UP

POWERING NEW INDIA

AGRO & FOOD PROCESSING

Serving the Global Appetite. -

GLOBAL SCENARIO

- Globally, the food export market is expected to bring in revenue of INR 1,92,13,230 Cr, as per research report by Research and Markets. Food and agribusiness have a massive economic and social footprint - the INR 4,94.59,800 Cr industry represents 10 per cent of global consumer spending and 40 per cent of employment.
- The major demand drivers for the industry include improved yield and resistance due to hybrid seeds, increasing mechanization of farming, rising disposable income, increasing awareness of health and wellness, growing population and expanding urbanization.
- The structure of the global food industry is continously changing and evolving as food suppliers, manufacturers, and retailers adjust to meet the needs of the consumers, who are increasingly demanding a wider variety of higher quality products.

INDIAN SCENARIO

- Agro-food processing, one of the focus sectors in the 'Make in India' initiative is considered as one of the fastest growing sectors in India.
- The processed food market, valued at INR 20,41,802 Cr in 2016, is expected to grow to INR 34,43,163 Cr by 2020 at a CAGR of 14.6% . The growth of the industry is supported by the availability of a large raw material production base.
- India ranks 2nd after China in total food production globally.
- India ranks 1st in production of Milk, Bananas, Mango, Guava, Papaya, Ginger and Okra in the world.
- India ranks 2nd in production of Green peas, Potato, Tea, Tomato, Sesame Seed and many other key commodities in the world.
- India is also among the top 10 countries in the world in terms of land area under organic agriculture. The country produced around 1.35 Million MT of certified organic products (2015-16).

KEY ENABLERS

Liberal FDI regime

- India permits 100 per cent FDI in the food processing sector through the automatic route (barring alcohol and sectors reserved for small scale industries) and 100 per cent FDI under Government route for trading, including (e-commerce) has been permitted in respect of food products manufactured and/or produced in India.

Thriving Supply Chain

- An abundant input resource base/supplier market, keen on value addition, presents evergreen avenues to investors.
- Government of India expects the food processing sector to consume around 25 per cent of the total national agri produce by 2025.

Conducive Regulatory Regime

- A unified certification regime under the Food Safety Standards Authority of India (FSSAI) basis tests from a network of recognised testing laboratories (public/private) ensures and preserves the sector's regulatory credibility and stability throughout the country.

Schemes / Incentives

- Introduction of schemes such as Pradhan Mantri Kisan SAMPADA Yojana, Mega Food parks, Cold Chain, Creation/ Expansion of Food Processing/Preservation Capacities, Agro Processing Cluster, Food Safety & Quality Assurance infrastructure, as well as availability of affordable credit and other fiscal incentives has also led to India being considered as one of the most favourable markets.

KEY TRENDS

Key employment source

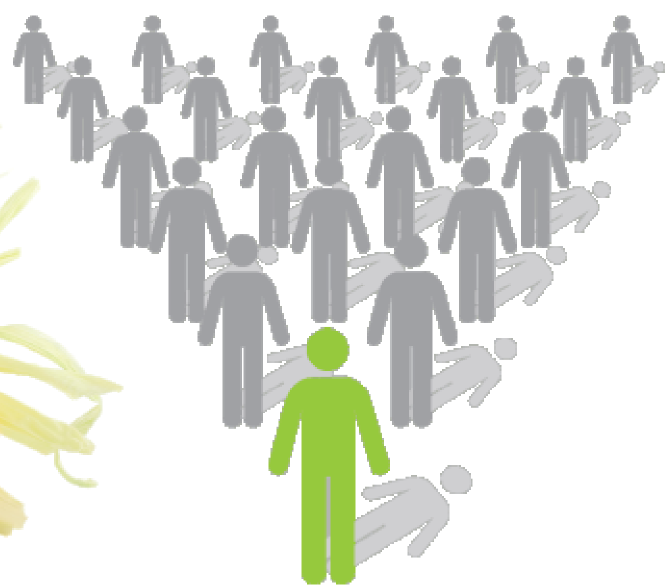
- The food processing industry has the largest number of factories and engages largest number of employees as compared to other industries according to the Annual Survey of Industries 2013-14. Moreover, the total number of persons engaged in registered food processing sector is 1.7 Million which constitutes 11.7% of employment generated in all registered factory sector. By 2024, food processing sector is expected to employ 9 Million people in India.

