

# Mapping the potential for manual drilling

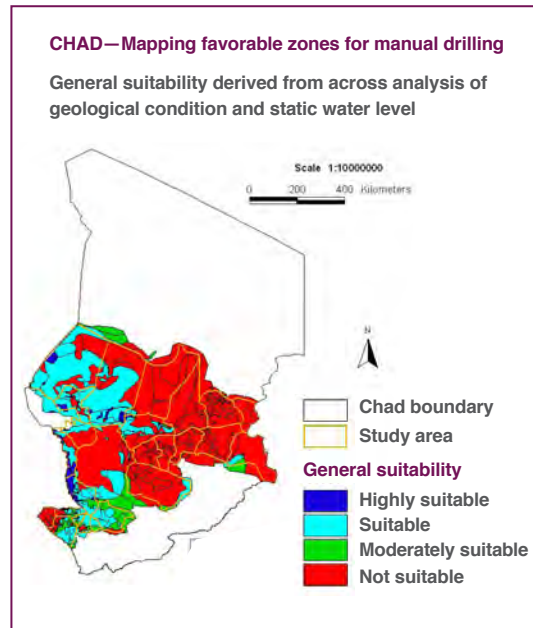
UNICEF, Practica and Enterprise Works/VITA have developed a toolkit for African countries wishing to embark on the professionalisation of manual drilling. This toolkit includes Technical Notes, Technical Manuals, Advocacy Materials, Mapping of suitable areas for manual drilling, Case Studies, and Implementation and Training Manuals. This initiative builds the capacity of the local private sector in order to respond to the ever increasing demand for safe water in rural areas. This Technical Note is the **fifth** in a series of five.

## Overview

The potential for manual drilling is being mapped in 20 countries based on available data including hydrogeology, satellite images, and population density. This will provide a clear indication of the countries with the highest potential to benefit from the 4 to 10-fold cost savings that can be realized when manual drilling is used in suitable areas to complement other conventional means of providing safe water.

## First steps in the mapping process

In order to develop the maps to identify favorable zones in the country for manual drilling, the country office collects, organizes and analyzes existing hydro-geological data. Maps are done at national level in order to have an initial knowledge of areas where the environmental and hydro-geological situation could make hand drilling techniques a potentially suitable low cost and sustainable solution to increase the availability of safe water for the rural population in small villages.



With the support of the Government (Ministry of Water Resources) key informants are identified to support the process of analysis and interpretation for the identification of suitable zones for manual drilling techniques in the country, ensuring that they are consistent and compatible with the real aspects that could be observed in the field and the perception of main stakeholders involved in water supply in the country.

## Contacts for additional information:

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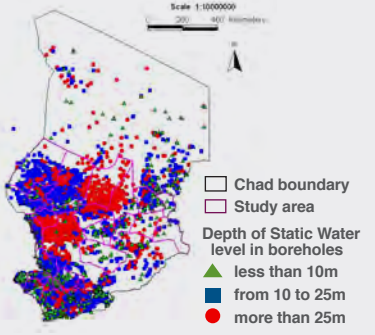
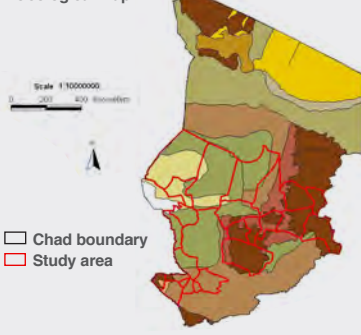
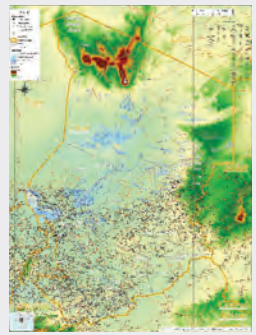
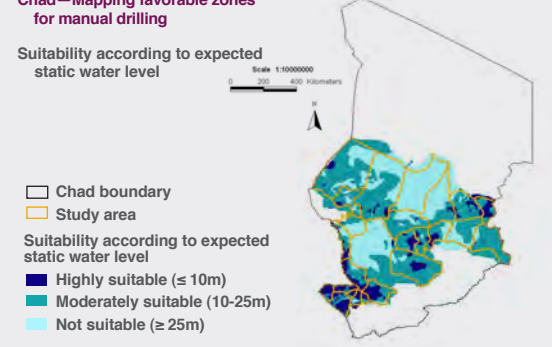
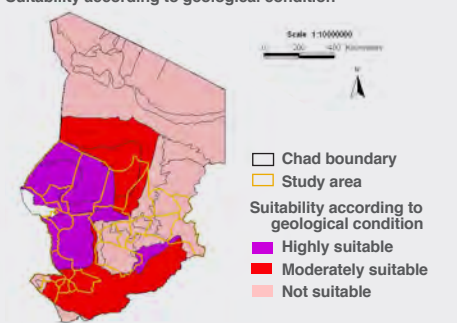
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PHASE	Steps/Deliverables		
Data Collection	<p><b>Chad—Mapping favorable zones for manual drilling</b> Depth of Static Water Level in boreholes</p> 	<p><b>Chad—Mapping favorable zones for manual drilling</b> Geological Map</p> 	<p><b>Republic of Chad</b></p> 
Data Organization	<p><b>Chad—Mapping favorable zones for manual drilling</b> Suitability according to expected static water level</p> 	<p><b>Chad—Mapping favorable zones for manual drilling</b> Suitability according to geological condition</p> 	
Data Analysis	<p><b>Chad—Mapping favorable zones for manual drilling</b> General suitability derived from cross analysis of geological condition and static water level</p> 