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ANALYSIS OF WATER USE FOR WATER BOTTLE PRODUCTION

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ABSTRACT:- Drinking water has been widely used by consumers, although drinking water in Coimbatore is known for its taste. The marketing of potable water packaged in Coimbatore has increased year after year. Despite marginal water prices, consumers not only consume drinking water during the trip, but also consume normal drinking water. It has been observed that people have begun to use large quantities of packaged drinking water and have become one of their consumer products. In this regard, it should be noted that there are more potable water brands in the market. In this case, it is necessary to study the commercialization. The increasing scarcity of drinking water, lifestyle changes and the active expansion of market participants provide ample space for the packaging of drinking water operations. The growing trend of large quantities of water in the household and institutional sectors will create a specific form of large-scale bales to increase sales of packaged drinking water. Entrepreneurs bottling drinking water companies and entrepreneurs trying to bottled water face fierce competition. However, the demand for water from consumers has increased. It is very necessary to satisfy the consumers through the services. In addition, it is necessary to retain customers to prevent them from being exchanged with another brand.

Keywords:- Drinking water, Environmental Protection Agency, Food and Drug Administration, marginal water, Non Spring or Mineral Water

I. INTRODUCTION

The bottled water industry uses large amounts of water in the production of a single plastic water bottle, causing excess residual water in the production process. This is a serious problem for California, which currently requires a reduction in the use of water and improved water conservation measures. To determine the efficiency of water consumption of different types of bottles, use the conversion factor to combine the data obtained for each type of bottle for comparison. Although it is found that reusable water bottles require more water, it is the least efficient water source to determine available water bottles compared to tap water and reusable water bottles.

This is due to the average difference in the useful life of these different types of bottles. When calculating the data, there is a limit to the amount of initial data available. It is not possible to find data on the amount of water needed to form different types of bottles and calculate to find the amount of water needed to produce the amount of plastic or steel required by the bottle. However, the situation is still not the case. As a good agent, due to the production of plastic and steel itself, the most absorbed water in the process. These calculations can be used to inform the public about the use of industrial water, which is often overlooked when trying to conserve water.

California is in a serious water crisis, forcing residents to significantly reduce the use of water by changing behavior and spending. Water is a highly integrated product that is needed both in the production process and in the packaging of objects used in everyday life. The hidden use of water must be evaluated to obtain the amount of water used. Regarding the packaging, the most important use of water are bottles of plastic disposable. The main purpose of disposable plastic bottles is for bottling for resale. If California residents combine the use of drinking water with another water, this will increase the support to reduce the use of water. This will allow residents to decide better how to efficiently reduce water use, which is increasingly important in California, since the use of water in the city established by the Governor's Office is sharply reduced by 25 %.

There are two different agencies that are responsible for managing the water used as public drinking water and bottled water. The Environmental Protection Agency (EPA) is responsible for managing the quality of tap water; The Food and Drug Administration (FDA) oversees the water used by bottled water companies (Goodman, 2009). Due to these two sources of water, tap water and bottled water are regulated by different agencies, so there are different regulations. standards generated. Compared with the EPA, to protect water resources, the FDA has been safe and consumer protection is relatively strict in regard to bottled water (Waxsman and Maqui, 2009). Provision must be tested by a certified laboratory according to EPA's drinking water public, all violations reported, the public that water consumers should be provided to the water reported that the source of pollution and the Compliance (Goodman, 2009). FDA bottled water as food management, not allowing a certified laboratory for water testing or reporting violations; Bottled water company has no obligation to mention the water, water or pollution treatment method (Goodman, 2009). In general, it exceeds the national requirements to protect bottled water from the FDA, although global requirements are not broad enough to protect water (Waxman and Markey, 2009). 4 In addition to the difference in real water, disposable bottles of water can generate waste in the final landfill. While wastewater bottles are the smallest global contribution, which was found in 2006 to be rejected bottles of mineral water from the American production of three-quarters of bottled water instead of recycling (Waxman and Markey , 2009). The energy used to produce and consume bottled water is also much more energetic than the production of tap water (WaxmaAnd

Markey, 2009) .5 Disposable water bottles are less regulated than tap water, and the risk of waste is greater. In addition to the amo unt of water used in production, these aspects are also important because they are related to disposable water bottles.

II. RELATED WORK

Troy Troy W. Hartley (2006) explains his research, public awareness Reu ES and participation in water, the Water Research Foundation of Water in public awareness and the participation of the United States interdi sciplinary sciences Social Funded and Integrated Study of water reuse. To the United States. It uses a research protocol in three stages, including 1) review of the literature and three studies Extensive case studies, which include white papers explaining five different social and scientific sciences in the field of public health and environmental engineering, 2) Workshops of interest to facilitate the synthesis of the interdisciplinary analysis of literature and practical cases, and 3) review for peers under 20 Expert in the field of social sciences and water management.

Five identified issues are essential for building and maintaining public confidence in water management and water reuse Hobson. Created: information management for all stakeholders; Maintain motivation and personal commitment demonstrated a qualification organization; promote communication and public dialogue; ensure fair and equitable Good process of decision and results, building and maintaining trust Hobson W, Knochel, M. Byinton, C., Yang, P. Hoff, C. I Buchi, K (2007), research on bottled water and filtered in Latin America and Africa. - Latino children evaluated the water-based ethnic preferences and parents surveyed at the Children's Clinic in Salt Lake City in Utah. Miller, M. (2006) In the study of bottled water: why is it so great? In 2005, Nestlé Water from North America reported that the rapid growth of the bottled water industry was due to the fact that ordinary people in the United States were 20 times more likely to consume bottled water than 20 years ago. The reasons for this vary from person to person, but the result is the same: bottled water has become the most popular beverage in the United States. Nestlé advises consumers to feel safe when using bottled water instead of tap water. More than half of the population surveyed in 2001 focused on the quality of water and the quality of drinking water.

