AGRO-FOOD PARK MODELS FOR INCLUSIVE GROWTH: LESSONS FROM DEVELOPING COUNTRIES

Prepared by
WhitePeak Consulting

info.whitepeakconsulting.org

www.whitepeakconsulting.org

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Introduction

Overview of Agro- Food Parks

Agro-Industrial Parks (AIPs) are units which add value to agricultural products, both food and non-food, by processing them into products which are marketable, or usable, or edible, or by improving storability, or by providing the link from farm to market. It is an integrated clustering model that combines different agro-production chains, thus maximizing operational synergies, economies of scale, and income generation activities for the community it is located in. By targeting the vertical and horizontal integration of value-chains, AIPs aim at achieving sustainable development goals in the area in which they are established.

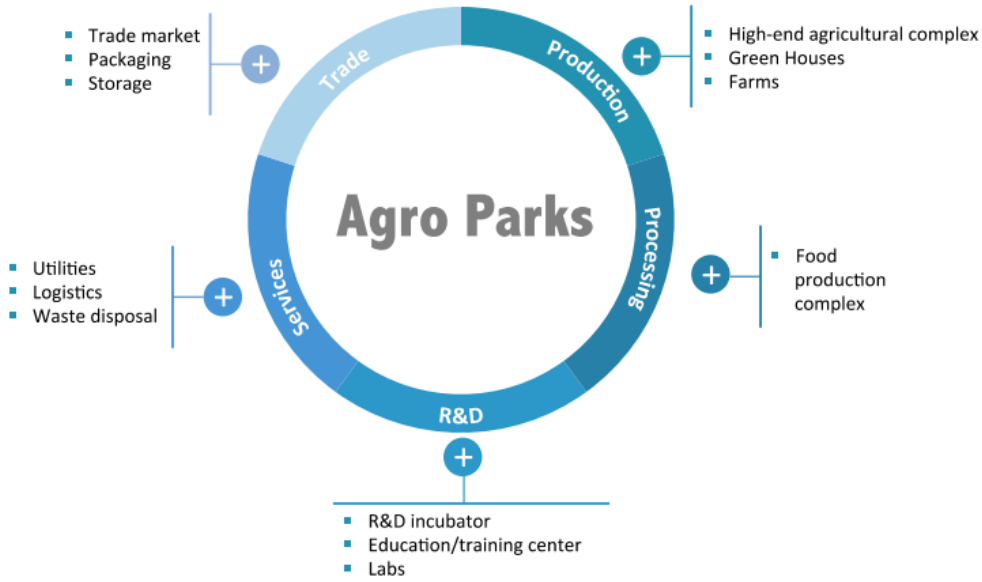

Figure 1 Concept of Agro Industrial Parks

The general objective of the agro-park is to support several distinct areas dedicated to processing, logistics platforms, R&D, training, and technology transfer, business incubators, service areas, and other common facilities. In essence, an Agro-park has to fit in a network containing three strategic functions:

- **Rural Transformation Centre**: combining collection and storage of farmers' products with rural development services;
- **Agro Production and Processing**: combining production, processing, collection, R&D, trade, and social functions;
- **Consolidation Centre**: serves a metropolitan market in a consumer responsive way throughout the year. In the context of an overall development strategy, AIPs exist for common goals aiming at boosting the value chain, retaining the local market, creating employment, and developing and protecting local SMEs.

Asia

AIPs are a relatively recent phenomenon in today's lower and lower-middle income countries in Asia. Industrial parks that cater to agro-industries have been present in Asia since the late twentieth century, beginning in the East Asian "tiger" economies during the early 1980s. In the mid-1980s, they emerged in China and South Asia (notably India) and more recently in Vietnam, Singapore, Malaysia and the Philippines. Recently, Asian countries have adopted a cluster-based development model. For instance, Malaysia has been focusing on development of palm oil and halal meat cluster while China has developed a vegetable cluster in Shouguang.[1] [2]

Africa

With support from international organizations like World Bank and African Development Bank, African nations are on the path of agro-industrialization to advance their economic growth and increase employment opportunities in the region. In the last decade, several African countries embarked on Agro Industrial Parks or AIPs and agro-based SEZs– with prominent examples including Ethiopia's IAIPs, Special Agro-Industrial Processing Zones (SAPZs) in Nigeria and Gabon's SEZ Nkok – and more African countries are currently planning SAPZs and similar schemes. [3]

Inclusive Growth through Agro-Food Parks

The common facilities and services, and value-chain linkages created, help enhancing the competitiveness of smallholder farmers and manufacturers in the community. They form centres of growth and innovation, supporting local development, and contributing to a more sustainable development model.