Emphasis on R&D

- The Government has stressed on the need for research in the field of agriculture to determine the health of soil and its needs in terms of seeds, water quantity, amount of fertilization, etc.
- The Prime Minister encouraged to make more use of scientific technologies to help raise agricultural production. The Government emphasized on the role of eastern part of India (comprising eastern Uttar Pradesh, Bihar, West Bengal, Jharkhand, Assam and Odisha) to bring about the major part of the second green revolution and provide food security.

Rapid shifts in eating habits

- Rise in income of people has led to high demand for nutritive foods, including fruits and vegetables, in addition to staple cereals and pulses.
- Vegetarianism is also becoming increasingly popular globally.



UTTAR PRADESH SCENARIO

Uttar Pradesh is one of the major producers of horticultural crops and food grains in India, which serves as a lucrative base for the food processing industry. Also, being a predominant sector in the State, agriculture and allied activities contribute 23% to the State's GSDP in 2014-15. Some of the key facts related to Agro-Food processing industry of the State include:

- Largest producer of fruits and vegetables in India– Rank 1 in production of food grains, milk, sugarcane, potato, peas, mango, gooseberry and watermelon.
- Land under Cultivation in 2013-14 (in Thousand Hectares)
  - i. Arable land: 17,681
  - ii. Net sown area :16,546
  - iii. Total area sown :25,896
- Food exports stood at INR 11970.6 Cr (147 Million MT) in 2016-17 (April - January), with a contribution of 60% to India's total meat export

Major Exports from FPI Sector in UP (in INR Lakhs)

Sector	2015-16	2016-17
Horticulture & Processed Food	504.93	2638.10
Processed Meat	14595.73	15078.93
Menthol & Essential Oil	1608.76	1101.04

KEY INVESTMENT ENABLERS FOR THE SECTOR

Location

- Strategic location as Gateway to east India and Nepal – well-connected through extensive rail/road network (Amritsar-Delhi-Kolkata and Delhi-Mumbai Industrial Corridors pass through the State).

Diverse Agro Climatic Zones

- Uttar Pradesh is enriched with diverse agro climatic conditions. The State can be segmented into nine agro climatic zones having specialities in different forms of agro commodities.

Centers of Excellence

a. Existing Training Institutes

- State Institute of Food Processing Technology, Lucknow.
- Regional Food Research and Analysis Centre R-FRAC, Lucknow.
- 10 Government Food Science training centers at Divisional level.
- 77 Government Community Fruit Preservation and Training Centers at District level - training 25,000 students.

b. Leading Agriculture Universities and Institutes

- Chandra Shekhar Azad University of Agriculture and Technology, Kanpur.
- Narendra Dev University of Agriculture and Technology, Faizabad.
- Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad.
- Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut.
- Indian Veterinary Research Institute, Bareilly.

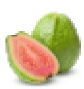
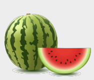
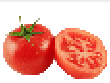
<table>
<tr><th>S.No.</th><th>Item</th><th>India</th><th>UP</th><th>Share of UP in India's total output (%)</th><th>UP's Rank</th></tr>
<tr><td>1</td><td>Potato</td><td>48.10</td><td>15.56</td><td>32.35</td><td rowspan="7">1</td></tr>
<tr><td>2</td><td>Mango</td><td>18.83</td><td>4.55</td><td>24.16</td></tr>
<tr><td>3</td><td>Livestock (excluding cow)</td><td>512.06</td><td>68.71</td><td>13.41</td></tr>
<tr><td>4</td><td>Milk Production</td><td>155.48</td><td>26.39</td><td>16.97</td></tr>
<tr><td>5</td><td>Wheat</td><td>93.5</td><td>26.87</td><td>28.74</td></tr>
<tr><td>6</td><td>Food Grains</td><td>252.22</td><td>44.01</td><td>17.45</td></tr>
<tr><td>6</td><td>Sugarcane</td><td>352.16</td><td>145.39</td><td>41.28</td></tr>
<tr><td>7</td><td>Rice</td><td>104.3</td><td>12.5</td><td>12</td><td rowspan="3">2</td></tr>
<tr><td>8</td><td>Bajra</td><td>8.06</td><td>1.78</td><td>22.03</td></tr>
<tr><td>9</td><td>Vegetables</td><td>167.06</td><td>27.88</td><td>16.68</td></tr>
<tr><td>10</td><td>Fruits</td><td>86.28</td><td>10.54</td><td>12.21</td><td>3</td></tr>
</table>

All figures in Million Tons (MT) except livestock, which is in Million MT.

