RECENT DEVELOPMENTS IN AGRICULTURE

ARTIFICIAL INTELLIGENCE

ARTIFICIAL INTELLIGENCE (AI) CONSISTS OF REMOTE SENSORS, SATELLITES, AND UAVS WHICH MONITOR PLANT HEALTH, SOIL CONDITION, TEMPERATURE, HUMIDITY, ETC.

WATER MANAGEMENT INITIATIVES

WATER MANAGEMENT INITIATIVES INCLUDE WATERSHED MANAGEMENT, DRIP IRRIGATION AND WATER USER ASSOCIATION TO STRENGTHEN THE AGRICULTURAL SECTOR.

MODERN GREENHOUSE

GREENHOUSE IS THE BEST WAY TO GROW CROPS, FRUITS, VEGETABLES ETC. MODERN GREENHOUSES MAKE THIS WAY MORE RELIABLE AND EASY FOR FARMERS.

GIS BASED AGRICULTURE

THROUGH GIS BASED TECHNOLGY, FARMERS CAN MAP CURRENT AND FUTURE CHANGES IN PRECIPITTION, TEMPERATURE, CROP YIELDS, PLANT HEALTH, AND SO ON.

DATA FROM THE SKY - DRONES

DRONES HELP TO DEFINE CROP BIOMASS, THE PRESENCE OF WEEDS, PLANT HEIGHT AND WATER SATURATION ON CERTAIN FIELD AREAS WITH HIGH PRECISION.

BLOCKCHAIN

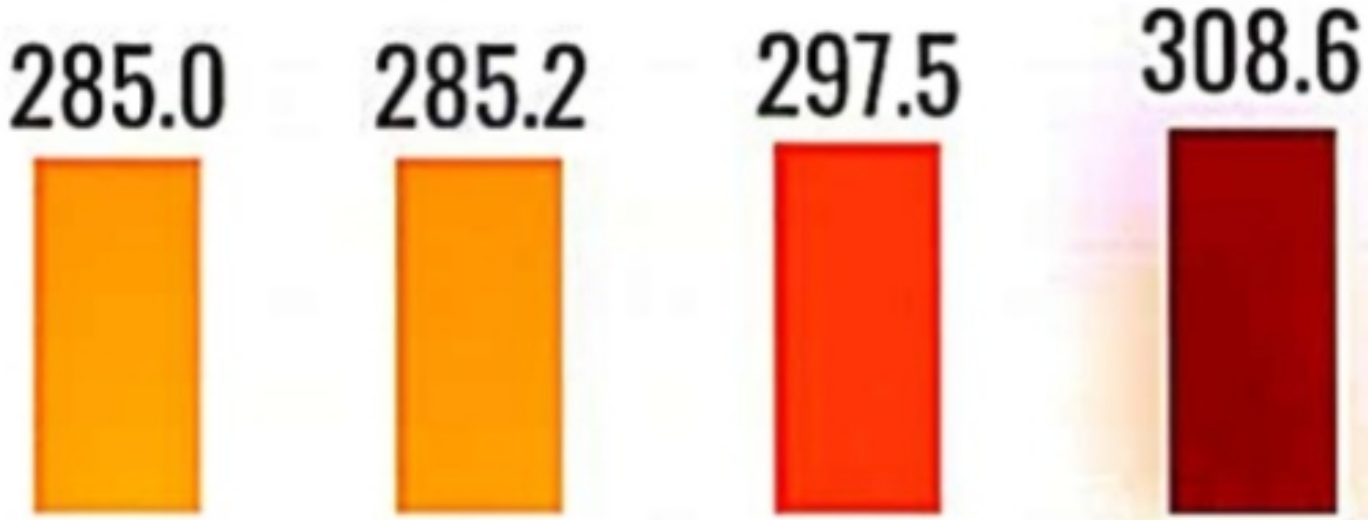
THE ABILITY OF BLOCKCHAIN TO TRACK OWNSHIP RECORDS AND TAMPER-RESISTANCE CAN BE USED TO ADDRESS URGENT ISSUES SUCH AS FOOD FRAUD, SECURITY RECALLS, SUPPLY CHAICENCIES, AND FOOD TRACEABILITY IN THE CURRENT FOOD SYSTEM