An agro-industrial park is not a simple physical aggregation, but an agro-industrial strategy targeting economic development and employment generation. Economic development and employment growth in rural areas are mostly led by the growth of commercial agri-food systems, which are efficiently run and responsive to evolving market demands. Agro-industries generate significant levels of direct and indirect employment per unit of investment, through the backward linkages to agricultural suppliers (especially smallholder farmers), and forward linkages to retailers and markets.[4]

Inclusive AIP models are intended to support low-income smallholder farmers by redirecting the focus of the agro-food sector's fundamental business processes towards meeting the farmer's requirements. The inclusive AIP models seek to include smallholder farmers through aggregation centres. They bring together various value chain actors such as farmers, processors, and retailers to ensure that value addition is maximized while wastage is minimized. They also ensure that farmers' incomes are increased and job opportunities are created.

[1] Agro-industrial parks: success factors, incentive mechanisms and donor roles, CASA (2021)
[2] Report on Evaluation of the Impact of the Scheme for Mega Food Park of the Ministry of Food Processing Industries, ICRIER (2015)
[3] Agro-industrial parks: success factors, incentive mechanisms and donor roles, CASA (2021)
[4] Integrated Agro-Industrial Parks in Egypt, GTI (2019)

AGRO FOOD PARK MODELS: LESSONS FROM ETHIOPIA, INDIA & VIETNAM

Agro-Food Parks Models: Lessons from Ethiopia, India & Vietnam

Ethiopia

The development of agro-industries presents Ethiopia with an opportunity to accelerate economic development and achieve its industrial development goals. Agro-industries can help fulfil the potential of agriculture and advance industrialization in the country. Recognizing this opportunity, the Government of Ethiopia (GoE) is spearheading the development of Integrated Agro-Industrial Parks (IAIPs) and accompanying Rural Transformation Centres (RTCs) with the intention of better integrating agricultural value chain actors.

The development of IAIPs has been prioritized in Ethiopia's national development strategy and is a core component of the current Growth and Transformation Plan (GTP II, 2015-2020). IAIPs are considered a vehicle for the structural transformation of the economy through the commercialization of the agricultural sector. They are also expected to help pave the way for the realization of the country's Vision 2025 of becoming a leading manufacturing hub in Africa. [5]

Model

The AIP model considered from Ethiopia is called Integrated Agro-Industrial Park (IAIP). An IAIP can be described as a geographic cluster of independent firms grouped together to gain economies of scale and positive externalities by sharing infrastructure and taking advantage of opportunities for bulk purchasing and selling, training courses and extension services. Multiple agro-processing functions take place in the IAIPs, such as final processing, storage, packaging, marketing and distribution. IAIP facilitates aggregation of produce from several farms into one location, thereby linking smallholder farmers to large agricultural value chains.

Presently, four IAIPs- Baeker, Bure, Bulbula and Yirgalem in Ethiopia have been inaugurated, with some sites further advanced in investment attraction and operations than others. Various development partners, donors and DFIs have been involved in the IAIP scheme since its inception. The technical cooperation and co-financing package worth approximately US$ 1.2bn is made up of Government of Ethiopia, the African Development Bank (AfDB), the European Union (EU), United Nations Industrial Development Organization (UNIDO), Korean Exim Bank, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the Italian Development Cooperation, and focuses on (i) infrastructure development; (ii) supply chain development; (iii) access to finance; and (iv) institutional and technical capacity building

[5] Integrated agro-industrial parks in Ethiopia, UNIDO

Infrastructure at the Park

IAIP's model includes open area production zones, controlled environment growing, precision farming, knowledge hubs and research facilities, rural hubs, agri-infrastructure, collection centres, primary processing hubs, social infrastructure and agri-marketing infrastructure, etc.

General infrastructure at IAIP includes: roads, power, water, communications, drainage, sewerage, sewage treatment plant, effluent treatment plant, storm water drains, rain water harvesting, and firefighting facilities.

Specialized infrastructure at IAIP includes: cold storage units, quarantine facilities, quality control labs, quality certification centres, raw material storage, controlled and modified atmospheric storage, central processing centres, etc.

IAIP is served by a network of Rural Transformation Centres (RTCs) which provides linkages to producers. RTCs are an integral part of IAIP and serve as raw material aggregation points in the catchment areas of each IAIP. Together, the setup of IAIP and RTC form the AIP model in Ethiopia. An RTC is a facility that provides integrated services to rural communities within a 100-kilometre radius of the proposed IAIP site. RTCs are geographic clusters of infrastructure and services, though on a smaller scale than IAIPs. Farmers and farmer groups deliver their produce at the RTCs and receive agricultural inputs from them. At the RTCs, agricultural produce is collected, sorted, stored and may undergo primary processing before onward transport to an IAIP.

