

Tool

Competitive Grant Programs (CGP) in Agricultural Research

Area of Application	Introduction of Competitive Grant Programs (CGP) in agricultural research
Objective	The tool provides orientation in the planning and implementation of CGP in the public and private agricultural research sector

1 Context

The tool consists of 3 components. The first component provides a checklist with 7 preconditions for the functioning of competitive grant programs, and also proposes 5 general options for the design of CGP. In the second component, the tool identifies important principles for the establishment and support of CGP. The third component provides options for the structure and management of CGP.

2 Description of the tool

Component 1 Design of Competitive Grant Programs

Issue 1 Conditions for the Functioning of a CGP (Checklist)

Experience shows that the political and institutional framework is crucial for the feasibility of a CGP. How important a CGP becomes for the organizations it serves, and whether it will function smoothly, depends on a number of institutional factors that cannot be altered in the short term. Some of these conditions need to be present from the beginning, while others will determine the prospects of long-term sustainability. This section contains a checklist of the preconditions necessary for the successful functioning of a competitive funding scheme that should be taken into account while designing it.

Condition 1: Broad acceptance and political commitment. CGPs are institutional arrangements that involve and link public decision-makers, service providers, the scientific community and technology users, each group assuming its own role. Unless there is broad-based acceptance and support of the scheme, CGPs may meet with resistance, and are unlikely to achieve their purpose. The introduction of a CGP presupposes building political consensus among the major stakeholders.

Condition 2: The legal framework permits project funding. Public entities are allowed to accept, spend and account for project funds provided outside the national budgetary process. This condition is self-explanatory as project specific funding is a core characteristic

of a CGP. Normally, universities and autonomous research institutes have no problem with this condition. Where ministry divisions for research, training or extension are concerned, this condition may not be so easily fulfilled if any amount spent by the public organisation needs to figure in the annual budget first. The governance structure of a CGP is also usually subject to legal regulation. The oversight board has to be recognized by government to be able to control spending of public funds, whether from government or donor sources.

Condition 3: Sufficient capacity to respond to calls for proposals. This criterion is the most critical one. The capacity to respond concerns the number of potential providers of the services funded by the CGP and the level of qualification of applicants. In order to keep the incentive function of the CGP and be able to select high-quality proposals, there need to be a sufficient number of applicants to choose from (a pool of competitors). The same is true for the review of proposals, for which a choice of potential panel reviewers should be available. In many countries, innovation systems are not yet sufficiently developed and diversified to satisfy this condition fully. This is of course a question of degree – and organisers of a CGP can take constraints into account by adjusting the design of the CGP. The less diversified the institutional landscape, the smaller the CGP: more accompanying measures to build capacity will be needed; the competition principle will be more constrained; and the scope of topics accepted wider. Hence, there is a need to adjust the objectives and the design of the CGP in order to strengthen the institutional basis (see below, design options). However, a near-monopolistic situation with only one or a handful of applicants prohibits the use of funds as a development instrument.

Condition 4: Adequate design of the governance and management structure. As in any other institutional “solution“, the CGP’s design and rules need to be appropriate for the political and institutional environment. Care has to be taken to make the objectives and procedures clear to everyone in order to create transparency, foster communication, etc. This condition is amenable to improved planning and design and should be actively addressed.

Provided the preconditions can be satisfied, donors such as the World Bank (which has heavily invested in this) can make CGP work as long as the financial base is secured. Institutionalising CGP as a permanent self-sustaining governance mechanism is a more demanding goal. Besides the preconditions for establishing CGP, we can also state conditions for its *sustainability*, allowing CGP to function independent of particular (and mostly short-lived) development programs.

Condition 5: CGP is a part of the national research and technology policy. The long-term success of CGP depends on the stability of the political commitment to it. Only when the participants can expect the CGP to stay on will neglect of rules and conflicts over resources be minimized. Governments should therefore commit themselves to using the competitive funding principle as a regular instrument in agricultural research and technology policies. Governments should demonstrate the political will to support competitive funding of research and extension by creating the legal, administrative and financial basis for the continued use of CGP. Transforming a donor-funded CGP into a national CGP that henceforth would be funded through national sources has proven difficult due to legal restrictions, especially in the case of regional CGPs.

