

FROM THE EDITOR...

The Digital Terrestrial Television Broadcasting (DTTB) project in Sri Lanka, supported by Japan International Cooperation Agency (JICA) and Japanese engineering consultants, is migrating the nation from 46-year-old analog to a modern, high-definition (HD) digital platform by 2029. This initiative enhances viewer experience, improves spectral efficiency, and allows the 700MHz band to be repurposed for 5G, with the Sri Lanka Rupavahini Corporation receiving a 4K studio. The project is aimed at replacing the aging analog systems to provide superior, clearer picture and sound quality (HD) for viewers and more efficient technical operations for broadcasters. Digital transmission enables multiple channels on a single frequency band, offering viewers a wider choice of content. By switching to digital, the 700MHz frequency band is freed, enabling the expansion of 5G technology and improving rural broadband connectivity.



Frequency usage of Sri Lanka has increased rapidly due to the spread of mobile phone and the Internet as well as significant increase in the number of TV and radio channels since 2009. Back in May 2006, at the International Telecommunication Union (ITU) meeting, it was agreed that migration into Digital Terrestrial Television Broadcasting (DTTB) would be implemented by 2015. In 2010, with the advice and support from ITU, the Roadmap for the Transition from Analogue to Digital Terrestrial Television Broadcasting in Sri Lanka was created. Discussions started on measures and means for effectively allocating frequencies for TV broadcasting which had been overcrowded. The basic DTTB systems recognized by ITU as the international standards for DTTB are the Japanese DTTB standard developed in Japan, called Integrated Services Digital Broadcasting (ISDB-T), the EU standard (DVB-T and the second generation called "DVB-T2"), the American standard called Advanced Television Systems Committee, and the Chinese standard called Digital Terrestrial Multimedia Broadcast. The Government of Sri Lanka carefully examined which of these basic systems should be introduced to Sri Lanka and decided on the adoption of the ISDB-T system in 2014. Thereafter the Government of Sri Lanka concluded a Loan Agreement with JICA to receive assistance on the migration into DTTB through the Digitalization of Terrestrial Television Broadcasting Project. Loan amount of the said Yen Loan Project is 13.717 billion yen.

One determinant factor for adopting ISDB-T was that Emergency Warning Broadcast System (EWBS) was available as a characteristic feature of ISDB-T. Sri Lanka, an island country surrounded by the sea, is susceptible to natural disasters such as landslides, cyclones, and tsunami, which have made significant impacts on the economic and social activities of people. In recent years, heavy rain caused floods in 2009, 2011, 2014, 2017 and 2025. EWBS can transmit an early warning to viewers through broadcasting in collaboration with the agency regarding disaster management and is expected to contribute to disaster mitigation.

With the implementation of DTTB project in 2029, the existing analog system will cease to operate in 2030. The financial and technical cooperation provided by JICA is a symbol of long standing friendly relationship between Sri Lanka and Japan.

Eng. (Dr.) P.A.K. Karunananda

BSc. (Eng.) (Hons.) (Peradeniya), MPhil. (Peradeniya), MEng. (Ehime),

DEng. (Ehime), C.Eng. FIE(SL)

Editor, 'ENGINEER', Journal of The Institution of Engineers