Building Scientific Capacity in Developing Countries

Over 30 years’ experience

Nighisty Ghezae

Regional Initiative in Science and Education (Rise)

Inaugural Meeting

Hilton Hotel

Nairobi, Kenya

October 6th-7th, 2008
IFS exists.....

..... to support young researchers in developing countries
International Foundation for Science

- Founded 1972
- International Research Council
- Non-Governmental Organisation
- International Board of Trustees
- Secretariat in Stockholm
- 1,000 Scientific Advisers
The IFS Mandate is to contribute to the strengthening of capacity in developing countries to conduct relevant and high quality research on the management, use, and conservation of biological and water resources.
IFS Research Areas

- Crop Science
- Aquatic Resources
- Animal Production
- Food science
- Forestry, Biodiversity and Conservation, environmental ecology
- Natural Products
- Water Resources
- Social Sciences
Identify, through competitive grants and careful screening, young promising scientists;

Support them in their early careers to enable them to get established and recognised as scientists;

Not just a research grant: support is given throughout the granting period.
Focus is mainly on the individual (though some teams are also supported)
Research Grant

- Maximum amount USD 12,000
- Research project 1-3 years
- Two renewals
- Equipment, supplies, literature, local travel, extra manpower
Granting Process

- Simple
- Rapid
Granting Process

◆ Two granting sessions per annum
  ◆ June and December

◆ 1500 applications
The Granting Process

- Each application is evaluated on a competitive basis
Granting Process

- Pre-screening
Granting Process

- Pre-screening
  - Eligibility criteria
Criteria for Eligibility

- Citizen of a developing country
- Younger than 40
- Beginning of research career
- Usually MSc or equivalent degree
- Working at a university or research institution in a developing country
- Carrying out research project in a developing country
Granting Process

- Pre-screening
  - Eligibility criteria
  - "light" scientific screening
Granting Process .... Next stage of evaluation process

- Pre-screening
- Expert Advisors – in depth evaluation of proposal
Granting Process .... Advisors

- Expert Advisors (>1,000) provide in-depth evaluation of proposal
- Provide comments which are sent to all applicants
Granting Process

- Pre-screening
- Expert Advisors
- Scientific Advisory Committee
Granting Process

- Pre-screening
- Expert Advisors
- Scientific Advisory Committee
- Recommendation of grants (300 in 2007)
Evaluation Criteria

Applicant and feasibility of project
- Applicant's training and experience
- Available and requested resources
- Realistic goals and time plan

Scientific quality
- Well-formulated hypothesis/up-to-date knowledge
- Sound experimental design
- Relevant methods
- Developmental applicability
- Generation of Scientific knowledge
- National priorities
Number of IFS Grants given by Country in Africa
Grants to Women

Year:
- 1974
- 1976
- 1978
- 1980
- 1982
- 1984
- 1986
- 1988
- 1990
- 1992
- 1994
- 1996
- 1998

Percentage:
- 0%
- 5%
- 10%
- 15%
- 20%
- 25%
- 30%
- 35%

The graph shows the trend in grants to women from 1974 to 1998.
Adding Value to the Grant

Scientific Capacity Enhancing Support
Capacity Enhancing Package for grantee

- Mentorship
- Travel for capacity activities
- Scientific paper writing courses
- Thematic workshops
Capacity enhancement for non-grantees

- Project proposal writing courses
- Pre-grant to identify research questions
  - survey work or
  - provide a firmer foundation for asking a research question
Scientific Capacity Enhancing Support in detail

Conceptualizing research

- identifying research needs;
- stating the nature of a problem and why it requires new scientific knowledge;
Scientific Capacity Enhancing Support cont.

**Stakeholder Analysis**

- who will be the potential beneficiaries of the research proposed?
- principles of stakeholder analysis;
- how will proposed research integrate into institutional resources
Scientific Capacity Enhancing Support cont.

**Literature Survey**

- Sourcing the literature to adequately assess the extent of current information on a chosen topic of research
Scientific Capacity Enhancing Support cont.

- Appropriateness of experimental designs and structured surveys
- Overview of statistical methods used in field and laboratory experimentation and the use of statistical software packages: main pitfalls and limitations
- Overview of requirements and main considerations when designing and carrying out rural survey work (exercises from sample of proposals)
Scientific Capacity Enhancing Support

*Log frame approach* to formulating goals, aims, objectives and activities

- Basics of problem trees and log frames:
- how these are structured and why they can be useful in
  - clarifying research ideas, formulating scientific hypotheses and objectives and
  - determining the main research activities required to meet objectives set
Results of IFS Support

IFS grantees remain active researchers in their own country
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- Internationalisation of many grantees’ careers
- Increased collaboration with other scientists
- More success accessing further funding
Thank you.
IFS Look forward to partner with all of you

www.ifs.se