



INTERNATIONAL
FOUNDATION FOR
SCIENCE

IFS Capacity Enhancing Support



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INTRODUCTION

The International Foundation for Science (IFS) supports excellent individual and collaborative research and builds the capacity of early-career scientists in the in Low and Lower Middle Income countries (LLMICs) to contribute innovation to the sustainable management of biological and water resources. The objective is to enable early-career scientists to contribute to a global research community that is reducing poverty and supporting sustainable development. The primary focus is the promotion of excellent science



through a combination of early-career research grants and capability enhancing support to researchers in LLMICs. However, the interlinked development challenges that face humanity increasingly require scientists to work with each other, as well as with other professions and specialists. Therefore, the 2021-2030 IFS Strategy, entitled Investing in Future Scientists, also has a component on the provision of capacity enhancing support for collaborative research teams, some of which are interdisciplinary, combining researchers' strengths, expertise, and experience, to address a larger topic or a research issue where more than one discipline is required. The International Foundation for Science not only aspires to strengthen the capacity of those embarking on a research career in the LLMICs, but also to link early-career scientists to those who can support their actions to bring about change, in terms of their values and objectives within the scope described for IFS research to put their science into use.

IFS CAPACITY ENHANCING SUPPORT

IFS recognises that the sustainable and equitable stewardship of global resources and the provision of services from them will draw on many technical and social fields of research, relating to: agriculture, energy, fisheries, food security, forestry, health and nutrition, natural products, water and sanitation. Early-career scientists applying to IFS have a background in one or more of these areas. However, the capacity of people early in their career to write winning research proposals is often quite limiting. IFS believes it is vital that early-career researchers have the opportunity to propose research, which they identify can address problems in their country of origin, relevant to the needs of the country, supported through a demand-led, long-term, predictable research granting programme across a broad spectrum of biological and water resources and capacity enhancing support to empower them to succeed.

Therefore, IFS periodically offers training workshops and other supporting services to applicants and to grantees, which are collectively referred to as Capacity Enhancing Support (CES). This support can include travel and publication grants, a purchasing service for scientific equipment and a range of different types of CES training workshops.

IFS Capacity Enhancing Support draws on our own large network of trainers and scientific experts and we also work with national, regional and international organizations and

institutions to deliver the very best support. The large alumni of IFS grantees, many of whom are now in senior positions themselves, such as Vice Chancellors, Ministers of Science, and Heads of Research Institutes are also a valuable resource in the organisation, hosting and delivery of IFS capacity enhancing support.

IFS Facts and Figures

IFS has empowered over 8,000 early-career scientists in Africa, Asia Pacific and Latin America, with research grants and capability enhancing support.

From almost 30,000 applicants, over 7,600 carefully selected scientists in 105 countries have had research grants approved.

More than 80,000 scientists have benefited from using IFS equipment.

IFS has organized almost 400 thematic and research skills CES events in collaboration with partner organizations, with 11,910 participants in over 73 countries.

TRAIN THE TRAINER

Cutting across all the capacity enhancing support events of IFS, is a development approach, which includes mentoring and where possible supporting skills development of local trainers in conjunction with a CES event in order to contribute to institutional development.

Capacity enhancing support undertaken by IFS, aims to include a national institution and to involve a number of colleagues working with a skilled international trainer selected from the IFS network. The aim is for trainees to further improve proficiency in:

1. methodologies, concepts and tools of self-directed instruction and learning,
2. the scheduling, design and logistics of an activity, including the assessment of needs,
3. testing procedures, the distribution of invitations, and certification procedures,
4. facilitation skills and methodologies,
5. planning and preparing future activities,
6. monitoring and evaluation and
7. producing model approaches that can be adapted to specific needs in local contexts.

A GENDER PERSPECTIVE

The capacity enhancing support of IFS places an important emphasis on gender sensitivity. It aims to incorporate a gender perspective into the objectives, the methodology, the research results, as well as implementation and the consideration of the gender implications of the research.

