulate thinking about further criteria that might be important for the selection process.

1. **Considering issues of general public concern:** Such issues include health and safety, gender, the environment, the economics, social aspects, or political impact.
2. **Thinking about the desirable and undesirable aspects of NSRP projects:** e.g. thinking about what makes a research partnership good or bad, what side effects – positive and negative – a particular project may have, etc.

For an example of a list of potential criteria, see
 *section 2-3 and Annex 3*

²²Kennedy R.L. 1988. Structuring Objectives for Problems of Public Interest. Operations Research, 36(3), 396-405.

Applying the principles discussed above leads to a hierarchically structured ‘List of Potential Criteria’ (see Figure 3 page 30). This initial list may well be too complete, not very user friendly, and generate costs that are too high for a normal selection process. To strike a balance between thorough project evaluation and efficient selection process, try to capture as many relevant facets of the selection problem in the smallest set of criteria, e.g. by asking the following critical questions:

For an example see
 red box in
 section 3-4


1. **“Does this criterion matter?”** Eliminate all criteria the importance of which is negligible or which have overlaps with other criteria.
2. **“Can we actually measure or assess this criterion?”** Eliminate all criteria for which you cannot – or not at a reasonable cost – collect appropriate data, or for which only ambiguous indicators can be found.

In the context of an agricultural research programme, “farmers’ risk behaviour” was suggested as one criterion to assess the extent of adoption of research results. This criterion was eventually excluded because the literature provided ambiguous results about the farmers’ risk behaviour, and carrying out a risk behaviour survey would have been too expensive.

Reducing the initial set of criteria according to the above suggestions results in the ‘Final List of Criteria’ mentioned in figure 3. Further modifications of the list, its structure, and the indicators may still take place during the process of criteria weighting (see section 3-4). As has been mentioned above, identifying and structuring criteria is more of an art than a science. Accordingly, it requires imagination, creativity, knowledge, and deliberations.

2-2 Information Sources

Experience gained in North-South research partnerships is an important source of information that can be tapped via the literature and experienced stakeholders. Good practices and lessons learned on how partnerships lead to success and capacity building in research, on dissemination and adoption processes, on conditions for high-quality research, etc. are a key to developing and logically structuring criteria. Such information is also particularly useful when thinking about means and ends relationships.

An indicative list of
 literature is given in
 Annex 4

1. Compiling information from the literature

There is a growing body of literature on research partnerships and on results of development-oriented research. The following is a list of some of the key findings relevant to generating selection criteria:

- identifying needs to ensure that research is relevant to the target group(s)
- focusing on problems and their solution rather than on disciplines or sectors

- promoting multi- and transdisciplinarity
- interacting with (global) research networks
- establishing partnerships that are equitable, genuine and sustainable
- assuring that communication works
- tackling capacity strengthening also at the institutional (and national) level
- making sure that proposed research is consistent with pertinent institutional, regional, and national goals
- bearing in mind that research is an instrument to achieve development outcomes
- promoting adoption in a sustainable way
- enhancing involvement of users (to determine research needs and to facilitate uptake)
- providing sufficient resources for uptake, capacity strengthening, and network activities.



Remember:


Systematically including knowledge from past experience helps to avoid overlooking factors that determine the success or failure of NSRP projects.

2. Consulting stakeholders involved in research partnerships

Research managers and scientific staff working for the PEI and donor organisations, researchers from the North and the South, practitioners in development cooperation, and – whenever possible – members of potential target groups in the South can make valuable suggestions for improving the quality of the set of criteria. They can be involved in a group exercise in which brainstorming, exchange of ideas and stimulating debates provide the setting for constructive discussions on selection criteria.²³

2-3 Structured List of Criteria

The list of potential criteria for a selection process presented in the red box below has been elaborated for a hypothetical NSRP programme. It is **one** possible outcome of the kind of deliberations outlined above. The criteria list is hierarchically structured according to three levels. The top level (Level 1) consists of the four main categories of criteria ('ends criteria'), followed by Level 2 with criteria that specify the meaning of the categories. Level 3 consists of sub-criteria. In order to assess research projects in the light of criteria, indicators related to the projects' expected effects on each of the sub-criteria need to be developed, e.g. by formulating questions (see Annex 3).

More details on the list of criteria are given in
 *Annex 3*

²³Detailed guidelines on organising group discussions to identify and structure selection criteria are given in Kenney R. L. 1988. Structuring Objectives for Problems of Public Interest. *Operation Research*, 36(3), 396-405.



Partnership principles:
The 11 partnership principles are reflected in this list of criteria (they are listed between brackets and commented on in Annex 3).



Remember:
This criteria list is not a blueprint. Criteria always depend on the particular objectives of a NSRP programme, among others.

Example of a potential list of criteria for project selection in a NSRP programme		
Categories of Criteria (Level 1)	Criteria (Level 2)	Sub-criteria (Level 3) and KFPE Partnership Principles (P1-P11)
1. Relevance to development	1.1 Potential contribution to the partner country's development priorities and needs	1.1.1 Potential impact on the social, economic, and environmental dimensions (P1) 1.1.2 Extent of expected contribution
	2. Capacity strengthening	2.1 Potential impact on institutional capacity 2.1.1 Training activities (P3, P10, P11) 2.1.2 Comparative strength (P1) 2.1.3 Intellectual and commercial benefits (P9) 2.1.4 Up-grading of infrastructure (P10) 2.1.5 Sustainability of the partnership (P10, P11) 2.2 Potential impact on the status of science in a country 2.2.1 Consistency with national research policy (P1) 2.2.2 Contribution to the advancement of national science system (P10) 2.3 National and international networking 2.3.1 Access to national scientific networks (P3) 2.3.2 Access to international scientific networks (P3, P10)
3. Success in achieving research objectives	3.1 Scientific quality	3.1.1 Clearly formulated and logic research objectives 3.1.2 Viability of research design and activities
	3.2 Quality of project management	3.2.1 Clear assignment of roles and responsibilities (P4, P5) 3.2.2 Availability of required infrastructure, materials, finance, and scientific capacities (P4) 3.2.3 Clear work plan and realistic budget (including for monitoring and evaluation) (P6)
	3.3 Quality of collaboration	3.3.1 Motivation for the partnership 3.3.2 Complementarities between partners (P1) 3.3.3 Balanced collaboration (P2, P4, P5, P9)
4. Adoption of research results	4.1 Transfer system	4.1.1 Clear exploitation/dissemination strategy of research results (P7, P8) 4.1.2 Attention given to implications of transfer process on resources
	4.2 Users of research results	4.2.1 Consideration of users' interests in the project design (P1) 4.2.2 Incentives for users to take up the research results (P7)

The literature reveals that NSRP programmes share three key concerns: development relevance, scientific quality, and quality of partnerships. The above list results from an integration of the KFPE principles into this overall framework gained from the review of the literature.

Development relevance is the potential impact – positive or negative – of the research project on the social, economic, and environmental sector of the partner country. This is arguably one of the most important objectives of every NSRP programme. Thus, in our list, the relevance of the project to development is set as a category of criteria (Level 1) and specified at the subsequent levels (Levels 2 and 3).


Scientific quality implies asking the right research questions and logically deriving the project objectives from them, choosing the appropriate research design, using state-of-the-art methods, involving researchers with the required skills, meeting disciplinary standards, and aiming at producing relevant knowledge. This is always important for research projects. However, in developing the list of criteria for this Manual we came to the conclusion that scientific quality is not an end in itself but rather a means to achieve other objectives. First, it contributes to strengthening research capacity at the individual, institutional, and national levels, particularly in the partner country. Second, the scientific quality of a project is a key to ensuring that research and the adoption of the research results by end users are successful. Thus, strengthening capacity, success of research, and the adoption of research results are separate categories of criteria in our list. And the subsequent criteria levels include the determinants of scientific quality, among others. Successful research and adoption of results are at the same level as development relevance and capacity strengthening because the potential impact will be realised in terms of contributions to development and capacity only if the research project succeeds in producing the expected results and the results are taken up by the targeted end users.²⁴

Our example also argues that **quality of research partnerships** is not an end in itself. Genuine partnerships are promoted because they are expected to enhance the development relevance of the research project, strengthen capacities and increase the chances that the research project is successful and its results adopted. Consequently, the complete set of KFPE's partnership principles (see the Introduction) are reflected at the lowest level of criteria, as they are a fundamental means of achieving the ultimate goals of the programme, and must be followed from the very beginning of a project's conception.

*The 11 KFPE principles
are listed in the
→ Introduction*

²⁴Braunschweig T., Janssen W., Rieder P. 2001. Identifying Criteria for Public Agricultural Research Decisions. *Research Policy*, 30, 725-734.

The list in the grey box below is an example from an EC Programme. The obvious difference between the two lists demonstrates the fact that defining criteria is programme and context dependent, and depends on value-laden assumptions.

The concept of using thresholds is outlined in
 section 3-5

Transparent criteria with indicators are provided by the European Commission (EC) for the Sixth Framework Programmes' Specific Measures in Support of International Cooperation with Developing Countries (INCO-DEV)²⁵

1. Relevance (threshold score 3 out of 5)

- The extent to which the proposed project addresses the objectives of the work programme.

2. S&T excellence (threshold score 4 out of 5)

The extent to which:

- the project has clearly defined and well focused objectives.
- the objectives represent clear progress beyond the current state-of-the-art.
- the proposed S&T approach is likely to enable the project to achieve its objectives in research and innovation.

3. Potential impact (threshold score 3 out of 5)

The extent to which:

- the proposed project is likely to have an impact on reinforcing competitiveness or on solving societal problems.
- the proposal demonstrates a clear added value in carrying out the work at European level and takes account of research activities at national level and under European initiatives (e.g. Eureka).
- exploitation and/or dissemination plans are adequate to ensure optimal use of the project results.