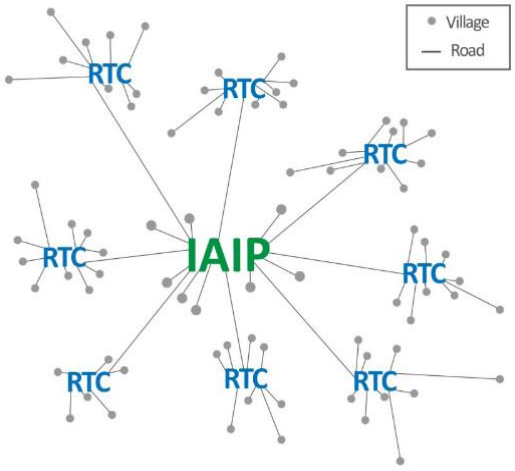

Figure 2: IAIP and RTC connections

Linkage to smallholder farmers is a key feature of IAIPs and RTCs. Through aggregating produce from several farms into one location, IAIPs & RTCs link smallholder farmers to large agricultural value chains. Such linkages serve two key functions:

- To integrate raw material suppliers (smallholder farmers) with the demand side of the food chain in an efficient manner; and
- To provide the appropriate raw materials to agro-industries (the major constraint affecting food processors in Ethiopia).

Challenges faced

There exist the following issues regarding success of AIPs in Ethiopia:

- The one-size-fits-all and top-down approach of the feasibility plans delayed the construction of the four parks and six pilot RTCs. Site selection and feasibility plans overlooked the competitive advantage of current market systems. Feasibility studies conducted by consultants were found to be overly technocratic and mechanical in analysis and lacked consideration for the capacities and needs of real actors in the field. Two major issues identified were that:
    - The IAIP feasibility studies have not involved potential tenants, domestic and foreign investors
    - The design, ownership and management of the RTCs in these studies exclude farmer cooperatives in the rural catchment zone.
- Weak intra-government coordination and inter-agency rivalry were identified as major pitfalls for Ethiopia's IAIPs. The division of labour between state agencies such as the EIC, the Industrial Parks Development Corporation (IPDC) and Regional Industrial Parks Development Corporation (RIPDC) based in the four IAIP zones was also a source of institutional misalignment.
- Inefficient reporting mechanisms and weak feedback loop mechanisms between UNIDO's donor support via the Programme for Country Partnership (PCP) for Ethiopia and GoE's different ministerial departments and RIPDCs have been identified as major obstacles to Monitoring and Evaluation. [6]

Achievements and Success factors

Major achievements of the IAIP's in Ethiopia have been listed below:

- Two sites have further advanced in investment attraction and operations. These include Bure (one investor covering maize and soya bean) and Yirgalem (four investors covering avocado oil, coffee, milk and honey)
- As of October 2021, 203 investors have been registered by the four RIPDCs, 52 of which are considered as potential investors and 12 of which have signed an agreement (eight domestic, two FDIs from China and Saudi Arabia and two joint ventures between domestic and foreign firms coming from China and the Netherlands) to operate in the parks. Of these 12, four have built their sheds and are operational.
- Each park is served by a network of RTCs established by GoE to provide linkages to producers and to serve as raw material aggregation points in wider catchment areas (100 km radius). The construction of 22 new RTCs will be open to an ownership and management model made up of cooperatives and private investors, via Public Private Partnerships (PPPs) with the RIPDCs. This has been the case in Bulbula IAIP, for instance, where the parallel RTC in Shashemene is managed by a brewery cooperative that reached out to the RIPDC to use the opportunity to transfer its cooperative members to rent units.

Key success factors of Ethiopia's IAIPs include:

- **Contract Farming:** The physical infrastructure of RTCs and IAIPs is complemented by contract farming - agricultural producers enter into legally binding agreements with processors that cover production methods and technology; output quantity, quality and prices; and technical & financial support. Additionally, both processors and producers benefit from the better linkages created through contract farming. Processors profit from a guaranteed delivery of produce, while

[6] Agro-industrial parks: success factors, incentive mechanisms and donor roles, CASA (2021)

producers benefit from essential inputs & services (e.g. seeds, fertilizers, equipment, finance and technical advice), and access to stable and more predictable markets for their produce.

