

One Step Ahead Of Earth-Filter

Throwing challenges Arsenic, EARTH-Filter is coming to ensure pure drinking water **EARTH-FILTER**

Greetings



Bangladesh is entirely dependent on foreign aids even after 36 years of independence. But we have strong fourteen crores human resources whose have twenty eight crores confident hands. But we failed to make these strengths materializing in productive way. EARTH-Foundation wants to turn these strengths into weapons of development. With this vision, EARTH-Foundation is massively working with Health, agriculture, education, human resource development, fisheries, live stock, research and publications, cultural activity, power plant, women empowerment, banking and leasing, solar energy, water and sanitation, fashion design, audio visual department, micro credit, real estate with fast growing development chronicles. We indeed expect that EARTH FILTER is one of the products of these development efforts. EARTH FILTER will ensure pure drinking water for millions of arsenic affected people. EARTH Foundation is committed to reach the EARTH FILTER to all the people in easy way with fewer prices than any other organizations

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Chomon Afroz
Director, Administration
EARTH-Foundation

Feeling the sufferers **EARTH-FILTER** *comes in light of safety*

Almost five crores of total population of Bangladesh is in high risk due to the presence of higher degree of arsenic in tube well water. Besides of the Government of Bangladesh, several other non-government organizations, like, Dhaka Community Hospital, BRAC, CCDB, Disaster Forum, Action Aid, Mennonite Central Committee etc. have been taken different projects in this connection. I think, other than these sorts of activities, the low cost process for arsenic safe water to the victims should be considered.

After joining to the EARTH-Foundation, I considered the way for discovering low cost safe arsenic filter. I successfully discovered EARTH-Filter with the prior approval of honorable Chairman of EARTH-Foundation, Dr. Md. Abdul Jalil, Director, Health and Professor. Dr. Sk. Akhter Ahmad, Head of the Dept. of Occupational and Environmental Health, Dr. Mahfuzar Rahman, Associate Research Scientist, Mailman School of Public Health.

Arsenic pollution in ground water is a natural disaster. This problem has been created due to the withdrawal of excess ground water and this problem has been spreading throughout the country gradually. Almost 80% of groundwater is polluted by arsenic and almost 50% of our total population is at high risk. In order to get rid of this problem, it is imperative to ensure to drink arsenic safe ground water. Ground water is not only polluted by arsenic, but also by many other chemicals.

Inorganic tri and penta valance arsenic are mainly found in ground water. Total four types of inorganic and organic arsenic compounds are available in water. Among them Monomethyle Arsonic Acid (MMAA) and Dimethyle Arsonic Acid (DMAA) are very common. Inorganic arsenic compounds are more harmful than the organic. Due to get rid of arsenic problem, EARTH-Foundation has developed a special filter which is termed as "EARTH-Filter". It has been developed through the own technology of Bangladesh. A 15 liter capacity reserve tank is on the top, an arsenic purification cartridge is in the middle and arsenic safe water tank is available in the bottom of the filter. The upper part of the filter is in red color and the bottom part is green in color. There are five layers in the middle of the cartridge and the layers work with the help of three mechanisms. 0.2 micron filtering net is available in the bottom from where safe water could be collected. Water purification rate of EARTH-Filter is speedier than any other arsenic filters available in Bangladesh. Arsenic and iron parameters of tube well water of few districts have been tested in the laboratory. The filtered water is crystal clean and free from bacteria.

Laboratory test showed that the level of arsenic in the purified water is much lower than WHO guideline. There is no change in taste and odor in the purified water through EARTH-Filter. It has no adverse impact to the environment. The arsenic sludge disposal of the filter can be mixed with cow-dung and placed under the soil. As a result, inorganic arsenic can be transferred by bacteria available in the cow-dung as organic arsenic which is not harmful for health. The maintenance of the filter is very easy.

