ECO Science Foundation

A Catalyst for Promotion of STI and IBSE in ECO Region

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President

ECO Science Foundation (ECOSF)

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www.eco4science.org

19th COMSAT Coordinating Council Meeting, Islamabad-Pakistan, 17-18 May 2016

ECO Science Foundation (ECOSF) and the ECO Region

IGO of 10 Member States with Natural Resources



Objectives of ECOSF

- Function as a reservoir of highly skilled scientific and technical manpower in ECO
- Facilitate promotion of scientific research & collaboration leading to Economic Development among the member states
- Promote and Popularize Science at grass root level (IBSE, Science Expos etc.)
- ➤ Harmonize ST&I policies of ECO countries

Activities of ECOSF

- Funding and Coordination of Scientific, Technological & Innovative Research:

 R&D-University-Industry Linkages
- Organization and Funding of Capacity Building/ Training Workshops
- Holding & Funding of STI Conferences
 - > Exchange of Scientists & Travel Grants
 - Funding of key Science Popularization Activities
 - > Promotion of IBSE in ECO Region

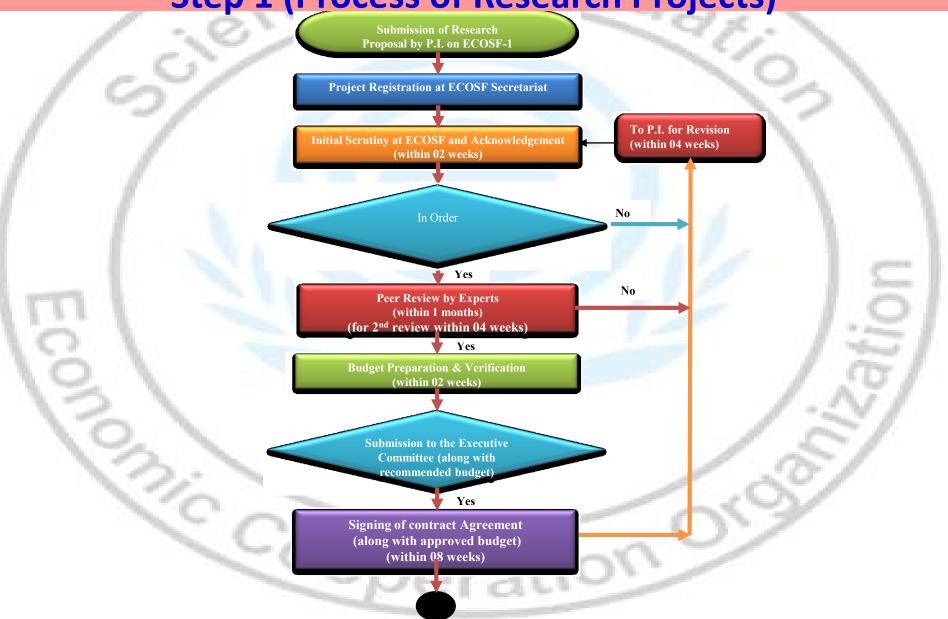
S&T Fund of ECOSF

- Funding of Scientific and Technological Research
- Funding of R&D-Industry Programme
- Funding of Training Workshops
- ➤ Funding of Science Conferences and Travel Grants
- ➤ Funding of key Science Popularization Activities
- > Implementation of IBSE in the ECO Region