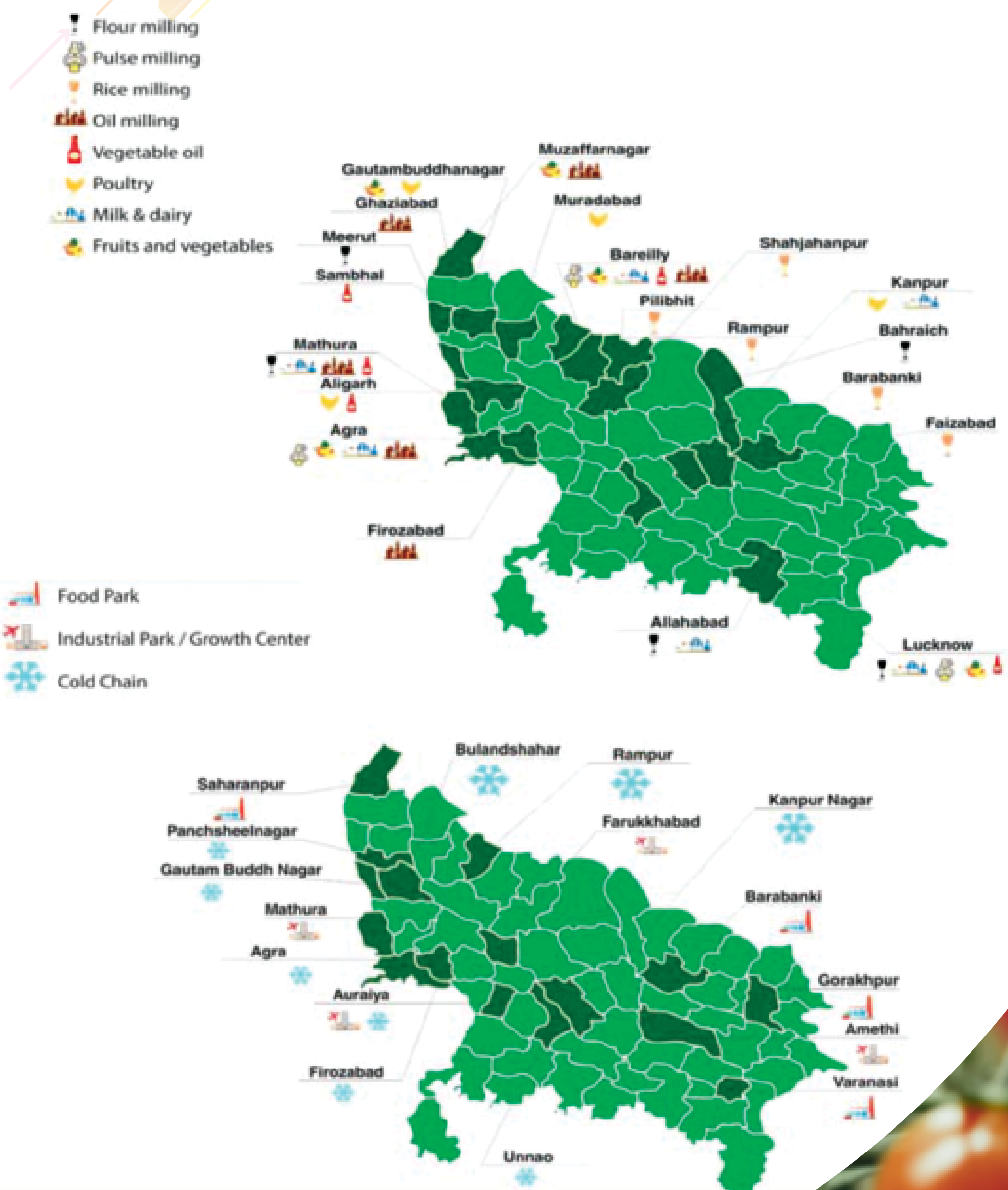
Infrastructure Availability:

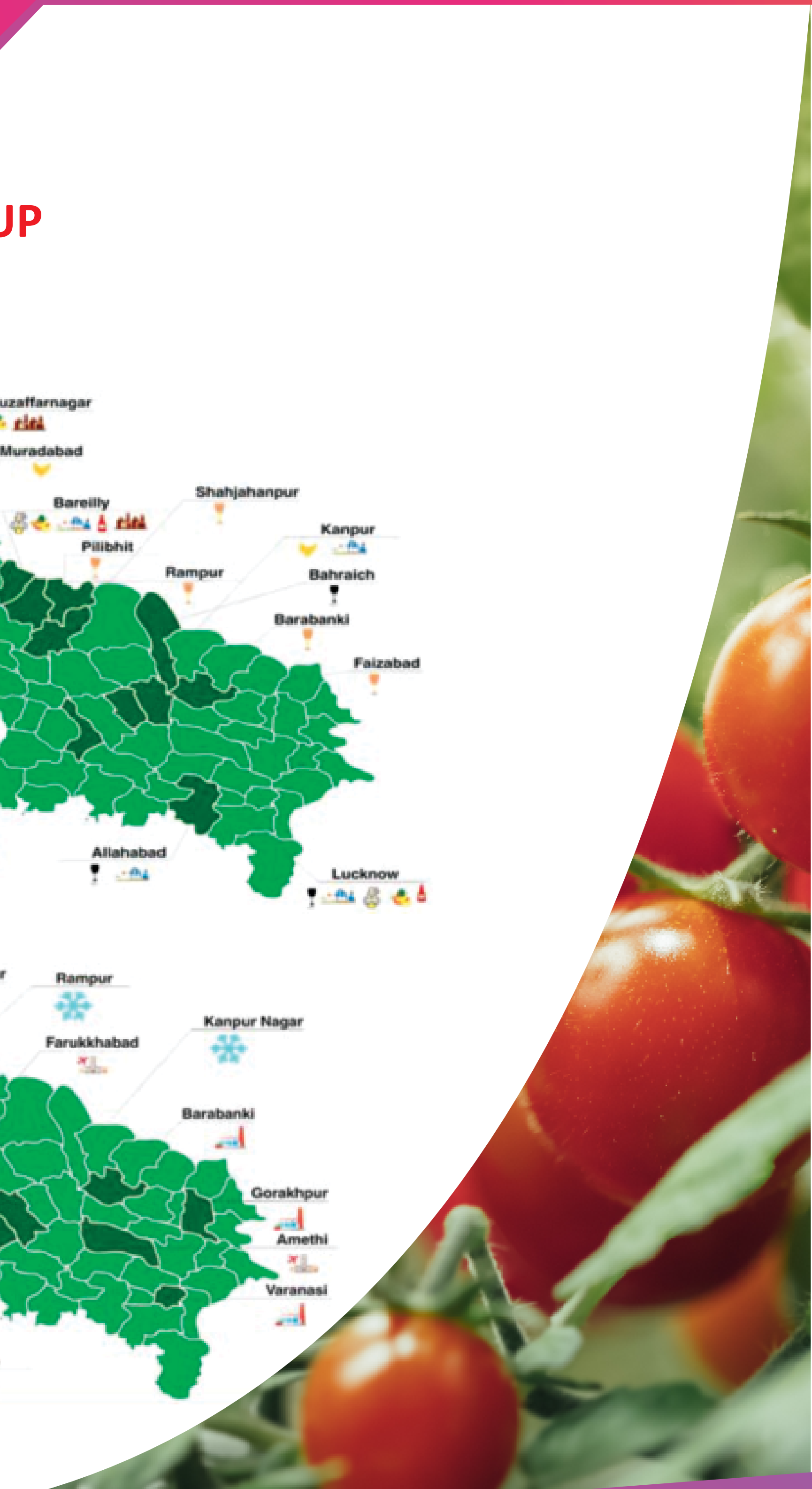
Inland container depots	10
Existing Industrial Areas/SEZs	52 industrial areas (1,546 Acres available) 10 SEZs
Agri Export Zones	4 *Agri Export Zones:* • ***Potatoes:*** *Agra, Hathras, Farrukhabad, Kannoj, Meerut, Baghpat and Aligarh, JanpadBadaiyun, Rampur, Ghaziabad, and Firozabad* • ***Mangoes and Vegetables:*** *Lucknow, Unnao, Hardoi, Sitapur and Barabanki* • ***Mangoes:*** *Saharanpur, Muzaffarnagar, Bijnaur, Meerut, Baghpat and Bulandshahr, Amroha* • ***Basmati Rice:*** *Bareilly, Shahjahanpur, Pilibhit, Rampur, Badaun, Bijnor, Moradabad, Amroha, Saharanpur, Muzaffarnagar, Meerut, Bulandshahr, Ghaziabad and Baghpat*
Cold Chains	Cold chain projects assisted by MoFPI : *23, Total - 29 Projects.* Total Cold Storages : 1909 Capacity : 154.54 Lakh MT
Registered FPOs	35 (33 registered, 2 under process) Farmers Mobilized: 35,746
Agriculture Marketing	250 regulated markets, 225 rural markets, 170 Famer Producer Organ zat ons, 238 rural godowns and 100 mand s reg stered w th eNAM