4. Quality of the consortium (threshold score 3 out of 5)

The extent to which:

- the participants collectively constitute a consortium of high quality.
- the participants are well-suited and committed to the tasks assigned to them.
- there is good complementarity between participants.
- the opportunity of involving small or medium sized enterprises has been adequately addressed.

5. Quality of the management (threshold score 3 out of 5)

The extent to which:

- the project management is demonstrably of high quality.
- there is a satisfactory plan for the management of knowledge, of intellectual property and of other innovation-related activities.

6. Mobilisation of resources (threshold score 3 out of 5)

The extent to which:

- the project foresees the resources (personnel, equipment, financial...) necessary for success.
- the resources are convincingly integrated to form a coherent project.
- the overall financial plan for the project is adequate.

Overall threshold score 21 out of 30.

²⁵European Commission, 2003. Specific Programme for Research, Technological Development and Demonstration 2004-2006, Annex 11: Common Evaluation Criteria for Evaluating Proposals for Specific Targeted Research Projects or Innovation Projects, updated on 12.12.2003. <http://www.cordis.lu/fp6/inco.htm> (March 2004).

2-4 Additional Criteria

Some criteria relevant for project selection do not originate from the objectives of the NSRP programme and may not have the same significance for all project proposals. They concern political and formal/administrative aspects and are treated in the evaluation process as cross-cutting issues.

Political criteria

Research, especially if funded by public resources, has to consider principles such as:

- gender equality at three levels: a) the design and methodology of a project must take into account different gender roles, perspectives, interests, and priorities, for instance, it must lead to data disaggregated by gender; b) the assessment of impacts must be gender-sensitive, (e.g. capacity building features and social impacts reflect gender roles); c) the employment rules of a project must aim at gender balance, for instance through an equal opportunity agenda.
- ethical issues such as health risks for the target group, right of privacy, dependencies, procedures that cause animals to suffer or die, etc.

Supplementary Information: Discrete Review Panel

The selection process for NSRP projects should include an assessment of sensitive ethical issues raised by the proposals. In the first instance, the independent evaluators should check on ethical issues and identify those proposals requiring special attention due to the importance of the ethical issues raised and/or inadequacy of the way in which these issues are addressed in the proposal.

Some NSRP programmes assign the task of evaluating ethical issues to a discrete review panel that is preferably composed of independent experts from different disciplines such as law, ethics, sociology, psychology, and medicine with scientific and non-scientific members. Some panels even include representatives of civil society alongside experts from the North and the South.

Other political criteria may arise from the programme's need to have a balanced portfolio in terms of risks and thematic or geographic distribution. These criteria are dealt with in the process of deciding on the final list of project proposals to be funded (see module 8).

*Applying political
criteria is discussed in
→ module 8*

Formal/administrative criteria

Your programme may focus on supporting a particular category of researchers and/or research institutions. For instance, your programme is limited to applicants from universities, or national research centres have to be involved, or applications must come from a developing country institution, or the principle researcher must be a citizen of a developing country. Such institutional constraints must be clearly stated in the relevant programme information.

*Applying formal and
administrative criteria
is discussed in
→ section 6-1*


Furthermore, your programme will usually have clear administrative rules that must be followed by the applicants, e.g. maximum number of submissions per research institution, formal requirements such as structure and maximum length of proposals, number of copies to be submitted, required endorsements, and deadline for submission. Since complying with these formal and administrative requirements is generally a condition for including the research proposal in the selection process or not, such eligibility criteria are also called 'killer criteria'. It makes sense, therefore, to apply them early on in the selection process (see section 6-1 on eligibility check).

Module 3: Deciding on a Methodology

In the course of selecting research projects for funding, a range of information from various sources (e.g. proposals, evaluations, literature) and of different types (e.g. qualitative, quantitative) has to be sorted, processed, synthesised, and compared. A formal priority-setting method helps to give more objectivity and structure to what is usually an intuitive exercise. As selecting North-South research partnership (NSRP) projects involves multiple objectives, you will need methods to help you cope with the multi-criteria nature of the selection process.

Aim of module 3: To provide guidance for applying suitable priority-setting methods and adjusting them to the requirements of NSRP project selection.

Questions	Brief answers	Section
1. What methods should be used to select NSRP projects?	We suggest using a checklist approach for the assessment of proposals against the eligibility criteria. To assess proposals against the list of selection criteria, we recommend a scoring method.	Section 3-1
2. How do the two methods suggested work, and what are their advantages and disadvantages?	<p>Checklist method: proposals are checked against a list of relevant criteria. The method is easy to apply but does not lead to priorities.</p> <p>Scoring method: First, relevant criteria are weighted and proposals are marked against each criterion. The marks are then multiplied by each criterion weight and summed up to determine the order according to priorities. The scoring method is relatively easy to apply and makes it possible to determine trade-offs and deal with very different projects.</p>	Sections 3-2 and 3-3
3. Why should weights be attached to the criteria?	Attaching weights to criteria is to determine their relative importance. In the case of competing criteria, it is a means to determine trade-offs.	Section 3-5
4. Why and how should I use thresholds as an additional tool?	Defining criteria-specific thresholds ensures that projects meet minimum standards with regard to their potential impact on particular criteria. Thresholds might also be helpful if criteria are interdependent.	Section 3-5

Detailed reviews and descriptions of the various methods are provided in the references listed in  Annex 4



Remember:

Methods that are transparent and allow for participation are preferable, as they make it possible to involve different kinds of experts and enable clear communication of outcomes.

3-1 Choosing a Method

Various methods are available for setting priorities among a set of alternatives. Formal methods often mentioned in the context of research evaluation include the checklist approach, scoring methods, benefit-cost analysis, mathematical programming methods, and simulation models. The **checklist approach** is the least sophisticated and simplest to use. It consists of a list of relevant criteria against which the project proposals are checked. **Scoring methods** involve weighted criteria against which proposals are marked by using a discrete scale. These marks are then multiplied by the corresponding criterion weight, and the results are summed up to obtain the final ranking.²⁶ In **benefit-cost analysis**, expected financial returns of research projects are compared to their cost and proposals are ranked accordingly. These estimates can be expressed as an internal rate of return, a benefit-cost ratio, or a net present value. **Mathematical programming methods** formulate an objective function that is maximised, subject to certain constraints. The objective function can include multiple objectives and a weighting system to reflect differences in the importance of the objectives.²⁷ **Simulation models** estimate the functional relationship between input (research investment) and output by modelling the targeted production sector and simulating the effects on productivity of various research investments.

Benefit-cost analysis, mathematical programming, and simulation models all have a bias towards economic impact. They usually neglect effects that cannot readily be expressed in financial terms. The latter two, in addition, are complex and their application is time consuming and requires extensive data sets. Finally, all three methods place analysts at the centre of the selection process. Consequently, these approaches do not really make it possible to include participation by other stakeholders.

The most appropriate methodological tools for selecting NSRP projects appear to be the checklist and scoring methods.

3-2 Checklist Method

When using a checklist, research proposals are evaluated by answering either 'yes' or 'no' to a set of questions that represent indicators of selection criteria. Other answers are not possible, and the criteria are not

²⁶The Analytic Hierarchy Process (AHP) is a more sophisticated version of the scoring method (see: Saaty T.L. 1980. *The Analytic Hierarchy Process: Planning, Priority Setting, Resource Allocation*. McGraw-Hill, New York). For an application of the AHP to research evaluation, see Braunschweig T., Becker B. 2004. *Choosing Research Priorities by Using the Analytic Hierarchy Process: an Application to International Agriculture*. *R&D Management*, 34(1), 77-86.

²⁷Variations of mathematical programming include multiple-objective programming, goal programming, and compromise programming; see Romero C., Rehman T. 1989. *Multiple Criteria Analysis for Agricultural Decisions*. Elsevier, Amsterdam.

weighted. The assessment of the proposal is based on a simple sum of affirmative answers. The technique is transparent, very easy to apply, and does not require much understanding of research and development processes and of the factors determining successful partnerships. The usefulness of the checklist approach strongly depends on the soundness of the questions and their relevance to the selection criteria.

A checklist does not yield very detailed results. It is very useful for the first, administrative step in the selection process ('eligibility check', see example below). But a checklist can also be combined with other tools, e.g. for checking particular indicators when using a scoring method.

*For more information
on the 'eligibility check' see
→ section 6-1*

Example of a checklist to assess the eligibility of project proposals:			
Criterion	Questions	yes	no
Receipt	Was the proposal submitted before the deadline?	<input type="checkbox"/>	<input type="checkbox"/>
Participants	Is at least one of the Southern applicants from a country listed in the call for proposals?	<input type="checkbox"/>	<input type="checkbox"/>
	Is at least one applicant from the North an employee of a National or State University?	<input type="checkbox"/>	<input type="checkbox"/>
	...	<input type="checkbox"/>	<input type="checkbox"/>
Completeness	Did all the partners sign the project proposal?	<input type="checkbox"/>	<input type="checkbox"/>
	Has the budget form been submitted?	<input type="checkbox"/>	<input type="checkbox"/>
	...	<input type="checkbox"/>	<input type="checkbox"/>
If the answer to one or more of the above questions is "no", the project is excluded from further consideration in the selection process.			

3-3 Scoring Methods

Scoring methods have attractive features that make them the most frequently used formal approach to priority setting. They are relatively easy to apply, follow a transparent procedure, can help evaluators cope with quantitative and qualitative criteria, and can be adapted to a wide range of selection problems. But scoring methods lack clear guidelines to prevent problems created by overlap of criteria and mixing of units and levels, which has generated criticism of their very theoretical foundations. However, careful definition of the selection criteria and their indicators can help avoid these pitfalls.