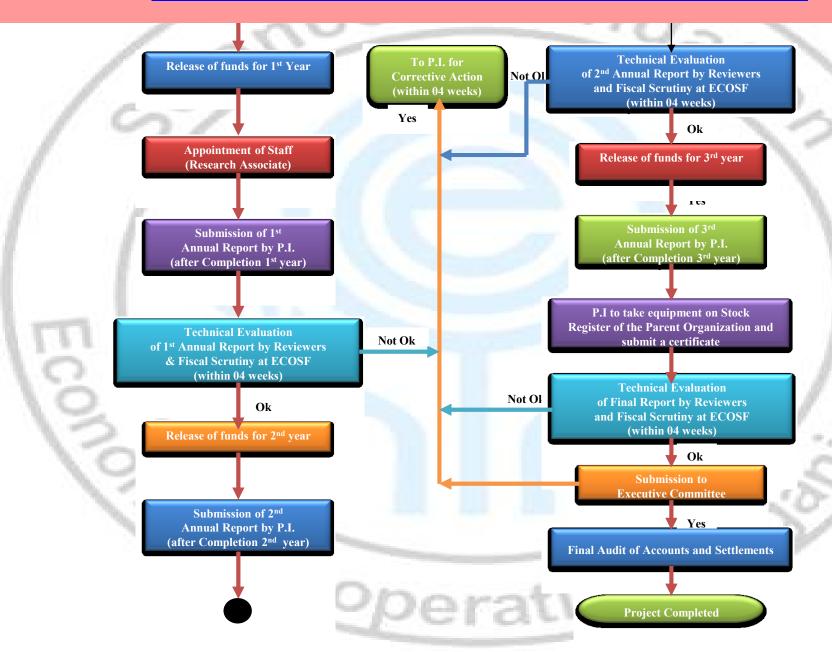
Approved Standard Procedure (Flow-Chart)

for Processing of Research Projects of ECO Science Foundation

Step 1 (Process of Research Projects)



Step 2 (Process of On-Going Projects)



R&D Funding Model

Impact

Identification (Commercial End) Research **Coordination/Funding** (Universities and R&D **(ECO Science Foundation Organizations of** + National Organizations) **ECO Region) Development & Refinement of Technologies Lab to Land Pilot Plant Studies Trade & Economic**

Strategic Steps for Development

(More realistic for ECO Region)

Economic Growth

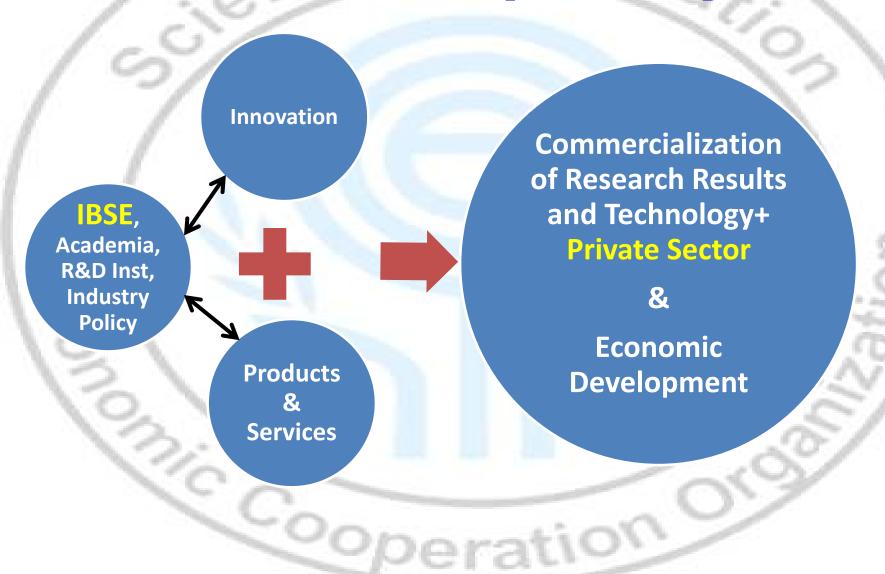
Manufacturing, Production & Marketing

Experimentation and Innovation- with Emphasis on Management

(Academia- R&D- Industry Partnerships)

Human & Infrastructure Development (Critical & Creative Thinking- Inquiry Based Education and Facilites)

Strategic Tools for Economic Development (ECOSF)



Strategic Partners of ECOSF













































Initiation of Inquiry Based Science Education (IBSE) in ECO

Thanks to ECOSF Collaborators!

