Condition 6: Financial sustainability. The discontinuation of funding is certainly the greatest immediate threat to the sustainability of a CGP. Compared to institutional funding (as well as to contract research commissioned by private enterprises), CGPs are more complicated to administer and involve higher transaction costs. Therefore, financial sustainability is mainly a matter of political will, as the funding will most probably have to come from public sources. The only way to circumvent political instability would be the establishment of a trust fund, preferably in hard currency to avoid the effect of inflation. CGPs supported by trust funds are still rare and restricted to countries with a long tradition of competitive funding, such as Chile.

Condition 7: Diversity of funds and growing “culture of projects”. The long-term viability of a CGP also depends on research and technology providers getting used to initiating and implementing projects on a competitive basis. In a developed innovation system, different

CGPs and funding opportunities exist, so that research and technology funding becomes more market-like. Diversifying CGP and creating additional funding sources enhances the chances of getting project proposals funded, and thus improves sustainability. Over time, a “culture of projects“ can develop, where both applicants for funds and financing institutions can rely on more routine procedures.

Issue 2 General options for the design of CGP

In many countries, CGP is still a new and not very well-known instrument. In most cases we cannot expect the conditions outlined above to be fully satisfied. Therefore, the design of a CGP and its funding rules have to be adjusted to take institutional constraints and the limited capacity of research and technology organisations into account.

The following options describe possibilities of influencing institutional conditions, e.g. by specifying objectives, finding the right mix of funding instruments, or regulating the degree of competition. By reducing the ambition and degree of complexity of CGP, the principle of competitive funding can be retained even where conditions are less favourable. To what extent these possibilities are used depends on the development objectives. It is clear that a trade-off exists between the objective of increasing the efficiency and effectiveness of research, and the objective of developing the innovation system and engendering institutional change. Investing more into institution-building carries the cost of sacrificed efficiency and quality benefits. The following design options are organised according to the typical institutional constraints faced.

Constraint: Small innovation systems

A small innovation system only has a few potential proponents and reviewers of projects, and a relatively low capacity to respond to calls for project proposals. There is a risk that there will not be enough good proposals to choose from, or that the competitive principle will be jeopardised by the fact that there are only a few potential applicants who know each other very well. In such a situation there are three possibilities of reaction:

Option 1: A mix of funding instruments - more commissioned projects / less competitive grants.

Where there are only a few potential suppliers of the research and extension services required and where these services have high priority, it is better to drop the competition principle and to commission and fund these projects directly. In fact, this resembles institutional funding, with block grants for particular research and technology programs. However, the proposed projects are still subject to review (and potential refusal) depending on the quality criteria established by the CGP. Other topics on the technology agenda can still remain subject to competitive funding, resulting in a mix of different funding instruments (partially commissioned, partially competitive). Such a CGP becomes a complement to other funding arrangements.

Option 2: Specification of objectives – broadening the range of project types covered.

Another possibility of dealing with a shortage of suppliers is to broaden the range of types of activities funded by the CGP, e.g. expanding a research fund from covering research projects to technology transfer activities, training, studies, workshops and other activities. By widening the scope of a CGP, more applicants qualify for participation, allowing the competitive principle to be retained.

Constraint: Little or no experience with the CGP concept – absence of a “project culture”

Less developed innovation systems will also be characterized by a lack of experience with the principles and procedures of competitive funding. In addition to Option 1, which helps to reduce risk and gradually introduces a CGP, there is a third possibility which addresses the constraint more directly:

Option 3: Regulation of accessibility by providing assistance to applicants.

Starting small, a CGP can be designed as a training ground for research and extension organisations. A stepwise introduction of competitive funding, accompanied by assistance and training courses for proposal writing and project management, allows applicants to be trained and upgraded, and their capacity to respond to the objectives of the funding institution to be gradually improved. Assistance may be restricted to smaller and less experienced groups, such as NGOs. The other alternative of easing access to funds would be to generally lower the quality standards. However, this strategy is not without risks –it may prove difficult to raise standards later on.

Constraint: Unequal structure of the science and technology supply market.

A frequently observed fact is that the ability to access funds in a CGP is very uneven. Some applicants, e.g. research institutes, may be far more skilled in preparing proposals that meet the formal and scientific requirements than other potential applicants, especially the more “grassroots“ NGOs or extension units. These may be at a disadvantage, although they could be better positioned to address the problems of technology users. This can be a problem, depending on the objectives of the CGP. The same is true for the relative advantage of universities over public research institutes or of advanced research institutes in large countries over institutes in small countries in a regional funding scheme. Wherever strong partners compete with newcomers, it may be necessary to protect less efficient organisations. Option 3 (above) is a reaction to this situation – yielding two more possibilities:

Option 4: Regulation of the degree of competition: use of formulas vs. open competition

The conventional solution would be to set aside a particular part of the budget for those categories of applicants that are to benefit from funding. The total CGP can be split into “windows“ for particular purposes and with varying requirements. The “formula“ would specify amounts for regional units, or introduce requirements for joint ventures pairing better qualified organisations with less qualified ones.

