



USAID
FROM THE AMERICAN PEOPLE

SARI/EI

 **IRADe** Integrated Research and
Action for Development

SOUTH ASIA REGIONAL INITIATIVE FOR ENERGY INTEGRATION (SARI/EI)

SUMMARY of South Asia Regional Workshop on

CROSS BORDER ENERGY TRADE (CBET) -

“Issues before Regulators in the South Asia Region”

19th-20th February 2013 | Kathmandu, Nepal

Cooperative Agreement No. AID-386-A-12-00006



FEBRUARY 2013

This publication is produced for review by the United States Agency for International Development (USAID). It is prepared by Integrated Research and Action for Development (IRADe).

BACKGROUND OF THE WORKSHOP:

South Asian countries are at different stages of reforms in power sector. Regulators are the key authorities who have a comprehensive overview of power sector in their respective countries. They are the key functionaries who oversee and balance the interests of all the stakeholders in a transparent manner and facilitate investments, operations and trade. In view of the above, a South Asia Regional Workshop on Cross Border Energy



His Excellency, the Hon'ble US Ambassador to Nepal, Mr. Peter W. Bodde delivering his inaugural address. On the Dias: Left to Right – Dr. Jyoti Parikh, Executive Director, IRADe, Mr. S. Padmanaban, Regional Program Director, SARI/EI, USAID/India, Mr. L. V. Rao, Project Director, SARI/EI, IRADe

Trade (CBET) - “Issues before Regulators in the South Asia Region” was organized on 19th and 20th February, 2013 at Kathmandu, Nepal. The objective of the workshop was to gather country wise status, discuss the minimum policy, regulatory and code harmonization, required to facilitate energy exchange and thus, trade in energy. His Excellency, the Hon'ble US Ambassador to Nepal, Mr. Peter W. Bodde inaugurated the workshop. The event received participation from all the South Asian countries i.e., Afghanistan (DABS), Bangladesh (BERC), Bhutan (BEA), India (CERC, PTC), Nepal (DoED, NEA, Electricity Tariff Fixation Commission, Ministry of Energy), Pakistan (NEPRA), and Sri Lanka (PUCSL). The event also received the participation of Mr. Hari Ram Koirala, Secretary, Ministry of Energy, Govt of Nepal. The two day workshop had interactive discussions amongst senior members of the regulatory commission's/authorities in the South Asia region on various roadblocks that impede the growth of CBET, mechanism required for harmonization of regulations & policies in the South Asia region and also shared the vision and benefits derived by countries through their independent regulatory Commissions/Authorities. The workshop was able to exchange and receive first-hand overview of policies and regulations that support CBET successfully. There were discussions on the best regulatory practices in the South Asia region that enhances Cross Border Electricity Exchange and identified existing regulatory and policy barriers to CBET. The workshop was organized by the Integrated Research and Action for Development (IRADe) as a part of the South Asia Regional Initiative for Energy Integration (SARI/EI) Program, funded by the United States Agency for International Development (USAID) as per the Cooperative Agreement (No. AID-386-A-12-00006) with IRADe.

ROLE OF REGULATORS IN CROSS BORDER ENERGY TRADE: The regulating mechanism in the South Asian countries is at different stages in their regulatory systems as well as maturity. Neither the country systems nor the area of regulations are similar. India, Bangladesh, Pakistan, Sri Lanka and Bhutan have independent regulatory authorities, whereas Nepal has a tariff fixation committee. Afghanistan is yet to have one. Electricity Act in Nepal is yet to be adopted by their parliament. Regulators



