IRCC Annual Report 2017

Dr. Widad Hassan Abdulhalium
IRCC, Director-General

IRCC HISTORY

- Established 1965 with help from UNIDO
- National non-commercial Centre
- 2002-2010 affiliated to Ministry of Science & Technology
- Affiliated to Ministry of Industry 2010
FUNCTIONS

Research
- Conduct R&D research
- Standards specification
- Participating in laying down national industrial development plans
- Assist in the preparation of standard specification for the local industrial products

Technology Transfer and Capacity Building
- Transfer technology
- Addressing the causes of food insecurity
- Training programs

FUNCTIONS

Consultancy
- Consultation services on industrial planning, production management and product design and development
- Techno economic feasibility studies
- Prepare and marketing industrial information
- Dissemination industrial awareness
ORGANISATIONAL AND FUNCTIONAL STRUCTURE

Engineering Industries Research Institutes

Textile
Electricity and Electronics
Design and Manufacturing
Modern technologies

“General Directorate”

Engineering Industries Research Institutes
Research and development of material institutes and industry economic

Building materials and refractory
Chemical industries
Cleaning Production
Food Industry
Industrial Economies research Institute

Research and development of material institutes and industry economic

Research Promotion
Intellectual Property Rights
Development of Small industries
Engineering Technology
Microfinance
Research Services

information, Documentation and Publication

Central Laboratory

Workshops

Experimental units

Quality Assurance

National leather technology center

National leather technology center “General Directorate”

Leather processing research.

Footwear and Leather products.

Leather processing materials
IRCC’s 2017 Budget

- Salaries
- Development
- Research program
- Goods and services

IRCC FACILITIES

- Fully equipped and integrated tannery
- Pilot pant for chemical
- Electronic quality control and testing lab
- Advanced industrial information Centre
- Physical and mechanical testing lab
- Engineering design lab
- Central lab
Researchers

- IRCC is member of Sudan Academy of Sciences Federal union.

Certified college in engineering:
- MSc Cleaner production
- MSc Mechanical Engineering Design
- MSc Refrigeration & Air conditioning
- Mtech Electrical energy production
IRCC REGIONAL AND STATE BRANCHES

- Signed agreements with four states to establish IRCC departments
- Studies in process to identify potential in each state
- Creation of industrial map for each state

IRCC RELATIONS
IRCC major Activities:

- The Continuous National Program of Industrial Development in Sudan.
- The Soybean Value Chain Development.
- UNISCO Chair In Transfer of Technology.
- Drugs Extraction from Natural Plants for Neglected Diseases.
- UNIDO- Pilot Demonstration Project on Leather Sector -SUDAN
- Sudan National Cleaner Production Centre (SNCPC).
- Engineering design & manufacturing research Institute .

Publications

- INDUSTRIAL GUIDANCE AND BOOKLET
- INDUSTRY AND DEVELOPMENT
- INDUSTRIAL RESEARCH JOURNAL
RESEARCH 2017

A. With a budget of 3.7 million SDG; a total of 20 research projects in different 8 sectors were implemented as follows:

1. Small Business Development (2)
2. Local Knowledge and Rural Industrialization Development (4)
3. Renewable Resources and Sustainability (1)
4. Efficiency of Manufacturing Processes (3)
5. Innovation and Agro-Industrialization (4)
6. Modern Technologies – Nanotechnology (2)
7. Competitiveness of the Sudanese Industry (2)

B. Publications: 26

C. Achievements and Awards(3):
   - Dr. Omer Kamal: Outstanding International Student (First Prize), 2016-2017
   - Dr. Yagoub Elrayah: On the Priorities of Comparative Advantage of Agro-Industry Commodities: the way Towards Economic Transformation, 2017 & Dr. Dallia Algadi

D. IRCC Joint Research Programs:
   - Banana Value Chain Project
   - Peanuts Value Chain Project
   - Designing of Low Cost Laboratory Devices

