



**INTERNATIONAL
FOUNDATION FOR
SCIENCE**

**IFS Five Year Programme Framework
2006 - 2010**

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1. Executive Summary

The International Foundation for Science (IFS) is launching a Five Year Programme for the period 2006 – 2010. It builds on the strengths of the current IFS grant scheme and on the recommendations of our various stakeholders (e.g. donors, scientific advisers, affiliated organizations, collaborating organisations and networks). This document presents a conceptual view of the IFS strategy and introduces new activities in support of IFS policy priorities.

The Five Year Programme has been developed in consultation with our stakeholders during 2005 and early 2006. These meetings made it clear that IFS enjoys a resounding endorsement for its professional and comprehensive work with young scientists in developing countries. However, an additional message also clearly emanated from these meetings: namely that, in addition to the grant, there is a need to strengthen the scientific skills of young scientists, especially in the more vulnerable environments, and IFS clearly has a role to play here. They recommended that IFS back up its current grant programme with additional activities that provide scientific counselling in order to increase research success.

IFS has taken these recommendations fully into account in this Five Year Programme. We will focus even more on young researchers in low income countries with vulnerable scientific research infrastructure. These are our priority countries and the major recipients of IFS grants. The enormous need for providing more than just the research grant is becoming increasingly apparent. Many young scientists are working under great difficulties and the new strategies outlined in this document will, we hope, address these challenges in an effective manner.

In these IFS priority countries, the most urgent challenges to be addressed by scientific research are related to central issues in the fight against poverty. These include weak farming systems which have low agricultural productivity and generate low income and high post harvest losses. Other central issues in the fight against poverty include poor nutrition and hunger, unsafe drinking water, poor sanitation, and environmental degradation. IFS supports young scientists who are interested in conducting research on these issues. The IFS programme is thus in line with the United Nations Millennium Goals and can make an important contribution to poverty alleviation.

IFS makes a difference! Not only for the individual scientists but also at the national and the international level. Experience shows that young scientists who receive IFS support at a critical stage in their research career help to generate a sustainable research community within their own countries. Rather than being lost to the brain drain they tend to remain, producing quality research results of high relevance for their own country. They also provide necessary perspectives in international research teams working with priority complex global issues (e.g. climate change, biodiversity, conservation, etc.).

For more than three decades IFS has provided competitive research grants to promising young scientists. The new feature of this Five Year Programme is provision of capacity enhancing activities offered as additional support to grantees working under difficult circumstances. These capacity enhancing activities include a variety of components which are often lacking for these young scientists: mentorship, thematic workshops, methodology courses, scientific paper writing workshops, help to access scientific literature, and support to attend scientific meetings. During the assessment of applications, IFS Advisers and Secretariat will identify grantees that would benefit from

specific support activities. The grantees will have the possibility to propose activities best suited for their own research career development. IFS advisers and former grantees will also function as resource persons in the capacity enhancing activities carried out.

Providing IFS grants to young researchers in low income countries with vulnerable scientific infrastructure together with additional support in the form of capacity enhancing activities will help them to become established scientists and to contribute to poverty reduction and sustainable development.

2. The IFS Experience: Three Decades of Supporting Scientific Research for Development

IFS to redress the brain drain

IFS was founded by scientists for scientists as one of the first organizations to explicitly address the needs of young scientists in developing countries. The IFS Programme was conceived in the 1970s as a response to the brain drain: unfavourable conditions in scientific institutions in these countries resulted in the migration of many of the most promising young researchers. IFS created an alternative by offering competitive research grants with some supporting services and occasional workshops.

A measurable impact

During the 33 years of the Programme to date, some 4,000 grantees (of which 30% are women) in 100 countries have received almost 6,000 research grants. The impact of this programme has been documented in detail in IFS publications, particularly the MESIA series (Monitoring and Evaluation System for Impact Assessment)¹. Here it will suffice to mention a few key issues relevant to the scientists and socio-economic development in their countries:

