

Programmes and Activities of BCSIR



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Member, BCSIR

17th Meeting of COMSATS Coordinating Council

19 May 2014

Introduction to BCSIR



BCSIR Main Campus

Introduction to BCSIR Contd....

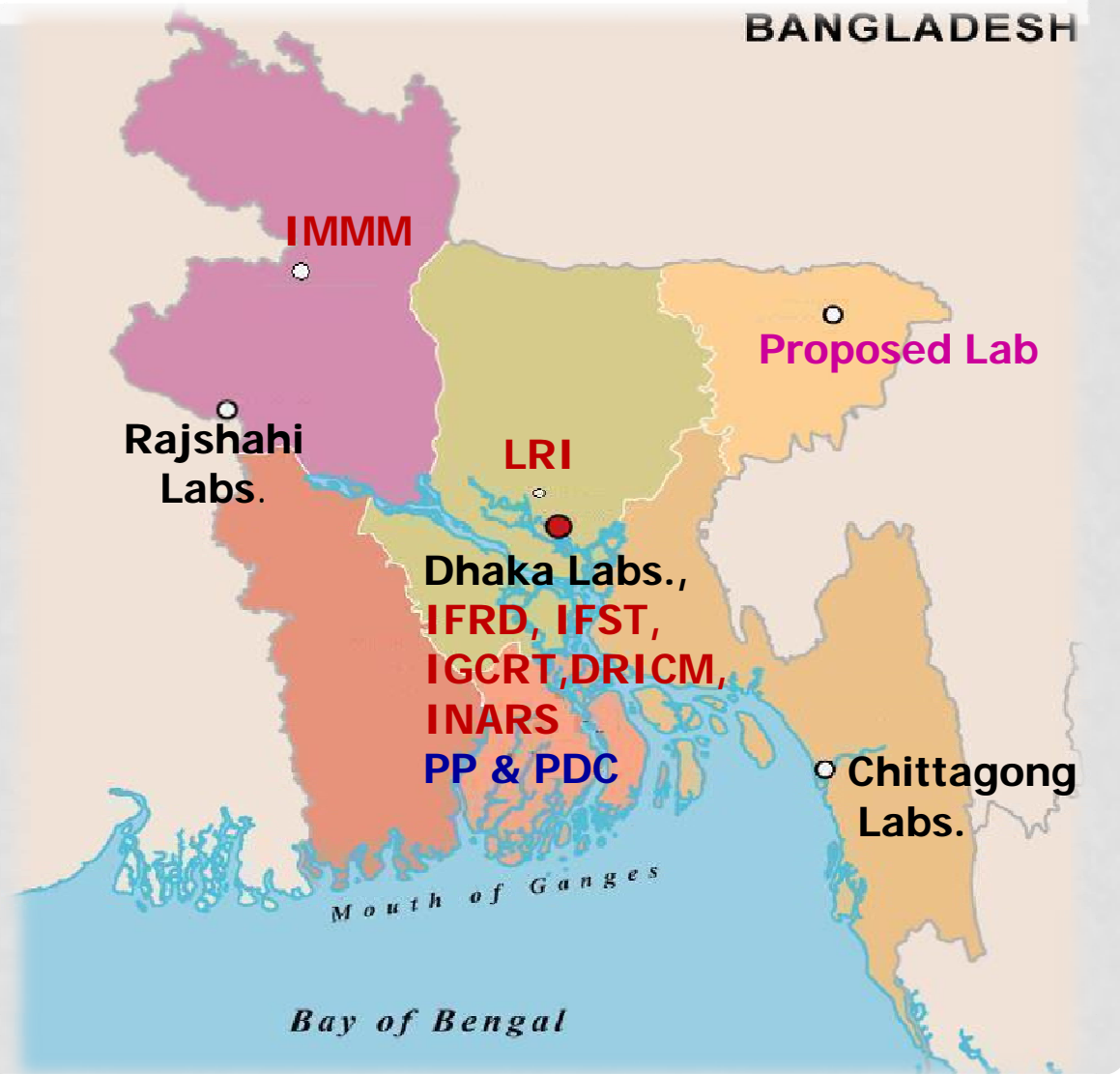


Bangladesh Secretariat (MoST)

Introduction to BCSIR Contd....