First Row: Left to Right – Dr. Salim Mahmud, Mr. David C. Atteberry, Md. Emdadul Haque, Dr. Jyoti Parikh, Ambassador Mr. Peter W. Bodde, Mr. S. Padmanaban, Mr. Habibullah Khilji, Mr. Nangialai Miakhil, Mr. John Stamm
 Second Row: Left to Right- Ms. Bhakti Bhowmik, Mr. L. V. Rao, Mr. Damitha Kumarasinghe , Mr. Priyantha Wijayatunga, Mr. Shanker Khagi, Mr. Rahul Banerjee, Mr. R. C. Dhup, Mr. Amol Bhutad, Mr. Rajiv Ratna Panda, Mr. Samdrup K. Thinley, Dr. Rajib Kumar Mishra, Mr. Niraj Subedi

during the workshop highlighted that the socioeconomic aspects dominate the overall policy for the power sector. The table below shows details of Laws & Acts and independent regulating bodies governing the sector in each of the South Asian countries. Countries like India, Sri Lanka, Bhutan, and Bangladesh have taken steps towards commercialization of the sector. The regulators also said that it is important to have regulating authorities out of the political influence, but at the same time there should be adequate checks and balances so that regulators cannot over regulate the sector.

TABLE 1 LAWS AND ACTS: APEX LEGAL AND REGULATORY INSTITUTIONAL FRAME WORK

COUNTRY	LAWS AND ACTS	INDEPENDENT REGULATORY BODY	APPELLATE AUTHORITY
Afghanistan			
Bangladesh	Bangladesh Electricity Act,1910	BERC(through BERC Act 2003)	BERC
Bhutan	Electricity Act of Bhutan (2001)	BEA	Concerned Ministry of Court of Law
India	Electricity Act 2003	CERC,SERC	APTEL
Nepal	Electricity Act 1992	DoED	
Pakistan	NEPRA ACT-1997, Amended Version of EA-1910	NEPRA	Provincial High Court and Supreme Court of Pakistan
Sri Lanka	Sri Lanka Electricity Act ,2009	PUCIL	Court of Appeal Sri Lanka
Maldives		Maldives Energy Authority	

The workshop had consensus amongst regulators on the independence of regulatory regime that leads to the following benefits for the enhancement of the CBET in the South Asia region.

- Encourage private Sector participation and competition in transmission and distribution
- Transparency in operation's and tariff fixation.
- Improvement of Grid Discipline (UI Mechanism)
- Balance stakeholder's interest and increase their participation
- Delicensed generation and distribution in rural areas.
- Encourage power trading and reduction in market prices for electricity.
- Consumer empowerment.



Participants listening to the presentation by Mr. Nangialai Miakhil, Planning Director, Afghanistan Breshna Sherkat (DABS), Afghanistan

The Regulators also discussed some of the following key issues that hamper the growth of Power sector and needs attention in the region:

- Irregularity in issuance of Tariff orders annually
- Open access in Transmission and Distribution
- Inadequate private participation across the power value chain.
- Political interference and slackness of governments
- Consumers awareness and their grievances

The regulators presented the current status of technical, legal and commercial aspects of their respective countries. They brought out the differences in various technical specifications of power system (refer to the Table 2 below), which needs to be coordinated for creation of regional power system network.

TABLE 2 TECHNICAL PARAMETERS: NEED FOR COORDINATION

COUNTRY	PERMISSIBLE FREQUENCY BAND (Hz)	PERMISSIBLE DEVIATION	TRANSMISSION VOLTAGE LEVEL (KV)	PERMISSIBLE DEVIATION	LOAD DISPATCH , CONTROL CENTER	COMMUN -ICATION SYSTEMS
AFGHANISTAN						
BANGLADESH	49.0-51.0	(+/- 2%)	230,132	(+/- 10%)	Single dispatch	PSTN,PLCC
BHUTAN	49.2-50.3	(+/- 2%)	400 ,220,132,66	(+/- 6%)	Single dispatch	PSTN,PLCC OPGW
INDIA	49.2-50.3	(-1.6%+0.6%)	765,400,230,220, 132, 110,100,66	735-800 kV 420-360 KV 245-200 KV 145-120 kV	NLDC, 4 RLDCS, 33 SLDCS	WIDEBAND ,VAST,GSM, PLCC
NEPAL	49.5-50.5	(+/- 1%)	132 ,66	(+/- 10%)	No Hierarchica l Structure	PSTN,PLCC, OPTICAL FIBER
PAKISTAN	49.5-50.5	(+/- 1%)	500,220,132,66	(+/- 10%)	3	Tele,Fax, PLC, OPGW
SRI LANKA	49.5-50.5	(+/- 1%)	220,132	(+/- 5%)	National Level	PSTN,PLTS, PLC
MALDIVES	49.5-50.5	(+/- 1%)		(+/- 10%)		