E. Strengthening the effectiveness and efficiency of the research system
RESEARCH 2017

F. Industrial Development Partnerships:

• Manufacturing Distillation unit for Medicinal and Aromatic Plants.
• Paper Recycling Project
• Installation of Chalk Machine
• Soybean Value Chain Project
• Packing and Packaging Incubators
• Quality Evaluation of Edible Oils in Khartoum State
• Quality Evaluation of Bread from Composite flour
• Food Fortification with Micronutrients Project:
  - Modernization of Salt Industry in Sudans
  - Wheat Flour Fortification with iron
  - Oils Supplementation with vitamin A

Feasibility Studies and Technical Reports 2017

Implementation of:

• Feasibility Studies
• Technical Reports for Sudanese Factories
• Samples Analysis
Capacity Building 2017

<table>
<thead>
<tr>
<th>Place</th>
<th>Number of Training Courses</th>
<th>Number of Trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inside Sudan</td>
<td>12</td>
<td>89</td>
</tr>
<tr>
<td>Outside Sudan</td>
<td>3</td>
<td>12</td>
</tr>
</tbody>
</table>

Infrastructure and Rehabilitation Projects

- Rehabilitation of the Engineering Workshop
- Digitization of Library
- Rehabilitation of IRCC Training Unit
- Establishment of Cleaner Production Labs
- Pilot Plant Paper Waste Recycling
National projects

1- The National Project for Industrial Development (Tatweer):

The National Project for industrial development is an integrated program that aims to create an industrial, knowledge, technological, skill and economic movement through six key pillars targeting human, applied research, consultancy, modern technologies and manufacturing accompanying the interests of the partners.

❖ The Project Themes:

1. The theme of scientific research (innovation).
2. The theme of consultancy work (consultancy).
3. Theme of technology transfer and localization (technology).
4. The theme of capacity building (perfection).
5. Theme of awareness and industrial guidance (guidance).
6. Theme of traditional industries (manufacturing).

❖ Implemented Activities:

1- Training Courses:

<table>
<thead>
<tr>
<th>Number of Training Courses</th>
<th>115 specialized industrial courses in all states of Sudan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Trainees</td>
<td>15,000 trainee</td>
</tr>
</tbody>
</table>

2- Researches: 6 Joint Research Program

3- Consulting:

Implementation of 35 Feasibility Studies

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
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<tbody>
<tr>
<td>2016</td>
<td>15</td>
</tr>
<tr>
<td>2017</td>
<td>25</td>
</tr>
</tbody>
</table>

4- Technology Transfer

5- Incubate Innovators

6- Development of Traditional Industries: Utilization of Palm Waste (Palm fronds)
National projects

2- The National Cleaner Production Center :

- The Project Document was Finalized and approved by minister of industry
  - And UNIDO .
- Current Projects: IWEX Project with the Egyptian Cleaner Production Center
  - Partnerships Programs with FAO and UNIDO
International Cooperation

1- UNSECO Chair on Transfer of Technology:
   - The agreement was signed in 2017.

2- Institute of Engineering Design – Pakistan :
   POC with PCSIR

3- cooperation with Egypt Cleaner Production Center :
   Waste Recycling Project. African Development bank project

4- WAITRO :
   Benchmarking Project

5- Institute of Modern Technologies – Nanotechnology

6- COMESA:
   Packing and Packaging Incubators (Women Empowerment Project)

International Cooperation

6- COMSATS:
   There are number of programs and projects that were committed earlier and that are ongoing and planned for the future:
   - COMSATS IT Centre
   - Mechanical Engineering Design
   - POC Agreement with PCSIR
   - Pulp and Paper Plant
   - COMSATS Joint Research Program
   - Publications
   - Participations in COMSATS activities
   - COMSATS international thematic research
   - Groups (ITRGs)
   - COMSATS Institute in Sudan
future prospects for collaboration under COMSTS Network

1-Joint research project
Continuing with PCSIR and ICCBS- Pakistan

2-Capacity Building Activity
CPA in renewable energy , waste management , product from essential oils , Mining , mechanical design

3-technology transfer and to join the ITRG in Renewable Energy

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