Units/Labs

- Multidisciplinary Labs: **3**
- Mono-discipl Labs: **7**
- Pilot Plant Centre: **1**



Introduction to BCSIR Contd....

Management

- **Management of BCSIR** : The Chairman and 4 fulltime members
- **BCSIR Board** : The Chairman, 4 fulltime & 4 part time members
- **Advisory Council** : Formulates Policies
- **Research Units** : Headed by Directors / CSOs

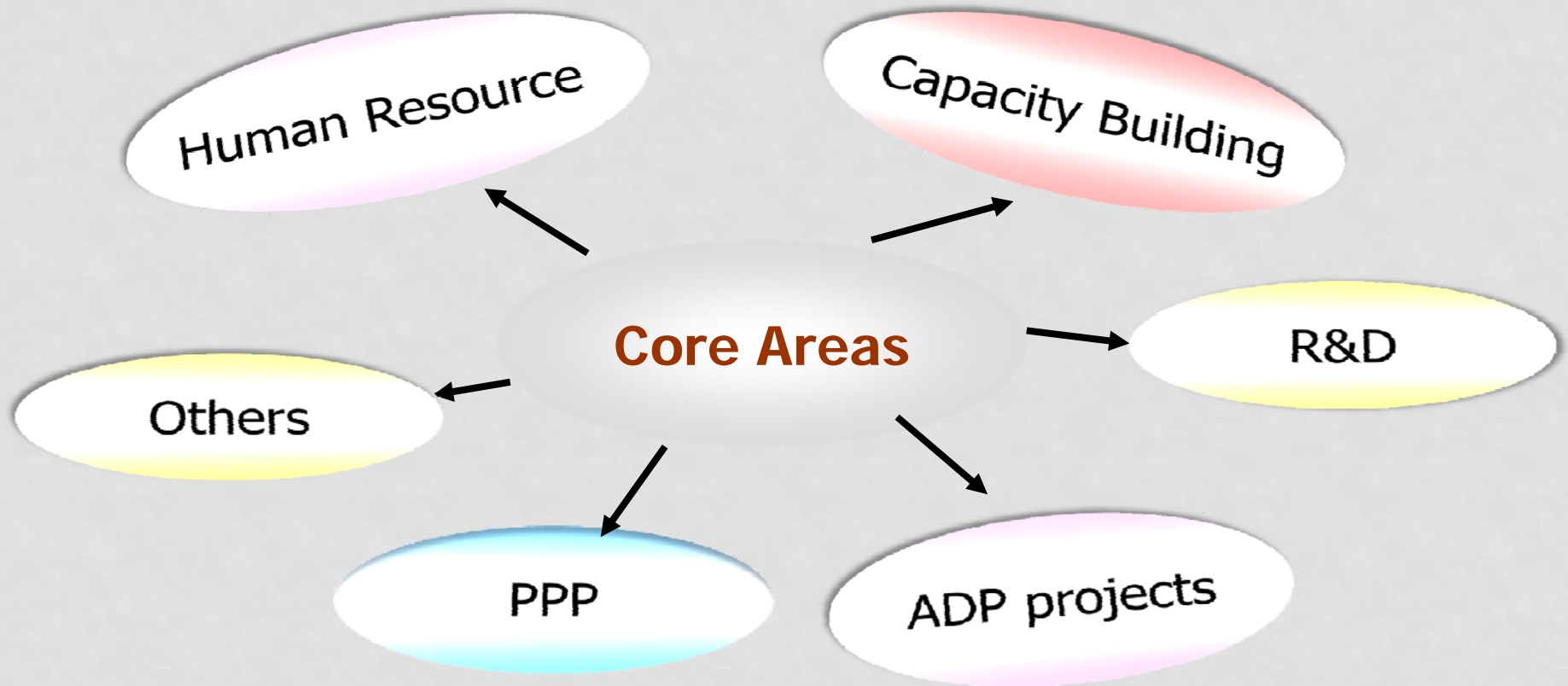
Introduction to BCSIR Contd....

