

Research opportunities to young Indian scientists through grants from International Foundation for Science

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The International Foundation for Science offers research grants to young scientists in developing countries. These grants are very prestigious and are considered as an international recognition of young scientists in developing countries for their exceptional merit. A much larger number of young Indian scientists can win these grants and they can also be strong contenders for IFS Sven Brouhult Award.

THE International Foundation for Science (IFS), established in 1972, has its Headquarters in Stockholm and currently has 96 members in 78 countries. The Indian National Science Academy (INSA) is one of the seven Founder Members of IFS. The mandate of the Foundation is to strengthen the capacity in developing countries to conduct relevant and high quality research on the understanding, use, management and conservation of biological resources and the environment in which these resources occur and on which they depend. This is done by IFS by:

- (i) Identifying, through competitive grants and careful screening, promising young scientists with the potential to become future lead scientists and science leaders.
- (ii) Supporting these scientists in their earlier careers to enable them to get established and recognized nationally and internationally.
- (iii) Continuing and expanding, where feasible and relevant, the support of these scientists to improve their immediate research environment.

IFS provides research grants to young meritorious scientists (below 40 years) in developing countries. IFS support is given in six areas: aquatic resources, animal production, crop science, forestry/agroforestry, food science and natural products. The applicant must be a developing country citizen employed in a developing country institute.

IFS grants

The IFS support enables the grantees to purchase equipment, consumables, scientific literature, etc. The grant is up to a maximum of US\$ 12,000 and is renewable up to two times with the same maximum limitation.

The duration of each grant can be up to 3 years. Supplementary travel grants are also awarded so that grantees may attend scientific meetings. The IFS Purchasing Department can arrange purchasing and delivery of equipment on behalf of grantees. IFS organizes regional workshops and training courses for its grantees which are also attended by senior scientists. IFS grants may be small, but the IFS programmes are not, considering the involvement of IFS in its grantees. Besides the programmes in the above six areas, the Small Grants Programmes in Environmental Science was initiated on a trial basis in 1994 with restricted core funding and is continuing.

IFS General Assembly

The Eighth General Assembly during the Silver Jubilee Year of IFS was organized at Rio de Janeiro in September 1997 in collaboration with the Third World Academy of Sciences (TWAS) and the Third World Network of Scientific Organizations (TWNSO). TWAS and TWNSO also simultaneously organized their eighth and fifth Assemblies respectively. These assemblies were hosted by the Brazilian Academy of Sciences (Academia Brasileira de Ciencias, ABC). In the IFS General Assembly, the Director, IFS presented a comprehensive report on IFS activities and IFS future vision. The Scientific Secretaries and a few invited Scientific Advisers of IFS made presentations on the scientific activities through IFS grants in the six IFS disciplines and described by representative examples, the impact of research supported by the Foundation. A brief presentation titled 'IFS in India' was also made in the General Assembly.

IFS in India

The IFS-supported projects in India are too few in comparison to those in many other countries. The IFS Sci-

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Table 1. IFS grants to top 20 recipient countries

	No. of grantees	SEK (millions)	% of total
China	181	21.8	5.7
Nigeria	146	20.6	5.4
Morocco	132	19.7	5.2
Philippines	119	19.2	5.0
Argentina	135	18.1	4.7
Mexico	120	15.7	4.1
Thailand	84	15.1	4.0
Chile	82	13.6	3.6
Brazil	106	12.3	3.2
Sri Lanka	72	11.5	3.0
India	81	11.3	3.0
Indonesia	71	11.3	3.0
Malaysia	65	10.7	2.8
Cameroon	61	10.5	2.8
Peru	57	9.4	2.5
Vietnam	68	8.1	2.1
Bangladesh	43	7.8	2.0
Uruguay	45	7.8	2.0
Kenya	57	7.5	2.0
Senegal	37	6.6	1.7

entific Advisers in India have in their communication to INSA, which provided substantive information for Rio presentation, expressed their concern on this matter. Their concern arises from the fact that India does have a large number of scientists in the six IFS disciplines and yet IFS grantees in India are so few. Many of the young Indian scientists not only need, but amply deserve research support which, if available during their formative career, can lead to bigger science. Although IFS grant is small, it is significant in other ways. IFS facilitates several possibilities through its emphasis on providing help during and continued support even after the research project is concluded. Since the IFS grants are awarded after a very high level scientific scrutiny at the global level, these grants are recognitions of the high merit of scientists more than just the awards.

Some of the IFS advisers in India have described the possible reasons why IFS grants given to young Indian scientists are so few. One of the main reasons is that IFS is not well-known in India and a very few scientists, young or old, know or know enough about IFS. Therefore, very few applications are submitted to IFS by Indian scientists. Another reason is that there are hesitations on the part of the scientists to prepare an application addressed to a Foundation located abroad and on the part of the concerned authorities to forward an application to Sweden. The Indian National Science Academy is a founder and a live member of IFS and therefore, IFS is not just another NGO abroad. The applications can be forwarded by Universities, Research Laboratories, etc. to IFS, Grev Turegatan, 19, SE-11438, Stockholm, Sweden (Fax: 468 54581801, email: <info@ifs.se> or through the Indian National Science Academy, Bahadur Shah Zafar Marg, New Delhi 110 002.

Research proposals to IFS

In order that the applications for IFS grants become successful, they must be prepared with great finesse and should be in an important area of the six IFS disciplines. Several IFS Scientific Advisers in India have offered to provide guidance in preparation of application. Their addresses are available from the Indian National Science Academy. IFS applies three criteria for evaluating the applications for the research grant: (i) The credentials of the applicant and feasibility of the project; (ii) The scientific quality of the project and (iii) The relevance of the expected results to scientific knowledge and national priorities. The applications are prescreened, peer-reviewed by the Scientific Advisers, examined and discussed in the Scientific Advisory Committee Meetings and then finally considered by the Scientific Grants Committee. Usually one out of four applications is selected for grants.

IFS support statistics

During the time span of twenty five years (1972–1997) IFS has supported 2612 scientists in the developing countries. The number of Indian scientists having received IFS grants is a miniscule 81 (3.1%) whereas the number of grantees in Asia and Pacific is 900 (34.5%). Table 1 gives the statistics of grantees in various countries and the total grants received by them. The sum total of the grants given by IFS in twenty five years is SEK 381 million. The number of female IFS grantees in India is 25% less than the world average.

Scientific advisers in India

Presently there are worldwide 1021 Scientific Advisers of IFS, of which only 313 (30.7%) are from developing countries comprising 136 ex-grantees. India presently has only 24 Advisers on the IFS list. IFS visibility in India is poor, which is one of the main reasons why very few young Indian scientists are able to apply for IFS research grants and consequently why such few grants are awarded to them.

Impact of IFS-supported research

Many of IFS grantees have greatly benefited from the IFS awards and the various IFS programmes. There is no reason why IFS on the Indian canvas cannot have a wider sweep and why the young Indian scientists cannot be strong contenders for the prestigious IFS Sven Brouhult award and in fact be future winners.

Received 20 November 1997; accepted 11 February 1998