

How spurious food, unsafe water cost India ₹7L crore

An Indian research body, in a recent study, has sought to draw attention to food and water contamination as one of the biggest health challenges facing the country. The study contends that spurious food is not adequately captured as a risk factor, partly because food-borne diseases go largely undetected and unreported. But food and water-borne diseases extract a heavy price on the Indian population and the country's economy. A look

BAD FOOD IS EATING INTO THE GDP PIE



4.8% of its GDP is the price India paid for food-, water-borne diseases in 2016-17. The total, direct and indirect, cost of food and water-borne diseases was more than **₹7.3 lakh crore** in 2016-17

The direct costs, that is expenditure on hospitalisation and treatment, account for only **4%** of total economic cost, but indirect costs, a measure of the loss of productivity, accounted for **96%** of the total

CONTAMINATION ALSO BADLY AFFECTS PRODUCTIVITY

The total healthy life years lost due to food, water contamination in 2016-17 is estimated at **6.8 cr** years

Of this, communicable diseases (CDs), like diarrhoea, etc., accounted for **68%** of healthy life years lost by Indians

But not only CDs, water, food contamination also lie at the root of non-communicable diseases (NCDs), like cardiovascular diseases, diabetes, etc., which had a **31.8%** share in healthy life years lost due to water, food contamination in 2016-17

HOW CONTAMINATION HURTS INDIA



21% of communicable diseases in India are related to unsafe water, according to World Bank estimates, and diarrhoea alone causes more than 1,600 deaths daily

When it comes to contamination of food, it starts at the farm level itself. That is significant because Indian diets are overwhelmingly dependent on farm produce

BIGGEST CHUNK OF INDIAN DIETS COMES FROM FARM PRODUCE

(Share in monthly per capita consumption 2016-17)

Fresh fruits and vegetables 17.3%	Egg, fish & meat 9.3%	Spices 6.1%
Milk & Milk Products 15.7%	Edible oil 5.8%	Pulses & Pulse products 5.0%
Served Processed food 10.1%	Beverages 4.7%	Salt & Sugar 2.7%
		Packaged food 4.6%
		Dry fruits 1.6%

AND HERE'S THE ANATOMY OF FOOD CONTAMINATION

The worrisome part is that the number of food-borne disease cases is expected to rise to 150 – 177 million in 2030 from 100 million in 2011. That means by 2030, one out of 9 people on average will fall sick, up from one out of 12 in 2011

INPUTS

Crops grown in contaminated soil, irrigation water high in arsenic and metallic content, rampant use of chemicals, pesticides



Livestock, poultry ingesting contaminated food, water



Marine animals ingesting water contaminated with sewage, factory waste



PROCUREMENT AND STORAGE

Bacteria due to inadequate storage temperature, infections from rodents, chemical preservatives in grains, fruits, vegetables



PROCESSING

Contaminants added during processing and packaging, unhygienic methods of production



RETAILING

Excreta of rodents in groceries, ration shops. Breach of sell-by date. Vendors in the unorganised food retail sector using spurious material



CONSUMPTION

Home cooking with contaminated inputs. Unhygienic commercial kitchens. Improper storage of food



HOW CONTAMINATION WORKS: A SMALL SAMPLE

<p>Tea</p> <p>ADULTERATION Used tea leaves, iron filings</p> <p>EFFECT Liver disorder</p>	<p>Coffee Powder</p> <p>Tamarind seed, date seed powder, Chicory powder</p> <p>Diarrhoea, stomach disorder, giddiness and joint pain</p>	<p>Milk</p> <p>Unhygienic water and Starch</p> <p>Stomach disorder</p>
<p>Sugar</p> <p>Chalk powder</p> <p>Stomach disorder</p>	<p>Asafoetida (Hing)</p> <p>Foreign resins galbanum, colophony resin</p> <p>Dysentery</p>	<p>Turmeric powder, dals, pulses</p> <p>Yellow aniline dyes and kesari dal, non-permitted colourants, tapioca starch</p> <p>Highly carcinogenic, stomach disorders, stomach disorder</p>
<p>Black pepper</p> <p>Papaya seeds & light berries</p> <p>Stomach, liver illness</p>	<p>Chilli powder</p> <p>Brick powder, saw dust, artificial colours</p> <p>Stomach problems, cancer</p>	