Option 5: Specification of objectives – more structured competition

Another possibility is to provide detailed guidelines for preparing proposals. In an unstructured competition those organisations with the greatest experience in proposal writing have a clear advantage over the others. Clear formats and specification of the expected content of a proposal helps to balance the chances of every applicant.

Component 2: How to introduce a Competitive Grant Program

Institutionalising CGP takes time. For a CGP to work and to provide the efficiency and quality benefits expected, all stakeholders in the institutional arrangement have to perform their role adequately. This means that the partners of a CGP (the board, administrators, applicants and proposal reviewers) need to embark on a process of learning and mutual adjustment.

The first part of this tool states principles for the introduction of a CGP which have proven to be useful for competitive grant systems worldwide. The second part describes steps in the process of introducing a CGP, organising the recommendations into a time sequence.

Introduce competitive funding gradually, monitoring the institutionalisation process

The political and institutional conditions for using competitive funding are different in every situation. Therefore, the design of a CGP and the funding rules have to be brought into line with the basic constraints – the organisers have to learn what works in the situation and build trust and the scheme's reputation. It is advisable to start with a small program and small funds complementing the given structure of funding, building upon existing organisations. Each step should be evaluated.

Involve stakeholders in the preparation of a CGP

One of the basic ideas of a CGP is to foster the demand-orientation of research and extension organisations. Therefore the users of the CGP need to be given a voice in determining its design, rules and priorities. Participation should include technology users as well as the proponents who are supposed to be beneficiaries of the CGP in a different sense and should accept the idea of competitive funding. This can be organised through an initial workshop and by the representation of stakeholders on the board. In many cases the topics and priorities of the CGP are defined in local or provincial stakeholder committees.

Communicate objectives, rules and regulations clearly

The first prerequisite for any competitive scheme is clarity of rules and regulations. Once decisions are made, administrators need to strongly guide applicants on all requirements for project proposals, deadlines, funding levels etc. to avoid creating confusion and disappointment. They should also be prepared to comply with the time schedule for reviewing and funding. Of course, the rules have to be applied evenly to all participants. Quality standards should be maintained from the beginning.

An important aspect of the functioning of a CGP is the flow of information. The CGP therefore needs communication instruments such as contact persons, a website or regular publications in the printed media. This supports networking among stakeholders and helps to form alliances in joint projects.

Assist applicants to prepare proposals and offer advice on project management

In many countries competitive funding is still a new instrument and involves a considerable effort on the side of researchers and other proponents to adjust to the requirements of a CGP. The prospects for success should be improved by providing assistance.

Competitive funding schemes are organised according to a time sequence of steps. It is possible to distinguish two such circles: steps to establish the funding arrangement as such and develop it over time (outer circle), and the routine process of (annual) funding of proposals and receiving the reports (inner circle). Both processes are interlinked at the point where the request for project proposals and the rules for access are approved and sent out to potential applicants. The subject of the outer circle are the funding rules and priorities, whereas in the inner circle the rules are applied to select, fund and implement projects.

The following sequence of steps describes the outer circle - the process of institutionalising a CGP (steps 1-4 taken from Lynn Ellsworth, 1998):

Step 1 Agree on a general goal for the grant-making activity, such as to stimulate innovation in a particular field or to target funding to solve important problems. The institutional objectives (to mobilize new actors or to enhance research quality and accountability) should also be stated openly to help orient stakeholders.

Step 2 Organise a governance apparatus. The elements of the governance structure include the oversight board, which determines the policy and approves the rules, and the grants administration unit, responsible for handling the process of reviewing, selecting and monitoring projects and for administering the funds. Provisions also have to be made for the sources of funds and refinancing. Depending on the size of the scheme, the administration unit requires permanent personal, thus incurring overhead costs that need to be acceptable to the providers of grant funds.