- **IAIPs & RTCs promote innovation diffusion**: By disseminating knowledge, skills and innovation, the IAIPs & RTCs contribute to the overall upgrading of the agro-industry sector and allow Ethiopian firms to compete more successfully at the regional & global levels. The benefits also reach the farmer and small-scale processor level, ensuring higher product quality from farm to fork, and integrating larger portions of the population into commercial agricultural value chains. This is essential to support income generation activities of the rural population by catering to a larger demand.
- **Access to Finance:** IAIP also facilitates access to finance for the agro-allied industry companies through the presence of on-site financial institutions offering financial solutions catered specifically to agro-allied industry companies. Large-scale firms present in the IAIPs (and sometimes RTCs) can advance funds and operational equipment to smaller-scale firms, offering another option for access to finance and allow new businesses to be set up in the rural areas.
    - Customs duty exemptions is a major fiscal incentive made available to developers and firms; investors are allowed to import capital goods duty free indefinitely if the investment is in the manufacturing and agricultural sectors.
- **Specialized Infrastructure:** Donor funding has targeted more specialized infrastructure. This includes waste management infrastructure (UNIDO), electrification (Chinese government grants vis-à-vis the AfDB), capacity building of Ethiopian authorities (Tony Blair Institute), establishing a decentralized food safety and quality system, improving access to finance for investors and smallholders, improving agricultural productivity and strengthening of agro-industrial value chains, strengthening universities and technical and vocational training, attracting FDI, gender mainstreaming and promotion of decent jobs in IAIP catchment zones (e.g. GIZ's Special Initiative Jobs Programme)
- **Backward Linkages:** Extension workers are facilitating backward linkages with producers for a steady stream of inputs for processing. In Bure IAIP, there is a strong focus on maize and wheat staple crops, and the investor is relying heavily on government extension workers with prior knowledge of this commodity and value chain. In Yirgalem IAIP, the avocado processing firm Sunvado has privately hired 24 extension workers for a private avocado oil value chain to work with over 25,000 farmers beyond the Southern Nations, Nationalities, and People's Region (SNNP) region. [7]

India

While India has diversified its economy with major developments in the secondary and tertiary sectors, agriculture is still the backbone of the Indian economy. The government has continually undertaken several initiatives to ensure the progress of the agricultural sector. It has significantly invested in technology, infrastructural development of food parks, economic zones, etc. The development of **'Mega Food Parks'** remains one of the most ambitious steps of the government to establish a robust and profitable agriculture sector in the country.

Mega Food Parks Scheme (MFPS) was launched by Ministry of Food Processing Industries in 2008 to revamp the landscape of agriculture in India. India's first Mega Food Park — Srini Food Park, was

[7] Agro-industrial parks: success factors, incentive mechanisms and donor roles, CASA (2021)

inaugurated in July, 2012. Currently, the scheme of 'Mega Food Parks' has envisaged 42 Mega Food Parks in India.

There are 38 Mega Food Parks (MFPs) in 23 States/ Union Territories of India with final approval from the government. They are at different implementation stages and out of these, 22 parks are fully operational. The parks have more than 1,200 developed plots (of approximately 1 acre each) with basic infrastructure enabled that can be leased by the entrepreneurs for setting up of food processing and ancillary units. [8]

Model

The AIP model considered from India is that of Paithan Mega Food Park (PMFP). PMFP is a part of the Government of India's (GoI's) Mega Food Park initiative. Mega Food Park (MFP) is an inclusive concept and a scheme of the Ministry of Food Processing Industries (MoFPI) under the GoI. MFP's objective is to provide integrated infrastructure for food processing industry to encourage fresh investments into the food processing sectors namely fruits, vegetables, grains, cereals, pulses, spices, minor forest produce and dairy.

PMFP is based on an inclusive model that aims to bring together Self-Help Groups, farmer groups, individual farmers and traders under the Food Park using a 'clustering approach'. Clustering approach envisages creation of state of art support infrastructure in a well-defined agri / horticultural zone for setting up of modern food processing units in the industrial plots provided in the park with well-established supply chain. PMFP produces a range of processed foods under its "Nature Fresh" brand and the park also offer developed and ready to use plots to large and midsized food processors and ready to use industrial sheds to small scale sector.

Infrastructure at the Park

Generalized Infrastructure: The model of PMFP provides integrated facilities such as water, electricity and common effluent treatment

Specialized infrastructure: Cold storage, ware housing, logistics, fully equipped laboratory and backward integration through the network of primary processing centres and collection centres.

PMFP model utilizes infrastructure at a focal point (hub) with satellite points (spokes) in the park shed area. The hub & spoke model links the production clusters to the Primary Processing Centres (PPCs) and further to the Central Processing Centre (CPC). The 'hub and spoke' model is a demand driven model with strong backward and forward linkages which creates a sustainable infrastructure for the food processing industry. It contains three vital components namely the Central Processing Centre (CPC) at its Hub (Paithan) and Spokes are in the form of Primary Processing Centre (PPC) and Collection Centre (CC) linked by agro-logistics network that connects all these elements.