Profile of the Scientist

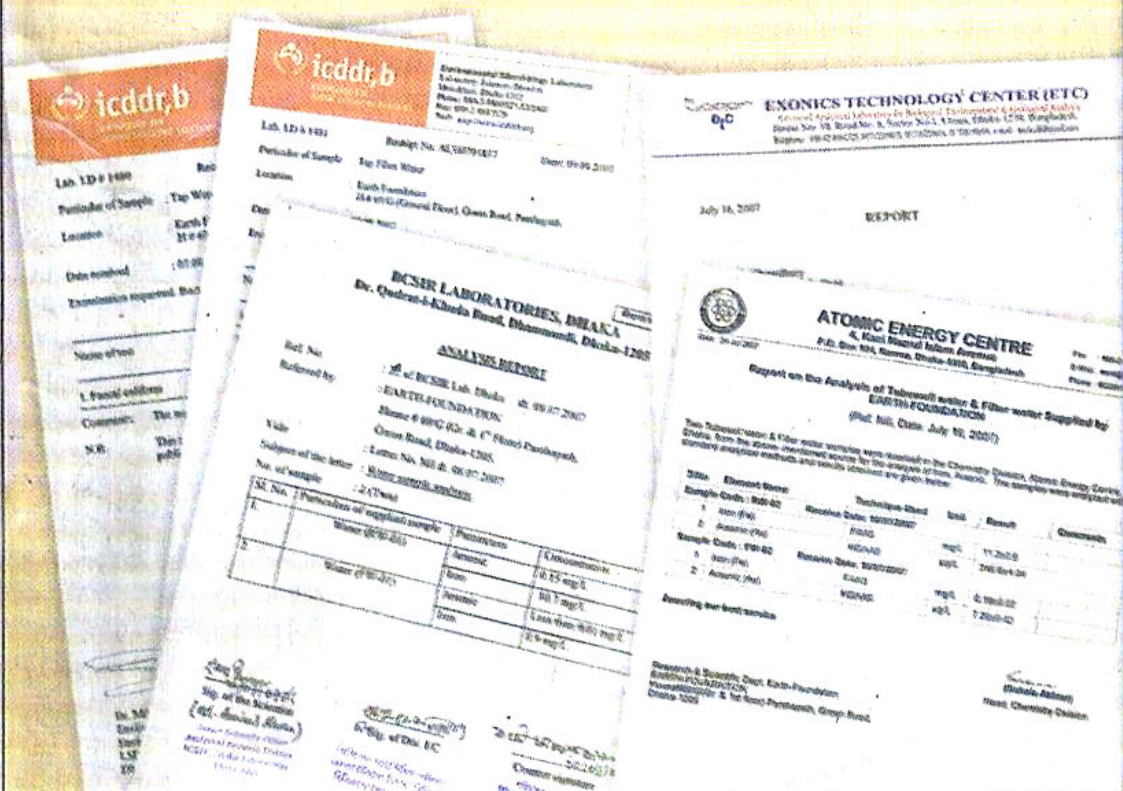
Name : Dulaly Chowdhury
Mother's Name : Late Hamida Begum
Father's Name : Late Chowdhury Shamsur Rahman
Date of Birth : May 20, 1969
Permanent Address : Village-Aroshnagar, P.O-Maguraghona, Upazilla-Dumuria, District-Khulna
Educational Qualification : B.Sc (Hons.), M.Sc - Applied Chemistry and Chemical Technology, University of Rajshahi
M.Sc - Metal and Health Division, Karolinska Institute, Sweden
Experience :
1. Laboratory Science Division, ICCDR, B: approx. 8 years
2. ITC Private Laboratory (Institute of Dr. Alauddin): approx. 2 years
3. Department of Occupational and Environmental Health (Project), NIPSOM—3 months
4. Quality Control Manager, School Feeding Program, under UNWFP program in Olympia Biscuit Factory
Research and Publication : 10 publications on environmental pollution including arsenic in water and food in various recognized journals.
Latest Discovery : EARTH-Filter (Arsenic safe filter)



At a Glance EARTH-Filter

Arsenic in filtered water : <10 ppb
Iron in filtered water : < 190 ppb
Others parameter : within the limit of tolerance
pH : 7.6
Conductivity : <590µS/cm.
Bacteria : Free
Rate of filtration : 35 liter per hour
Height of filter : 30 inches
Price : TK. 1975/=

EARTH-Filter Certified by the following Institutions



Certificate from NIPSOM about the Quality

This is to certify that Ms. Dulaly Chowdhury, Asst. Director, EARTH-Foundation has discovered a **ARSENIC FILTER** which has already achieved the test report from BCSIR, Atomic Energy Commission, ICCDR and from ETC and all of the agencies gave satisfactory analysis result. Even, the tolerance limit of Arsenic is found in less than (below 10 ppb) WHO guidelines. This filter performs the capacity of out flow rate 35 liter per hour and free from Bacteria.