*How to develop
selection criteria is
outlined in
→ module 2*

Applying a scoring method implies the following 6 steps (see example in the red box below):

- ① Selection criteria are defined, which represent the objectives of the particular NSRP programme.
- ② The criteria are weighted to reflect relative preferences (details are given in section 3-4).
- ③ Individual research projects are marked against each criterion by using a discrete scale (e.g., 1 to 5).
- ④ The marks are multiplied by the corresponding criterion weight.
- ⑤ The results are then added up to obtain the final score of each proposal.
- ⑥ The order of priorities is determined by ranking the projects from highest to lowest according to their final score.

Simplified example of how to use the scoring method with four weighted criteria:							
Criterion ①	Criterion weight ②	Project 1		Project 2		Project 3	
		Mark ③	Weighted mark ④	Mark ③	Weighted mark ④	Mark ③	Weighted mark ④
Relevance	20%	4	0.8	3	0.6	2	0.4
Capacity	50%	3	1.5	3	1.5	5	2.5
Research	10%	4	0.4	5	0.5	3	0.3
Adoption	20%	5	1.0	4	0.8	3	0.6
Final score ⑤ (Sum of weighted marks)			3.7		3.4		3.8
Ranking ⑥			2		3		1

Note: Marks are 1 (poor), 2 (fair), 3 (good), 4 (very good), 5 (excellent)

In this simplified example, the scoring method is applied only to four criteria and only at one level. The method becomes more complex as soon as it is applied to whole sets of hierarchically structured criteria, as explained in the following red box.

3-4 Weighting Criteria

Weighting of criteria is necessary to reflect a NSRP pro-programme’s multiple objectives and the greater importance attributed to some criteria in comparison to others, depending on the main focus of a programme. In the above example, capacity strengthening has been given the highest relative weight (50%) and research the lowest (10%). This differentiation should also be made at the other levels of criteria in a structured list. As there are logical relationships between the levels, the weighting method requires the use of relative and absolute weights, as illustrated in the red box below.

Example of differentiated weighting of a structured set of criteria:

All the criteria that are at the same level and subsumed in one group are given a share of 100%. This yields the relative weights of each criterion. The absolute weights are the result of multiplying relative weights by the weight of the 'parent' criterion. In the first column, the relative and absolute weights are the same since this is the highest level of criteria.

Categories of criteria Level 1	Category weights	Criteria Level 2	Weights (absolute)	Weights (relative)
Relevance to development	10%	Development priority	10%	100%
Capacity strengthening	40%	Impact on institutional capacity	18%	45%
		Impact on the country's science	4%	10%
		Networking	18%	45%
Success in achieving research objectives	30%	Scientific quality	9%	30%
		Quality of project management	9%	30%
		Quality of collaboration	12%	40%
Adoption of results	20%	Transfer system	12%	60%
		Users of results	8%	40%
Total	100%		100%	400%

Examples of how to read the table:

- 'Capacity strengthening' (weight of 40%) is considered the most important category of criteria, while 'Relevance to development' (weight of 10%) does not appear to be a priority for the programme.
- 'Impact on institutional capacity' (relative weight of 45%) and 'Networking' (relative weight of 45%) are considered equally important as a measure of 'capacity strengthening', while 'Impact on the country's science' (relative weight of 10%) does not seem to be a priority in this fictive programme.
- As a result 'Impact on the country's science' has an absolute weight of only 4% (= 10% of 40%). In other words, it contributes only 4% to the overall assessment of project proposals and could therefore be excluded from the evaluation, as its importance for the final assessment is negligible (see section 2-1).

Supplementary Information: Coping with Trade-offs across Different Dimensions

Coping with trade-offs – i.e. attaching weights to competing criteria – implies striking a balance between different interests and preferences. When weighting the criteria at the top level of a structured list (i.e. the four categories of criteria in the list presented in module 2), an additional challenge has to be met. The criteria ‘Relevance to development’ and ‘Capacity strengthening’ have an **impact dimension** whereas ‘Success in achieving research objectives’ and ‘Adoption of research results’ have a **probability dimension**. In other words, the former measure the potential impact of research projects under evaluation whereas the latter capture the chances that the potential impact will be realised. The problem is the interdependency of the two criteria groups: the preferences expressed as weights attached to the ‘probability’ criteria depend on the extent of the potential impact. The situation is similar to buying a lottery ticket. If your chances of winning are statistically high, you will be prepared to pay a higher price for the ticket and vice versa. It is possible to deal with this issue in three different ways.

First, you may simply ignore the fuzziness caused by the interdependency, arguing that the resulting imprecision is of minor importance and thus negligible in the context of the entire selection process. From a pragmatic point of view, this is certainly the favoured option.

Second, the problem is ‘solved’ mathematically. In other words, the criteria of the different groups are not weighted against each other. Instead, the assessment of the research projects according to the sub-criteria of the ‘probability’ dimension is performed in terms of probabilities. The project-specific outcome (i.e., the probability that the project will be successfully completed and its results adopted) is then multiplied by the corresponding outcome of the assessment in the light of the criteria of the impact dimension. This option is very demanding for the evaluators as the project’s probability of success has to be assessed in terms of each of the sub-criteria. Moreover, it does not allow preferences to be made between the criteria of the different dimensions.


Third, the criteria of the impact dimension are not traded off against the ones of the probability dimension, and thus no weights are attached to them. Consequently, the individual outcomes of the assessment of the project according to the two types of criteria are not aggregated. Decision makers are then presented with two rankings. The first one ranks the projects according to potential impact, the second according to their chances of being successful. It is then left to the decision makers to come up with an assessment combining the two rankings. Basically, with this option, the task of coping with the trade-offs is simply handed on to the decision makers.

3-5 Using Thresholds

The multi-criteria nature of selection processes has yet another consequence. If a research proposal’s contribution to criterion X is very weak, the final score of the proposal may still be high. This is because the weak performance with respect to criterion X can be compensated by strong contributions to the other selection criteria. Even though you do not consider criterion X to be very important (which is expressed by attaching a low weight to it), you may still want to ensure that research proposals selected for funding make at least an average contribution to this criterion.

By setting a threshold for criterion X (e.g., on a scale of 1 to 5, proposals must at least get a mark of 3), you can make sure that research proposals meet a minimum level with respect to this criterion. If a proposal gets a mark below 3, i.e. does not meet the threshold, it will be rejected. In addition, you could define an overall threshold below which proposals are not accepted for funding. If all proposals submitted in a certain year are of insufficient quality, you may not want to fund the best of this group. Setting an overall threshold helps you to guarantee a minimum standard of quality for the proposals that are supported by your programme.

Apart from attaching weights to criteria (section 3-4) and performing an eligibility check (section 6-1), using thresholds is a further option to make sure research proposals accepted for funding are in line with your programme's objectives and requirements.

For an example of a list of criteria with thresholds see grey box in
 *section 2-3*

Module 4: Organising Proposals

While the elements of the selection process presented in the previous modules are fully determined by NSRP programmes, the influence of the programmes on the actual proposals is limited. Submitted proposals may vary greatly in terms of content and structure of the information included, which turns selection processes into a difficult and time-consuming exercise. It is therefore important that programmes make efforts to ensure that the format and content of research proposals is the most suitable for implementing a given selection procedure, and that they know where to get additional information if needed.

Aim of module 4: To provide guidance for ensuring that proposals contain the required information in a suitable format, and for collecting information from alternative sources.


Questions	Brief answers
1. How can I ensure that applicants provide complete and adequately structured information?	You may provide a proposal form and/or guidelines describing the information needed and how it should be presented. Information structured according to the selection criteria considerably simplifies the evaluation process.
2. What other sources of information may be included?	Surveys can be conducted to collect information, e.g. on the research system of a particular country. However, surveys are very expensive and should only be carried out if they apply to several projects. Experts may provide information not mentioned in the project proposal, either in their capacity as evaluators or – in specific cases – as consultants to the programme.

To ensure that the research proposals submitted to your PEI can be assessed against the programme's objectives (criteria), considerable information is required. However, you should carefully balance the need for comprehensive and accurate data against the cost of obtaining it.

Information can come from the applicants themselves, from experts on the subject, or from surveys. This information provides different perspectives and enters the selection process at different stages. As shown in Table 1, each source of information has its advantages and disadvantages.

Table 1 Sources of information for assessing project proposals

Source of information	Provided when and how?	Advantages	Disadvantages	Increases efficiency and effectiveness only if...
Applicants	Compiled in the project proposals	Low cost for the PEI (but high cost for the applicants); firsthand information	The deficiencies and risks of the research tend to be suppressed by the proposal	Information is complete and well structured according to the selection criteria
Experts	Consultations or evaluation of the project proposals	High-quality information; may generate valuable hypotheses in the absence of reliable information	High cost for the PEI and the experts; it may be difficult to find independent experts	Information is closely aligned with the selection criteria
Surveys	Preliminary assessment of the research environment	Independent information	Very high cost for the PEI	Information is relevant to several or even all proposals

Examples of application forms and guidelines are available on the website of some of the programmes listed in  Annex 4

Designing a proposal form and guidelines is a key preliminary step in the selection process. To avoid an overflow of information and ensure the efficiency of the evaluation process, information included in the proposal has to be tailored to the selection criteria and structured accordingly. This requires that you know precisely what information is needed to assess the proposals. Therefore, selection criteria have to be translated into clearly formulated requirements for information by developing appropriate indicators. The box below shows how several criteria related to partnerships can be easily assessed through a single indicator.



Partnership principles 4 and 10:

This example also shows the kind of indicator that can be used to capture parts of P4 (share responsibility) and P10 (increase research capacity).

Signatures as an Indicator – An Example from the Norwegian Council for Higher Education’s Programme for Development Research and Education (NUFU)²⁸

NUFU asks for the signature of the Head of Department of institutions applying in the South and in Norway, in order to guarantee that

- the proposed cooperation project is relevant for the department’s research activities and staff development;
- the department deems that the quality of scientific activities in the proposed cooperation project is acceptable; and
- the department commits to providing necessary resources for the administration and management of the proposed project.