- *Establishing a science career*
IFS support is focused on young scientists and many receive continuous support over a period of several years (the grant is renewable twice). During this period they are able to establish their careers.
- *Key persons in national science institutions*
Many former IFS grantees have assumed leadership positions in universities, research institutions, government agencies and civil society where they have broad influence on national and regional science education and policy. The successful career development achieved by many IFS grantees contributes to national efforts to secure a sustainable base for research initiatives in these critical research areas.
- *Scientific productivity*
Bibliometric studies show that IFS grantees publish their research results both nationally and internationally. The studies also show that IFS support often coincides with an increasing level of scientific productivity by the grantee.
- *Increasing the stock of knowledge relevant to the sustainable management of biological and water resources*
Research undertaken by IFS grantees has resulted in a variety of outputs including reports, publications, new technologies, patents and commercial products. Importantly, projects have resulted in the transfer to society (policy and decision makers, NGOs, donor projects) of knowledge achieved through research allowing

¹ MESIA Report No. 1: *Conceptual Framework and Guidelines* Gaillard J. (Stockholm: IFS, 2000)
MESIA Report No. 2: *Questionnaire Survey of African Scientists* Gaillard J. and A. Furó Tullberg (Stockholm: IFS 2001)
MESIA Report No. 3: *IFS Impact in Mexico: 25 years of support to scientists* Gaillard J., J.M. Russell, A. Furó Tullberg, N. Narvaez-Berthelemot and E. Zink (Stockholm: IFS, 2001)
MESIA Report No. 4: *Strengthening Science Capacity in Tanzania: an Impact Analysis of IFS Support* Gaillard J, E. Zink and A. Furó Tullberg (Stockholm: IFS 2002)
MESIA Report No. 5: *Science Capacity in Cameroon: An Assessment of IFS Support* Gaillard J. and E. Zink (Stockholm: IFS, 2003)
MESIA Report No. 6: *Summary of IFS Impact Studies Nos. 1-5* Zink, E. (Stockholm: IFS 2006)

issues related to the sustainable management of natural resources to be dealt with in a more informed manner.

Looking forward: 2006 - 2010

A considerable part of IFS support over the years has been provided to talented young scientists in the Middle Income Countries. In the past decade, however, many of these countries have invested heavily in research infrastructure, national research funding mechanisms and development of national post-graduate research training programmes. For this reason the role of IFS in these countries is changing. Although IFS will continue to collaborate with these countries and support their young researchers, the provision of grants is no longer top priority.

The situation described above opens up opportunities for IFS to concentrate its support and focus more on young scientists in countries which have not made similar investments in their research infrastructure. These are mainly the Least Developed Countries and many Low Income Countries. Some Low Income Countries such as China, India and Brazil are giving high priority to the development of national scientific and higher education systems. For this reason they will not be a priority for IFS, even though young researchers in these countries will continue to remain eligible for IFS support. IFS will now give priority to young researchers in Least Developed and Low Income Countries with vulnerable scientific infrastructures. In this document, these countries are referred to as IFS Priority Countries (See section 4.2 'Eligibility and Priorities' for more information.).

An updated list of IFS priority countries and other eligible countries is available on the IFS website.

3. Justification and Goals for the Five Year Programme

3.1 The Context: Research for Development

The role of Science and Technology is of the utmost importance for meeting sustainable development goals. This has been stated in the UN Millennium Declaration (2000), the UN Summit on Sustainable Development (2002), and as a joint statement from international scientific organizations to the UN General Assembly in 2005. "Scientific skills" are necessary to "unlock the potential of innovation and technology to accelerate economic growth" and permit entry to the global economy, according to the UN Africa Commission.

The scientific capacity needed to achieve economic growth and sustainable development goals can only be marshalled by investing in, and strengthening, science capacity in the developing countries themselves. The first requisite is nationally-based, sustained and productive communities of scientific practitioners. Researchers from the North and from the Diaspora can help but are no substitute.

It is not possible in any country to achieve sustainable development without technologies, scientific applications, practices, and policies that are developed with local conditions in mind. To achieve sustainable development goals, science capacity must be capable of carrying out holistic approaches to finding solutions. These approaches require communities of scientific practitioners who can, through multidisciplinary and interdisciplinary projects, address issues that have complex ecological, socio-cultural, technological, political and economic dimensions.

