

# Challenges of Modernizing Spectrum Management: the case in Ethiopia

## Abstract

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In the past, radio spectrum was excessively available and has received less attention. These days, with the emergence of new technologies, increasing needs of various users and the proliferation of wireless technologies worldwide have made spectrum management one of the critical issues that require due consideration at global, regional and national level. In Ethiopia, the agency to which the responsibility to regulate, manage, allocate, register and monitor radio spectrum is the Ethiopian Telecommunication Agency (ETA). ETA is, thus, undertaking the essential activities needed to ensure efficient and effective management of the radio spectrum. In its effort to modernize spectrum management, ETA is trying to change the traditional way of the planning, allocating, assigning, registering and monitoring spectrum in Ethiopia territories. Improvements have been recorded in some respects such as planning and allocation. However, spectrum monitoring is one of the challenges ahead, which in fact is the critical component of spectrum management. For instance, there are registered frequencies which are actually not in service but ETA is not able to reallocate them for lack of monitoring. Though there are fixed and mobile monitoring stations in some places, they are not utilized properly for lack of capacity. This is another challenge in spectrum reallocation. Thus, in order to effectively modernize the management of spectrum in Ethiopia, ETA needs to dwell on capacity building and improve the existing knowledge on frequency monitoring through advanced training on the techniques as well as on the use of the monitoring tools and equipments. In parallel, it needs to upgrade and integrated advanced monitoring tools into its spectrum management activity.

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