

SOUTH ASIAN ASSOCIATION FOR REGIONAL COOPERATION (SAARC)



**SAARC ENERGY CENTRE
ISLAMABAD**

THE REPORT

Program Activity: PRG-116/2017/POSIT



**SAARC Dissemination Workshop on Study Report:
“Assess the Present Situation, Gaps in Capacity, Technology and Policy &
Regulatory Instruments in Coal Sector in SAARC Member States”**

**13 – 14 November 2017
Kathmandu - Nepal**

Organized by
SAARC Energy Centre, Islamabad
in collaboration with
**Department of Electricity, Ministry of Energy
Government of Nepal**



November 2017

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SEC Program Activity (PRG-116/2017/POSIT)

Dissemination Workshop on

**Assess the Present Situation, Gaps in Capacity,
Technology and Policy & Regulatory Instruments in the Coal Sector in
SAARC Member States.**

Kathmandu, Nepal | 13 – 14 November 2017



SAARC Dissemination Workshop on "Assess the Present Situation, Gaps in capacity, technology and policy & regulatory instruments in Coal sector in SAARC Member States"

13-14 November, 2017

The Report

Introduction

SAARC Energy Centre, Islamabad organized a one day dissemination workshop on Study report: **“Assess the Present Situation, Gaps in Capacity, Technology and Policy & Regulatory Instruments in Coal Sector in the SAARC Member States”** in Kathmandu, Nepal on 14 November 2017. The event was arranged at Hotel Soaltee Crown Plaza in collaboration with the In Collaboration with the Department of Electricity, Ministry of Energy, Govt. of Nepal as the Knowledge Partner (copy of the Workshop Program is available at Annexure I).

2. SEC especially envisaged this dissemination workshop under its thematic programme area of “Programme to Successfully Implement Technology Transfer (POSIT), aiming to discuss the contents of study and implementation the suggestions and recommendations given by the Expert/Author in the study report. The workshop gave the emphasis on proven recoverable reserves of Coal including Hard Coal, Lignite and Peat in all Member States. It will focus the necessary capacity building measures and the available technology of coal power plants in the regional market of South Asia. The policy interventions and the requisite regulatory framework required for the promotion of conventional/new Coal power generation technologies also discussed in the workshop.

Participation

3. A total of 34 delegates from i) Member States Bangladesh, Nepal, India and Sri Lanka; ii) Resource Persons from Bangladesh and India attended this dissemination workshop (participant list is available at Annexure II). The workshop attracted an overwhelming participation from the host Member State Nepal; Nepalese delegates, dominated by SEC’s Knowledge Partner for this Workshop i.e. Department of Electricity, Ministry of Energy, Govt. of Nepal.

Major Aspects Covered

4. The Workshop focused on the followings:
- Widely dissemination of the Study Report.
 - Review the Coal reserve (Proven or Recoverable) in SAARC member states.
 - Sharing the knowledge about the available Coal Technologies in SAARC region.
 - Sharing the knowledge about using Clean Coal Technologies (CCTs) in SAARC region.
 - Assess of Coal markets in SAARC region
 - Receive the inputs/comments from distinguished participants from Member states and incorporate in the final report.
5. The workshop started with the Inaugural session chaired by Mr. Rajendra Prasad Khanal, Director General, Department of Mines and Geology, Ministry of Industry, Govt. of Nepal, followed by three technical sessions. The event was closed with the Valedictory Session on the same day, chaired by Mr. Rajendra Prasad Khanal, Director General, Department of Mines and Geology, Ministry of Industry, Govt. of Nepal.

Inaugural Session

6. Mr. S.M.Mohibur Rahman, Program Coordinator, SAARC Energy Centre welcomed the resource persons and all the delegates from SAARC Member States for attending the workshop and extending keen interest. He especially thanked Chief Guest, Mr. Rajendra Prasad Khanal, Director General, Department of Mines and Geology, Ministry of Industry, Govt. of Nepal for his gracious presence at this workshop and for encouraging the SAARC endeavor for enhancing capacity of the regional coal planners/ analysts.