The concept of formation of the three task forces for harmonization of likely interfacing issues were explained to the regulators and their opinion was sought on various issues that need to be addressed by each of the task forces. The suggested allocation of issues between taskforces is detailed in Table -3.

TABLE 3 :ALLOCATION OF ISSUES BETWEEN TASK FORCES

Issues	TF1(Harmonize Policy, Legal and Regulatory Issues)	TF2(Advance Transmission Systems Interconnection)	TF3 (Establishment of South Asian Electricity Markets)
Regulations & Policies	TF-1		
1.Does Electricity Act recognize CBET	TF-1		
2.National Policy on Electricity	TF-1		
3.Policy on Renewables & Fossils	TF-1		
4.Steps towards Commercialisation of the sector	TF-1		
❖ Independent Regulator	TF-1		
❖ Unbundling of accountability			TF-3
❖ Recognize trading as an activity and permit import & export			
5.Open access in transmission		TF-2	
❖ Transmission pricing & loss sharing		TF-2	TF-3
❖ Independent system operator		TF-2	
6. Encouraging private investment into Generation	TF-1		TF-3
❖ Creating a level playing field	TF-1		
❖ Attractive returns	TF-1		
❖ Transparency in selection	TF-1		
❖ Long term commitment (Multi year Tariff Policy)	TF-1		
❖ Approvals & clearances	TF-1		
❖ ROW and land acquisition issues			

Issues	TF-1(Harmonize Policy, Legal and Regulatory Issues)	TF-2(Advance Transmission Systems Interconnection)	TF-3(Establishment of South Asian Electricity Markets)
7.Consumer protection	TF-1		
8. Balancing mechanism for schedule deviations UI		TF-2	TF-3
9.Provisions for transiting of electricity and priorities		TF-2	
10.Climate Change and Energy Efficiency	TF-1		TF-1
11.Export / import duties or restrictions	TF-1		TF-3
12. Facilitate creation of dedicated third party lines in host country	Not clear		
13. Provision of ancillary services	TF-1		TF-3
Technical Issues		TF-2	
14.Transmission planning criterion	TF-1	TF-2	
15. System construction, connectivity, metering & operation codes		TF-2	
16.Harmonising equipment standards		TF-2	
17. Long term Electricity Plan for Generation & Transmission	TF-1	TF-2	
18. Long term Load Forecasting	TF-1	TF-2	
Financial Issues			
19. Government subsidies	TF-1		
20. Level playing field	TF-1		
Commercial Issues			TF-3
21.Payment security mechanism for IPPs			TF-3
22.Standard bidding and agreement documents			TF-3
23. Metering standards, reading and accounting		TF-2	TF-3

KEY FINDINGS OF THE WORKSHOP:

- India, Nepal, Bhutan and Bangladesh are very keen for deeper engagement in the South Asia Region for Cross Border Electricity Trade (CBET).



First Row: Left to Right – Mr. Ganesh Prasad Subba, Mr. Rahul Banerjee, Mr. L. V. Rao, Md. Emdadul Haque, Mr. S. Padmanaban, Mr. Habibullah Khilji, Dr. Salim Mahmud, Mr. Nangialai Miakhil, Mr. Sagar Goutam
Second Row: Left to Right- Mr. Nutan Sharma , Mr. Damitha Kumarasinghe, Mr. Sundar Shyam Shrestha, Mr. Sudesh Kumar Malla, Mr. Amol Bhutad, Mr. R.C. Dhup, Mr. Samdrup K. Thinley, Mr. Sher Singh Bhat, Mr. Dinesh Kumar Ghimire, Mr. Rajiv Ratna Panda, Mr. Shanker Khagi, Ms. Bhakti Bhowmik

- South Asian countries are at various levels of electricity regulation, institutional and power sector reforms, therefore, laws, acts and correct policies are crucial for success of CBET.

