



US SOY
Delivers Solutions

USSECO

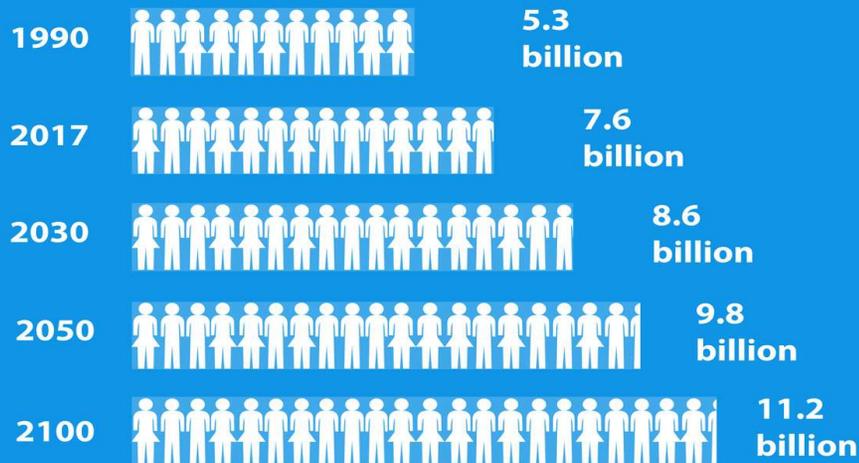


Proteins!! & relevance of US Soy

Jaison John
Team Lead, India,
U.S. Soybean Export Council (USSEC)

World Population

Projected world population until 2100

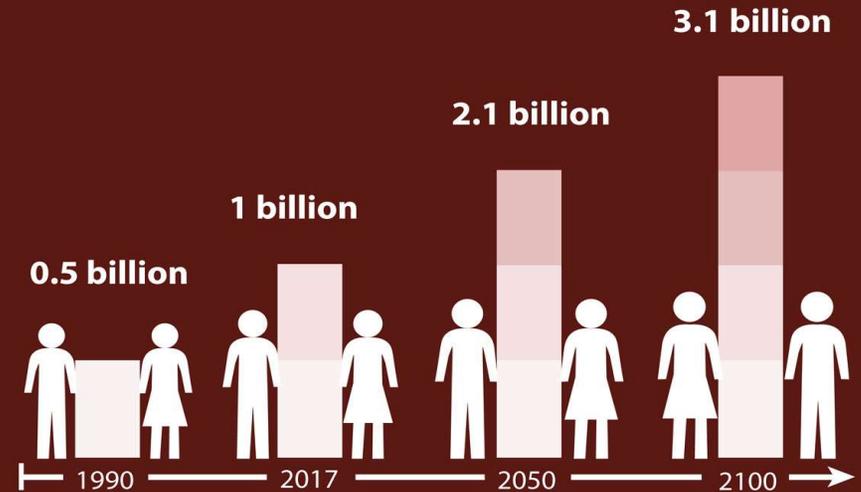


Source: United Nations Department of Economic and Social Affairs, Population Division, *World Population Prospects: The 2017 Revision*
Produced by: United Nations Department of Public Information



Ageing Population

Projected global population aged 60 years or over



Source: United Nations Department of Economic and Social Affairs, Population Division, *World Population Prospects: The 2017 Revision*
Produced by: United Nations Department of Public Information



