SYNOPSIS OF PROJECT REPORT ON

# VIRTUAL WATER

SUBMITTED

FOR

JIGNASA- STUDENT STUDY PROJECT

**BY**

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**TITLE:-** VIRTUAL WATER

**STATEMENT OF THE PROBLEM:-**

Competition for fresh water is increasing due to population explosion and demand for Processed food , meat and sugar based products. Severe water demand will reduce its quality drastically. Many do not know that there is an indirect use of water. Here comes the need to know about virtual water.

**AIMS AND OBJECTIVES :**

1) To know what is virtual water
2) Components of virtual water
3) Quantity of water used in getting the final product
4) Usage of virtual water by India
5) Case study of Almarai company
6) Strategies to minimize use of virtual water and pollution

**REVIEW OF LITERATURE**

Virtual water is also called “Hidden water” , “embedded water” (Hoekstra, 2003) or “exogenous water” (Haddadin, 2003)

The term Virtual water was coined by John Anthony Allan in 1993

Concept of Water footprint (WF) was introduced by Hoekstra and Hung (2002). WF is sums up VW content (VWC) of all goods and services consumed by one individual or by the individuals of one country

The evaluation of water self-sufficiency (WSS) and water dependency (WD) are important tools to know how much water is conserved or wasted.

**RESEARCH METHODOLOGY:-**

Case study was done using Secondary and tertiary data

**ANALYSIS OF DATA:-**

The virtual water content of 340 gm pasta includes 198 litres of water (Water used in irrigation processing &transportation)

100 gms of potato requires 25 litres of virtual water

200 gms of potato chips require 85 litres of virtual water

To grow1 Kg of tomatoes it require 214 litres of water whereas 1 kg of ketchup require 530 Liters of water

Rice requires 3400 litres to produce a kg of rice

40 gm egg has 135 litres

Beef requires 15,455 litres /kg production

A cup (125ml) of tea has 34 liters and coffee has 140 liters of virtual water in it

During 2006-2016 India exported about 497 trillion litres of virtual water and imported about 238 trillion litres of it.

Alamarai company has reduced its water requirement by getting its feed farmland in Argentina, Arizona and California .

**FINDINGS:-**

Processed food has more virtual water content

Non vegetarian food is water intensive

Prefer tea over coffee as Coffee requires eight times more water than tea for production

India is a water stressed country but through our exports of rice and sugarcane we are losing valuable green and blue virtual water and obtaining polluted virtual grey. So we should try to minimize export of intensive goods.

**CONCLUSIONS AND SUGGESTIONS:-**

- Import water-intensive products
- Buy locally grown food
- Small changes in dietary and shopping routines and the 3 Rs Reduce, Reuse, Recycle will surely lessen the use of virtual water and prevent pollution.

## REFERENCES:-

Hoekstra, A.Y. (2017) “Water Footprint Assessment: Evolvement of a new research field,” Water Resources Management, 31(10), pp. 3061–3081. Available at: https://doi.org/10.1007/s11269-017-1618-5.

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