7. Dr. Shoaib Ahmed, Deputy Director, on behalf of Director SEC, in his welcome address briefly introduced SEC and its program activities as the SAARC Centre of Excellence on energy. He highlighted that in view of the huge financial investments, required for addition of new coal based power projects, power planners as well as decision makers, throughout the world, have been forced to prioritize smart solutions, modern technology and optimal utilization of available coal resources.

8. He, on behalf of the main Author, also presented the study report in the workshop to disseminate the findings and recommendations given by the Author. The participants were sought to review the recommendations given in the study report and asked to provide the opinions on recommendations. Esteem delegates and participants reviewed the recommendations and suggested their valuable inputs.

9. Chief Guest Mr. Rajendra Prasad Khanal, Director General, Department of Mines and Geology He confidently told that this workshop will enhance the knowledge of coal utilization in power sector especially in the coal based clean coal technology in the SAARC Member States and the participants would fruitfully utilize this knowledge to ensure energy security of their respective countries.

10. He also showed strong belief that SEC under the leadership of Director SEC will provide more advance workshop to enhance the capacities of our Member States, which will go a long way in integrating the network for successful and vibrant Asia. In the end Mr. Rajendra Prasad Khanal thanked professionals from SAARC Energy Centre and all the delegates and resource persons for their participation.

Technical Proceedings

11. Brief information on the technical proceedings, designed in multiple sessions, is as follows (All the presentations delivered during the workshop are available at SEC's website www.saarcenergy.org):

- **Technical Session 1**
- **Country Scenario: Presentations by the participating Member States**
 - a. Bangladesh
 - b. Nepal
 - c. Sri Lanka

- **Background & Introduction to the SAARC Study**

Mr. S.M.Mohibur Rahman, Research Fellow (Technology Transfer), SAARC Energy Centre

- **Dissemination of Study Report: Methodology, Contents and the way forward**
Dr. Shoaib Ahmad, Deputy Director (Coordination),
- **Learning About Fossil Fuels-Coal**
Engr. Nazrul Islam, Reviewer of the Study and Ex-MD, IIFC, Bangladesh
- **Technical Session 2**
- **Coal Mining in India: Opportunities & Challenges**
Mr. Anand Vardhan Sahay (Geologist), General Manager/Advisor, CBM (Retd)
CMPDI, CIL, India
- **Development of Coal Based Non-conventional Energy Resources: A step towards Clean Energy Initiative**
Mr. Baidyanath Prasad (Geologist), General Manager/Advisor, CBM (Retd)
CMPDI, CIL, India
- **Technical Session 3**
- **External Review of Report on “Present Situation, Gaps in Capacity, Technology and Policy & Regulatory Instruments in Coal Sector in SAARC Member States”**
Engr. Nazrul Islam, Reviewer and Ex-MD, IIFC, Bangladesh.

Dinner Reception

12. SAARC Energy Centre hosted welcome dinner on Monday, 13th November 2017 for the workshop delegates providing an informal opportunity for close interaction and networking. A number of dignitaries from Department of Mines and Geology, Ministry of Industry, Govt. of Nepal along with technocrats joined on this occasion.

Valedictory Session

13. Mr. S.M. Mohibur Rahman, Program Coordinator thanked the Chief Guest, Mr. Rajendra Prasad Khanal, Director General, Department of Mines and Geology, Ministry of Industry, Govt. of Nepal & Governing Board Member, SAARC Energy Centre for joining this invaluable event. He briefly informed that SEC's program activities are focused on different thematic areas including technology transfer and knowledge sharing. He commented that SEC is mandated to launch demand based program activity calendar designed and developed through participatory approach. He requested the Chief Guest, Resource Persons and all the SAARC delegates to contribute their ideas for future planning of program activities of SEC.

14. Engr. Mohibur Rahman reiterated SEC's commitment to continue working through such knowledge sharing activities and proposed closed liaison among the resource persons and delegates for sustained growth and development. Mr. Mohibur opined that SAARC Energy Centre is confident that this Workshop will facilitate Nepal in moving ahead on the road to improve its coal utilization planning in view of the shared idea/way forward and through synergetic efforts of professionals like you.

