COOPERATION AGREEMENT BETWEEN ITU AND AIBD ON IMPLEMENTATION OF ITU/AIBD/MDA/CFI REGIONAL *[EXECUTIVE]* SEMINAR ON DIGITAL TELEVISION TERRESTRIAL BROADCASTING

Duration, date: 3 days, 16-18 June 2008

Workshop venue: Suntec Convention Centre, Singapore

Language: English

Executing Agency: Asia Pacific Institute for Broadcasting Development, Kuala Lumpur, Malaysia in collaboration with ITU (BDT)

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Brief Description: ITU (BDT) will provide expertise and contribution for ASP fellowships to AIBD in view to participate to the above-mentioned Seminar

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Organisation	Signature	Date	Name/Title
For AIBD	_____	_____	Javad Mottaghi Director
For ITU	_____	_____	Sami Al Basheer Al Morshid Director of BDT

Annex: Agenda

Regional *[Executive]* Seminar on Digital Terrestrial Television Broadcasting
Organized by AIBD, ITU, MDA & CFI in association with BroadcastAsia-2008
16-18 June 2008,
Room No.202, Level 2, Suntec Convention Centre, Singapore

1. Background

Digital Terrestrial Television Services have already been rolled out in many parts of the world including the Asia–Pacific region. However, the progress is slow in some developing countries of the region. Failure to adopt digital broadcasting may deprive the broadcasters the opportunity to remain integrated with the worldwide broadcasting fraternity in terms of technological compatibility and advancement. This is in fact widening the digital divide. Therefore, to bridge the gap between digital developments and existing analogue technology, it is very essential to plan for seamless migration to digital broadcasting.

The South-East Asian countries belonging to ASEAN have already agreed unanimously to adopt DVB-T standard. Many of the countries in the SAARC region are also adopting the same standard. The large population that will be served with the standard has the potential to reduce the costs of the set top box and hence the easier acceptance by consumers. It is to be noted that the least developed countries in the region have also started showing interest in adopting digital terrestrial broadcasting.

ITU and AIBD are jointly assisting the ASP broadcasters on their initiatives for migration from Analogue to Digital broadcasting for the last 5 years and implemented a series of regional training workshops in Brunei, Iran, Vietnam, Indonesia, India and Pakistan**.** About 145 engineers from 27 Asian countries have benefited from these workshops.

2. Aims
This workshop intends to provide information on existing technologies and standards on digital television broadcasting. It will discuss possible problems that countries might face in the deployment of DTTB.

The seminar intends to groom the participants and prepare them to be technically sound in their understanding of Digital Television Broadcasting technology and to enable them to plan for effective implementation of the technology in conformity with their broadcasting environment and requirements.

3. Objectives
The seminar will enable the broadcasting engineers:
- to understand advantages and potential of Digital Television Broadcasting
- to compare various digital television standards and their advantages
- to understand the planning parameters and planning methods for digital television broadcasting
- to use the technology for data broadcasting

- to learn various interactive digital broadcasting systems
- to deal with issues relating to government. policies, regulatory framework, existing technology and finance
- to draft a set of recommendations (roadmap).

4. Duration

3 Days.

5. Proceedings

The seminar will be mainly focusing on the theoretical aspects of Planning & Implementation of Digital Terrestrial Television Broadcasting. The resource persons/consultants will present the various subjects in lectures supported by visual media and will provide handouts and documents for further reading.

6. Participants

Broadcasting engineers, planners, decision makers and regulators associated with Planning & Implementation of Digital Television broadcasting, should take part in this seminar. Digital set top manufacturers, digital terrestrial equipment manufacturers and providers of interactivity software will also benefit from participation. Participants are invited from Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, India, Indonesia, Fiji, Laos, Macau (China), Maldives, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam, etc.

7. Inputs

ITU is providing financial support to AIBD for ASP fellowships in view to participate to the Seminar. ITU is solely responsible for the content of the Seminar, is cooperating with AIBD in the preparation of the seminar's program and in the selection of suitable speakers as well as provides expert for delivering presentation. AIBD is responsible for organization of the "Regional Seminar on Digital Terrestrial Television Broadcasting", inviting the speakers and participants, managing administrative arrangements for participation and fellowship.