Step 3 Agree upon CGP design, thematic priorities and funding rules. After the basic political decisions have been made, this step clarifies details such as the priority themes and subjects to be funded, the funding categories, grant size and duration, eligibility of applicants, funds reserved for certain categories of applicants (if applicable), the application requirements, such as evaluation criteria and deadlines, the procedures for reporting, and M&E.

Step 4 Prepare and distribute a request for proposals. The decisions taken in Step 3 are laid down in a manual for the use of all stakeholders, especially the applicants. The manual provides the basis for organising the review and selection process as well as the management of funding and implementation. This step is the starting point for the routine funding process (inner circle).

Step 5 Run the (annual) routine process of competitive funding. This step directly embraces a sequence of steps that are repeated annually, such as assistance in proposal writing, screening of incoming proposals, organising the review of proposals, selection of proposals and funding decisions, contracting and payment of contracts, submission of financial and technical reports, and evaluation of results.

Step 6 Evaluate experience with the CGP, adjusting design and procedures. The evaluations should concern the number and general quality of proposals, feedback received on the selection process, experiences with project implementation, and the relevance of results. The

output of this review leads back to Steps 3 and 4 and to changes in the procedures where necessary.

Component 3: Governance and Management of CGP

In her draft paper on "Designing and Managing Competitive Research Grant Programs: Good Practice and Lessons Learned,"¹ Pamela George describes state-of-the-art solutions to the challenges of governance and management in competitive grant schemes. The article is available from the Alliance Services for Rural Development, and a short summary is provided here.

The basic governance and management functions in any competitive grant scheme are as follows:

1. Setting policy
2. Providing technical guidance
3. Managing operations
4. Reviewing project proposals
5. Maintaining an efficient communication system.

Issue 1 Governing Board

Competitive grant schemes require some formal entity, such as a governing board or council, to establish the overall strategy and policy for the program within the framework of national priorities. The board is responsible for overall priority-setting for the program and has ultimate authority over the portfolio of activities.

Board members should generally hold senior positions in order to give them access to government policy-makers, thus allowing them to influence policy decisions and to keep abreast of current issues. The board should be autonomous and able to set its own rules and procedures as well as to devise operating procedures for the competitive grant process.

Setting up a board requires the following:

- Keeping the board's statutes or constitution as simple as possible;
- Making procedures and criteria for selecting board members explicit and transparent;
- Training and sensitising the board, e.g. by means of study tours to review operations of similar bodies in other countries;
- Keeping the board's rules of operation simple.

Issue 2 Technical Advisory Committee

The technical advisory committee is responsible for the technical supervision of the competitive grant scheme, i.e. setting scientific priorities, planning operations, reviewing research progress and annual work programs, and advising the governing board on program modifications. The technical committee translates broad priorities into specific scientific problems to be addressed in the grant program and ensures that individual (and diverse) research projects are combined to form a portfolio that can achieve overall program objectives. The technical advisory committee's most important task is to ensure that calls for proposals target high-priority research problems, and that the selection process results in the best scientific expertise available being chosen.

¹ George, Pamela. 1999. *Designing and Managing Competitive Research Grant Programs: Good Practice and Lessons Learned*. Prepared by AKIS Thematic Team. Draft, May, 1999.

Issue 3 The Secretariat

A full-time secretariat usually manages the day-to-day activities of the program. The secretariat is generally headed by an executive secretary who reports to the board and who might be an ex officio board member.

Issue 4 Merit Review Panels

Merit review panels assist the secretariat by peer reviewing project proposals. Panel members should offer a range of appropriate expertise from various disciplines, institutions, and backgrounds. Membership appointments should be staggered to ensure continuity in the program's scientific direction.

Typical terms of reference might include:

- Scientific quality of the proposed research
- Clarity and justification of research plan
- Likelihood of outcome within the proposed time frame
- Relevant experience of principal researcher
- Appropriateness of proposed budget
- Availability of institutional support.

Other assessment indicators might include:

- Arrangements made for co-financing
- Arrangements made for collaboration
- Links established with user groups
- Technology transfer method proposed.

Issue 5 Efficient Communication Systems

The importance of efficient program management systems cannot be overemphasized: efficient communication between all parties is crucial.

3 Use of the tool

This tool helps you reach an in-depth understanding of the issues relevant for the implementation of competitive grant programs in agricultural research. It provides a comprehensive guide for the establishment of CGP from start to finish. This tool is appropriate for agricultural research stakeholders like public decision-makers, service providers, the scientific community and technology users, from both the public and private sector.