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SIXTH UNITED NATIONS REGIONAL  
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Item 5 (c) of the provisional agenda\*

REVIEW OF THE LATEST TECHNOLOGY IN CARTOGRAPHIC DATA ACQUISITION,  
MANIPULATION, STORAGE AND PRESENTATION, WITH SPECIAL EMPHASIS ON  
POTENTIAL APPLICATIONS IN DEVELOPING COUNTRIES: SURVEYING AND  
MAPPING, GEODESY, MAP UPDATING AND GENERALIZATION

The official basic cartography of Spain: the 1:25,000-scale  
national topographic map

Paper submitted by Spain\*\*

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The National Geographic Institute of Spain is currently giving priority to a cartographic project involving the production of a national topographic map at a scale of 1:25,000 (NTM25) to serve as the State's basic map, which will provide a detailed and precise representation of the territory in terms of both morphological aspects and features deriving from human presence and activity and from the natural environment.

Begun in 1975, this map was intended to complement the 1:50,000-scale national topographic map (NTM50), which had just been completed, in those areas whose dynamics or importance so required; accordingly, priority was given to the country's coasts, borders, major urban areas and major infrastructure. Subsequently, the project took on the task of covering the entire national territory (consisting of some 50 million hectares) on 4,169 sheets.

The scope and duration of the project have given rise to the use of various methodologies, along with the development of contemporary mapping techniques.

The map is currently 70 per cent completed; it should be finalized next year. Particularly noteworthy is the rate of production over the last three years (500 sheets a year), which was achieved through a high-productivity work methodology which is fully computerized in all its phases and which yields, as a basic output, a digital map from which, through laser filming techniques, the positives to be used in publishing the printed map are obtained automatically.

The technology developed, which is accurate and affordable, can easily be transferred to third countries, being suitable for intermediate-scale digital mapping.

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