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P3. INCREASE NITRATE AND TOXICITY IN GROUND DRINKING WATER RESOURCES IN DARFUR-SUDAN

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This presentation is aim to explain the increase nitrate and toxicity in ground drinking water resources in Darfur-SUDAN

Darfur is a region in western Sudan, in 2008, Darfur's population was 7.5million. This is an increase by nearly six times from 1973 (1.3 million). 52% are aged 16 years or younger. Water supplying is providing by very old water net Works some of them which was built in 1960.

Water is given daily for 2-3 hours from the water supplying net work, while at other times the water can not be given.

About 60% of the population water needs are supplied from wells operated by private ventures, while the remaining portion is estimated to be covered by individual water pump located on their property.

For biological and chemical analysis of the water, supplies and trained staff in the established laboratory is in adequate.

Water network and control of private individual wells can not be made. Almost there is no informative and educational work for community about water health in the region.

There are high concentrations of nitrates proportion in drinking water sources, which all the existing resources of water are ground water resources.

According to the WHO standards nitrate quantity must be below than 50 mg\L, and comparing with the Water Quality Guidelines for Turkeys it must be 25 mg\L but in Darfur Area – SUDAN it is over 58 mg\L in the drinking water analysis.

Increase the concentration of nitrates led to the appearance of some diseases related to toxicology in water.

As a result of the lack of water distribution system, waters to rage ways helps to increase or not to decrease the concentration of nitrate in drinking water. Where drinking is often storage in metal, plastic or claycontainers.

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