15. With respect to the way forward, he concluded that after having gone through this one day, following actions are proposed for the Coal sector in the SAARC Member States:

- **SAARC Coal Centre**

There is a need to establish **SAARC Coal Centre (SCC)**, which may be a subsidiary body of SAARC Energy Centre. All the participants agreed to establish a **SAARC Coal Centre (SCC)** for the benefit of peoples of the SAARC Member States. SAARC Coal Centre may provide a platform for the conduction of seminars, workshops, trainings and conferences for the promotion of active utilization of coal for adoption of state-of-the-art mechanized coal extraction, uniform application of High Efficiency-Low Emission (HELE) technologies and subsequent environment friendly use of coal throughout the SAARC region. In short, SCC would play a role as an energy hub for the whole region and it will also provide a mechanism for technology transfer from the countries with developed coal sector to the countries with underdeveloped coal sector and with huge unattended coal reserves.

- **Clean Coal Technologies**

For ensuring cleaner environment with enhanced use of coal, the implementation of **Clean Coal Technologies** would be mandatory, particularly, in context of increased prospective use of coal for power generation in India, Pakistan and Bangladesh. Most of the delegates agreed to make national standards for thermal efficiency and emission for power plants. Every Member States should follow its emission Standard Norms under some Environmental Act. Indian delegates suggested the existing sub-critical Power Plants should be upgraded to Super Critical.

- **SAARC Environment Control Standards**

There is a need to take initiative of establishing **SAARC Environment Control Standards** at regional level in order to ensure the improvement in existing standards in the light of those, which are being practiced in European Union and USA. But One of the delegates advised not to propose separate SAARC Environment Control Standards because every country has its own Standards. Publishing of emission data out of industrial units was suggested by Dr. Shoaib Ahmed.

- **Carbon Capture and Storage Technologies (CCS)**

No specific study has been carried out in any of the SAARC Member States on CCS. The three components of CCS, Carbon capture, its transportation and storage: are separate complete technology in itself and needs to be tried at R&D level first before commercialization

The captured carbon dioxide is generally transported for enhanced oil recovery in super-critical state and needs a separate pipeline infrastructure than the existing oil/gas pipeline

- **Thar Coal Reserve**

To develop inter-state policy tools and mechanisms to facilitate coal trade among neighboring SAARC countries is a welcoming suggestion.

- **Brick Kiln Industry**

Brick Kiln Industry is the least developed coal employing industry. A united effort is required to address technological and bounded labor challenges of this industry.

- **Use of Water**

Considering massive requirement of water for coal fired power plants and prospective increased share of coal in energy mix of SAARC member countries, there is also need to address the water supply issues during setting up the proposed plants

- **Carbon Trading**

Carbon Trading is currently not in practice

- **Human Resource Capacity**

In terms of **human resource capacity**, SAARC nations are handicapped in adequately trained human resource required for performing multi-dimensional tasks in coal sector. Need of the hour is to develop a human resource development policy which can adequately carryout the entire life cycle of coal from planning, exploring, mining, processing, utilization and environmental management. Proposed SAARC Coal Centre may perform a critical role for providing a platform for the execution of training workshops.

- **Regional Standardization of Engineering, Technical & Vocational Education**

Introducing the **regional standardization of engineering, technical and vocational education**, particularly for coal oriented jobs was highly recommended.

- **Political Will.**

Every Government must be emphasized to incorporate coal based policy changes to achieve energy security translating into sustainable development. In addition to the provision of energy, the development in coal sector can create millions of direct and indirect employment opportunities in the region consequently lifting the entire region economically.

16. Mr. Shahriaz, delegates from bangladesh offered vote of thanks on behalf of all the delegates to the Chief Guest, Resource Persons, Department of Mines and Geology, Ministry of Industry, Govt. of Nepal and Nepal Electricity Authority, SAARC Energy Centre and hotel staff for successful organizing of the workshop and managing high enthusiasm and involvement on the part of delegates throughout the process.