Azadi Ka Amrit Mahotsav

ECONOMIC SURVEY 2021-22

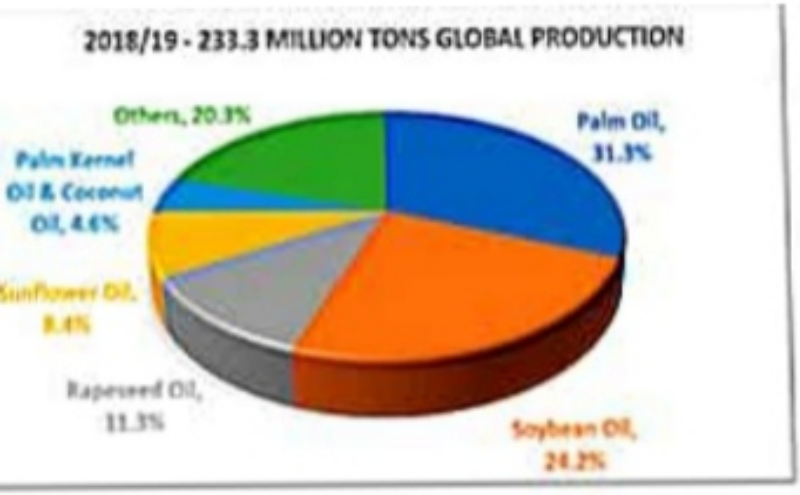
FOODGRAINS PRODUCTION

In million tonnes

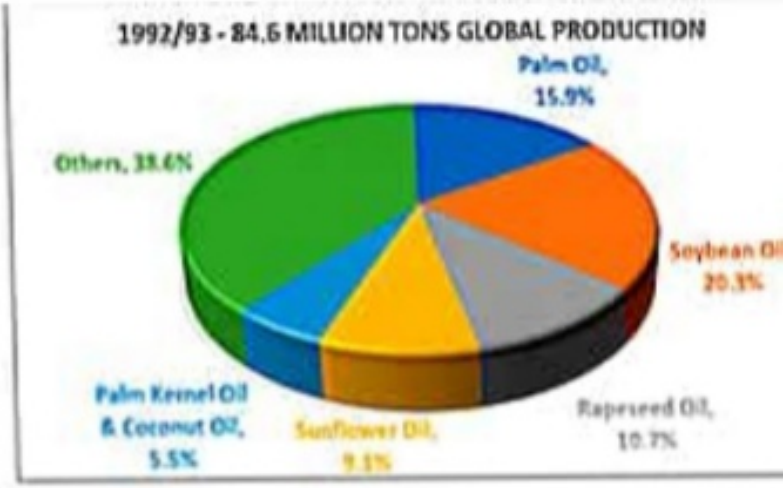


*Includes rice, wheat, coarse cereals and pulses