However, achieving sustainable development is not only a question of addressing local and national issues appropriately. Indeed, in today's globalised world, there is a clear international context to many of the priority research areas relevant to poverty reduction and sustainable development – climate change and biodiversity are just two examples. Gaining a clear picture of the complex issues at stake and possible ways they can be addressed requires contributions from scientists around the world including the perspectives of those in low-income countries. This in turn requires competent researchers in these countries that have the capacity to interact with and contribute to international research initiatives.

3.2 Constraints to Scientific Research in Vulnerable Environments

Scientific capacity exists in developing countries, and local scientific communities are engaged in research that has meaningful development impact. Nevertheless, more investment is necessary if local capacities are to begin to overcome the substantial constraints that they face.

An IFS Impact Study² showed that the main perceived constraint to pursuing meaningful scientific research is the lack of funds and consequently the lack of adequate research equipment.

² MESIA Report No. 2, *op.cit.*

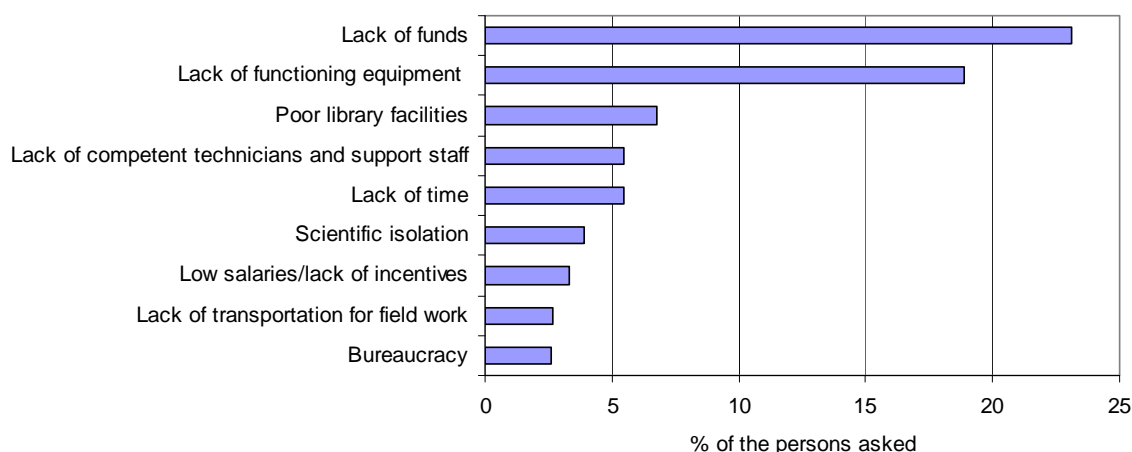


Figure 1. Surveys in Africa have identified lack of funds as the main constraint to scientific research. The limited access to scientific equipment is the second largest constraint, with poor library facilities the third largest constraint (Gaillard and Tullberg, 2001)

Underlying these constraints is the inadequate attention paid by many government agencies and donors to the role of scientific knowledge in the development process. Compounding the bleak outlook for research under such conditions is the fact that the age profile of researchers in such countries is heavily skewed to the upper age categories. Few young scientists were recruited in the 1990s due, in large part, to constraints resulting from the implementation of structural adjustment programmes. Consequently, valuable experience has already been, or is being, lost and will not be available for the supervision of new recruits. All these constraints constitute what we refer to as a 'vulnerable scientific research infrastructure'.

3.3 Challenges for Young Scientists

Young scientists in low income countries who wish to pursue scientific research as a profession face a wide variety of challenges. In the hierarchic world of scientific research, it is often difficult for young scientists to get established. Intense competition for the leading positions coupled with a lack of funds limits the possibilities of young researchers to stay in research, and to establish their own independent research teams. Often they are given unreasonably high teaching loads leaving them with little time for research. Salaries are often not financially attractive and there is very rarely satisfactory job security. This coupled with limited career possibilities has resulted in an internal brain-drain as talented young scientists are forced to turn to farming, consultancies and private business in order to secure a livelihood.