[8] More than 6 lakhs direct and indirect employment generated through the 22 operational Mega Food Parks, MOFPI (2021)

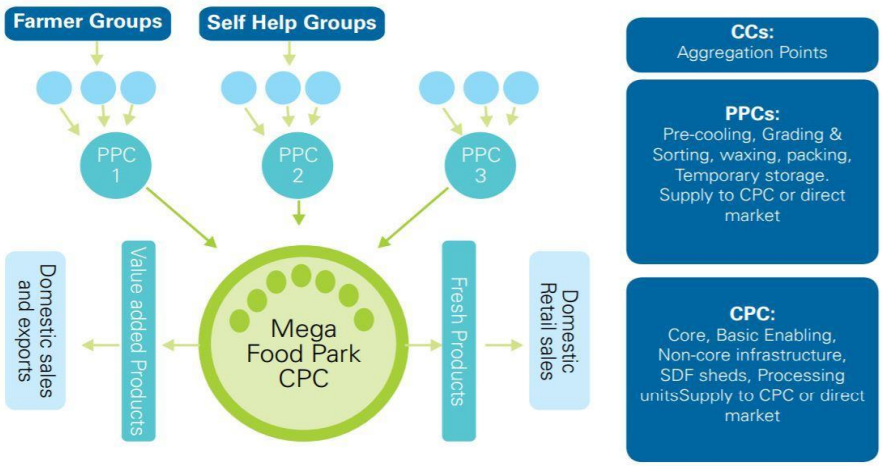

Figure 3: Infrastructure at Mega Food Park

CPC: The CPC is the Hub of value addition and combines agro-processing, collection, quality control and food testing, trade and social functions. These functions are spatially & ecologically clustered to create economics of scale through mutually beneficial use of infrastructure. To augment the efficiencies of processing within the CPC, world class common infrastructure is developed which provides not only basic amenities (such as roads, in house power and water supply and waste management) but also specialized common post-harvest infrastructure such as aseptic pulping and aseptic packaging facility, cold storages and warehousing facilities, pack house with sorting and grading facility, ripening chambers and common cold storage facility.

PPC: Primary Processing Centres provide collection facilities for farmers produce in a primary manner to reduce wastages at the farm level. Each PPC serves a number of CCs in proximity and provides for primary processing facilities such as washing, sorting, grading, mechanical weighing and crating of produce. While PPCs are directly linked to the CPC, they are also linked to organized retail outlets and other general trade functionaries in metropolitan cities to reduce the intermediation in the value chain. The produce collected at the PPCs is transported using reefer vans for perishable produce as and when required. PPCs are the park's major interface point with farmers and act as points of price discovery for the farmers. [9]

CCs: CCs work as points of aggregation of the produce from individual farmers, farmer's groups and Self-Help Groups. They feed the raw material to the PPCs. The collection centres are managed by local entrepreneurs. They serve as farm level aggregation points for adjoining areas within a radius of around 10 kilometres. The CCs act as centres of rural commerce and spurs economic activities in the production areas. [10]

[9] A World Class Food Processing Hub near Aurangabad, Paithan Mega Food Park Pvt. Ltd
[10] Mega Food Parks in India: To uplift Farmers Income and Employment opportunity, Singh (2018)

Challenges faced

MFPs face the following challenges:

- Promoters face difficulties in selling the new concept of Mega Food Parks to banks and, as a result, have failed to secure loans to build the parks. Banks are not flexible and charge high interest rates that are usually associated with infrastructure projects
- Convincing small enterprises to set up a shop at MFP is difficult. Small enterprises have apprehensions about relocating in food parks because some of them feel that a lease agreement would impact their freedom of operations and others do not find any specific incentives for relocation to MFPs
- One of the biggest issues in implementing the MFP scheme has been the availability of land and the long-drawn process to change its use from agriculture to industrial land. Some states in India have strict land ceiling and sub leasing laws, which makes the role of the state government critical for the project to get started. The process of acquisition of land by developers becomes a tedious, time-consuming process [11]

Achievements and Success Factors

The Mega Food Parks in India have performed exceptionally well and have witnessed high growth over the years. The following are some achievements made by the MFPs:

- The 22 operational Mega Food Parks in India provided direct and indirect employment to 6,66,000 workers in 2021. [12]
- National Bank for Agriculture and Rural Development (NABARD) has sanctioned term loan of Rs. 427.69 Crore (USD 58.92 million[13]) to 10 Mega Food Park projects and 2 processing units under 'Food Processing Fund' of Rs. 2000 Crore (USD $ 276.01 million) and out of this an amount of Rs. 81.10 Crore (USD $ 11.19 million) has been disbursed already [14]
- In 2013, the annual turnover of Patanjali Food and Herbal Park was Rs. 11.74 crores (USD $ 1.62 million) and Srini Food Park was Rs. 31 crores (USD $ 4.27 million) (Relations, July, 2015)

Investment	Employment	Exports
US$276.01 million	1.05 million	US$1.23 million (from Patanjali Food and Herbal Park and Srini Food Park)

Table 1: Impact of Indian MFPs

[11] Why mega food parks are failing to attract corporate interest, Business Today (2015)
[12] More than 6 lakhs direct and indirect employment generated through the 22 operational mega food parks, MOFPI. (2021).
[13] Exchange rate used for conversion is USD 1 = Rs. 72.53
[14] Achievements of Ministry of Food Processing Industries during 2017, MOFPI (2017)

The success of the Mega Food Parks (MFPs) in India can be attributed to the following policy measures[15] and incentivization schemes of the Government of India. These schemes were specifically established with a focus to promote MFPs in India.

- **Financial Assistance-** Attractive financial aid for investment has lured in many private investors in investing in Mega Food Parks in India. Under the Mega Food Park initiative, the government has ensured lucrative financial assistance to the investors and developers of food parks in the country. The financial assistance provided is stated below: -
  - **Grants**- The Government of India provides grants up to Rs. 50 Crore (USD $ 6.9 million) (under the Mega Food Park Scheme) to set up modern infrastructure facilities for Mega Food Parks. The scheme provides a capital grant at the rate of **50%** of the eligible project cost[16] in general areas[17] and at the rate of **75%** of eligible project cost in difficult and hilly areas[18] .
  - **Fiscal Incentives**– Ministry of Food Processing and Industries (MoFPI) provides several fiscal initiatives (including streamlining rates for agri-products under Good and Services Tax [19] regime) for the development of food processing sector. The rates under GST are as follows: -
    - 60% of food products are placed under the tax slab of 0-5%
    - Services of pre-conditioning, pre-cooling, ripening, waxing, retail packing, labelling of fruits and vegetables which do not change or alter the essential characteristics of fruits & vegetables attract NIL GST

  The government has also provided income tax reductions and exemptions to attract investors for the development of Mega Food Parks in the country. They are as follows: -
  - 100% exemption to food processing units on profit for the first 5 years and 25% (30% in case of companies) for next 5 years
  - 100% deduction permitted on capital expenditure for cold chain or warehouse [20]

- **Infrastructural Support** – The availability & affordability of vital infrastructural components contribute to the fast-paced development of food parks in India. The Mega Food Parks have been adequately supported with development of infrastructural facilities by the government. Core processing units, enabling infrastructure – like water supply, power, drainage, etc. along with common facilities and amenities like admin office, canteens, etc. have been provided by the State

[15] Since the inception of the Mega Food Park Scheme (MFPS) in 2008, the scheme has undergone various changes for maintaining its relevancy and attracting investments for the development of MFPs in the country.
[16] The eligible project cost is defined as total project cost but excluding cost of land, pre-operative expenses and margin money for working capital. However, interest during construction (IDC) as part of preoperative expenses and fee to Project management consultant (PMC) up to 2% of the approved grant would be considered under eligible project cost.
[17] General areas refer to all the areas except Difficult in and hilly areas.
[18] Difficult and hilly areas mean North East Region including Sikkim, J&K, Himachal Pradesh, Uttarakhand and ITDP notified areas of the States.
[19] Goods and Services Tax is an indirect tax used in India on the supply of goods and services. Goods and Services Tax (GST) has subsumed within itself the multiple cascading taxes levied by the Central and State Governments in India. Under GST, goods and services are taxed at the rates of 0% (Nil), 5%, 12% ,18% and 28%.
[20] Investor Portal, MOFPI

Governments at each Mega Food Park. Additionally, water, power, and natural gas availability has been ensured at concessional rates to the investors of the food parks. [21]

- **Private Sector Participation** – Private sector participation in the development of Food Parks has been encouraged by the government. Under the implementation of the Mega Food Park Scheme, a Special Purpose Vehicle (SPV)[22] has been incorporated to ensure active participation of private players. Through the Special Purpose Vehicle (SPV) mechanism, financial institutions/banks, organized retailers, processors, service providers, producers, farmer organizations and other related stakeholders are the equity holders in the Mega Food Park. Through such a mechanism, stakeholder participation in the Mega Food Park has involved the private sector along with Central and State governments.