KBK

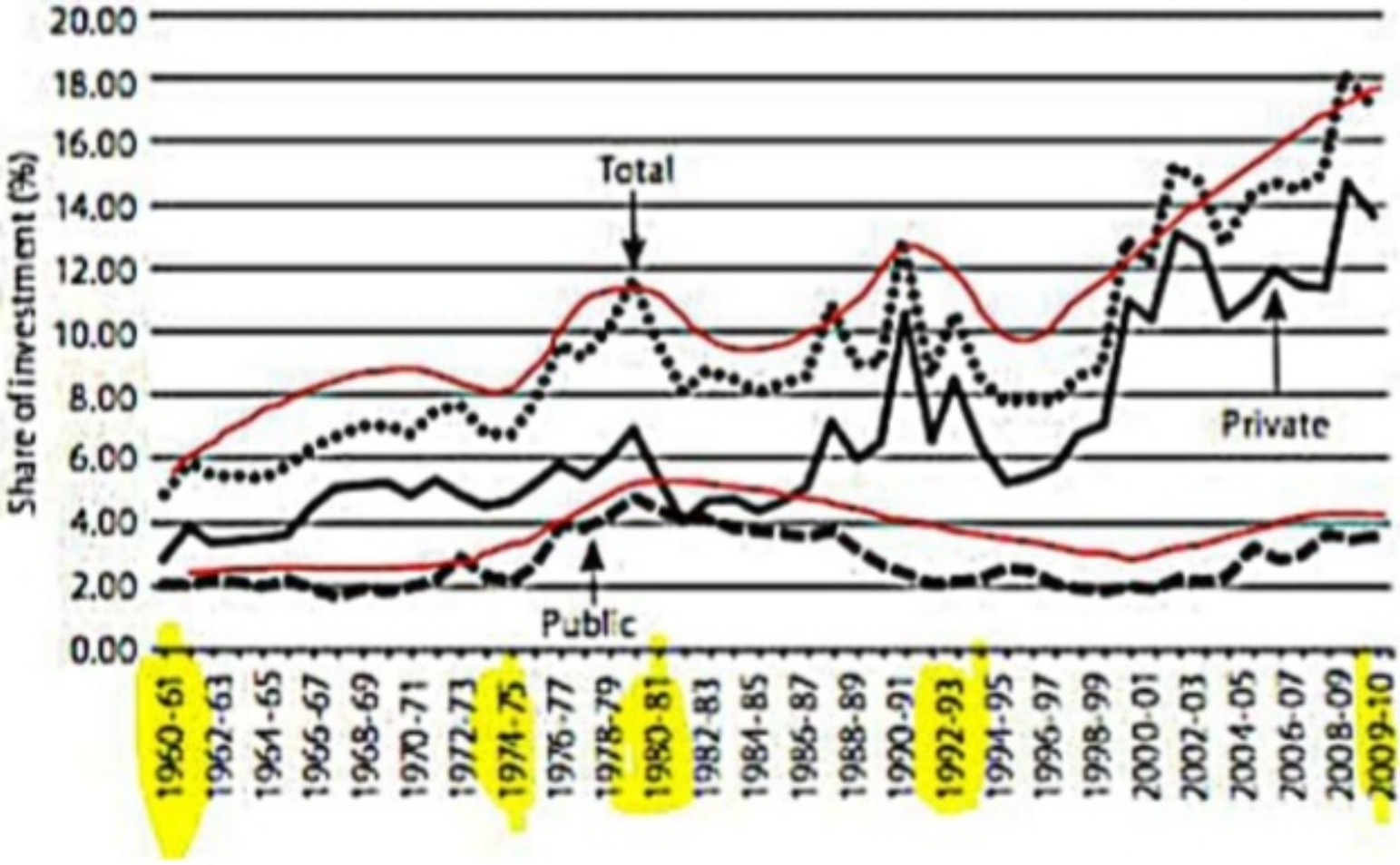

2018/19 - 233.3 MILLION TONS GLOBAL PRODUCTION
Others, 20.3%
Palm Oil, 31.3%
Palm Kernel Oil & Coconut Oil, 4.6%
Sunflower Oil, 8.4%
Rapeseed Oil, 11.3%
Soybean Oil, 24.2%