IBSE Capacity Building Workshop, Astana- June 2015





IBSE Workshop in Astana, 22-25 June 2015







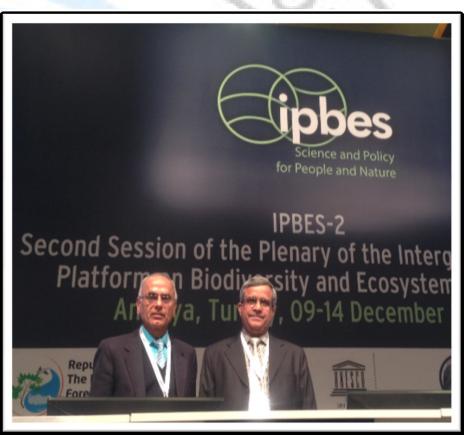




ECOSF as Accredited Observer-Stakeholder of IPBES

ECOSF has the status of **Accredited Observer/** Stakeholder of IPBES since 2013 with a role to provide scientific input in the work program of IPBES and nominate experts for assessment & reviews etc. **Numerous experts have** been nominated.

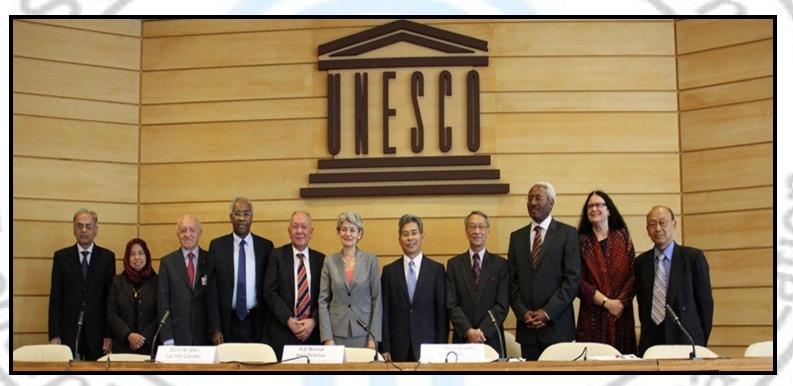
[http:/www.ipbes.net]



ECOSF President and the GoP Representative Mr. A. Munaf Qaimkhani in IPBES Plenary-2, Dec 2013

ISTIC Return Home to UNESCO

Seminar at UNESCO-Paris, 27 Sept 2013 [President ECOSF & ISTIC Team with DG UNESCO]



ISTIC - ECOSF Cooperation for Capacity Building in IBSE, ST&I Policies and Technopreunuership in the ECO Region agreed in principle on the occasion

ECOSF Collaborations-ISTIC

President ECOSF Appointed as Governing Board Member of ISTIC Kuala Lumpur- Malaysia







ECOSF Collaborations- EvK2CNR

MoU signing with President of EvK2CNR Foundation- Italy, for <u>research cooperation in high</u> <u>mountains of ECO region</u>, April 2014



Islamabad 23 April, 2014. Zahid Hamid Federal Minister for S& T and delegation of Italian embassy in Pakistan witness the signing of MoU between Economic Cooperation Organization, Science Foundation (ECO-SF) and EvK2CNR chartered association, an Italian Foundation (EvK2CNR)

ECOSF CollaborationsPAS (The Vatican)-Children & Education



Ethics and Education in Pakistan- Principles, Policies and Practices



ECOSF Collaborations-

(ECO-IEST)

ECO Institute of Environmental Science & Technology and Dept. of Environment, Iran (Forum on Environmental Ethics)







ECOSF Collaborations-ISRER, Azerbaijan

Institute of Scientific Research in Economic Reforms (ISRER) / ECO Economic Research Centre, Baku- Azerbaijan (Baku Economic Forum Oct 1-3, 2014)





H.E. Mr. Shahin MUSTAFAYEV,
Minister of Economy and Industry
of the Republic of Azerbaijan
(centre) inaugurated the Forum.
Secretary General of ECO (right)
was also present in the Forum

ECOSF Collaborations- FCC

ECOSF-FCC International Conference on Life Sciences (9-11 Oct 2014) at Lahore







ECOSF Collaborations- IAP

IAP SEP: IBSE in Pakistan and the Prospects for ECO Region- IAP SEP Conf on Education, Beijing-China 28-30 Oct 2014





IAP SEP Meeting in Kuala Lumpur, May 2015

1st Asian Innovation Forum

25-26 August 2015

ECOSF joined as a founder members of ASTN among 15
Organizations from across Asia and their CEOs/Heads/
Representatives signed a broader agreement of cooperation.