3.4 Goal Hierarchy for IFS

Overall Development Goal

A robust scientific research capacity is required in rich and poor countries alike to meet sustainable development goals. Local problems demand locally generated scientific solutions just as global problems require informed contributions across national and disciplinary borders. A strong scientific capacity, coupled with technological innovativeness and entrepreneurship are amongst the drivers of development. Further, if sustainability and equity aspects are to be dealt with successfully, it is a prerequisite that

low income countries are fully able to participate in global economic and science policy making (e.g. GMOs, food standards and import/export regulations, global warming). For this reason, science and scientists must be supported. A number of institutions – from the UN to national research institutes – are pursuing this overall objective. Within this context the overall goal for the IFS programme is

to contribute towards strengthening the capacity of developing countries to conduct relevant and high quality research on the sustainable management of biological and water resources

IFS Programme Objective

The IFS Programme objective is to support young scientists in order to:

- help achieve a critical mass of researchers capable of undertaking qualified research, pursuing a research career and emerging as science leaders within their own countries;
- increase the stock of scientific knowledge in low income countries relevant to the sustained management of biological and water resources.

Means to reach the Programme Objective

The IFS Programme provides two key means to reach the programme objective:

- a competitive grant scheme to identify and support promising young scientists to carry out research through their home-based institution.
- capacity enhancing support linked to the grant. As IFS is now focusing its programme primarily towards countries with vulnerable scientific environments, these support activities take on increased significance.

The grant scheme and the capacity enhancing support, as well as possible additional programme components, are presented in the following chapter.

4. The Five Year Programme Framework

4.1 Core Components

The core components of the IFS programme during 2006 – 2010 are:

- a competitive research grant scheme and
- capacity enhancing support adding value to the grant scheme

The grant scheme has been instrumental in transforming an academic degree holder into a scientist who can plan, conduct and report a research project independently. The capacity enhancing support (see below) represents a new initiative in response to changing needs and priorities. It will be systematically developed and introduced during the Five Year Programme period.

IFS support will continue to be provided to individuals. However, interdisciplinary and multidisciplinary research will be encouraged by facilitating the formation of research groups and operational networks. Grantees conduct their research in their own countries as employees or affiliates of national scientific institutions. These institutions benefit directly from IFS grants through access to equipment purchased by IFS, and through other young scientists being exposed to the quality research conducted by IFS grantees.

The Grant Scheme

IFS functions similarly to a research council for a specific target group. The established core component of the IFS programme will continue to be the competitive grant scheme that focuses on individuals - promising young scientists – who conduct research into the sustainable utilisation, management and/or conservation of biological and water resources.

The grant, a maximum of USD 12,000, can be used for the acquisition of equipment and other research tools as well as for fieldwork and experiments. Because it can be renewed twice the successful grantee can be supported with a maximum amount of USD 36,000.

From 2002 to 2005 IFS awarded on average 230 grants per annum. The target for this Five Year Programme period is an increase to between 250 and 300 grants annually.

An overview of the operation of the IFS grant scheme, including the selection procedures and the important roles played by our external Advisers and Scientific Advisory Committees, is given in the Appendix.

The Capacity Enhancing Support

In countries with vulnerable scientific infrastructure, promoting scientific research is not only a matter of providing research funds but also of further nurturing enabling environments characterised by high quality academic supervision, training opportunities and interaction with other scientists.

To further increase the impact of the IFS Grant Programme in such countries, IFS will systematically introduce capacity enhancing support for grantees. A selection of activities is being developed. It is based on IFS' accumulated experience in helping young scientists in IFS priority countries. These activities will add value to the grant scheme by providing the

missing critical elements of the academic environment needed by any researcher to carry out good quality research.

The support will be made available either as funding for a grantee to participate in a single Capacity Enhancing Activity (CEA) or as a package of activities for a grantee to take part in throughout the duration of his/her research project. As of 2006, IFS will offer individually designed Capacity Enhancing Packages (CEP) to an increasing number of grantees based in low income countries with vulnerable scientific infrastructure. The opportunity for grantees themselves to propose relevant activities for strengthening their own capacity is an important feature. The grantee will have primary responsibility for selecting relevant activities and IFS will advise and, in some cases, put requirements, on the inclusion of specific capacity enhancing activities in the package. The final decision will be made by IFS.

The capacity enhancing support (through CEA and CEP) will make it possible for grantees to participate in training workshops, attend thematic workshops, seminars, conferences and courses as well as receive mentorship support during their research period. In this way it will help them to establish themselves nationally and internationally.

Ideally all grantees will benefit from the capacity enhancing support. When funds are limited preference will be given to grantees in IFS priority countries.