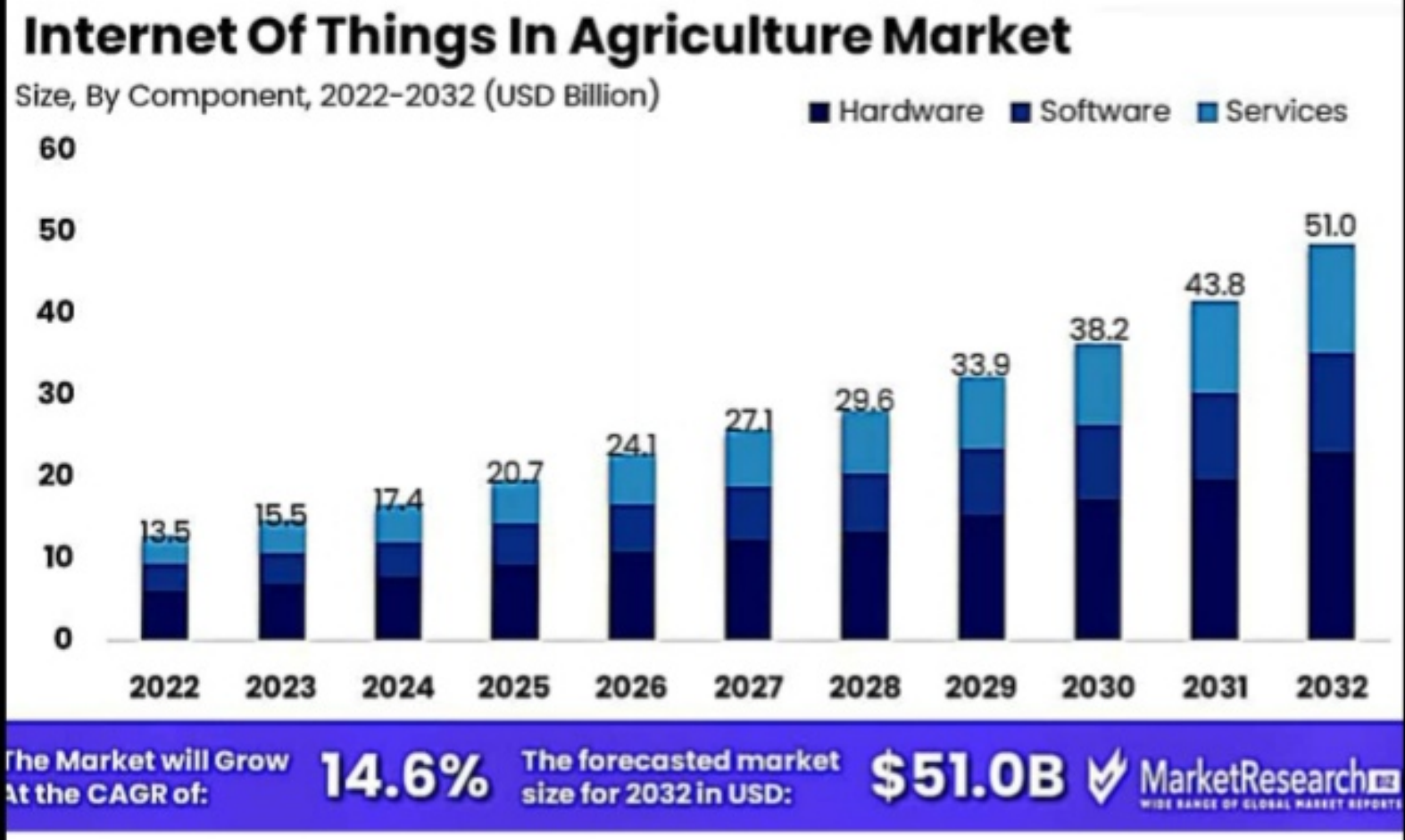
(a)


1992/93 - 84.6 MILLION TONS GLOBAL PRODUCTION
Palm Oil, 15.9%
Others, 33.6%
Soybean Oil, 20.3%
Palm Kernel Oil & Coconut Oil, 5.5%
Sunflower Oil, 9.1%
Rapeseed Oil, 10.7%

(b)

Figure 2: Gross Fixed Capital Formation in Agriculture as a Share of GDP-Agriculture at Current Prices (%)