Vietnam

Vietnam has made significant strides in the development of 'Industrial Parks' (IPs) to accelerate its economic development. The industrial parks incentivize the government to increase the production of industrial goods, advance agriculture and services in Vietnam. Industrial parks in Vietnam combine activities – such as manufacturing, exports, or high technology in the realm of agriculture, food processing, pharmaceuticals, etc. To ensure equal development in all regions of the country, Vietnamese government has set up Industrial Parks in various parts of the country.

Model

Vietnam currently has 366 Industrial Parks (IPs) covering an area of nearly 113,000 hectares as of the end of September 2020. Out of these, 279 are operational, and the remaining 87 are in the process of site clearance and construction. The operational parks are located in the peripheries of the two largest urban areas: **Hanoi** and **Ho Chi Minh City**.[23] These Industrial Parks and Economic Zones are FDI intensive and export-oriented by their design. Further, there is no restriction on selling the products of Industrial Parks (IPs) and Economic Zones (EZs) in the domestic market in Vietnam.

Challenges faced

- Vietnam faces a significant challenge of high-skill labour shortages in order to meet the demand for developing high-tech agriculture. There is still no detailed research on human development for high-tech applied agriculture both on theoretical and practical aspects in Vietnam. In addition, there is still no specific incentive policies on human development for high-tech applied agriculture. [24] This challenge can potentially have spill over effects as Vietnam aims to develop Industrial Parks and Agricultural Hi-Tech Parks.

[21] Mega Food Park, MOFPI (2022)
[22] Each SPV is a Company registered under the Companies Act; and is required to have at least three entrepreneurs / business units which would be independent of each other with no common directors. The land for the project is arranged by SPV.
[23] Vietnam draws US$8.5 billion into industrial parks and economic zones in 9 months, Thuy (2020)
[24] Incentive Policies For High-Tech Agriculture In Vietnam: Current Situation And Implications, Dinh (2021)

Achievements and Success Factors

The following are the achievements made by Industrial Parks in Vietnam:

- Industrial Parks (IPs) and Economic Zones (EZs) in Vietnam have attracted a total of 10,009 foreign-invested projects with total registered capital of nearly US$197.8 billion to date, 70% of which has been disbursed already. [25]
- IPs and EZs have received VND 2,340 trillion (US$101.13 billion) in terms of newly-registered capital and additional capital poured into 9,806 projects owned by Vietnamese investors and 46% of the said amount has been disbursed as of 2020
- The coverage rate of Industrial Parks and Economic Zones reached over 73% in Vietnam
- As of 2020, the enterprises located in the Industrial Parks generated a revenue of US$100.1 billion through their exporting activities. Further, total revenues of 18 listed Industrial Park companies reached VNĐ21.4 trillion (US$922.4 million), down 14% from 2019, while their net profits declined 18% to VNĐ3.6 trillion.
- The Industrial Parks and Economic Zones of Vietnam currently employ over 3.6 million workers in 2019, from all over the country
- Industrial parks (IPs) and Economic Zones (EZs) attracted approximately 340 FDI projects with newly registered capital of US$8.7 billion [26]

Investment	Employment	Exports
US$197.8 billion (total registered capital)	3.6 million	US$100.1 billion

Table 2: Impact of Vietnamese Industrial Parks and SEZs

Case Study: Ho Chi Minh City Agricultural Hi-Tech Park

One of the earliest Industrial Parks in Vietnam was the Agricultural Hi-Tech Park (AHTP) set up in Ho Chi Minh City given that the city is the biggest economic hub of the country.

AHTP was established in 2004 by the Municipal People's Committee with an investment of VNĐ152 billion (US$6.69 million) and officially came into operation in 2010. Over the course of its operations, it has garnered the following achievements.

Achievements of AHTP

● The 88-hectare park has attracted 14 high-tech agriculture businesses with a total investment capital of 16 million USD. It focuses on biotechnology, cultivation without using land, production of new varieties, preservation and processing, ornamental plants, mushrooms, and medicinal plants.