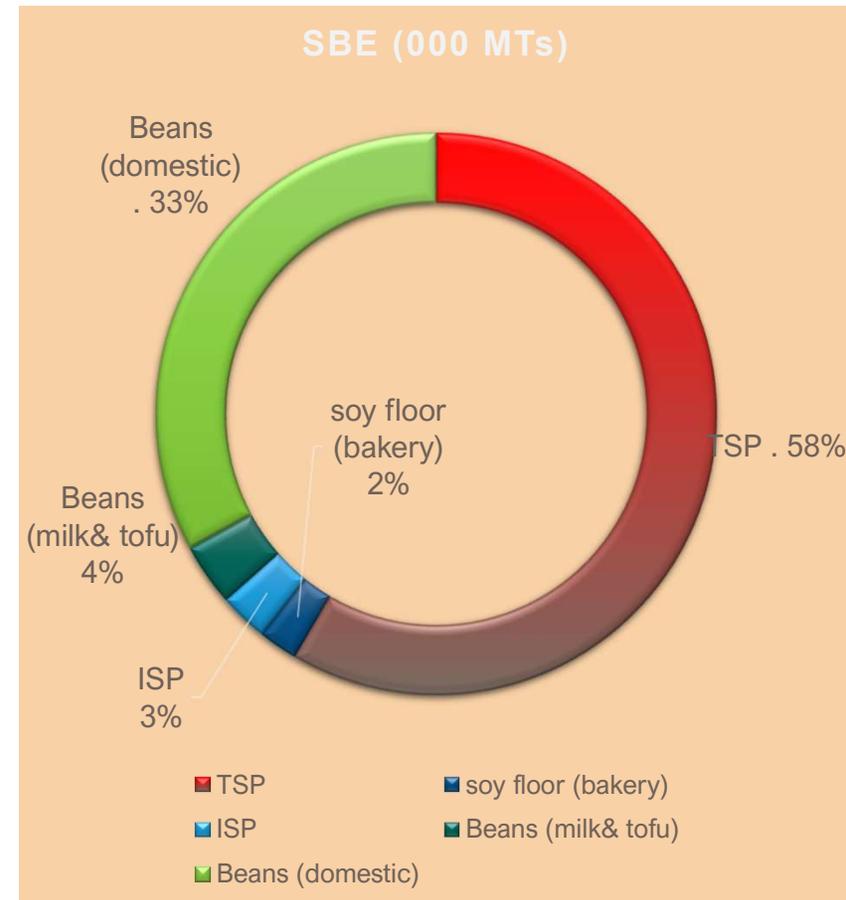
Solution to feeding humans nutritiously ?

SOY

nutritious, safe, affordable and a sustainable global supply with economic viability for farmers.

Soy – Consumption Patterns

- Soy food is one of the fastest-growing segments (1.5 MMT)
- Mainly driven by health-conscious consumers
- Soymilk, tofu, and TSP protein supplement markets continue to have healthy growth.
- Home-level consumption of whole beans
- Increasing interest in plant protein-based foods
- Soy-based meat analogues are growing with innovative products
- High protein, low glycaemic reconstituted rice, Lentil analogue
- US soy protein isolate has about 60% market share (~25 m\$)
- Scope of US high-value protein products based on functionality
- Bakery, snack food and processed food industry.
- Tempeh is a new entrant to the Indian market



THE WORLD'S DEADLIEST PANDEMIC

Disease has plagued humanity since the early days of civilization. While outbreaks are a constant issue even in modern times, only a handful of viruses reach full-blown pandemic status.

Here's a look at the deadliest pandemics in history, and their death toll in relation to the global population at the time.

Pandemic	% of Population	Death Toll	Population Est.	Year of Pop. Est.
Black Death	51.0%	200M	0.39B	1300
Plague of Justinian	19.1%	40M	0.21B	500
Smallpox	12.1%	56M	0.46B	1500
Antonine Plague	2.6%	5M	0.20B	200
Spanish Flu	2.5%	45M	1.82B	1919
The Third Plague	1.0%	12M	1.26B	1850
HIV/AIDS	0.7%	30M	4.46B	1981
COVID-19	0.04%	3.5M	7.90B	27/05/2021

It took approximately 200 years for Europe's population to return to pre-plague numbers.

Many of the death toll numbers are best estimates based on available research. Some, such as the Plague of Justinian are subject to debate based on new evidence.



The Nutrition Awareness Index 2023

A study by 

Nearly half of young Indians aged 18-35 say access to nutrition is a challenge

53%

54%

More than half surveyed believe that they consume balanced meals

Over half of India is unaware of healthy fats.