AGENDA

**SAARC Dissemination Workshop on Study Report:
 “Assess the Present Situation, Gaps in Capacity, Technology and Policy
 & Regulatory Instruments in Coal sector in SAARC Member States”**

Kathmandu, Nepal | 13 – 14 November 2017

Sunday, 12 November 2017	
Arrival of Delegates: Kathmandu, Nepal	
Day 1 : Monday, 13 November 2017	
SAARC Dissemination workshop on the study report: "Potential for Energy Storage Technologies in Electricity Sector of SAARC Member States"	
Day 2 : Tuesday, 14 November 2017	
Time	Description
0900 – 0930	Registration
0930-1000	Address by Chief Guest Mr. Rajendra Prasad Khanal, Director General, Department of Mines and Geology, Ministry of Industry, Govt. of Nepal.
1000 – 1020	Introduction to SAARC Energy Centre, Islamabad Engr. S.M.Mohibur Rahman, Research Fellow (Technology Transfer), SEC
1020 – 1050	Group Photo and Refreshments
Technical Session 1	
1050 – 1150	Country Presentation Presentations by the delegates of SAARC Member States
1150 – 1210	Background & Introduction to the SAARC Study Engr. S.M.Mohibur Rahman, Research Fellow (Technology Transfer), SEC
1210 – 1240	Dissemination of Study Report: Methodology, Contents and the way forward Dr. Shoaib Ahmad, Deputy Director (Coordination), SEC
1240 – 1315	Learning About Fossil Fuels-Coal Engr. Nazrul Islam, Reviewer of the Study and Ex-MD, IIFC, Bangladesh
1315 – 1400	Break (Lunch and Prayer)
Technical Session 2	

1400 – 1445	Coal Mining in India: Opportunities & Challenges Mr. Anand Vardhan Sahay (Geologist) , General Manager/Advisor, CBM (Retd) CMPDI, CIL, India
1445 - 1530	Development of Coal Based Non-conventional Energy Resources: A step towards Clean Energy Initiative Mr. Baidyanath Prasad (Geologist) , General Manager/Advisor, CBM (Retd) CMPDI, CIL, India
1530 – 1600	Break (Coffee/Tea)
Technical Session 3	
1600 – 1630	External Review of Report on “Present Situation, Gaps in Capacity, Technology and Policy & Regulatory Instruments in Coal Sector in SAARC Member States” Engr.Nazrul Islam, Reviewer and Ex-MD, IIFC, Bangladesh
1630-1700	Question and Answer Session
Closing Session	
1700 – 1715	Summing–Up and Way forward Engr. S.M Mohibur Rahman, Program Coordinator, SEC
1715 - 1730	Award of Shields to the Resource Persons
1730 – 1745	Distribution of Certificates to Participants
1745 - 1800	Vote of Thanks By Mr. Shahriaz, delegate from Bangladesh
1800 – 1830	Group Photo & Refreshments
End of the Program	
Wednesday, 15 November 2017	
Delegates Depart from Kathmandu, Nepal	



Annexure II

List of Resource Persons, Delegates & SEC Team Members
“Asses the Present Situation, Gaps in Capacity, Technology and Policy & Regulatory Instruments in Coal Sector in SAARC MSs”
 Kathmandu, Nepal | 13 – 14 November 2017

#	Name	Member State	Contact Details
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Delegates			
4.	Mr. Engr. Habib Uddin Ahmed Managing Director Barapukuria Coal Mining Company Ltd Bangladesh	Bangladesh	habib196741@gmail.com Cell: +880 1711 525433
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6.	Mr. Md Shahariag Deputy Secretary Power Division, Ministry of Power, Energy & Mineral Resources	Bangladesh	riaz6694@yahoo.com Cell: +8801715306474

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22.	Mr. Shahed Mohammad Mehedi Iqbal Sub Divisional Engineer (IPP-3 Cell) Bangladesh Power Development Board (BPDB)	Bangladesh	smmsadi@gmail.com Cell: + 8801716295868
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Brief Pictorial View of the Workshop