²⁸NUFU, 2002. Institutional Handling and Assessment of Project Proposals. <http://siu.no/nufu/> (March 2004).

Part II

Step by Step



Module 5: Development of Proposals

Before project proposals can be assessed they have to be developed; even though this is not the PEI's responsibility, there are advantages to taking measures that support the development of research proposals. Indeed, a PEI can considerably influence the quality of research partnerships and research proposals by providing assistance to researchers for designing their projects.

Aim of module 5: To provide guidance for designing procedures to assist partners in the South and the North in developing collaborative research proposals.

Questions	Brief answers	Section
1. What should be communicated to the potential applicants in the call for proposals?	The call for proposals should communicate the programme objectives, selection criteria, their weights, and the selection methodology. It should also include detailed information on the format of the proposal.	Section 5-1
2. What is a two-stage selection process and how will it support the collaborative proposal development?	In a two-stage selection process, applicants submit a Letter of Intent (LoI) prior to the full proposal. By providing feedback on the LoI and advising researchers, as well as funding a mission for common proposal development, the PEI has an opportunity to support the development of promising research and sounder partnerships.	Section 5-2

5-1 Call for Proposals

Calls for proposals can serve to strengthen the position of the Southern partner and thus help to overcome the often underlined shortcoming of asymmetries or unbalanced partnerships in NSRP projects²⁹. One effective means is to explicitly invite both partners to submit a common proposal.

The call for proposals should clearly outline the objectives of the programme in order to inform potential applicants about the expected focus of projects in terms of design and outcome. Furthermore, the call should



**Partnership principles
1,2,4, and 5:**

Inviting partners in the North and the South to submit a joint proposal will foster more balanced power relations.

²⁹Maselli D., Lys J.A., Schmid J. 2004. Improving Impacts on Research Partnerships. Swiss Commission for Research Partnerships with Developing Countries, KFPE. Geographica Bernensia, Berne (especially Part III, "Towards more balanced partnerships", pp. 33-37).



Remember:
Publishing all the details of your selection process may encourage applicants to develop strategic behaviour.

comprise clear information about the selection procedure, including a comprehensive list of the selection criteria, weights and thresholds attached to them, and methods used to assess them. This helps to increase applicants’ understanding and acceptance of a negative decision regarding their proposal. More importantly, if applicants know the selection criteria they may incorporate activities that they had not thought of sufficiently before, e.g. involving end users of the research results at an early stage.

Supplementary Information: Focussed Programmes

If your programme focuses on a specific theme (or on specific countries), the selection process will be much leaner due to more specific selection criteria, better comparability of the projects, and the smaller number of experts involved. On the other hand, such programmes put considerable limitations on potential applicants, bearing the risk of excluding promising NSRP projects. Programme features defined in the North may not give due attention to Southern partners’ key concerns and may not take sufficient notice of the specific research context in the South.

The call for proposals should also include a clear description of the information required and the preferred design. Key elements to be included in the call for proposal are given in the red box below.

Elements of a call for proposal

- background of the programme
- objectives
- eligibility criteria
- selection process
- selection criteria
- application procedure, incl. deadlines (e.g. notification date) and a contact person for further information
- application form(s) that structure the information according to the selection criteria, including instructions for the applicants on how to fill the form.

Thematic Focus

If the programme has a thematic focus or applies only to a specific instrument, the call for proposal should include:

- the context of the thematic focus
 - broad research questions
- or
- the description of the specific instrument


5-2 Prior to Full Proposals

Another measure to support collaborative development of research proposals is the so-called **two-stage selection process**. First, applicants are invited to submit a Letter of Intent (LoI) or preliminary proposal to the PEI. These brief project outlines provide the selection committee with sufficient information to determine which applicants should be invited to submit a full proposal. The LoI should include the research problem, the relevance to development, planned activities to strengthen capacities, research design and objectives, intended activities to promote the adoption of research results, institutions and project staff involved, the partnership approach, the timeframe and budget, and monitoring and evaluation procedures.

The LoIs are evaluated in the same way as full proposals (eligibility check, individual evaluations, synthesis and ranking), except for some selection criteria that may not be applicable to an LoI (e.g. networking, clear assignment of roles and responsibility, and incentives for users to take up the research).

A two-stage selection process offers considerable **advantages**. Applicants are spared the trouble of having to invest considerable time and money in planning common projects with a small chance of being funded, and the PEI has more leverage to promote collaborative development of proposals. First, feedback on the LoI provides an opportunity to suggest areas that will have to be strengthened in the full project proposal. Second, the PEI may contribute to sounder research partnerships by offering proposal development funds³⁰ that support the joint development of full proposals. The funds may play a critical role in fostering research partnerships that are consistent with the 11 partnership principles. Third, an expert from the PEI such as the proposal coordinator (see section 1-2) may act as an advisor to the research partners (see example in the grey box below). All these measures are expected to lead to a higher quality of project proposals when they are finally submitted to the PEI.

However, a two-stage selection process also has **disadvantages**: the longer period of time required to select the project proposals and higher investments in terms of time and money to carry out the selection process.

Details on proposal evaluation are given in
 *modules 6 and 7*



Partnership principles:
The PEI may strengthen partnerships by providing proposal development funds and expert advice.

³⁰Most programmes cover only out-of-pocket costs and no salaries or fees in order to avoid adverse incentives.

Proposal Preparation at the International Development Research Centre (IDRC)³¹

IDRC undertakes proposal preparation in stages. Proposals are commonly reviewed and revised several times before the final version is submitted for approval. This is done in close consultation with one or more programme officers (PO) of IDRC.

IDRC strongly recommends that researchers contact the PO early in the process to ensure closeness of fit between the project proposals and IDRC's programme objectives. This contact may be established by sending in a "project idea" in a letter of one to three pages.

IDRC's programme officers are highly qualified researchers themselves. They act as a sounding board for applicants' ideas, help define problems, and advise on methodologies to reach desired objectives. POs also play an entrepreneurial role in bringing together the people and resources to pursue common objectives. They may put a Southern research institution in contact with the coordinator of an IDRC-supported network or with others working on the same theme to develop mechanisms for research collaboration. Therefore, POs also act as moderators in building genuine North-South research partnerships.

POs responsible for a project will consult other members of their team while the proposal is being developed. When this peer evaluation is positive, the PO gives permission to proceed for the development of a detailed proposal.

Once a detailed proposal is finalised, the PO will prepare a 'project approval document'. This includes the proposal itself and an appraisal section written by the PO. The appraisal is done according to IDRC's selection criteria. The resulting document is then submitted to the team or to senior management for approval.

³¹IDRC (Canada): Applying for Funding.
http://web.idrc.org/en/ev-56861-201-1-DO_TOPIC.html (May 2004)

Module 6: Evaluation of Individual Proposals

Evaluating individual project proposals is the most time-consuming step in selecting projects for a NSRP programme. It is preferably carried out in three phases. First, pre-selection using eligibility criteria excludes projects early on if they do not meet the basic requirements of the programme. Second, the remaining proposals are assessed by different evaluators against the list of selection criteria. Third, a consensus on the individual marks has to be reached.

Aim of module 6: To provide guidance for designing evaluation procedures that lead to consistent assessments of proposals.

Questions	Brief answers	Section
1. What is an eligibility check?	The eligibility check uses a set of criteria that reflect the basic requirements of a NSRP programme.	Section 6-1
2. What measures support the in-depth evaluation of proposals?	The first measure is an evaluation form which ensures that individual assessments are comparable. Furthermore, written guidelines facilitate the evaluator's job.	Section 6-2
3. What is particularly important when evaluating a proposal against a list of criteria?	When different evaluators assess proposals against a list of selection criteria, everybody must have the same understanding of the criteria, attribute the same meaning to the marks, and perform their assessment on the basis of the same information.	Section 6-2
3. Who should perform the evaluation?	Independent experts are usually involved in the project evaluation. Such experts might be difficult to find. This problem can be overcome by selecting individuals with different expertise who evaluate a specific area each, according to their expertise. Alternatively, the applicants themselves or their institutions can be involved in the evaluation.	Section 6-2
3. How does one aggregate criteria-specific assessments made by different experts?	Aggregation is best achieved by using a consensus report. If scientific criteria and development relevance are evaluated by two different groups of experts, their assessments can be weighted. A specific form can help carry out this procedure.	Section 6-3


6-1 Eligibility Check

To avoid a costly evaluation, project proposals that are ill-defined or do not meet the basic programme requirements should be eliminated early on. Screening proposals with a checklist is useful, but eligibility criteria should be cautiously selected in order to avoid premature rejection of potentially promising projects.

In general, eligibility criteria include formal and administrative programme requirements as outlined in sections 2-4:

- Timely receipt of the project proposal
- Basic information on the applicants, such as minimum number of participants, composition of the project team, or type of institutions involved
- Completeness and format of the proposal
- Formal requirements, such as signatures

A staff member of the PEI can do the eligibility check using an eligibility form. But the formal decision about exclusion should be made by the decision or selection committee. Proposals that do not meet all of the eligibility criteria should be discarded. Regularly reviewing the eligibility form helps ensure that the programme requirements are still represented in a relevant and sensible manner.

Details on the checklist approach as well as an example of an eligibility form are given in
 *section 3-2*

6-2 In-depth Evaluation of Proposals

Several experts should evaluate each research proposal. To ensure comparability between the different evaluations, it is important that the experts assess the proposals in a similar manner. This can be achieved through:

- An evaluation form in which evaluators process their assessments by giving marks to each criterion for the individual proposals and providing comments;
- A briefing of the experts on the general evaluation guidelines and the objectives of the NSRP programme.

Form for Individual Evaluation

An individual evaluation form should comprise the following elements:

- **Detailed descriptions of criteria:** It is important that every evaluator has the same understanding of the selection criteria. For instance, it is definitely insufficient to ask evaluators to assess “quality of collaboration” without defining what is implied. Depending on their background, every evaluator will have their own understanding of what high-quality collaboration is. Therefore, it is crucial to provide a detailed description of each criterion and its indicators (see red box below).