54%

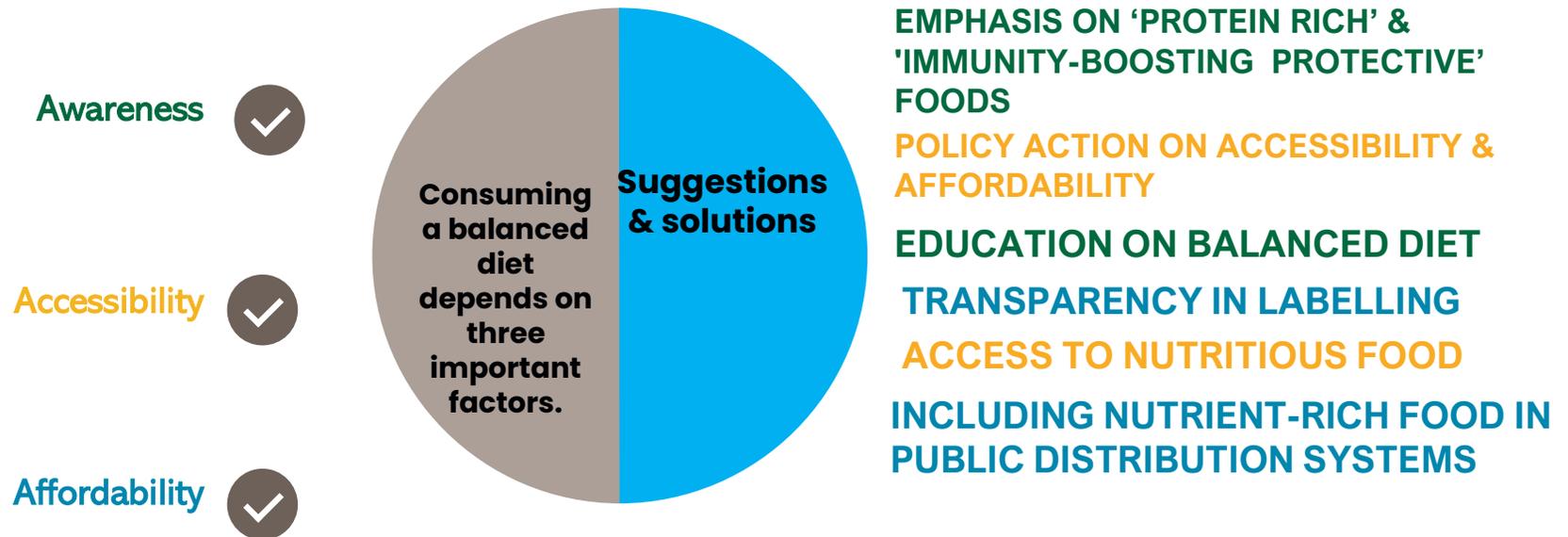
85%

Almost 8 out of 10 Indians are still unaware of the vegetarian sources of protein


Delivers Solutions



Factors vs solutions



Protein Data in India

Our milk production 2021-22 is **221.06 MMT** & per-capita availability of milk is **444 grams/day**

We have a placement of 12-13 Million Chicks per day

We produce a total of **129.60 billion no's** of Eggs in the year 2021-22

Our per capita chicken consumption is 3.5 to 4 Kg, the highest is 72 kg – Israel

Our per capita egg availability is 95/annum, the highest in Mexico, with 400

A broiler bird consumes 4-4.5 kgs of feed ((2.15 kg body weight average) within 40 days

An egg requires 130 gms of feed

30 per cent of Indians are vegetarian

Protein-rich food helps you stay away from diabetes

Do not blame your food (soy, chicken, fish, or egg) for obesity or health. check your **LIFESTYLE** as well

The human body requires 1 **gm/Kilo** of bodyweight protein per day

Today's feed , tomorrow's food

NUTRITION

There is a dearth of nutritional and economical feed ingredients, causing farmers to use “fillers” in their feed.

In the long term, fillers, low quality grains and protein reduce efficiency of production and adversely affect animal health.

MARKET DYNAMICS

When demand increases, should produce more.

Unfortunately, instead of benefiting from increased demand, higher prices drive down demand.

Farmers tend to reduce placement and provide less nutritional feed to cut costs .

NET RESULTS

Shortage of animal protein in the market

Rising prices, inflation and malnutrition

Power of Protein - SOY

Immunity is our body's capability to fight against foreign **organisms/abnormal cells/substances**

whenever we are exposed to the above, the immune system releases **antibodies** to prevent any ill effects caused by the antigen.

An **antigen** is a toxin or other foreign substance which induces an immune response in the body

antibodies are the ammunition released by the immune system of our body to combat the attack by the antigen.

Proteins are essential for the creation of antibodies.

Amino acids are the building blocks of proteins.

Amino acids:- **essential & non-essential**, soy has 20 amino acids, which are required for every animal/human.

There are 9 essential amino acids (the human /animal body can't produce or store them) so should be supplied from the protein we consume.

the rest are non-essential amino acids which are produced by our body.

