

ENHANCING EXPORTS FROM ANDHRA PRADESH



Export-Import Bank of India

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ENHANCING EXPORTS FROM ANDHRA PRADESH

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Project Team

Ms. Jahanwi Singh, Chief Manager, Research and Analysis Group

Ms. Neha Raman, Deputy Manager, Research and Analysis Group

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Executive Summary

Andhra Pradesh is a coastal state, strategically positioned along the south-eastern coast of India. With favourable investment climate, abundant natural resources and a rich pool of human resources, Andhra Pradesh has the potential to emerge as one of the key contributors to growth in India's exports.

Currently, Andhra Pradesh's export orientation is lower when compared to several other coastal states. Merchandise exports accounted for nearly 12.0 percent of Andhra Pradesh's GSDP in 2021-22, which is below the share of merchandise exports in GSDP of other coastal states, such as Gujarat (share of 27.4 percent in GSDP) and Maharashtra (15.9 percent), as also a few relatively smaller coastal states such as Goa (22.6 percent) and Odisha (14.2 percent). A robust export strategy can help enhance the state's export orientation by bridging the existing gaps in the export ecosystem and creating a conducive environment for exporters to leverage the upcoming export opportunities.

With the aim of recommending a comprehensive export strategy for the state, the Study examines the economic profile and export performance of Andhra Pradesh, and makes an attempt to map the supply side capabilities of the state with the demand emanating from the international market. The Study analyses the potential for exports from the state, and also identifies dynamic products and top markets that can be targeted by the exporters. Based on discussions with stakeholders, the Study also recommends apposite reforms and strategies for the State Government to enhance trade competitiveness at the state level, and create an enabling environment for exports.

Macroeconomic Profile

Andhra Pradesh has consistently been among the top performing states of India in terms of economic growth. During the period 2015-16 to 2021-22, the state has consistently recorded higher GSDP¹ growth rates than the GDP growth rate of India, with the year 2018-19 being the only exception to this general trend.

The diverse topographic, climatic and soil conditions of Andhra Pradesh enable production of both cash crops and food crops in the state. The state is one of the leading producers of rice, pulses and coarse cereals in the country, and is also the largest producer of fruits, third largest producer of flowers and fourth largest producer of spices and plantation crops in the country. The state is also one of the leading producers of commercial crops like cotton lint, raw jute and mesta, sugarcane and oilseeds. The state's vast coastline and favourable agro-climatic conditions are also conducive for the fisheries and aquaculture sector. With 9 out of the state's 13 districts along the east coast of the country, there is significant potential for enhancing production and exports of marine products.

The value added in the industrial sector of Andhra Pradesh has witnessed a steady growth over the recent years, registering an estimated CAGR of 6.3 percent during 2015-16 to 2021-22. Manufacturing accounted for 44.4 percent of the State's industrial GSVA during 2021-22. Some of the key manufacturing segments in Andhra Pradesh are food processing, pharmaceuticals and biotechnology, electronics, automotive, and textiles, among others.

Services account for the largest share in Andhra Pradesh's GSVA, at nearly 42.2 percent in 2021-22. Within the services sector, 'transport, storage, communication and services related to broadcasting' contributed significantly to the overall GSVA of the services sector, with a share of 20.3 percent in 2021-22, followed by 'trade, repair, hotels and restaurants' segment (share of 19.8 percent in the services GSVA), 'real estate, ownership of dwelling and professional services' segment (18.9 percent), and 'financial services'

¹ At constant prices

(11.3 percent), among others. The services sector in the state shall remain the cornerstone of the state economy, but long-term, sustainable growth in exports from the sector will require a dynamic, demand responsive strategy.

Export Scenario and Prospects for Andhra Pradesh

Merchandise Exports

Andhra Pradesh ranked 6th among Indian states/UTs in terms of merchandise exports, with a share of 4.6 percent in India's total merchandise exports in 2021-22. There has been a steady growth in exports from the state. The state's merchandise exports stood at US\$ 19.3 billion in 2021-22, registering a CAGR of 10.4 percent during 2017-18 to 2021-22, which is higher than the CAGR of 8.6 percent recorded by India's merchandise exports during the same period. Merchandise exports from Andhra Pradesh have also remained remarkably resilient to external shocks, including the Covid-19 pandemic. In 2019-20 and 2020-21, while India witnessed two consecutive years of decline in merchandise exports, Andhra Pradesh's merchandise exports registered strong y-o-y growth rates of 5.0 percent and 13.9 percent, respectively.