Remember:

If you do not describe what is meant by each criterion, it will be difficult to compare the assessments of the different experts.

- **Meaning of marks:** The same is true for the marks to be given by the evaluators. If you only provide the evaluators with the scale of marks from 1 to 5, the understanding of these marks will vary considerably among evaluators. Hence, the meaning of the numbers must be spelled out (see red box below).
- **Comments on marks:** The evaluators should always explain why they give a specific mark. This is particularly important if the evaluators are unable to meet physically for a consensus discussion. In such a case, other actors will have to reach a consensus based on the information provided in the evaluation forms. Thus, comments coming with the evaluators' assessment must be clear and precise – and correspond to the marks given. In addition, comments should be suitable for providing feedback to the applicants.

Example of an evaluation form (extract)

Introduction:

Assess and mark the proposal exactly as described in this form. Do not make any assumptions or interpretations about the project in addition to what the applicants themselves have written in their proposal. If you do so, please state this explicitly.

- Keep to the evaluation criteria listed in the forms.
- Give all required marks.
- Provide a brief but explicit justification of your marks. Be honest but respectful, in particular when marks are low. Please use polite language, without hiding the facts as your remarks may be used in the report that will be sent to the applicants to inform them about your conclusions. It is often useful to quote short extracts from the proposal text.
- Try to maintain consistency in your marking throughout your evaluation. Of course, the marks should also be consistent with your comments.

Criterion 3.1: Scientific quality

Assess the proposal in the light of the criteria listed below by giving one of the following marks: 5 = 'excellent', 4 = 'very good', 3 = 'good', 2 = 'fair', 1 = 'poor', and 0 = 'the proposal fails to address the issue'. Your assessment must be based on the questions listed for each of the criteria.

3.1.1: Extent to which the research objectives are clearly formulated and logical:

- Are the objectives clearly stated and well focused?
- Do the research questions relate to the objectives?
- Do the research questions and objectives flow from the analysis of the problem?
- Are open questions assessed realistically?

Mark for 3.1.1:

3.1.2: Extent to which the research design and activities are viable:

- Is access to the study site or population guaranteed?
- Have legal requirements been taken into account?
- Is the methodology proposed appropriate and convincing for achieving the project's objectives?
- Do project staff have the competence to use the methods and techniques suggested?

Mark for 3.1.2:

The European Commission's INCO-DEV programme provides an example of extensive "Guidance Notes for Evaluators" link in → Annex 4

Module 1 discusses the challenge of selecting evaluators and other actors → section 1-2

An example of such an approach is given in → section 6-3



Partnership principles:
If different experts are chosen to evaluate individual project components, you should make sure that all of them have the necessary expertise to assess the partnership arrangement, as this is a cross-cutting topic.

Briefing of Evaluators

Provide the evaluators with clear instructions, inform them about the objectives of the programme, the evaluation procedure in general, and their duties in evaluating the proposals in particular. This will ensure that:

- they know what objectives the proposed projects are expected to achieve;
- they do not have a conflict of interests when evaluating a particular proposal;
- they respect the confidentiality of the evaluation process;
- they fill in the evaluation form in a way that ensures comparability between individual evaluations;
- they meet the deadline.

In order to conduct the briefing in an efficient and effective way, it is useful to prepare "Guidelines for Proposal Evaluation" that include the above information and can be sent to each evaluator.

Selecting Experts for the Evaluation

The experts' task consists of an ex-ante evaluation on the extent to which the proposed projects will fulfil the selection criteria, i.e. the programme's objectives. They are expected to give a well-founded and frank assessment of the potential merit of research proposals. As underlined in module 1, experts with a broad enough range of expertise to conduct a full evaluation of NSRP project proposals are rare. But there are other options as well:

Option 1: Appointing the best possible experts

Finding experts who have appropriate competence in all the areas that need to be assessed will make it possible to limit the number of evaluators, but this may require a considerable effort.

Option 2: Appointing experts from different areas

Since very different aspects need to be assessed in NSRP project proposals, the different categories of criteria can also be assessed by different evaluators. For example, experienced researchers can assess the scientific criteria while regional experts can be asked to evaluate the potential impact on development in the region. The advantage is that the choice of potential evaluators is larger. On the other hand, more evaluations are required to get a balanced assessment.

Option 3: Considering the researchers themselves as the best experts

Can outside evaluators always be expected to give the best estimates of the probability that a research project will succeed, or of the relevance to the country of the knowledge produced in the course of the project, etc.? Option 3 is based on the conviction that an evaluation by peers should not always be assumed to be superior to the evaluation by the researchers or institutions submitting the proposal. If the evaluators are not working in the particular area addressed by the project

or if they are biased towards a specific research approach, the assessment of the proposal might well be flawed. From this viewpoint, a more active role of the applicants in the evaluation process seems to be justified. An example of involving the institutions applying for funds in the evaluation of their own project is given in the grey box below.

Institutional Assessment in the Norwegian Council for Higher Education's Programme for Development Research and Education (NUFU)³²

A project proposal submitted to NUFU for funding must have been assessed, ranked, approved, and duly signed by the main applying partner institutions in the South and in Norway before being processed and considered for funding by the NUFU Board. In this case, the evaluation is performed by academic research committees from the partner institution in the South (UIS), whose assessment counts twice, and the partner institution in Norway (UiN), whose assessment counts once.

NUFU provides a standard form for this institutional assessment. This comes with a practical tool for performing assessments of the project application (a table with weighted criteria and indicators to be marked). It also ensures comparability of the individual evaluations.

The final decision is made by the NUFU Board. The Board exercises its discretionary power only with regard to the overall composition of the NUFU programme portfolio, which includes the distribution of partner institutions and countries, the themes, and the cost-benefit ratio of the projects.

6-3 Consensus on the Proposal Marks

Once all the evaluators have completed their evaluation of a specific project proposal, their criteria-specific marks have to be aggregated. It is important to tackle disagreements immediately in order to avoid adding up inconsistent marks and ending with a final ranking that does not make sense. Therefore, you should plan some kind of consensus procedure to arrive at a consistent assessment of individual proposals. The process can take place remotely if the costs of a face-to-face meeting are too high, but the latter is preferable.

In preparation for the selection committee's consensus meeting, the proposal coordinator can compile the individual criteria-specific assessments and suggest prior consensus marks, based on the evaluators' marks and their comments, and taking into account their background. The following form can be used or adapted for preparing a consensus report on each proposal evaluated.

Details of the consensus approach are given in

 *section 1-3*

³²NUFU, 2002. Institutional Assessment and Ranking of Project Applications to the NUFU Programme 2002. <http://siu.no/nufu/> (March 2004).

Example of a consensus report (extract):							
Proposal No.: Research topic(s):							
Criteria (at Level 3, i.e. the lowest hierarchical level)	E1	E2	E3	...	Average	Consensus mark	Comments
1.1.1. Potential impact on development							
1.1.2. Extent of impact							
2.1.1. Training activities							
2.1.2. Comparative strength							
2.1.3. Intellectual and commercial benefits							
...							
4.2.1. Consideration of users' interests							
4.2.2. Incentives for users							
E: Evaluator							

Option 2 of section 6-2 suggests choosing two groups of evaluators, one with scientific and the other with regional expertise. Each group will cover the criteria in their own field of expertise, and both will deal with the cross-cutting issues such as the partnership arrangement. The assessments made in the light of these criteria are weighted differently by the two groups (see example below).

Different types of evaluation within the context of the European Commission's Sixth Framework Programme and its specific measures to support International Cooperation with Developing Countries (INCO-DEV)

First, experts chosen for their thematic competence carry out a scientific and technical evaluation of proposals. Only those proposals that meet the relevant thresholds are then submitted for regional evaluation to experts on scientific policy in the different target regions.

The regional evaluation assesses the relevance of the proposal to the target countries' specific problems, the potential impact of the results in the regions concerned, and the balance and quality of partnerships, both within the consortium and with regard to management.

Evaluation of specific target research projects	Thresholds		Weights		
	Scientific evaluation	Regional evaluation	Scientific evaluation	Regional evaluation	Total
Criteria					
Relevance	4 out of 5	4 out of 5	25	75	100
S&T excellence	4 out of 5	–	100	–	100
Potential impact	–	4 out of 5	–	100	100
Quality of consortium	3 out of 5	3 out of 5	50	50	100
Quality of management	3 out of 5	3 out of 5	50	50	100
Mobilisation of resources	3 out of 5	3 out of 5	50	50	100

In this case as well, a proposal coordinator can prepare consensus reports for the selection committee, who then discusses the proposed marks, agrees on definitive marks, and formulates written comments that can subsequently be used for feedback to the applicants. In case the selection committee cannot agree on final assessments of proposals, it may commission an additional evaluation.

Module 7: Synthesis and Ranking

With this step of the selection process, the criteria-specific marks of each proposal are multiplied by the corresponding weight of criteria to obtain the final scores. These scores lead to a ranking of proposals on which funding decisions will be based.

Aim of module 7: To offer guidance for establishing final scores and preparing the report for the decision committee.

Questions	Brief answers
1. How do I process criteria-specific marks to produce a ranked list of proposals?	If a scoring method is used, the consensus marks for each criterion are multiplied by the corresponding criteria weight; the weighted marks are then added and multiplied again by the weight of the 'parent' criterion at the next higher level, up to the highest level of the hierarchy of criteria. The final scores determine the relative position of proposals in the ranked list of proposals.

First, the consensus reports discussed in section 6-3 should be examined and compared by the selection committee, who should pay particular attention to the consistency of criteria-specific marks. If necessary, adjustments can be made. This should be the final discussion on the marks because latter adjustments bear the risk of bringing hidden agendas into the selection process.