8. Speakers

Speakers from leading broadcasting organizations like Broadcast Australia, R&S, SARFT, MDA, NHK, KBS, RTM, Doordarshan, Panasonic, NOKIA, Qualcomm, Sony, etc. are likely to participate in this seminar.

9. Draft Programme Schedule

Monday, 16.6.2008	Day 1: Policy & Planning Issues
9.00am - 9.15am	Opening Speeches

9.15am – 10.30am	**Making the Digital Transition**
	What factors do countries have to consider in determining analogue switch-off (ASO) date?
	 - Key policy considerations in determining ASO date, eg:
	  (a) Digital terrestrial TV (DTT) coverage
	  (b) Reception of DTT signals
	  (c) Availability of equipment

10.30am – 10.50am	Tea Break

10.50am – 12.30pm	**Digital Dividend** Types of value added services, innovative program ideas emerging. - As convergence means new spectrum uses as varied as mobile broadband, mobile television, more DTT and new wireless services, how should the digital dividend be awarded? - What are the prospects for DTT services in high definition? - How do regulators deal with emerging new content? - How to sustain public service broadcasting and deliver social value in the digital age?
12.30pm - 2.00pm	Lunch
2.00pm - 3.00pm	**Planning and Implementation Guidelines** (DVB-T/ ISDB-T) DTTB technology is quite different from analogue system and is more complex as well. Understanding the nitty-gritty of the technology is essential before its planning and adaptation. Thorough and in depth knowledge of the technology would facilitate broadcasters in making their plan more effective. Moreover, it is essential to consider various external factors that may help seamless transition to the digital technology. Views and opinions of experts would help the broadcasters to strengthen their decision.
3.00pm - 4.00pm	**Spectrum Planning & Single Frequency Network for fixed and Mobile terrestrial broadcast** Spectrum planning for digital broadcasting is a complex task. Limited availability of spectrum and the need to simulcast in analogue mode during the transition period makes planning a very difficult affair. Similarly, the concept of Single Frequency Network is relatively new and requires more clarity and explanation. Broadcasters would need to know the planning parameters to be considered, the approaches to this kind of planning, the tools available for use, etc.
4.00pm - 4.30pm	Tea Break
4.30pm - 5.30pm	**Broadcasting to Mobile Handheld Rollout Strategies** (DVB-H, MediaFLO, DMB) Broadcasting to mobile handheld devices is attractive to broadcasters since it allows them to reach a wider segment of the audience. The technology available today can easily cater to the needs of the viewers on the move. However, the planning and implementation of broadcasting to handheld devices is quite different from other digital broadcasting systems.
Tuesday, 17.6.2008	**Day 2** **Technical Standards**
9.00am - 12.00pm	**Visit to Broadcast Asia Exhibition**
12.00pm -	Lunch

1.30pm	
1.30pm - 3.00pm	**Discussion on Set-top Box Specifications** - Criteria/environmental factors for selection of a specific digital broadcasting standard - Comparison of standards - Cost issues / Business models - Set-top box Architecture and Chipsets
3.00pm - 4.00pm	**Discussion on Interactive Middleware** - MHP Interactive and Implementation - MHEG5 Interactive and Implementation
4.00pm - 4.30pm	Tea Break
4.30pm - 5.30pm	**Discussion on Interactive Middleware (cont'd)** - Latest development in MHP/MHEG and DVB-T2 - Manufacturer's session (to discuss latest in design features of TV sets and STB
Wednesday, 18.6.2008	**Day 3** **Content and Services**
9.00am - 10.30am	**Value Added Services/ Data broadcasting** Digital broadcasting could be more attractive because of its potential to carry additional data channels/ services besides carrying multiple video channels. Though the concept may not be new but the complexity of the technology may be responsible for its slow rollout. Broadcasters keen to know how to plan and implement the technology, need to understand the potential of interactivity and the various value added services that can be provided to the viewers.
10.30am - 11.00am	Tea break
11.00am- 12.30pm	**Digital Content Production Technologies**
12.30pm- 1.30pm	Lunch
1.30pm - 3.30pm	**Content Production and Copy Management**
3.30pm - 4.00pm	Tea Break
4.00pm - 5.30pm	**Roadmap & Recommendations**

10 Privileges and Immunities of ITU

Nothing in this Agreement shall constitute or be interpreted as a waiver of renunciation of the privileges and immunities which ITU enjoy by virtue of the international treaties and agreements of national laws applicable to it.