Key Industrial Clusters and Investment Zones

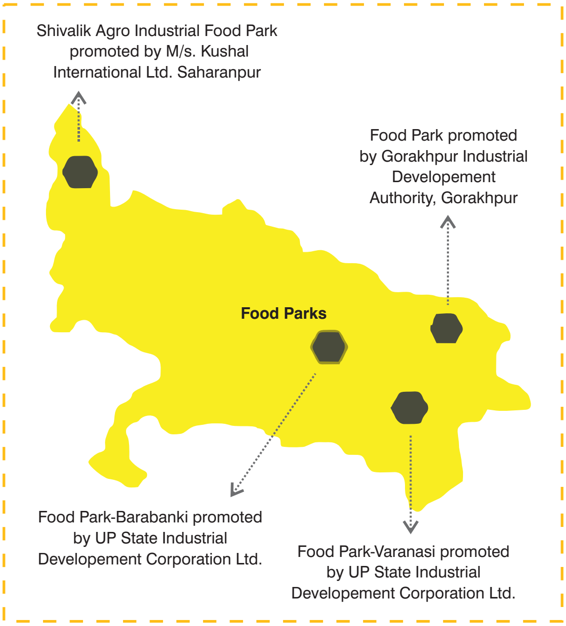
S. No.		Category	Districts
1		**Wheat**	Hardoi, Aligarh, Budaun, Bulandshahar, Shahjahanpur, Azamgarh, Meerut, Moradabad, Bareilly, Kanpur, Gorakhpur, Faizabad, Varanasi
2		**Rice**	Shahjahanpur, Barabanki, Kheri, Siddharth Nagar, Gorakhpur, Barabanki, Gonda, Kheri, Bareilly, Moradabad, Meerut
3		**Bajra**	Agra, Budaun, Aligarh, Firozabad, Kasganj
4		**Mango**	Lucknow, Saharanpur, Unnao
5		**Banana**	Gorakhpur, Kushi Nagar, Kaushambi, Maharajganj, Baharaich, Barabanki, Lucknow, Allahabad, Fatehpur, Lakhimpur-Khiri
6		**Guava**	Budaun, Kasganj, Aligarh, Farrukhabad, Hathras, Unnao, Kanpur Nagar, Kaushambi ,Allahabad
7		**Watermelon**	Aligarh, Firozabad, Etah, Farukkhabad, Kasganj, Sitapur, Barabanki, Kanpur Nagar,Unnao, Agra
8		**Potato**	Agra, Hathras, Firozabad, Kannauj, Aligarh, Farukkhabad,Mainpuri
9		**Peas**	Jalaun, Lalitpur, Jhansi
10		**Tomato**	Mainpuri, Agra, Etah, Barabanki,Unnao
11		**Urad, Gram, Pea & Arhar**	Jhansi, Lalitpur, Kanpur, Jalaun
12		**Mustard**	Agra, Kanpur

Processing Clusters in UP





- Food Park, Varanasi.
- Shivalik Agro Industrial Food Park, Saharanpur.
- Food Park, Barabanki.
- Food Park, Gorakhpur.
- Trishundi, Faizabad-Sultanpur-Allahabad road, Amethi.
- Kosi Kotwan Extn. II, Agra-Delhi National Highway, Mathura.
- Khemsepur, Farukkhabad.
- Plastic city – Dibiyapur, Auraiya.
- Kosi Kotwan Extn. I, Agra-Delhi National Highway, Mathura.



Agro Park Karkheon, Varanasi

- Located on Varanasi Jaunpur Road (NH-56), just 31 KM from Varanasi, the food park is spread in an area of 261 Acres earmarked for this mega food park.
- 166 Acres have been developed and a total of 384 plots have been planned.
- 11 Acres have been reserved for green zones.