III. OBJECTIVE OF THE STUDY

The main objective of this report is to study the use of water in the production of plastic water bottles on a one liter scale and compare it with the reusable content of reusable stainless water, Reusable water to determine plastic water bottles. Level of efficiency of the water for each production process. This project is divided into three main tasks:

✓ Collection of plastic data, reusable plastic and reusable stainless steel
Water bottle

✓ Compare the quantity of water required in each production process And taking into account the total life of the different water bottles, it determines the total amount of water that is stored by using the bottle that saves more water.

✓ The potable water market packaged in India is very broad and active. The market share of packaged drinking water varies from one place to another. The packaged drinking water has become an essential product of consumption in the current era.

✓ The biggest challenge facing most companies is the innovation and differentiation of products. It represents an important part of the global beverage market. Market incentives for bottled water include rising population, consumer spending patterns, lifestyle trends, and growing consumer awareness.

The demand for potable water has also increased significantly during travel and trips. The groundwater extraction has exceeded the critical limits of the city. Groundwater diminishes rapidly and must be restarted and restarted, and this potable water is largely based on groundwater instead of surface water. This concept of research is triggered by strong competition in drinking water of different brands. The demand for packaged drinking water always increases due to the increase in consumption levels. That is why researchers believe that consumer preferences, sensitization and satisfaction with different brands of drinking water must be investigated. Although the demand for packaged drinking water increases, consumers can not always be satisfied with the products of a given brand due to the competitive advantages of the relevant brands in terms of quantity, quality, price and packaging of the different brands of the market

IV. RESEARCH METHODOLOGY

Water samples were collected monthly (in triplicate) for a two-year period (January 2015 to December 2016) for analysis of various physicochemical and biological characteristics. Know, temperature, total dissolved solids, conductivity, pH, dissolved oxygen, bio-oxygen demand, total hardness, acidity, total alkalinity, chloride, fluoride, N-nitrate and phosphate -

The results of the P content are expressed seasonally, namely spring (March to May), rainy season (June to August), fall (September to November) and winter (December to December). February). After collection, the water samples were packaged in crushed ice and cubes, and then brought into a laboratory cooler for analysis of various physicochemical and biological parameters. The temperature and pH of the water sample were measured on site during the sampling period. For dissolved oxygen analysis, the water sample is set immediately after sampling.

Method:- In order to analyze various physical and chemical parameters of the water samples, standard methods for detecting water and wastewater (APHA, 2005) were used. Water samples were also tracked in the

Environmental Research Handbook, Water and Methods of Waste Analysis (Maiti, 2001).

V.PHYSICO-CHEMICAL CHARACTERISTICS

- Temperature:-The temperature of water was measured by using a digital EcoScan series Temp5, and result was expressed in C.Total dissolved solids (TDS) The TDS of water samples was measured using Water Quality Analyser PE-371 (Systronic), and result was expressed in mgL-1.
- Electrical Conductance (EC) :-The conductivity of the water sample was measured using a PE-371 water quality analyzer (Systronic) and the result was indicated by S. ¯
- Ph :-The pH of the water is measured numerically by means of a "hydrogen ion electrode".

VI. BIOLOGICAL ASSESSMENT

The biomonitoring was done using a clean hand (equivalent to a sieve), a shovel and a sieve (0.6 mm mesh). The resulting benthic organisms were washed with water and transferred to a white enamel plate and taxonomically approved to reach family levels and mark saprophytic bacteria and diversity. The biological samples were stored in 4% formalin or 70% alcohol.

Biological water quality assessment through qualitative biomonitoring:- The biological assessment was conducted in accordance with the BWQC standard developed by the PCB in 1999 (Table 5.1). Qualitative biological monitoring involves two methods.

Biological Water Quality Criteria (BWQC)

Range of Saprobic Score (0-10)	**Range of Diversity Score (0-1.0)**	**Indicator Colour**	**Water Quality**	**Water Quality Class**
7 and more	0.2 – 1.0	Blue	Clean	A
6 - 7	0.5 – 1.0	Light Blue	Slight Pollution	B
3 - 6	0.3 – 0.9	Green	Moderate Pollution	C

VII. CONCLUSION

Water is vital for human health and life. Access to drinking water and accessibility are major concerns for public health and individual consumers. Consumers who are increasingly aware of health and changing consumer attitudes are also key factors in increasing per capita consumption. The increasing scarcity of drinking water, lifestyle changes and the active expansion of market participants provide ample space for the packaging of drinking water operations. The growing trend of large quantities of water in the household and institutional sectors will create a specific form of large-scale bales to increase sales of packaged drinking water. Entrepreneurs bottling drinking water companies and entrepreneurs trying to bottled water face fierce competition. However, the demand for water from consumers has increased. It is very necessary to satisfy the consumers through the services. In addition, it is necessary to retain customers to prevent them from being exchanged with another brand. Successful commercialization of drinking water depends on quality, taste, price and availability. There are real environmental impacts, such as the extraction of large amounts of water from local aquifers and the production and disposal of plastic containers, which must be considered to reduce intrusion pollution.

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