[25] PROJECT REPORT Eco-industrial park initiative for sustainable industrial zones in Viet Nam 2014-2019, UNIDO (2019)
[26] PROJECT REPORT Eco-industrial park initiative for sustainable industrial zones in Viet Nam 2014-2019, UNIDO (2019)

● Between 2010 and 2016, the park's turnover was estimated at VNĐ 600 billion (US$26.43 million). During this period, it supplied 55,000 muskmelon seeds and 148,315 tonnes of high-quality plant seeds of various kinds to the market. Additionally, 5,000 tonnes of agricultural products such as muskmelons, gourds, wax gourds and cucumbers and 33,300 tonnes of agricultural bio-products, among other products were also supplied by the park

● The park has helped farmers refine production models suitable to their localities and build brands for their strongest products under the aegis of AHTP's credibility and name. Additionally, the development of the park has significantly improved the agriculture in the region by employing high-technology in agricultural processes. For instance, with the help of investment in infrastructure and the application of science and technology to production, Cu Chi's per capita income has almost doubled since the inception of AHTP. [27]

Figure 4: Agricultural Hi-Tech Park, Vietnam (Agricultural Hi-tech Park)

The government of Vietnam has undertaken a dedicated strategy and several relevant policy measures to develop Industrial Parks in the country. The success of the Industrial Parks can be attributed to the following:

- **Site Selection** – Vietnam's government identified locations for establishment of the Industrial Parks by assessing various locations on certain factors like:
    - Proximity to transportation hubs like airport, seaport, railway line, etc.
    - Availability of a large supply of workforce (at reasonable cost) in the vicinity. Abundant supply of workforce ensures lower wages/ salaries which is beneficial for IP enterprises and developers

  Vietnam has leveraged the advantages of well-connected, infrastructurally advanced regions having large scale availability of workforce for making the IPs successful. Further, foreign investors usually select densely populated cities with modern infrastructure and agglomerated convenience. Hence, the location of IPs and economic zones in prime provinces like Ho Minh Chi City, Hanoi, Da Nang, etc. has attracted foreign investors continuously for the development of IPs in the country. [28]

[27] HCM City: national leader in high-tech agriculture parks, Viet Nam News (2017)
[28] PROJECT REPORT Eco-industrial park initiative for sustainable industrial zones in Viet Nam 2014-2019, UNIDO (2019)

- **Infrastructural Facilities** – Provision of public utilities like water, land, power, etc. to the IPs has been performed by the government of Vietnam. Facilities like water, electricity, power is provided at concessional rates and on tariff basis to the industrial park developers. The infrastructure maintenance cost is often reduced by 50% or simply exempted depending on the activities being undertaken by the investors of the IPs. Further, the investors of IPs are entitled to incentive policies regarding land rental exemption and reduction as regulated by the Government through the Land Law, 2013. Due to this, leasing of land in Vietnam is cheaper as compared to Thailand and Myanmar.

- **Fiscal Incentives** – Attractive incentives have driven the path of progress for Industrial Parks and Economic Zones in Vietnam. The regulatory framework in Vietnam has been constantly revised to incorporate favourable regulations for new businesses to invest and operate in Vietnam. Vietnam has attracted huge investment for the development of Industrial Parks by providing lucrative monetary incentives under its tax and custom policies. These include:

    - A full exemption on corporate income tax for the first 1 to 4 years of operations
    - A 50% reduction on the corporate income tax rate for the subsequent 2 to 9 years
    - A reduction in the baseline corporate income tax rate from 28% to 20, 15 or 10%, respectively, for a duration of 10 to 15 years

  The extent of the incentives depends upon the sector and region in which the IP operates. Additionally, incentives apply only to newly established businesses, i.e., to companies that incorporate for the first time in Vietnam. For instance, new businesses in industrial parks benefit from the incentives in incentive sector[29] and difficult socio-economic regions[30]. For these new businesses, tax reduction of 15% is provided for a period of 12 years and full tax exemption is provided for 3 years. Also, the investors in the incentive sector and difficult socio-economic region are incentivized with total land rent exemption for a period of 11 years.

- **Export Policy** – The continuous increase in the exports of the IPS can be attributed the favourable export policy of the country. Attractive export policies are the driving force of success of IPs in the Vietnamese economy. Most of the common goods are not applicable for export duties. Few of the goods like natural resources, selected minerals and agricultural products, etc. are subject to an export duty up to 40%.

- **Foreign Direct Investment (FDI) Policy –** Vietnam is one of the few countries who have opened up their economy for 100% foreign ownership for most sectors. The liberal FDI policies of the country has attracted many foreign investors to direct their investments in the development of Industrial Parks. Further, higher FDI disbursement throughout the years has increased investors' confidence in the economic outlook and their commitment to establish long-term investments. This has favourably benefited the growth and success of IPs and EZs in Vietnam.

[29] The list of incentive sectors includes 53 more or less precisely defined sectors ranging from production of bottled or canned fruit juices to private hospitals and production of electronic appliances. It also encompasses all labour-intensive industries, i.e. projects employing between 500 and 5,000 people, as well as all projects established in industrial parks.

[30] The list of difficult socio-economic zones includes districts and towns in 42 of Viet Nam's 64 provinces and also includes all industrial parks

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