Mega Food Park, Baheri

- 40 KM from Bareilly bordering Uttarakhand. 247.60 Acres have been earmarked for the Mega Food Park.
- Total of 118 plots, with area reserved for Weigh Bridges, Garbage Collection Centre, CETP, Dispensary, Parking Bay, Restaurants and Electrical Substation.
- 132 KVA dedicated feeder, 30 metre wide roads, ample green belt and parks, make it a unique proposition.

Barhgarh-II, Chitrakoot

- 70 Acres available, close to Madhya Pradesh state border, in Chitrakoot district (About 56 KM from Allahabad railway station, with rail, road and air connectivity).
- Identified as major cluster to grow Aonia and Citrus Fruits.
- Facilities like Power Station, Post Office, Police Station and Banks in the vicinity.
- Located in the Bundelkhand Region, this Industrial Area attracts special incentives as per Industrial Investment and Employment Promotion Policy of Uttar Pradesh 2017.

Agro Park, District Barabanki

- Located in Barabanki district, close to State capital of Lucknow, in close proximity to Integral University and Guru Govind Singh Sports College.
- Identified as a major cluster to grow Mentha, Mangoes and Bananas.
- Aesthetically made with properly categorised roads, high mast sodium vapour lamps and street lighting system.
- Cold storage, administrative building, overhead water tank, 132 KVA sub station, police outpost and parks are inside the area.
- In the total acquired land of 329.46 Acres, 246 plots have been developed.

Trishundi Industrial Area, District Amethi

- Strategically located on the Sultanpur-Allahabad Highway at Trishundi, 44 KM from Amethi town, 5 KM is the nearest rail head at Ramganj and 80 KM from Allahabad airport.
- Developed on 630 Acres of land.
- 148 Acres available for allotment to MSME sector.
- CRPF and Indian Oil Corporation Ltd. has almost 85% area. The remaining area is being recalibrated to offer smaller plots.

Khemsepur, Farukhabad

- 194 Acres available for allotment, 145 KM from Kanpur, located on "Grand Trunk Road" also known as National Highway 2, Khemsepur.
- Located on the potato growing belt of Uttar Pradesh and equidistant from Western and Eastern UP, it can serve as food processing hub for entire UP.

SUB-SECTORS OF AGRO-FOOD PROCESSING

a) Fruits & Vegetables

- Ranks 1st in potato (32.35%), 2nd in vegetables (14.11%) & 3rd in fruit (10.03%) production in India.
- Hosts the major fruit belts for mango (highest production in India), aonla (highest production in India) and guava (second highest production in India).
- Major spices grown in the state are chilies, garlic, ginger, turmeric and mentha.
- Major vegetables grown in the State are peas, potato, cabbage, tomato, okra, etc.

b) Grains

- Highest food grain(17.45%) & wheat (28.74%) producing State in India.
- Major food grains produced in the state are rice, wheat, maize, bajra, gram and peas.
- 2nd largest producer of rice in India contributing 12% to the national production.
- 2nd largest producer of bajra in India contributing 22% to the national production.

c) Poultry

- State produces 2,078 Million eggs annually.
- Huge opportunity exists as 3.65 Billion eggs and 90 Million poultry chicks are procured annually from other States.

d) Meat

- Largest exporter of processed frozen meat.
- Contributes more than 60% of India's meat export annually.
- 15 modern integrated abattoirs and 35 meat processing units.
- Buffalo meat is the main source of meat production and export, other sources of meat include sheep and goat.

e) Fisheries

- 3rd largest producer of inland fishes in India.
- Total fresh water fish production of UP for the year 2014-15 was 494.26 Million MT (national production was 6581.12 Million MT).

F) Dairy

- Opportunities in cold chain infrastructure.
- Contributes significantly 16.96% of the total milk production of the country.
- Buffalo milk contributes 70% to total milk production in the State.
- Only 5% of the fluid milk is processed and marketed in the organise sector-huse opportunities.

Policy Measures

Uttar Pradesh has launched the following policies for providing incentives to Agro-food processing related industries in the State:

- The Uttar Pradesh Food Processing Industry Policy 2017.
- Industrial Investment and Employment Promotion Policy of Uttar Pradesh 2017.
- Uttar Pradesh Poultry Development Policy 2013.