- CBET ensures transparency, accountability, formation of confidence for private sector participation and

enhancement of energy exchange in the region.

- Private sector participation is the key to long term success of CBET in the South Asia region. Currently private sector participation is limited due to lack of clarity in policy and poor investment climate in most of the South Asian countries.
- Each country in the South Asia region may need a different intervention and support in harmonization of legal, regulatory, and policy concerning exchange and trade in the region.
- The various issues like technical complexities, risk of National Grid interconnection, potential economic and financial benefits from interconnections, existence of independent regulators, unbundling for accountability, open access in transmission, transmission pricing and loss sharing, independent system operator, payment security, etc. are the concerns that need to be addressed prior to energy exchange and trade.
- Countries having independent regulating authorities have benefited from their regulators, as regulations have helped in enhancing the private generation through transparency in operation and tariff fixation, improvement of Grid Discipline (UI Mechanism), balancing stakeholders' interests, encouraging power trading, reducing market prices for electricity and empowering consumers, etc.

PARTICIPANTS LIST SARI/EI REGIONAL WORKSHOP:

AFGHANISTAN:

Mr. Nangialai Miakhil, Planning Director, Da Afghanistan Breshna Sherkat (DABS)

BANGLADESH:

Md. Emdadul Haque, Acting Chairman, Bangladesh Energy Regulatory Commission (BERC)

Dr. Salim Mahmud, Member (Commissioner), Bangladesh Energy Regulatory Commission (BERC)

BHUTAN:

Mr. Samdrup K. Thinley, CEO, Bhutan Electricity Authority (BEA)

INDIA:

Dr. Rajib Kumar Mishra, Executive Director, Power Trading Corporation of India Ltd. (PTC)

Mr. Rahul Banerjee, Senior Adviser - Power Markets, Central Electricity Regulatory Commission (CERC)

NEPAL:

Mr. Hari Ram Koirala, Secretary, Ministry of Energy, Govt.of Nepal.

Mr. Sher Singh Bhat, Director (Power Trade Department), Nepal Electricity Authority.

Mr. Dinesh Kumar Ghimire, Superintending Engineer, Department of Electricity Development

Mr. Sagar Goutam, Senior Divisional Engineer, Department of Electricity Development

Mr. Sudesh Kumar Malla, Deputy Director General, Department of Electricity Development

Mr. Sundar Shyam Shrestha, Deputy Director General, Department of Electricity Development

Mr. Nutan Sharma, Senior Divisional Engineer, Department of Electricity Development

Mr. Ganesh Prasad Subba, Chairman, Electricity Tariff Fixation Commission

PAKISTAN:

Mr. Habibullah Khilji, Chairman, National Electric Power Regulatory Authority (NEPRA)

SRI LANKA:

Mr. Damitha Kumarasinghe, Director General, Public Utilities Commission of Sri Lanka (PUCSL)

USAID/INDIA:

Mr. S. Padmanaban , Regional Program Director, SARI/EI, USAID/INDIA

Mr. Amol Bhutad, Project Management Specialist, SARI/EI, USAID/INDIA

USAID/NEPAL:

Mr. Shanker Khagi, Country Coordinator-SARI/EI, USAID/Nepal

IRADe-SARI/EI Team:

Dr. Jyoti Parikh, Executive Director, IRADe, New Delhi

Mr. L. V. Rao, Project Director, IRADe, New Delhi

Mr. R. C. Dhup, Technical Specialist, IRADe, New Delhi

Mr. Rajiv Ratna Panda, Project Manager, IRADe, New Delhi

Ms. Bhakti Bhowmik, Admin, IRADe, New Delhi

For more information, please kindly contact

Mr. Rajiv Ratna Panda, Project Manager, IRADe, New Delhi, India | E-mail: rajivpanda@irade.org