Over time the range of capacity enhancing activities being offered to grantees is expected to grow and a 'course catalogue' of such activities will develop over the Five Year Programme period. IFS will not organise all these activities. On the contrary, IFS will take every opportunity to arrange workshops and courses jointly with other organisations. IFS will also offer grantees the opportunities to participate in workshops and courses organised by partner institutions. In addition, IFS will market components of the capacity enhancing support and conduct courses requested by donors and other organisations.

A brief overview of capacity enhancing activities is presented below. Some are not stand-alone components but are expected to be selected in combination with others. A catalogue of different types of capacity enhancing activities to be offered by IFS will be available at the IFS secretariat.

Mentorship

IFS will identify grantees whose research initiatives are likely to benefit significantly from contact with a mentor who can offer specialist advice at strategic stages during the research work. Mentorship will mainly be conducted by email. It can also include an occasional visit to the institution of the mentor.

Participation in scientific meetings and visits to well equipped laboratories

IFS can provide travel support to enable grantees to participate in scientific meetings, especially towards the end of the research period when they have produced research findings. Papers may be included in the conference proceedings. This will also provide grantees with opportunities to exchange views with scientists working on related issues and build up their national and international contacts and networks.

Travel support to visit a well equipped laboratory in the region can also be provided. Here grantees can receive training and utilise advanced instruments which are not available in their home laboratories.

Training Workshops

Training workshops consist of different modules. These modules can be combined to form a workshop appropriate for the specific problems facing grantees.

Scientific Methodologies

Training workshops in research methods will be arranged to present and discuss how to develop and execute scientific research. The training contains lectures on the fundamentals of empirical scientific inquiry including hypothesis, objectives, research plan and statistical methods.

Conceptualizing and Preparing Research Proposals

IFS has developed a course module in research project conceptualisation and proposal preparation. It is aimed at selected IFS applicants whose proposals were promising, but, in the competitive context, were not successful. Participating applicants will, through interaction with resource persons and their peers, be given an opportunity to improve their research project proposals.

Access to Scientific Literature

IFS will, together with partners, arrange training workshops on how to access electronic library resources including the acquisition of full text online journals, databases and document delivery.

Statistical Methods and Experimental Design

This course will cover descriptive and inferential statistics as well as experimental design as a planned interference in the natural order of events. Through lectures and discussions it will strengthen grantees statistical reasoning and increase their understanding and interpretation of statistical results. It will also help them choose an appropriate experimental design as an essential part of their research strategy.

Good Laboratory Practice

This workshop will present and discuss the main components of Good Laboratory Practice (GLP) as described in internationally agreed documents. GLP is a quality control system concerned with the organizational process and the conditions under which non-clinical health and environmental safety studies are planned, performed, monitored, recorded, archived and reported.

Preparing Scientific Presentations

This workshop aims to improve the skills needed to develop and deliver a good oral presentation and to create a poster. These skills are of value when preparing a seminar in graduate school or organising a dissertation defence.

Writing and Publishing Scientific Papers

IFS will arrange workshops on writing and publishing scientific papers. These will cover the reasons for publishing, the principles and practice of scientific editing and publishing, the content of scientific papers and preparation techniques. One immediate output of the workshops will be a usable manuscript generated by each participant for submission to a reputable journal.

Development of Equipment Policy

In past years several workshops have been arranged by IFS addressing hands-on service and repair of equipment. IFS will strengthen its collaboration with networks dealing with equipment policy issues. It will, for example, in collaboration with partners, develop training courses that focus on how to develop/improve and agree on policies and guidelines for "purchasing, service and maintenance of scientific equipment" at the university level.

Thematic workshops

Workshops will be arranged to provide training in specific scientific fields. These workshops can include issues such as the following: the scientific state of the art and new scientific findings; research planning and strengthening of scientific capacity; how to operationalise development needs in terms of research questions etc.

Mobilizing Networks and Groups

Alumni Groups

At the request of current and former grantees IFS will help start up alumni groups at the country level and connect these to IFS Affiliated organizations. Alumni groups will, *inter alia*, help their younger colleagues to conceptualise research projects.