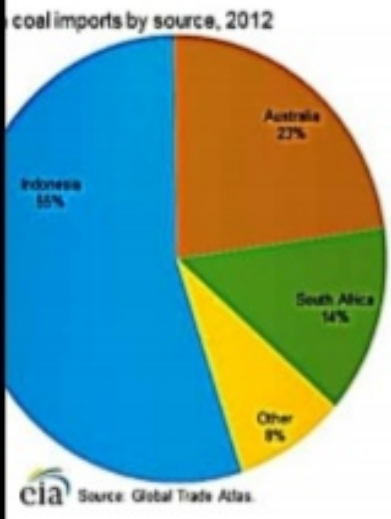


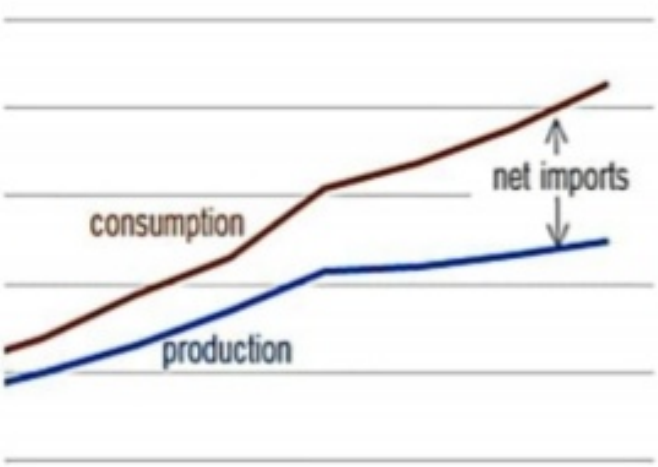


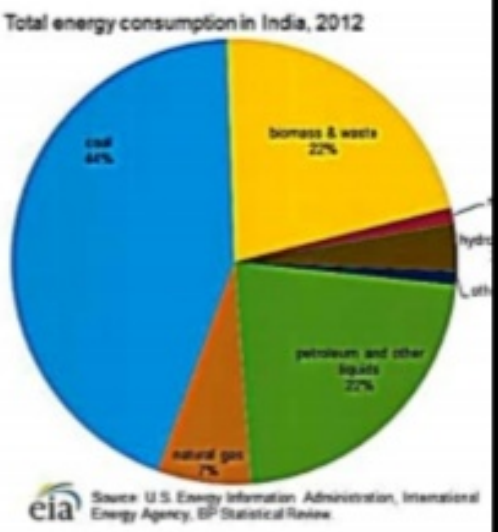
The Market will Grow At the CAGR of: **14.6%**

The forecasted market size for 2032 in USD: **$51.0B**

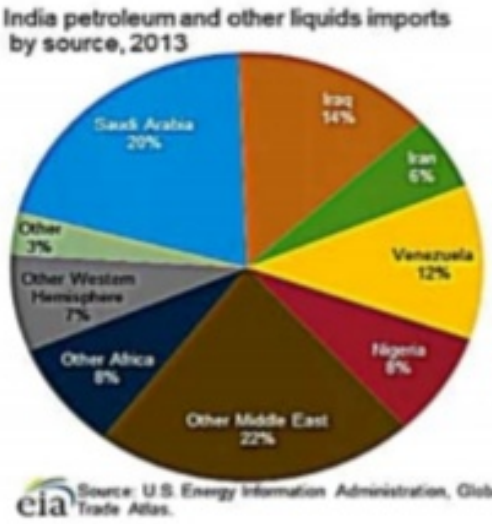
MarketResearch

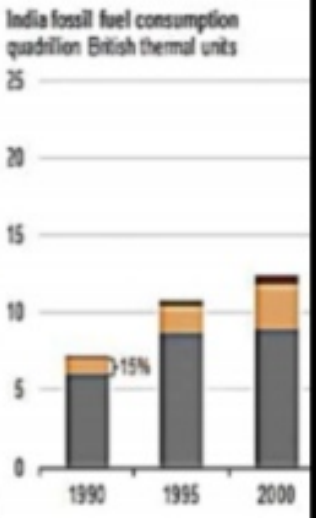

coal imports by source, 2012
Australia
27%
Indonesia
55%
South Africa
14%
Other
8%
eia
Source: Global Trade Atlas.