EXAMPLES OF IFS CAPACITY ENHANCING SUPPORT

1. CONCEPTUALIZATION AND PREPARATION OF RESEARCH PROPOSALS

Often delivered as a workshop, this aims to help applicants to conceptualize and prepare new research proposals that have the best chance to be approved for funding by research funding councils using a peer review approach. The focus is on how to: conceptualize scientific research, formulate hypotheses to address specific scientific questions, utilize relevant, appropriate scientific methodology and how to design experimental /survey formats for a wide range of research situations found in the natural resource management and the humanities fields. The IFS application form and the IFS assessment procedure are used as models in the drafting, writing and evaluation of research proposals. Proposal writing situations are simulated by the facilitators, resource persons and the participants themselves (in the form of their own draft IFS applications prepared in advance of the workshop).



2. SCIENCE WRITING

Science writing support aims to provide participants with the skills and tools for writing and editing scientific papers intended for peer review, as well as those for presenting and communicating research evidence to inform policy and the public through a variety of media.

3. RESEARCH DESIGN AND DATA ANALYSIS

The aim of this support is to provide participants with skills to design, collect, manage, analyse and present their results. It equips participants to design data collection tools, record, capture and undertake preliminary data collection, survey and experimental designs, and to analyze data.

Specifically, the support aims at fostering an understanding and awareness of statistical methods at all stages of the research cycle.

4. WORKING WITH VALUE CHAINS

Support is provided to early-career scientists to improve the quality and effectiveness of applied research on value chains of identified crops. Specifically, to increase their understanding and awareness of methods for conducting research on the value chain on crops from seeds and genetic resources to the consumer, “farm-to-fork”. The emphasis is on multi-disciplinary and multi-stakeholder approaches to value chain analysis and improvement, problem-based learning (PBL) that highlights the participants' own research experiences, lessons learned from field visits including local markets, processing plants, etc., and lectures on key topics.

Participants prepare case studies of their own value chain work prior to the training course. A ‘Research Note’ is a part of the application procedure and a key criterion for selection. Selected participants will then be requested to document their case studies in greater detail prior to the training course.

5. ADVANCED CAPACITY BUILDING IN THE OPERATION OF SPECIFIC SCIENTIFIC EQUIPMENT

This support is centered on working with technicians and researchers on the management of research laboratories and the management and operation of specific scientific equipment sets. As well as, equipment acquisition, use, maintenance, repair and disposal, and the principles, instrumentation and application of advanced analytical techniques for research.

6. SUPPORT TO COLLABORATIVE RESEARCH



Support is provided on how to overcome barriers to collaboration through the promotion of selected platforms, opportunities and skills. Participants develop an understanding of what makes collaboration successful when working across different disciplines and areas of expertise. Training is given on how to expand networks, share data and increase collaboration between scientists in different geographical locations through online tools and workspaces.

SUPPORT TO CONTRIBUTING INNOVATION

Contributing Innovation is about the ways and domains in which research is put into use and involves familiarising early-career scientists on the context in which research is shared and used. This is done through working with experienced partners in building capacity and encouraging communication, networking and advocacy. Through this approach IFS promotes knowledge translation, involving more than the distribution of practical scientific information and over reliance on academic publication for disseminating results. An interactive and engaged process facilitates links amongst researchers/teams, stakeholders, policymakers, consumers and end-users. Through this approach we link researchers to networks that innovate and put research into use, promote knowledge to improve applicability, user relevance and policy relevance of research, thereby translating knowledge to action.



SPECIFIC SUPPORT TO IFS GRANTEES

For recipients of an IFS Research Grant, IFS offers a number of supporting services.

1. TRAVEL/PUBLICATION GRANTS

IFS Grantees may apply for a travel or publication 'grant' at the end of their research project, in order either to travel to a conference at which they will present the results of their IFS-supported research or to publish the results in an international journal. A final report must have been submitted to IFS before applying for such a grant.

2. PURCHASING SERVICES

IFS offers help with purchasing to those grantees that live in countries where international purchasing of equipment and supplies is difficult. Grantees then benefit right at the beginning of the grant period when the contract is drafted. The grantee can either have the grant money transferred to his/her institution where the grantee will then do the purchasing or leave the grant money at IFS and use the purchasing services offered.