Interdisciplinary Research Groups

Meetings will be arranged targeted at IFS-supported researchers who have formed or intend to form a research group. At these the Research Group Coordinator will have an opportunity to present the holistic outline of the group project and the research group participants can then present their individual projects. These presentations will be followed by discussions on how the individual projects complement each other and contribute to the common goal. Such discussions will allow participants to improve their project design. IFS will also make resources available to facilitate communication among research group members during the research period.

Thematic Networks

IFS will assist thematic operational networks to facilitate communication among researchers

Networks concerned with Scientific Equipment

IFS will continue to support and facilitate the development of scientific equipment networks with the aim of increasing the availability of well functioning equipment.

Awards

An award scheme has proven to be an important incentive to young researchers. For this reason, IFS will continue to give awards to outstanding grantees and former grantees each year.

4.2 Eligibility and Priorities

IFS is open to applications for support from researchers based at institutions in defined categories of countries³. Since the early 1990s, a number of the eligible countries (including some Low Income Countries) have made substantial investments in scientific research institutions, national post-graduate training programmes and research funding mechanisms. However most of these countries are still characterised by serious under-investment in national scientific infrastructure.

In 2002 the IFS Board of Trustees took a policy decision to give priority to these countries with a poorly developed scientific infrastructure. The consequence of this decision is that IFS today concentrates on the researchers who are most in need of support as they are based in low income countries with vulnerable scientific research infrastructure and lacking national funding mechanisms for young scientists. These include most of the countries in the Sub-Saharan African region as well as many countries in Central America and Andean South America, as well as scattered countries in Asia. These are the priority countries for IFS support.

Funding priority during the Five Year Programme will go to researchers based in these IFS priority countries. No less than 70% of new grants will be annually allocated, on an individual competitive basis, to applicants based in these countries.

³ They include the Least Developed Countries, the Low Income Countries, the Lower Middle Income Countries as well as the countries with a GNI/capita that is below the average of the Upper Middle Income Countries, except countries in Eastern Europe. Classification is based on the definitions of categories and the latest available figures from the World Bank (Reports on the previous year are published in July each year). Countries eligible for IFS support are listed on the IFS website: www.ifs.se.

Up to 30% of grants will be allocated to researchers based in other eligible countries (See footnote 3). The reason for a continued IFS presence here is not only that an IFS grant can make a difference for an aspiring bright individual, but also that IFS has a large alumni constituency in these countries, often strategically placed in scientific and policy positions. A continuing IFS presence will help to guarantee goodwill and a positive attitude among the scientific communities in these countries to function as mentors who can invite IFS grantees (from neighbouring priority countries) to study visits at their institutions.

IFS will explore new ways to work together with scientists in countries that have recently reached a threshold in national development. Experience has shown they can play an important role in helping IFS reach their goals. They have both an understanding of and relevant research experience with the research priorities of young scientists in neighbouring low-income countries and can be key players in implementing the expanded program of capacity enhancing activities that are envisioned.

4.3 Additional Programme Components

In addition IFS will continue to conduct the following non-core activities on demand and when special funding is secured:

- Organise thematic workshops bringing together IFS grantees and alumni with research networks in Europe and North America;
- Provide advice to national authorities who are planning to set up their own competitive research grant schemes;
- Develop a project to actively support young women scientists.

Bringing together IFS grantees with networks in Europe and North America

IFS has a role as a link between its present and former grantees, and the Northern based research networks. There is an increasing demand for linking activities since both groups benefit from more contacts and interactions. Many research questions are global in scope and address problems which require informed contributions across national and disciplinary borders. The IFS programme covers a wide range of research topics and can, through their extensive global networks of affiliated and partner organizations, meet the demand to organise thematic workshops.

Workshops with participants from the North and the South have been successfully arranged by IFS on request when funding has been available. The experience is generally positive and long-term collaboration has been forged between IFS present and former grantees and Northern based scientists.

National research grants schemes

This activity emanates from invitations IFS has received from scientific research organizations in Africa to help facilitate the design of national research grant schemes on competitive terms.

Assisting governmental science authorities in IFS priority countries to set up their own grant schemes would benefit both IFS and the country in question. IFS wants to see more funding opportunities for young scientists and can share experience with emerging national grant funding schemes. IFS will engage in these activities on specific demand and when special funding is secured.