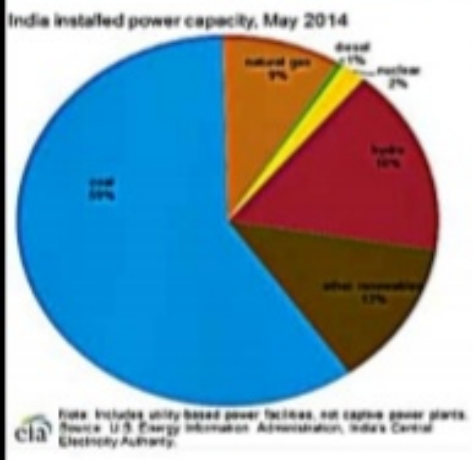

consumption
net imports
production

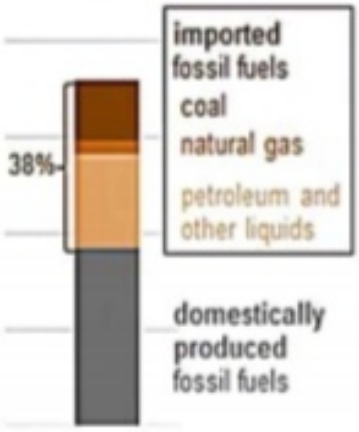

Total energy consumption in India, 2012
coal
44%
biomass & waste
22%
petroleum and other liquids
22%
natural gas
7%
eia
Source: U.S. Energy Information Administration, International Energy Agency, BP Statistical Review

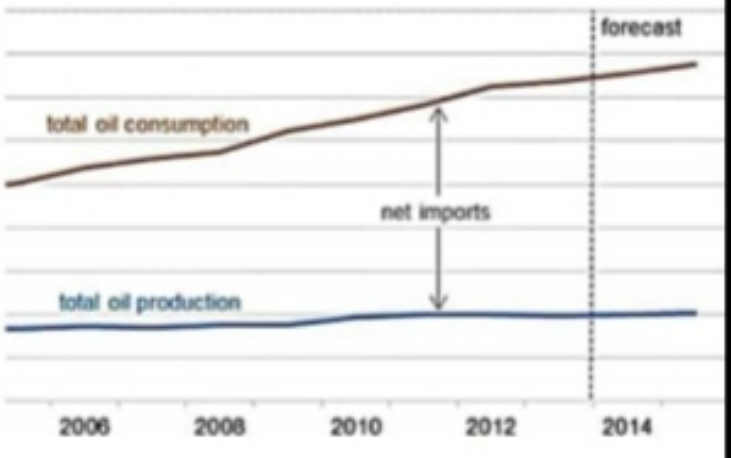

PAKISTAN
Chandigarh
New Delhi
NEPAL
Lucknow
BHUTAN
Patna
Gandhinagar
BANGLADESH
Kolkata
Mumbai
Hyderabad
Bangalore
Chennai
Legend
Crude oil & LPG pipeline
Refinery


India petroleum and other liquids imports by source, 2013
Saudi Arabia
20%
Iraq
14%
Iran
6%
Venezuela
12%
Nigeria
8%
Other Middle East
22%
Other Africa
8%
Other Western Hemisphere
7%
Other
3%
eia
Source: U.S. Energy Information Administration, Global Trade Atlas.


India fossil fuel consumption
quadrillion British thermal units
25
20
15
10
5
0
15%
1990
1995
2000


India installed power capacity, May 2014
natural gas
9%
diesel
1%
nuclear
2%
hydro
19%
coal
59%
other renewables
11%
eia
Note: Includes utility-based power facilities, not captive power plants.
Source: U.S. Energy Information Administration, India's Central Electricity Authority.


imported fossil fuels
coal
natural gas
petroleum and other liquids
38%
domestically produced fossil fuels


forecast
total oil consumption
net imports
total oil production
2006
2008
2010
2012
2014

INDIA'S AGRICULTURAL CROP PRODUCTION ANALYSIS (1997-2021)