Once a final consensus has been reached on the criteria-specific marks, these have to be synthesised to obtain a final score for each proposal. A synthesis form can help the selection committee achieve this (see example in the red box below).



Remember:
This is the last opportunity to adjust any of the marks assigned to a proposal.

Example of a synthesis form (extract):
 Proposal no.: Research topic(s):
 Partner institutions:

Sub-criterion (S-C)	Consensus mark	Weight of S-C	Weighted mark for S-C	*Weight of criterion (C)	Weighted mark for C	* Weight of category of criteria (CC)	Weighted mark for CC
S-C 1.1.1		40%					
S-C 1.1.2		60%					
° Sum of weighted marks for S-Cs				100%		20%	
...							
S-C 4.1.1		20%					
S-C 4.1.2		80%					
° Sum of weighted marks for S-Cs				60%			
S-C 4.2.1		50%					
S-C 4.2.2		50%					
° Sum of weighted marks for S-Cs				40%			
° Sum of weighted marks for Cs						30%	
° Final score of the proposal (Sum of weighted marks for CCs)							
* means to multiply with (horizontal)							
° means to add up (vertical)							

The use of thresholds is discussed in  section 3-5

If thresholds have been set for some or all of the criteria, or if there is an overall threshold, the evaluated proposals should now be checked against them, before proceeding with the ranking of proposals. Any proposal with marks below a threshold should be rejected and will therefore not appear in the ranking.


The consensus reports can be finalised by adding the final scores. The proposal coordinator is responsible for ensuring that the consensus reached is faithfully reflected in the consensus report. If an expert has maintained a dissenting view, this should be noted in the report. It is suggested that all the members of the selection committee sign the report.

Next, the selection committee establishes the ranking of the proposals, based on the final scores. In specific cases (e.g. equal scores), the selection committee may want to make recommendations for a priority order. The work of the selection committee ends once they hand over all the consensus reports and the list of ranked proposals to the decision committee.

Supplementary Information – Limited Aggregation

If you have decided not to weight the criteria at the top level because of the interdependencies between them, the full aggregation of marks is not performed as outlined above. Instead, you will have to produce two rankings, one reflecting the proposals' performance vis-à-vis the 'probability' criteria (such as successful research and adoption of results), and another reflecting the proposals' performance vis-à-vis the criteria of potential impact (such as capacity strengthening and relevance to development). The two rankings are achieved by synthesising marks under the respective categories. Decision makers are then presented with two priority lists of the type indicated below.

	Project no. and score for 'probability'	Project no. and score for potential impact
Rank 1	No. 324 = score 9.1	No. 229 = score 8.3
Rank 2	No. 173 = score 8.7	No. 173 = score 7.8
Rank 3	No. 229 = score 8.4	No. 041 = score 7.7
Rank 4	No. 041 = score 8.1	No. 324 = score 6.1
...		

The issue of interdependencies between criteria is discussed in the white box in  section 3-4

Module 8: Decision and Notification

In the last step of the selection process, you will have to ensure that the final decision is really based on the selection criteria and that all the applicants receive detailed information about the results of the selection process. Finally, contractual agreements must be drawn up for the selected NSRP projects, to make sure they are implemented according to proposals.

Aim of module 8: To give guidance for the decision making and post-decision making process.

Questions	Brief answers	Section
1. How is the final decision made?	The final decision is based on the ranked list of proposals and takes into account the focus of the NSRP programme and other constraints.	Section 8-1
2. What information should be passed on to the applicants?	The applicants should receive a summary of the evaluation – whether or not their proposal has been approved – including any comments that are considered useful to support future submissions.	Section 8-2
3. How can the contract strengthen the implementation of projects?	The quality of the research partnership may be enhanced by suggesting contractual agreements that assign clear responsibilities to both partners and that insist on common reporting on project implementation.	Section 8-2 and 8-3

8-1 Decision Making

The ranking of project proposals suggested by the selection committee is presented to the decision committee for final review. The responsibility of the decision committee is to draw up the final ranking. It will do so by also taking into account aspects of the programme's focus that have not been considered in previous steps, such as the political criteria discussed in section 2-4. These additional criteria are derived from the programme's need to have a balanced portfolio in terms of distribution and risk. An example of such criteria is given in the grey box below.

Transparent decision in the context of the University Partnership in Cooperation and Development (UPDC) Programme of the Association of Universities and Colleges (AUCC) of Canada³³

After the ranking has been agreed on by the selection committee, the decision committee reviews the portfolio to see in how far it satisfies CIDA's new development priorities. This review may result in some adjustments in the ranking of the proposals and thus affect the final decision. However, UPDC guidelines transparently outline what criteria may lead to an adjustment of the ranking:

- at least 50 percent of the projects selected for funding are for the primary benefit of African countries. The balance is for projects in eligible countries of the Middle East, Asia, or Latin America and the Caribbean;
- at least 60 percent of meritorious projects selected for funding contribute to one or more of the social development priorities or economic priorities (agricultural and rural development, and private-sector development). The balance may address any other Canadian ODA (Official Development Assistance) priority;
- finally, where possible, efforts will be made to limit the number of selected projects to one per developing country, excluding those countries that Canada has identified for increased aid investments, where more than one project may be considered for recommendation. These countries are Bangladesh, Bolivia, Honduras, Mali, Ghana, Senegal, Ethiopia, Mozambique and Tanzania.

Moreover, the funding decision (i.e., the number of research projects selected) crucially depends on the PEI's budget. The decision committee might have some room for manoeuvre by requesting that applicants revise the budgets for their projects.

8-2 Notification and Contract

Once the actual funding decision has been taken, all applicants must be informed and provided with comments on the results of the selection process. Every applicant should receive a summary of the evaluation that includes the consensus reached on the proposal (i.e., comments and marks) and relevant comments, particularly suggestions for modification. Of course, the final score of each applicant's proposal should also be communicated. The comments may be drawn from the consensus report. They should be sufficiently detailed to explain the final scores.



Partnership principles:

Partnerships can be strengthened by conducting an inception mission prior to signing the contract.

Supplementary Information: Inception Mission

For programmes that do not conduct a two-stage selection process (see section 5-2), an inception mission can be undertaken after approval to further refine the project proposal, taking into consideration the comments received. Funding of the inception mission may be reimbursed from project funds, but the project budget should already include plans for such a mission. The inception mission may be a precondition for signing the funding agreement with the PEI, as it is crucial for research partnerships that the partners trust one another, plan their projects together on an equal footing, and agree on the division of labour.

³³AUCC, 2003. University Partnership in Cooperation and Development (UPCD) Program Guidelines Tire 2, November 2003. http://www.aucc.ca/upcd-pucd/index_e.html (March 2004).

For proposals that have been approved by the decision committee, a contract between all partners should be established. Such a contract covers scientific, legal, and financial details. You can considerably influence the quality of partnerships if you insist on contractual agreements that clearly assign responsibilities (e.g. financial, administrative, and managerial) to both partners. Contracts should also include common reporting on project implementation.

8-3 Monitoring and Evaluation

Agreements on reporting should also include requirements for monitoring and evaluation of project implementation. To enhance the consistency of the project cycle, it is suggested that you closely link the monitoring and evaluation requirements with the selection criteria, as they consistently reflect the features of an ideal research partnership project. A suitable framework for monitoring and evaluation can be drawn up by deriving relevant indicators from the pertinent questions listed in Annex 3 of the Manual. Using detailed (intermediate) indicators on the project's progress towards objectives related to development and capacity building may in turn advance mutual understanding between researchers from the North and the South, thereby strengthening research partnerships. AUCC of Canada (see grey box below) fosters partnerships by bringing Northern and Southern partners together in an effort to enhance the collaborative management of research projects.



Partnership principles 4 and 5:
Good contract agreements enhance transparency and shared responsibility for partnerships.

Orientation session in the framework of the University Partnership in Cooperation and Development (UPDC) Programme of the Association of Universities and Colleges (AUCC) of Canada³⁴

The project directors from the South and the North are invited to attend an orientation session in Ottawa to help them launch the project. The orientation session serves to brief partners of newly approved projects about the requirements of the UPDC programme and assists them with strengthening the result-oriented framework of their project, setting reporting systems, and other aspects of project implementation.

³⁴AUCC, 2003: see footnote 33.

Annex



Annex 1: Abbreviations

CIDA	Canadian International Development Agency
EC	European Commission
IDRC	International Development Research Centre (Canada)
IZB	Institute for International Cooperation in Education (Institut für internationale Zusammenarbeit in Bildungsfragen, Switzerland)
KFPE	Commission for Research Partnerships with Developing Countries (Kommission für Forschungspartnerschaften mit Entwicklungsländern, Switzerland)
NSRP	North-South Research Partnership
NUFU	The Norwegian Council for Higher Education's Programme for Development Research and Education
PEI	programme executing institution
RAWOO	Netherlands Development Assistance Research Council
R&D	research and development
S&T	science and technology
SDC	Swiss Agency for Development and Cooperation
UPDC	University Partnership in Cooperation and Development (Canada)

Annex 2: Glossary

Alternative	in the context of this Manual is a NSRP project potentially eligible for selection.
Capacity building	(see capacity strengthening)
Capacity strengthening	<p>is used as a synonym for capacity building. The latter often leads to misunderstandings. It can suggest that there is no capacity in the South at the beginning of a programme or project;³⁵ the meaning of capacity building can also imply only training junior staff, or be based on a colonial view of Northern agencies 'building' Southern futures.³⁶</p> <p>Capacity strengthening encompasses all efforts aiming to enable individuals and institutions to conduct result-oriented research, and refers to enhancing capabilities in areas such as agenda setting, problem recognition, problem formulation, problem solving, establishing networks, policy dialogue, advocacy, etc.</p> <p>Capacity strengthening can be targeted at three levels: at the level of (1) the individual, (2) the institution, and (3) the national science system and the government.</p>
Criteria	is a general term comprising the attributes, objectives and goals that are considered relevant in a certain decision making situation.
Decision making	is the process of choosing among a set of alternatives. Elements that need to be known to make decisions are: (1) details of the problem to be addressed; (2) the people or actors involved; (3) their objectives and policies; (4) the influences affecting the outcome; (5) the timeframe, scenarios, and constraints. ³⁷

³⁵RAWOO, 2001. North-South Research Partnerships: Issues and Challenges. RAWOO-Publication no. 22, The Hague.