A project to actively support young women scientists

The proportion of women grantees has increased over the years and reached 34% in 2005. Moreover, women grantees have a significantly higher reporting rate than male grantees, although the total reporting rate for all IFS grantees is high (85%).

IFS is observant of trends in the situation of young women scientists and encourages women graduates to choose a scientific career. For example, when reviewing applications, IFS makes special allowances for age when applicants have interrupted their academic career in order to raise a family. Although the proportion of women is increasing in the university student population, only a few proceed to a research career. This is a challenge for both the North and the South and hence, though a potentially great scientific asset is being wasted and there is a clear rationale for investment in research opportunities for women, the best way to approach this challenge is unclear.

Research often has hidden gender biases. It is repeatedly stressed by women scientists in low income and industrialised countries alike that they face barriers to entry and achievement at all levels of the scientific career ladder. They tend to leave academia after their first degree since there are strong social pressures to get married, have children and take responsibility for domestic chores. Women who do pursue post-graduate degrees, face an uphill struggle. Working conditions are structured to suit men's life career. Women remain outside the "old boys" network, they encounter negative attitudes, they are made invisible during scientific presentations, they have less access to funds etc.

Pending specific funding, IFS will together with partners launch a pilot project to actively support young women scientists. The project will involve a limited number of universities in Africa, Latin America and Asia. It will entail (i) identifying role models for young women scientists from among former IFS women grantees; (ii) advocacy in universities and research institutes; (iii) networking to build confidence among young women researchers; (iv) capacity enhancing workshops. Experience from these efforts will be of value to Northern based research institutes committed to making similar changes.

5. Implementation of the Five Year Programme

The main issues related to the implementation of this programme are summarised below. They are further detailed in IFS annual Work Plans.

5.1 The Board of Trustees

The Board of Trustees is the governing body of IFS. It includes members from Africa, Asia and the Pacific, Latin America and the Caribbean, North America and Europe. It has taken a proactive role in the design of the Five Year Programme 2006-2010. The Board will follow the implementation of the programme, assess its evolution and take decisions at policy level.

5.2 The Secretariat

The grant programme is administered from the IFS Secretariat in Stockholm. The process of streamlining routines and rationalizing processes is a continuous practice at IFS with the aim of making the best possible use of resources. During the Five Year Programme period the operational capabilities of IFS will be further strengthened (through web based application and assessment system as well as streamlining of routines) for high quality delivery of the programme services.

5.3 IFS Scientific Advisers Based World-Wide

IFS has access to a unique scientific human resource i.e. more than 1000 Scientific Advisers based around the world. Many of these are former grantees and have become prominent scientists in their own countries. They are an invaluable resource for IFS. Not only do they work on a voluntary basis to help IFS assess applications and support young scientists in vulnerable environments to achieve research success, they also function as resource persons in the various capacity enhancing activities carried out in collaboration with IFS.

5.4 IFS Presence in Priority Countries

IFS also has a large number of Affiliated Organisations and Partner Organisations both in low-income and industrial countries. IFS will continue to collaborate with them in order to optimise the support to grantees.

In order to be able to cope with the Secretariat's increasing workload in a cost-efficient way, to work more closely with grantees and to enhance its profile internationally, IFS is exploring the possibility of strengthening its presence in key regions. A regional presence would bring IFS closer to other organizations and agencies with which IFS can interact in order to support scientific research in the region.

One option being explored is the creation of IFS hubs and focal points located within affiliated or other partner organizations. Efforts to strengthen the regional presence will be made gradually, initially on a trial basis, and monitored carefully.

5.5 Scope of Activities

In 2002 -2005 IFS awarded on average 230 grants per annum. The target is that the number of grants will increase to between 250 and 300 annually during the Five Year Programme period.

Over two thirds of the grantees will be based in IFS priority countries, i.e. low income countries with vulnerable scientific research infrastructure. This will necessitate substantial capacity enhancing support in order to develop a sustainable community of young researchers in these priority countries. The individual needs of each grantee will direct which of the capacity enhancing activities will be made available during their research period.

5.6 Funding the Five Year Programme

Sustainable funding is a prerequisite for the implementation of the Five Year Programme. A stable, and expanding, financial position is necessary to carry out programme according to the principles proposed in this document.