Rich sources of protein are eggs, meat, poultry, fish, and other animal-origin foods.

For vegetarians and vegans, soy, legumes/pulses, nuts and oil seeds are major sources of proteins.

Curd is a good protein as well as a good probiotic

Relevance of Soy in feed/food industry

- Availability
- Affordability
- Consistent quality
- Sustainable source
- High protein (44 –60%)
- High digestibility (88-92%)
- Better Amino-acid profile
- Source of lipids



COMPOSITION

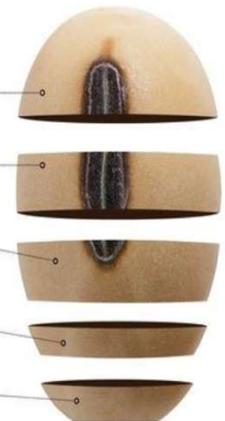
36% PROTEIN

19% OIL

19% INSOLUBLE CARBOHYDRATE (FIBER)

9% SOLUBLE CARBOHYDRATE

13% MOISTURE



Its not just about the soy oil – its more than this!

Oil is 18%, and protein is 35-40% still, it is an OIL Seed

Soy is the economically feasible plant protein available

India consumes around 1.5 million mts of soybean in food

The primary contributor in the food sector is TVP and which is very much significant in our market

Soybeans grind and blend with wheat and other coarse grain in households, reaching around .3-.5 million mts.

New products which are getting into the limelight are Vegan alternatives and meat-like foods ()

We might be importing approximately 10K mts soy isolate, which is getting in demand, hence could see some Demand in this sector.

Soy products like .. Tofu, milk, papad, ice cream, soy nuts

Protein fortification is a sector govt is looking for investments in as we do have protein deficiency across the population

One positive shift or change that has been noticed during this Post covid is a “protein fever” where food products are coming with added PROTEIN



GPS, CAMERAS
AND FEELERS



VARIABLE RATE
SEEDING AND
APPLICATION
TECHNOLOGY



SATELLITE AND
NORMALIZED
DIFFERENCE
VEGETATION
INDEX (NDVI)
IMAGERY



DRONES



IRRIGATION
SENSORS

SOY

SOY is Sustainable

SUSTAINABILITY BY THE NUMBERS

U.S. soybean farmers use a number of sustainable practices day after day, year after year. And they're continually working to improve their sustainability for the future.

CROP ROTATION



94%

of soybean hectares are under continuously rotated plantings, contributing to increased biodiversity.

REDUCED TILLAGE



70%

of U.S. soybean hectares use conservation tillage, including no-till.

WATER MANAGEMENT



94%

of U.S. farmland is non-irrigated.

PEST MANAGEMENT



95%

of U.S. soybean farmers personally scout their fields each season to manage pests.

NUTRIENT MANAGEMENT



92%

of U.S. soybean farmers have tested their soil to maintain proper nutrient levels.

CONSERVATION



10%

of U.S. farmland is left out of production to protect sensitive areas.

DETAILED RECORDKEEPING



95%

of U.S. counties have soil maps and data available online.

Uniqueness of U.S. Soy

The research concluded that:

Soybean oil from U.S. soybeans produced **HIGH-QUALITY** crude soybean oil

LOW COST of refining and the **HIGHEST** refining rate

U.S. soybeans have **LOWER DAMAGE RATES** on arrival, due in part to the pre-harvest conditions, such as climate, and post-harvest storage



protein
Day



protein
PARADOX

India Food
To Feed
Study



maa ke
haath ka
protein

India
Protein
Score

2023
SOY SUMMIT
Powered by protein

right to protein

An awareness campaign to educate people about the importance of adequate protein consumption for better nutrition, health, and wellbeing

The campaign aspires to build public knowledge of different types of protein sources, to meet larger nutritional security goals

Right To Protein is supported by several like-minded organizations, institutions, academicians, professionals, and individuals. The campaign is exclusively driven by the U.S. Soybean Export Council (USSEC)

@RightToProtein    

www.righttoprotein.com



Hello
Tempayy. SNEHA
THE SUPER BEAN PROTEIN



SOYVITA



SUGUNA
FOODS
Breeding Trust, Growing Together

YOUR SUSTAINABILITY SOLUTION.

SOY.ORG

Thank you.



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