Key incentives available for the food processing industry under major policies are summarized in the table below:

Key Incentives	Uttar Pradesh Food Processing Industry Policy 2017	Industrial Investment and Employment Promotion Policy of Uttar Pradesh 2017	Uttar Pradesh Poultry Development Project 2013
Capital investment subsidy	• 25% of cost of plant and machinery and technical civil works up to INR 50 Lakh. Additional grants-in-aid of 10% under SAMPADA scheme for fruits and vegetables processing industries. • 50% of project cost up to INR 1 Lakh for small food processing units in rural areas. • Additional grant in aid @10% of eligible cost with a minimum investment of Rs. 50 Cr for Mega Food Park senctioned under SAMPADA Yojna, GoI.		
Capital Interest Subsidy		5% per annum for 5 years in the form of reimbursement on loan taken for plant and machinery subject to a ceiling of INR 50 Lakh per year.	
Interest Subsidy	• Reimbursement of 100% bank loan interest for 5 years on capital investment for micro and small food processing industries. • Reimbursement of 7% bank loan interest up to INR 50 Lakh in a year for 5 years on capital investment for establishments other than micro and small food processing industries. • Reimbursement of 7% bank loan interest up to INR 50 Lakh for 5 years on purchase of reefer vehicle/ mobile cooling van.	Reimbursement of 5% interest payable on loan for maximum of 5 years up to INR 1 Crore per unit.	10% interest subvention on loan for 5 years up to INR 40 Lakh.

Key Incentives	Uttar Pradesh Food Processing Industry Policy 2017	Industrial Investment and Employment Promotion Policy of Uttar Pradesh 2017	Uttar Pradesh Poultry Development Project 2013
Human Resource Development	• Grants-in-aid @ 75 Lakh per Institution/University/Government Institution for creation of infrastructure facilities such as modern library, pilot plant and laboratory equipments to run degree/diploma/certificate courses.		
Assistance for DPR	• 50% assistance of actual expenses on preparation of detailed project report (DPR) subject to a maximum of Rs. 5 Lakh.		
Electricity duty exemption		Exemption from electricity duty for 10 years to all new industrial units set up in the state (including ones producing electricity from captive power plants for self-use).	INR 1,200 to INR 2,400 per month for 10 years
Stamp duty exemption		50%-100% exemption	100% exemption in the stamp duty on purchasing of the land for poultry units with maximum area between 3 to 6 acres
Exemption on mandi fees		Exemption on purchase of raw materials for 5 years for all new food processing units.	Exemption on purchase of raw materials for 5 years (units with at least INR 5 crore investment in plant & machinery)

INVESTMENT OPPORTUNITIES

Snapshot of irrestible potential

Uttar Pradesh offers tremendous opportunities for investment across the entire value chain in the food processing sector. An indicative list of potential projects for investment is presented below:

a) **Manufacturing & Supply of agro inputs –** Given the huge agrarian economy of the State, immense potential exists in manufacturing, production and supply of necessary fertilizers, seeds, agro-chemicals, farm equipment, machinery and irrigation systems to increase production and productivity.

b) **Extension Services and Technology Transfer –** Extension support and technology transfer to farmers on efficient utilization of the agro-inputs is another attractive investment option in the State.

c) **Processing –** With strong supply side advantages, local demand, rising export potential and policy support, processing of food products offer immense potential in the State. Considering the abundance of naturally existing agro-resources, investments in mango processing, turmeric processing, aonla processing, breakfast and cereal manufacturing, garlic and chilli processing, etc. is a promising opportunity in Uttar Pradesh.