R&D Areas

- Analytical chemistry
- Biological science
- Biogas technology
- **Biomaterials**
- Building materials
- Chemical technology
- **Chemical metrology**
- Fibre and polymer
- **Food science & technology**
- Glass & ceramics
- Herbal medicine & natural products
- Industrial physics
- Leather technology
- Microbiology
- **Mining, mineralogy & metallurgy**
- **Nanotechnology**
- **Pharmaceutical chemistry**
- Pulp and paper
- **Renewable energy**
- Soil & environmental science

Activities of BCSIR

since May 2013



Activities of BCSIR: HRD

since May 2013

- **HR:**
Posts of scientists: 379
Vacant posts 107: Recruitment process on going
- **Training :**
 - (i) In house training offered to —
 - BCSIR scientists – 90
 - External Scientists -105 (From 4 org)
 - (ii) BCSIR scientists received training —
 - At Home – 42
 - From Abroad - 09
- **Higher Education:**
 - At Home – 01
 - From Abroad - 8
- **Fellowship offered to students: - 35**

Activities of BCSIR: Capacity Building

since May 2013

Capacity Building through:

- Infrastructural Development
- Procurement of Equipment/Instruments
- ADP Projects:
 - IMMM, INARS, DRICM, Strengthening of Ctg. & Rajshahi Labs
- Revenue Budgets:
 - IFST, IGCRT, Dhaka Labs

BCSIR: Capacity Building Contd....

since May 2013

ADP Projects

- Strengthening of IMMM: July 2009 – June 2013
- Conducting Research on River placers for Light & Heavy Minerals from sands of Teesta and Bhramaputra
- Providing Mineral, sand processing and other mineralogical services to companies based in Australia, UK & Burma
- Equipment used: ICP-MS, X-Ray Diffractometer (XRD), X-RAY Fluorescence Spectrometer



BCSIR: Capacity Building Contd....

since May 2013

ADP Projects

- INARS: July 2010 – June 2013
- Conducting Research on environmental chemistry and natural product chemistry
- Providing analytical services for 26 accredited water quality parameters
- Equipment used: ICP-MS, AAS, NMR



BCSIR: Capacity Building Contd....

since May 2013

ADP Projects

- Strengthening of Ctg-Rajshahi Labs: July 2012 – June 2014



- Conducting Research on GMO, halal (Porcine) food, avian flu (H5N1, H7, H9 sub types)
- Providing microbial analytical services
- Equipment used: Ultra HPLC, MS-MS Spectrometer, Real time PCR System

BCSIR: Capacity Building Contd....

since May 2013

ADP Projects

- DRICM: July 2012 – June 2016
- Conducting Research on chemical metrology, methodology validation
- Providing services:
 - Calibration
 - Measurement
 - Bioequivalence
- Providing training on:
 - Accreditation
 - Chemical measurements
- Equipment used: ICP-MS, AAS, NMR, HPLC, GC



BCSIR: Capacity Building Contd....

since May 2013

Revenue Budget

- Renovation of Glass Research Division, IGCRT
- Conducting Research on:
 - Bio-ceramic materials
 - Nano fertilizer
- Providing services for ceramic and allied materials analysis
- Equipment used: XRD, FTIR
AAS



BCSIR: Capacity Building Contd....