³⁶Rew A. 2002. Strengthening Research Capacity in Developing Countries. In: M. Surr et al., Research for Poverty Reduction. DFID Research Policy Paper, Annex 7.

³⁷Saaty T.L. 1994. The Fundamentals of Decision Making and Priority Theory with the Analytic Hierarchy Process. RWS Publications, Pittsburgh.

Gender equality

“requires equal enjoyment by women and men of socially-valued goods, opportunities, resources and rewards. Gender equality does not mean that men and women become the same, but that their opportunities and life chances are equal. ... Because of current disparities, equal treatment of women and men is insufficient as a strategy for gender equality. Equal treatment in the context of inequalities can mean the perpetuation of disparities. Achieving gender equality will require changes in institutional practices and social relations through which disparities are reinforced and sustained. It also requires a strong voice for women in shaping their societies.”³⁸

Impacts

are long-term results to which the project will contribute. They consist in changes in living conditions of populations. They are attributable, in part, to the achievement of project outcomes. Impact-level results are the changes necessary to achieve the project's goal. Impacts tend to occur after the end of a project, under the influence of the project and of additional external factors.

Independent expert

is an expert working in a personal capacity. In performing the work, she or he does not represent an organisation. Independent experts should be asked whether they might have conflicts of interest while evaluating a specific proposal.

Indicators

are variables used to measure specified objectives. In the selection process, indicators are required to assess the potential consequences – negative or positive – of research projects in the light of the criteria at the lowest, most specific level of the criteria hierarchy. Typically, several indicators are needed to capture all the relevant factors of a particular criterion. Indicators can measure quantitative as well as qualitative aspects of a criterion. To be fully

³⁸OECD, 1999. Guidelines for Gender Equality and Women's Empowerment in Development Co-operation. Development Co-operation Guidelines Series (p. 13). OECD/DAC. <http://www.oecd.org/dac> (February 2005)

	effective and usable, indicators have to be logically related to the criterion under consideration and information has to be readily available on the dimension to be measured by the indicator.
Informal selection	is based on experience, intuition, and cognisance of research needs.
North	stands for the so-called developed countries, e.g. the members of the DAC of OECD (see also the Term “South”)
Priority setting	in research is the process of ranking different research alternatives according to preferences. It is a common part of planning and helps to define a research portfolio. Literally, a priority is something one addresses first and that has precedence over something else.
Ranking proposals	of research projects is the process of setting priorities among alternatives according to declared preferences (see priority setting).
Research evaluation	is assessing, appraising, or determining the worth, value, or quality of research, whether it is proposed, on-going, or completed. This is done in terms of its relevance, effectiveness, efficiency, and impact.
Research partnerships	are characterised as “a combination of result-oriented research activities and capacity-building components at the individual and institutional levels, or both levels simultaneously. They should be based on mutual interest, trust, understanding, sharing of experiences, and a two-way learning process. In an ideal partnership, all partners will work together on an equal footing at all stages and levels. This is particularly important during the agenda-setting process, when research projects or programmes are being designed, as well as for implementation and management” ³⁹

³⁹Maselli D., Lys J.A., Schmid J. 2004. Improving Impacts of Research Partnerships. Swiss Commission for Research Partnerships with Developing Countries, KFPE. Geographica Bernensia, Bern.

Selection process	in the context of this Manual consists of all the steps required to choose the most promising research projects in the context of an existing research programme. These steps include dealing with the core elements (deciding on actors, defining criteria, choosing a method, and organising proposals), the evaluation of each research proposal, the synthesis of the individual evaluations, the ranking of research proposals, and the funding decision.
South	stands for the so-called developing countries as referred to e.g. in the DAC List of Aid Recipients ⁴⁰ . Although such lists exist, every NSRP programme must define which countries are eligible for participation in their programme, especially if funds are coming from public sources and are meant to reduce poverty in specific developing countries.
Stakeholder	is “any person, group, or organisation that can place a claim on an organisation’s attention, resources, or output, or is affected by that output”. ⁴¹
Systematic evaluation	permits categorising, ordering, comparing, and summarising data in ways that are internally consistent.
Trade-off	between two elements (often objectives) means that more of one element can be attained only at the expense of the other.

⁴⁰Development Assistance Committee (DAC) of the OECD, 2003: List of Aid Recipients – As of 1 January 2003. <http://www.oecd.org/dac> (February 2005). Other organisations have their own definitions of “developing countries”, as “development” is a normative term. The World Bank usually uses the term to refer to low and middle-income countries, assessed by reference to per capita GNP. The United Nations Conference on Trade and Development (UNCTAD) does not have the same income thresholds as the World Bank. Other organisations often have a “developing country” category of membership, and use the term to refer to countries in that category.

⁴¹Bryson J.M. 1987. A strategic Planning Process for Public and Non-Profit Organizations. Advanced Management Practices Paper 2. Strategic Management Research Center, University of Minnesota, Minneapolis.

Annex 3: Structured List of Potential Criteria

(Module 2: Defining Selection Criteria)

The table below is an example of a comprehensive and structured list of criteria for the selection of partnership projects. For each criterion, a set of pertinent questions is included. Some of the questions followed by P1 to P11 originate from the KFPE “Guidelines for Research Partnerships with Developing Countries: 11 Principles”. Such questions should be asked to **identify indicators** according to which the potential effects of a project on the individual criteria can be measured.

For example, an important objective of many research partnership projects is to strengthen the capacity of partners in the South. A range of criteria can be used to capture this objective, among them the planned training activities (2.1.1). Pertinent questions to assess the project’s contribution to this criterion include: „Are there plans to conduct specific training activities to enhance the capacity of staff of partner organisations or other institutions in the country?“ Two indicators can be derived from this question: (1) number of planned training events for partner organisations as outlined in the proposal, and (2) number of planned training events for other institutions in the country.

Category of Criteria (Level 1)		
Criteria (Level 2)	Sub-criteria (Level 3)	Pertinent questions and related KFPE partnership principles (P1 – P11)
1. Relevance to development		
1.1 Potential contribution to the partner country’s development priorities and needs	1.1.1 Potential impact on social, economic, and environmental dimensions	<ul style="list-style-type: none"> – As a result of the project, what are the potential positive and negative consequences on objectives reflected in national development plans and poverty reduction strategies and policies (PRSP)? In particular, how are the most vulnerable groups of the society such as very poor and disadvantaged people affected by the results of the research project? (P1) – Can impacts be expected on issues such as equity, gender and environmental sustainability beyond what is included in national development plans?
	1.1.2 Extent of expected contribution	<ul style="list-style-type: none"> – What is the likely extent of an impact in terms of the number of people affected? – Do the research results have the potential to benefit other communities or regions in the country (national spill-over)? – Will other countries benefit from the research results (regional or/and international spill-over)?

2. Capacity strengthening		
2.1 Potential impact on institutional capacity	2.1.1 Training activities	<ul style="list-style-type: none"> – Are there plans to conduct specific training activities to enhance the capacity of staff of partner organisations or other institutions in the country? (P10) – Does the work plan include sufficient opportunities for the involved partners to exchange, discuss, and debate? (P3) – Can the new knowledge be included in the institution's training activities (innovation of training and curriculum)? – Are provisions being made and support given to ensure that partners from developing countries who have received training will continue to be employed in their professions when the joint project is over? (P11) – Can it be expected that the research efforts as a whole will contribute to reducing the emigration of scientists from developing countries (career perspectives for scientists)? (P11)
	2.1.2 Comparative strength	<ul style="list-style-type: none"> – Does the research project contribute to the comparative edge of the institutions? – Does the project have the potential to initiate further research on the subject and to attract additional funds from other sources? (P11) – Does the research project generate complementarities with other activities at the institution? (P10)
	2.1.3 Intellectual and commercial benefits	<ul style="list-style-type: none"> – Are there appropriate plans in the case that newly developed technology is subjected to intellectual property rights (e.g. patents on industrial designs, plant breeder's rights, trade secrets, software and database protection)? – Have binding agreements been made regarding the rights of all partners in case the results prove to be of potential intellectual or commercial value? Are they fair to all the partners? (P9)
	2.1.4 Up-grading of infrastructure	<ul style="list-style-type: none"> – Will the project contribute to upgrading infrastructure and if so, will this attract further projects? (P10, P11)
	2.1.5 Sustainability of the partnership	<ul style="list-style-type: none"> – Are measures foreseen that will contribute to sustain the partnership beyond the completion of the joint project (exchange, consultancies)? (P11) – Have preparations been made to enable the research to be continued after the end of the joint project, if necessary (even if it has to be done with another partner or by one of the partners alone)? (P11)
2.2 Potential impact on the status of science in a country	2.2.1 Consistency with national research policy	<ul style="list-style-type: none"> – Does the research planned fit into the South partners' existing national or regional research policy? (P1) – Does the research planned fit into the North partners' existing national or regional research policy? – Are synergies to be expected between the research project and other research activities in the partner countries?
	2.2.2 Contribution to the advancement of national science system	<ul style="list-style-type: none"> – To what extent is the research project innovative? – Are novel approaches described in the project that benefit the scientific system in the partner countries? (P10) – What importance does the research project have for the development of particular scientific fields in the partner countries? (P10) – Are inter- and transdisciplinary aspects taken into account? (P1)