Sub-Sector	Processable Products	Value Proposition
Potato processing	Chips Wafers, Granules, Vodka, Sticks, French Fries, Dehydrated, Frozen Products, Starch, Powder, Flakes, Pellets, Liquid Glucose	• Potato is probably the most popular food item in the Indian diet and India is one of the largest producers of potato. It is grown all over the country with Uttar Pradesh growing the maximum quantity.
Mango processing	Mango juice, pulp, candy, leather (mango papad), squash	• The global mango juice market is anticipated to reach INR 1,43,650 Cr by the end of 2024, expanding at a compound annual growth rate of 4.1% over the period i.e. 2016-2024. • The fruit juice market in India is expected to grow at a CAGR of 35%-40%. The mango drink segment has 80% share of the fruit juices market. • With production of 4,512.7 Thousand Tonnes of Mango in 2015-16 Uttar Pradesh is the highest producer of Mangoes in India.
Turmeric processing	Turmeric powder	• Global market size is expected to reach INR 645.45 Crore by 2024 and is expected to grow at a CAGR of over 6% till 2021. • The cultivation of turmeric is growing in the State. The State is poised to cater to the increased demand of turmeric.
Aonla processing	Aonla powder, juice, pickle, preserve, candy, chutney, sweets, flakes	• In addition to various uses in medical, packaged food sector etc., aonla is used in value added hair oils which is expected to grow at a CAGR of 19.9% during 2014-19 in India. • Uttar Pradesh is ranked 1st in production of aonla in the country.
Breakfast cereal manufacturing	Cornflakes, sesame, rice flakes	• The global breakfast cereal market was estimated at INR 2,79,500 Cr in 2016 and is expected to grow at a CAGR of 4.3% to INR 3,57,500 Cr by 2022. • Overall consumption of breakfast cereals in India is set to increase by 13% each year for next three years. • With production of 12.5 Million MT of rice Uttar Pradesh is the 2nd highest producer in India.
Garlic and chilli processing	Garlic powder, paste, instant mix, chili paste, sauce	• Global condiments sauces market is expected to grow at a CAGR of 3.21% during 2014-20. • With rise in production of Garlic, Chilli and other condiments in the State, the opportunities of processing these commodities in Uttar Pradesh is immense.

d) Packaging – Offers attractive opportunities for industries engaged in packaging technologies and services. Packaging techniques like vacuum packaging, gas packaging, active and intelligent packaging, packaging of processed food through canning, tetra packing, aseptic packs, botting etc. also has top potential.

e) Preservation – Investment potential exists in preservation through fermentation, establishment of cold storage, facilities, traditional techniques like pickling, jellying, curing to produce different types of processed goods and modern industrial techniques like pasteurization, vacuum packing, artificial food additives, irradiation, bio preservation for large scale produce, etc.

Infrastructure and Logistics

a) Food Parks and Horticulture Hubs - Establishment of parks with multiple processing units has the potential for optimal usage of abundant agri-raw materials available in the State and help in realizing economies of scale.

b) Integrated units – Investment in developing integrated units with processing, preservation, packaging and warehousing facilities at notified Agro Parks in the state is a promising investment opportunity. These agro parks include Mega Food Park at Baheri, Agro Park at Barabanki, Khemsepur (Farukkhabad), Karkheon (Varanasi) and Barhgarh-II (Chitrakoot).

c) Transport - Development of transport infrastructure especially for food that ensures timely and safe delivery of raw and processed good is still unexplored.

d) Distribution - Distribution mechanism for processed agriculture produce to improve penetration of goods and increase the size of market.

Warehousing

a) Development of storage facilities like silos, PAU bin, Pusa bin etc. for agro produce to reduce wastage of agriculture produce and reaping of higher price of agriculture produce offeres an attractive potential in the state.

b) Changing preference of consumers for clean and safe meat and meat products offers potential for modern abattoirs in the state.

E-Marketing

With the advent of e- mandi and penetration of internet, opportunity exists to get better price of agriculture input.

Research and Development

Immense scope for innovation exists in creating new operating procedure and create new end products in across:

- Development of Packaging Techniques.
- Product Development.
- Testing Technology & labs.
- Seed Development.
- Hybridisation.

Skill Development

The State offers opportunities in:

- Training in food processing technology.
- Training farmers for maintaining the constant quality of produce.
- Improved farming techniques.
- Training programmes to handle the cattle, birds and understanding of international food laws.

Ecosystem development & Financing

- Microfinancing, credit and insurance facility for farms, MSMEs, industry and mega park engaged in food processing.
- Creation of business facilitation centres with linkage of all stakeholders i.e. Industry Associations, equity funds, banks and financial institutions.
- Angel Funds / Venture Capital Funds for high-growth potential and start-up enterprises.

KEY PLAYERS

Contact : **Executive Director**
Udyog Bandhu

12-C, Mall Avenue, Lucknow-226001 (U.P.)
Phone No.: +91-522-2237582/83
Fax No.: +91-522-2237345
Email: info@udyogbandhu.com
www.udyogbandhu.com

Information and Public Relations Department, U.P.

crayons