1st Asian Innovation Forum

25-26 August 2015

Group photo of 1st AIF leaders and speakers, 25 August 2015

President ECOSF Prof. Dr.

Manzoor H. Soomro giving
his remarks during the
Forum's Proceedings





ECOSF Collaborations

COMSATS-ECOSF Joint Symposium on

"Science Communication and Journalism"



World Science Day – Nov 2014 (COMSATS-ECOSF-UNESCO)







Thank You!



IBSE Promotes Inquiry "to instill the willingness to explore new ideas and reliance on evidence and logic"

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What is IBSE?



The objective of IBSE is: Promoting Inquiry "to instill the willingness to explore new ideas and reliance on evidence and logic"



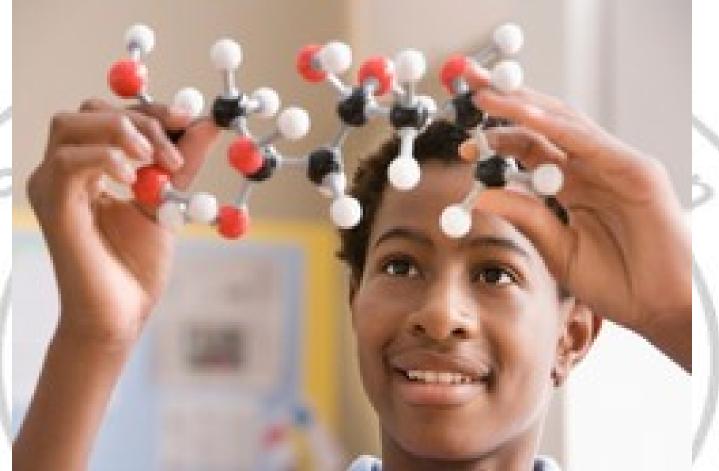
IBSE Builds Understanding of Scientific Concept through Investigation

Inquiry Based Science Education (IBSE) involves the progressive development of scientific ideas through conducting children's own investigation while building knowledge and understanding of the world around them.

IBSE is a process in which not only facts are explained but where questions, problems and scenarios are presented to the pupils.

IBSE Fosters Mental Activity

- It develops science concepts by exercising students own physical and mental activity.
- It includes direct observation and investigation of materials and phenomena, consulting information sources such as books, experts, the internet and discussion with others in which ideas are shared, explained and defended.



IBSE Provides young people with relevant contexts and practical experiences of scientific processes, which boosts their participation in the classroom.

IBSE Boosts Scientific Approach to Solve Social and Political Issues

The openness of IBSE to the real, empirical world, as well as its emphasis on experimentation, problem-solving and critical thinking, makes it a particularly well suited approach to address all types of scientific, societal and political issues.



ECOSF is Promoting Science Education through IBSE at School Level in ECO Region

- Because the Great University Scholars and Scientists are <u>actually nurtured at Schools!</u>
- ➤ IBSE is a step forward to ensure sustainable supply of young talent for linking advance research and industrial development to address the UN Sustainable Dev Goals- SDGs.
- ➤ Mainly the SDGs- 4&5.



UN SDGs 4 & 5

- ➤ SDG-4 Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, and
- >SDG-5 Gender Equality: Achieve gender equality and empower all women and girls.
- ➤ At least 50% of world population is girls & women, and if we do not utilize and encourage them to contribute in the societal development, it means, half of our talent will go waste!

Thus it is MUST to encourage females to participate and contribute.