Mobilization of resources for the IFS programme includes fundraising for financial assets and assets in kind. The financial assets emanate from annual financial contributions regulated by agreements as well as from one-shot contributions earmarked for a certain activity to be undertaken for a number of years. In kind contributions refer to staff seconded to IFS from another organization, provisioning of services during workshops etc.

The donor community to IFS includes 15 – 20 agencies. They comprise scientific organizations, governmental development cooperation agencies, research councils, UN and other international organizations, as well as networks. Some of them are mandated to support scientific projects while the majority are mandated to allocate funds for 'development'. Some of the IFS donors provide funding for scientific excellence, others for capacity building and still others for concrete research findings.

Donor organizations vest some of their resources in IFS under the assumption that we utilise them in a cost-efficient way in line with the purpose of the funding agency in question. Consequently, IFS must convincingly demonstrate that its programme is set towards commendable goals, that the goals are achievable and that IFS has the capability to implement the programme in a cost-efficient way.

Communication with donors and fundraising are crucial issues. Concerted efforts are required to maintain and to expand the funding base and the level of funding. IFS will keep its donors informed about achievements and invite them to discuss important issues in the development of the programme. The IFS Donors Group (DG) meeting is an important vehicle for this purpose. It is held in conjunction with the annual meeting of the Board of Trustees. IFS strives to develop this meeting into a well structured forum for dialogue between IFS and the donor community.

While it is essential to carefully maintain the continued support of present donors, IFS endeavours to attract new donors to support the programme. Core support is the preferred mode of funding. However, IFS can also entertain support which is restricted to certain research areas or geographical regions.

6. Reporting, Monitoring and Impact Assessment

The IFS Monitoring and Evaluation System for Impact Assessment (MESIA) will be used to determine the impact of the IFS Programme. To this end, the IFS database is continuously updated to provide information for MESIA studies. It maintains data related to IFS grantees, questionnaire surveys, interview studies, and bibliometric research.

During the Five Year Programme period, special emphasis will be given to measuring the degree to which the IFS programme is achieving its objectives. Impact assessments will be carried out to measure:

- the scientific productivity of IFS grantees (e.g. international and local publications)
- advancement of grantee research careers (e.g. degrees, professional positions, awards, honorary positions)
- IFS grantee contributions to science capacity building (e.g. supervision of M.Sc. and Ph.D. students, participation in and establishment of new networks, holders of national and international science policy positions)
- The impact of the capacity enhancing support on research quality and career success
- the development outcomes of IFS grantees' scientific work (e.g., products, patents, contributions to policy making)

Comparisons will be made between IFS grantees and control groups (e.g. researchers receiving grants from other organizations in developing and developed countries).

IFS intends to further develop and systematise the information collected in order to also follow the impact of the capacity enhancing support. This data will be compiled and assessed as a basis for further developing the activities forming part of the support.

The main findings from IFS monitoring and impact assessment studies will be published.

Appendix

Managing the grant scheme is the major task of the IFS Secretariat. It operates as follows:

There are two granting cycles per year. Calls for applications are communicated through different channels including the IFS website, newsletter, information brochures, targeted mass e-mails, as well as promotion activities by IFS staff and advisers.

Scientists from eligible countries send their applications to the IFS Secretariat where they are subjected to a three-level evaluation. The first is an 'in-house' pre-screening at the Secretariat. Scientific Programme Coordinators responsible for different research areas ensure that basic eligibility conditions are met and that the scientific standard is acceptable.

The next stage of evaluation consists of a detailed scientific assessment made by outside (volunteer) Advisers who are senior international experts in their respective research fields. These Advisers provide comments, useful for both successful and failed applicants alike.

Finally, the comments of the external Advisers are compiled by IFS Scientific Advisory Committees. These committees make the final recommendations, as well as contribute their own helpful comments destined for the applicant. At this level of evaluation, the success rate is 25 - 30%.

IFS Director then takes a formal decision on approval of grants based on the recommendations as well as on policy priorities and considering the funds available for new grants.

The advisers' constructive comments are forwarded to all applicants. Unsuccessful applicants can use these comments to improve their application and reapply to IFS or any other granting agency.

Successful applicants are obligated to submit scientific reports to IFS outlining the progress they have made. The reporting record to date is 85% of all grants.



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