I. INTRODUCTION

Water is a basic and essential component of life. Life could not have been created without water and will not continue without it.

Water covers about 70% of the surface of the earth. In its various vapour, liquid and solid states it interacts within the geosphere, atmosphere and biosphere in a complex way to keep the earth system functioning.

Water is a vital element in the earth’s environment, without which it will not function to regulate climate and provide support for living things in the world’s varied ecosystems. The amount available for human development is only a small part less than 0.01% of the total water in the earth system which is renewed annually.

Providing safe water for people is important for their health and well being.

Looking around at what we do to water, it is difficult to believe that water is so precious to us and that our very existence depends on it. Almost all human activities impact on water and usually lead to its degradation. Overuse of water is obvious in our irrigation methods, in our disposal of domestic wastes, and on our industrial practices, our abuse of the purity of water is even more pervasive and more likely to damage irreversibly water’s life giving properties. We pollute it with our own wastes and cause extensive and serious human health problems.
Pesticide levels in drinking water normally result in much lower exposure than exposure through food or through handling pesticides products. The degree to which pesticide residues may affect the human body depends on:

- The toxicity of pesticides: Pesticides can cause a range of possible harmful effects, extending from a mild headache to skin rashes to long-term effects on internal organs, cancer, kidney failure, liver failure and death.
- Level of pesticide residues in water: Exposures are based upon the amount of pesticide residues in water, the amount of water by which a person is exposed.
- The health state of the individual: People with health problems, older peoples, infants and children and pregnant women may be more susceptible.

Guidelines for pesticide residues in drinking water have been developed by WHO to describe the quality of water that is suitable for drinking purposes under all circumstances. It is intended that these guidelines should be applied in developing national standards, not only for community piped-water supplies but also for all water used for drinking purposes, including that obtained from community standpipes and wells and drinking water distributed by tankers or in bottles.