2.3 National and international networking	2.3.1 Access to national scientific networks	<ul style="list-style-type: none"> – Does the project foresee efforts to ensure that the partner organisation collaborates with (other) national institutions? – Do all Southern partners have adequate opportunities (and the necessary technical equipment) to access relevant information available in the national science system? (P3)
	2.3.2 Access to international scientific networks	<ul style="list-style-type: none"> – Do plans exist to link the South partners to the international scientific community (databanks, participation at international conferences, papers presented, contacts with researchers from other countries or from international organisations, publications in international journals)? (P3) – Are the necessary financial resources and the technical equipment available for international networking by South partners? (P3) – Which concrete support measures are foreseen with the aim of strengthening collaboration among developing countries in particular (creating new contacts, promoting the exchange of information, organisation of meetings, planning and carrying out of common research projects, financial support)? (P3, P10)

3. Success in achieving research objectives

3.1 Scientific quality	3.1.1 Clearly formulated and logical research objectives	<ul style="list-style-type: none"> – Are the objectives focused and clearly stated? – Do the research questions relate to the objectives? – Do the research questions and objectives derive clearly from the analysis of the problem? – Are open questions assessed realistically?
	3.1.2 Viability of research design and activities	<ul style="list-style-type: none"> – Is access to the study site or population guaranteed? – Have legal requirements been taken into account? – Is the methodology proposed appropriate and convincing for achieving the project's objectives? – Does project staff master the suggested methods and techniques? – Is the timeframe for answering the research question reasonable and are provisions made for unexpected developments as well as for attending conferences, writing reports, and preparing publications? – Will disciplinary standards be fulfilled? – Are the research questions based on current research advances? – Does prior scientific performance prepare participants sufficiently? – Are former publications of the applicants convincing?

3.2 Quality of project management	3.2.1 Clear assignment of roles and responsibilities	<ul style="list-style-type: none"> – Are roles and responsibilities for the various project activities clearly and explicitly assigned to individual researchers and research teams (work plan, terms of reference, contracts)? (P4, P5) – Will all partners be fully informed about the flow of financial resources? (P5) – Do the right partners collaborate? Do they have complementary strengths? – Is the affiliation of the applicants to the research institutions sufficient? – Is an adequate supervision of the researchers involved guaranteed? – Has overall responsibility for the project been clarified? (P4)
	3.2.2 Availability of required infrastructure, materials, funds, and scientific capacity	<ul style="list-style-type: none"> – Are the required infrastructure and materials available or have they been planned, and are they located where they are to be used? (P4) – Do the financial resources correspond with proposed research? – Do all the applicants have sufficient competencies with regard to the proposed project?
	3.2.3 Clear work plan and realistic budget (including for monitoring and evaluation)	<ul style="list-style-type: none"> – Is the work plan clear and consistent? Do steps follow one another in a logical way? – Is the timetable realistic? – Has the budget been clearly formulated? – Is the need for resources demonstrated convincingly? – Have provisions been made in terms of defining criteria, time allocation, and cost implications for monitoring and evaluation activities? Is the functioning of the partnership monitored? (P6)
3.3 Quality of collaboration	3.3.1 Motivation for the partnership	<ul style="list-style-type: none"> – Have the partners previously conducted work in the corresponding field? – Are adequate incentives in place to ensure that all partners are sufficiently motivated?
	3.3.2 Complementarities between partners	<ul style="list-style-type: none"> – Is sufficient attention given to the strength and weaknesses of the respective partners in order to fully exploit potential synergies? – Have evaluations of former cooperation between the partners shown satisfying results? – In particular, is the traditional knowledge of the partner and the local population incorporated in the research plan? (P1) – Is there an adequate relation in the proposed budget between funding, own resources, and third-party resources?
	3.3.3 Balanced collaboration	<ul style="list-style-type: none"> – Do all the partners know and trust each other? (P2) – Do all partners contribute sufficient in-kind input? (P4) – Are responsibilities shared equally? (P4) – Are benefit-sharing arrangements in place? (P9)

4. Adoption of research results (P8)		
4.1 Transfer system	4.1.1 Clear exploitation /dissemination strategy of research results	<ul style="list-style-type: none"> – Is there a clear outline of how the use of results and products by end users will be guaranteed? (P7, P8) – Has the local/national context been taken into account in the design of the dissemination strategy? – Are potential users of the research outline clearly identified? – Are suitable partnerships sought to ensure effective dissemination? (P7)
	4.1.2 Attention given to implications of transfer process on resources	<ul style="list-style-type: none"> – Is funding secured for materials and activities required for successful dissemination (information materials, publications, seminars, workshops, lectures, exhibitions, dissemination through radio and television, etc.)
4.2 Users of research results	4.2.1 Consideration of users' interests in the project design	<ul style="list-style-type: none"> – Is there an articulated demand for the research results? – Have the interests and needs of targeted users of the research results been adequately considered in the design phase of the project? (P1) – Are there plans to adjust or further develop the research results to specific needs of user groups?
	4.2.2 Incentives for users to adopt the research results	<ul style="list-style-type: none"> – Are suitable incentives in place to promote the adoption of the research results (accessibility of information material, demonstration sites, subsidies)? – Are measures planned to ensure that adoption of the research results will continue? – Is there room for an active role of potential users in promoting the adoption process? (P7)

Annex 4: Literature and Links

Review of methods for research evaluation and priority setting:

- Alston J.M., Norton G.W., Pardey P.G. 1995. *Science under Scarcity: Principles and Practices for Agricultural Research Evaluation and Priority Setting*. Cornell University Press, Ithaca.
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- Zopounidis C., Doumpos M. 2002. Multi-Criteria Decision Aid in Financial Decision Making: Methodologies and Literature Review. *Journal of Multi-Criteria Decision Analysis*, 11(4-5), 167-186.

Structuring objectives, defining criteria, and measures:

- Kenney, R.L. 1988. Structuring Objectives for Problems of Public Interest. *Operation Research*, 36(3), 396-405.
- Kenney R.L., Raiffa H. 1976. *Decisions with Multiple Objectives*. Wiley, New York.
- Von Winterfeldt D. 1980. Structuring Decision Problems for Decision Analyses. *Acta Psychol.*, 45, 71-93.
- Woolley J., Tripp R. 1994. Priority Setting Tools for Research Groups. In: J. Douwe Meindersma (ed.), *Setting Research Priorities: Towards Effective Farmer-oriented Research*, p. 47-64. Royal Tropical Institute, Amsterdam.

Subjectivity and objectivity in research evaluation:

- Shumway C. R. 1981. Subjectivity in Ex Ante Research Evaluation. *American Journal of Agricultural Economics*, 63, 169-173.

Evaluation of research in general (ex-ante, on-going, ex-post), including M&E:

- Bozeman B., Melkers J. (eds.) 1993. *Evaluating R&D impacts: Method and Practice*. Kluwer Academic Publishers, Norwell, MA.
- Earl S., Carden F., Smutylo T. 2001. *Outcome Mapping: Building Learning and Reflection into Development Programs*. International Development Research Centre, IDRC, Ottawa. (download from <http://www.idrc.ca/evaluation>, February 2005)
- Gaillard J. 2000. *Monitoring and Evaluation System for Impact Assessment (MESIA): Conceptual Framework and Guidelines*. International Foundation for Science, IFS, Stockholm. (download from <http://www.ifs.se/Publications/Mesia/mesia.asp>, February 2005)
- Horton D. et al. 2003. *Evaluating Capacity Development: Experiences from Research and Development Organizations around the World*. ISNAR, IDRC, CTA, The Hague. (download from <http://www.idrc.ca/evaluation>, February 2005)

Kostoff R.N. 1994. The Handbook of Research Impact Assessment. Office of Naval Research.

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Velho L. 2002. North-South Collaboration and Systems of Innovation. In: The Royal Netherlands Academy of Arts and Sciences, North-South Research Cooperation. Amsterdam, The Netherlands.

Participation in the selection process:

Harrison S.R., Qurehi M. E. 2000. Choice of stakeholder groups and members in multicriteria decision models. Natural Resources Forum, 24, 11-19.

Links to some NSRP programmes: (August 2005)

www.aucc.ca/upcd-pucd/index_e.html

University Partnership in Cooperation and Development Programme (UPCD), administered by the Association of Universities and Colleges of Canada (AUCC), funded by the Canadian International Development Agency (CIDA).

www.cde.unibe.ch/Regions/Esapp_Rs.asp

The Eastern and Southern Africa Partnership Programme (ESAPP), administered by the Centre for Development and Environment (CDE), funded by the Swiss Agency for Development and Cooperation (SDC).

www.epfl.ch/COOP/index.html (French only)

Research Partnership for Development Programme, administered by the École Polytechnique Fédérale de Lausanne (EPFL), funded by the Swiss National Science Foundation (SNSF) and the Swiss Agency for Development and Cooperation (SDC).

www.idrc.ca

A variety of programmes of the International Development Research Centre (IDRC), mainly funded by the Canadian Parliament.

www.nccr-north-south.unibe.ch

The National Centre of Competence in Research (NCCR) North-South, managed by seven Swiss Centres of Competence active in nine regions world-wide, and funded by the Swiss National Science Foundation (SNSF) and the Swiss Agency for Development and Cooperation (SDC).

www.cordis.lu/fp6/inco.htm

The Sixth Framework Programmes' Specific Measures in Support of International Cooperation with Developing Countries (INCO-DEV) of the European Commission.

<http://siu.no/vev.nsf/o/NUFU>

Norwegian Council for Higher Education's Programme for Development Research and Education (NUFU), administered by the Norwegian Centre for International Cooperation in Higher Education (SIU), funded by the Norwegian Agency for Development Cooperation (NORAD) and the Norwegian Council for Higher Education (UHR).

www.vlir.be

Own Initiative Programme (VLIR-OI), administered by the University Development Co-operation (UDC), funded by the Flemish Interuniversity Council (VLIR).

www.volkswagen-stiftung.de (German only)

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www.rfpp.ethz.ch

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