since May 2013

Revenue Budget

- Pulp and Paper Research Division, Dhaka Labs
- Conducting Research on:
 - Wood and nano-wood pulping
 - Wood and Fibre Chemistry
 - Biorefinery
 - Nano-crystalline cellulose production
- Providing services for pulp and paper analysis
- Equipment used: PFI Mill, Digester, Sheet Former

BCSIR: Capacity Building Contd....

since May 2013

Revenue Budget

- Aflatoxin Lab, IFST
- Conducting Research on:
 - Food-toxicology
 - Aflatoxin
 - Mycotoxin
- Providing services for detecting nitrofurans, mycotoxins etc. in frozen food, shrimp (as per EU requirement)
- Equipment used: GC, LC-MS/MS, HPLC



BCSIR: Capacity Building Contd....

since May 2013

Revenue Budget

- Food Safety Lab, IFST
- Conducting Research on:
 - Food adulteration
 - Active ingredients
- Providing services for vitamin analysis
- Equipment used:
LC-MS/MS, ED-XRF



Prof. Dr. R. A. Mashelkar,
visited food safety laboratory

Activities of BCSIR: R&D Projects

since May 2013

- **R&D Projects:** 75
- **Process:**
 - (i) Accepted – 13
 - (ii) Leased out - 14
- **Patent:**
 - (i) Accepted - 04
- **Paper Published:**
 - (i) National – 28
 - (ii) International – 71
- **Recognition:** Process developed for Slow releasing fertilizer Tablets was for D-8 Exhibition to be held in Jeddah in June 2014.



BCSIR: R&D Projects Contd...

since May 2013

Award



Best R&D project Award 2013



National Environment Award 2013

Activities of BCSIR: ADP Projects

since May 2013

On-Going ADP Projects:

1. Technology for the production of Low Cost Solar Power: January 2012 – June 2015
2. Infrastructure Development of Fibre & Polymer Laboratory of BCSIR to support Export Oriented RMG: July 2012 – June 2015
3. Modernization of Animal Laboratory for Biomedical and Toxicological Research: July 2012 – June 2015
4. Modernization of pilot plant unit to commercialize the most viable R&D products of BCSIR: July 2013 – June 2016

Activities of BCSIR: PPP since May 2013



BCSIR-SUST



BCSIR-Prime Asia Univ.



BCSIR-State University

Through signing MoU, BCSIR —

- (i) creates a symbiosis of R&D activities with other research organizations, public & private universities; and
- (ii) promotes quality service activities in the country

BCSIR: Other Activities

since May 2013

1. Provided Analytical service:

- samples analyzed: 4905

2. Organized Seminar, workshop:

- seminar organized: 04

3. Organized science fair:

- organized: 04



BCSIR: Other Activities Contd..... since May 2013



COMSATS Executive Director's visit

BCSIR: Other Activities Contd..... since May 2013



Prof. Dr. S. K. Brahmachari
DG, CSIR India visited BCSIR
in September 2013



Prof. Dr. R. A. Mashelkar,
President of the Global
Research Alliance visited
BCSIR on 17 June 2013



A delegation from KOICA
visited BCSIR on 6 June
2013

BCSIR: Other Activities Contd..... since May 2013

BCSIR Scientists attended workshop/seminar sponsored by COMSATS



National Innovation System and Intellectual Property workshop held in Pakistan, October 2013



Nanotechnology & Nano-biotechnology seminar held in Indonesia, Dec. 2013

Prospective collaborative Research

- Nanotechnology
- Renewable Energy
- Food Science and Technology
- Chemical Metrology
- Herbal Medicine and Medicinal Plant
- Pulp and Paper



Offer of Technology

- Mineral and mineralogical services
- Halal food test
- Calibration and measurement services
- Accreditation services
- Bioequivalence services
- Pulp and Paper analysis
- Materials and metallurgical science and engineering

Future Aspiration

- Proficiency Testing
- CRM development
- Toxicity and safety test of foods, GMO foods



That's all for the time being

THANK YOU

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