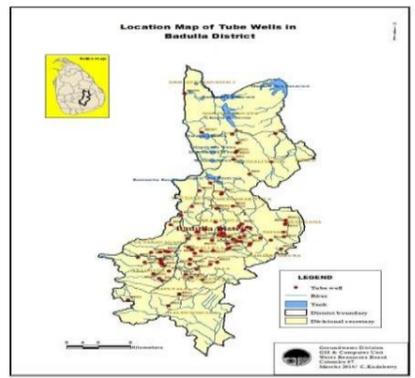
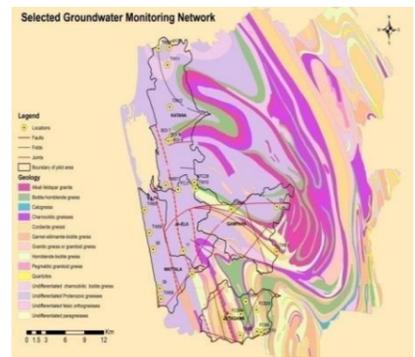


**Badulla**



**Gampaha**



**Deyata Kirula Exhibition – 2014**

Water Resource Board actively participated for the Deyata Kirula Exhibition, 2014 which was held at Kuliypitiya recently. The Board offered a special service by analyzing Water Samples chemically free of charge.



**At the WRB Stall**



**Mobile laboratory used for analyzing water samples free of charge. This laboratory was donated by the DSWRPP.**



**One of the Exhibits**



**WRB Stall**

# NEWSLETTER

## Water Resources Board

Vol. 01, No. 01, 20<sup>th</sup> March, 2014

Water Resources Board was established in 1966 under the Act No. 29 of 1964, as an advisory body to the Minister on all matters concerning the control and utilization of the water resources in Sri Lanka.

The Water Resources Board Act was amended and passed by the Parliament in 1999 enabling the Board to pay more emphasis on matters pertaining to groundwater resources in Sri Lanka.

### Vision

Adequate access to clean and safe water for all

### Mission

To advise the government and the people on assessing, conserving, harnessing, developing and frugally utilizing particularly the finite water resources in the country working in close collaboration with the rural society, relevant central and local government departments/ divisions/ authorities/ institutions, national and international organizations and scientific communities here and abroad.

### Services of the Water Resources Board

1. Carry out research on groundwater.
2. Maintain a groundwater data base.
3. Analysis of water samples chemically, bacteriologically and for heavy metals.
4. Conduct awareness creation programmes.
5. Groundwater development activities
  - Carry out hydrogeological surveys.
  - Construction of tube wells
  - Carry out pumping tests
  - Installation of pumps
  - Tube well cleaning and rehabilitation
6. Carry out EIA studies
7. Produce publications based on research activities

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### Water Quality study at CKD prevailing areas of Medawachchiya DSD

Many water supply schemes in Anuradhapura district supply pipe born water from the tanks without applying proper filtration procedure, particularly at village level. With the construction of tube wells in Sri Lanka in the past three decades, peoples were exposed to a new hydro - geochemical environment. The chemical composition of water in the fractured deep zones, particularly in the mineralized zones is different from the geochemistry of water in shallow wells constructed in soil and the weathered overburden. Groundwater in some of the areas of Anuradhapura district is poor in quality due to the presence of high levels of Fluoride. Furthermore, excessive use of fertilizers, pesticides and agro-chemicals for crops has shown an adverse effect on the quality of groundwater and surface water in the area. Therefore, rural people in Anuradhapura district face many problems due to lack of safe and clean water, especially for drinking purposes.

It is revealed that many people in Anuradhapura district have suffered from water related diseases such as dental fluorosis, skeletal fluorosis and Chronic Kidney Disease (CKD) probably due to consumption of contaminated water. CKD has been prevalent in rural areas of Anuradhapura district for over two decades. Some of the possible causes which are being suspected of having an impact on CKD in Anuradhapura district are the presence high fluoride, high hardness and also the presence of high Arsenic levels in drinking water.

Chronic Kidney Disease (CKD) is defined as the presence of sustained abnormalities of renal functions and results from different causes of renal injury. End-stage renal disease defined by the necessity for life-saving dialysis or Kidney transplant. CKD is a life threatening disease which is likely to have negative impacts on the economic conditions of the rural farmers living in these areas.

According to statistics by the end of year 2010 reported CKD patients were 2500 at Medawachchiya Divisional Secretary Division and present the number has been further increased.

( source: proceedings of the workshop on challenges in groundwater Management in Sri Lanka).

In many studies, fluoride and hardness of water as well as the presence of trace metals (especially Arsenic) in the environment have been identified as major geo environmental factor contributing to the etiology of renal damage. Water Resources Board has conducted a detailed water quality study along with sociological assessment in Madawachchiya DSD in Anuradhapura district to determine the impact of water quality on CKD.

During the study, the quality of groundwater and surface water sources associated with the kidney patients were analyzed chemically. The samples were analyzed for Arsenic as well.

The following maps indicate the selected groundwater monitoring network for each pilot area.