The project of discovering chronicles of this Arsenic Filter has been conducted with having my frequent advice and suggestion. I strongly recommend that this filter is one of the best water filter in Bangladesh with containing minimum tolerance limit of Arsenic and could be provided to the affected people with low cost.

I wish this filter having success and have great role in Arsenic mitigation.

Prof. Dr. SK Akhter Ahmad
Department of Occupational and Environmental Health
NIPSOM
Mohakhali
Dhaka-1212

EARTH-FILTER

- Purifies water from Arsenic
- Purifies more within short time
- Make free from Bacteria
- Easily payable by taka 1975/= in cash or installments
- Eye catching and easily portable

Less Price
More Quality
Pure Drinking Water



EARTH-FILTER: GUARANTEE OF ARSENIC FREE PURE DRINKING WATER

EARTH - Foundation emerged in 2006. With a mission ameliorate the condition of the poverty stricken people of Bangladesh in a new and dynamic perspective. The paramount air of the Foundation is to create a society free from poverty, disease free, exploitation and corruption. EARTH - Foundation will contribute its efforts for the flourishing of democracy, scientific values. The Foundation will keep no stone unturned to uphold and guarantee human rights and the fundamental right of woman, and children. Another mission of the Foundation is to create such a congenial environment so that equal distribution of wealth can take place. Foundation is proceeding at a galloping speed with the following activities and programs- Health and Family Planning, Research and Publication, Micro and Macro credit, Training Programs, Fishery Project of vital importance which is going to be implemented through out the length and breadth of the Country soon.

Arsenic was found for the first time in 1993 in the Village of Chama, Chapai Nababgonj considerable number of scientists, doctors, engineers and NGOs started searching ways and means to get rid of this. Research started for finding out to prevent arsenic and to carry on treatment arsenic attacked person. It is true that voluminous research has been carried on and enormous fund has been distributed for detecting arsenic in tube well water and the presence of the same in different food. But very scanty look has been carried out to get rid of arsenic. EARTH-Foundation, from the very inception of its Health Programs was searching the best ways and means to make free water from arsenic and to give medical aim to the arsenic contaminated persons. At long last the Foundation achieved glorious success in manufacturing an improved version of a filter which will be named EARTH - Filter.

EARTH - Foundation is the pioneer in manufacturing an improved version of filter for drinking water which will be within the buying capacity of the total populace of the country and easily available. EARTH - Foundation stands beside poor and disease stricken people. By this time foundation has identified 30 upazillas of 10 districts as dangerous arsenic affected area and has brought the said areas within the arsenic mitigation Programmers activities. Foundation has a firm conviction to bring the whole of Bangladesh within arsenic mitigation programs in phases. People will get the filter for mitigation of arsenic. The salient features of this filter is to - (a) To make water arsenic free (b) To purify large quantity of water within short time (c) To make drinking water bacteria free (d) To get the filter at the price of Tk.1975/- in cash or in installment and (e) to get on eye catching and easily transportable filter.

The innovator of the EARTH- FILTER is Mrs. Dulaly Chowdhury. Let success smile on her innocent but charming face. I have a strong belief that her tireless efforts come to the service for the arsenic affected people of the country.

Dr Md Abdul Jalil
Director (Health)



EARTH-Foundation

Effective Assistance & Rehabilitation For Tormented Humanity-Foundation

69/G, Panthapath, Green road, Dhaka, Bangladesh Tel: 8610487, 8611441

Foundation e-mail: earth_foundation2006@yahoo.com web: www.earthfoundationbd.org