While merchandise exports from the state witnessed an upsurge during the recent period, it remains concentrated in a few products. Analysis of Andhra Pradesh's merchandise exports indicates that the top 10 export items and top 10 destinations accounted for shares of nearly 69.6 percent and 55.5 percent, respectively, in the total merchandise exports from Andhra Pradesh during 2021-22, indicative of the need to diversify exports towards more number of higher value-added segments and lesser explored geographies.

Key Products and Markets for Merchandise Exports

The Study identifies key products and markets which will be important for ushering a new era of growth in exports from the state. Products where Andhra Pradesh's exports have demonstrated comparative advantage are identified, and matched with the global import demand for the products. Based on this analysis, a total of 60 products (at HS 6-digit level) have been identified as 'Product Champions', where global demand is increasing and

Andhra Pradesh has comparative advantage in exports; and 5 products have been identified as 'Underachievers', where global import demand is increasing and Andhra Pradesh has export capabilities but does not have comparative advantage.

In the short to medium term, Andhra Pradesh can focus on leveraging the opportunities arising in the Product Champions segment, as these are low hanging fruits. Marine products; organic chemicals; pharmaceuticals; iron and steel; ships, boats and floating structures; machinery and parts, electrical equipment etc. are some of the top sectors categorised under the Product Champions segment of Andhra Pradesh. In the medium to long term, the state needs to encourage development of capacities in the Underachievers segment such as static converters, mobile phones, articles of iron and steel, articles of apparel and clothing, parts of construction machinery, etc. Focusing on these segments will bring much-needed resilience to exports from Andhra Pradesh in the face of declining global demand and price fluctuations.

Analysis in the Study also highlights that in several of the identified product categories, the top global importers for the products do not feature among the top export destinations for Andhra Pradesh, thereby implying significant untapped market for exports of these products in the top import markets. There is need for designing a market entry strategy for enhancing the reach of these products in the top markets.

Services Exports

Tourism and IT and ITeS are among the major services exports from the state. Both these sectors together generated more than ₹ 1,354.3 crore (nearly US\$ 182.5 million) in export revenues during 2020-21. While services sector's contribution has significantly increased in the state's GSVA, there has not been a commensurate increase in the value of services exports. Thus, there is a need to identify newer growth shoots in the exports of services from the state.

Export Target

According to India Exim Bank research, the state has an untapped merchandise export potential of nearly US\$ 11.1 billion. Realising this potential could increase merchandise exports from the state to nearly US\$ 30.4 billion. Through an appropriate medium to long term export strategy, there is potential for propelling the state on an even higher export growth trajectory.

The vision of the exports strategy of Andhra Pradesh should be to bolster the state's exports in order to meet the national target of US\$ 1 trillion each in exports of goods and exports of services by 2030. The motive of the state's export strategy should be to increase the share of Andhra Pradesh's overall exports (both merchandise and services combined) in its GSDP up from the current level of nearly 12.1 percent, to at least match the current national average of 21.2 percent by 2027-28. Further, the export strategy should also attempt to achieve a greater share of services in the exports from the state, because of the substantial potential for growth across several services categories. Based on these considerations, in the baseline scenario, the State's exports could reach US\$ 46.4 billion by 2027-28. The Government of Andhra Pradesh has already set an export target of ₹ 3,50,000 crore (nearly US\$ 43 billion) by 2027, in the AP Export Promotion Policy 2022-27. The State has the potential to achieve a much higher level of exports with adequate policy support. Accordingly, it is suggested that the State's target for exports be set at approximately US\$ 60 billion by 2027-28, with the target for merchandise exports at nearly US\$ 50 billion and for services exports at US\$ 10 billion.

Strategies for Export Growth

Based on a series of consultations with stakeholders and extensive secondary research, the Study outlines export strategies for the state, built upon six essential dimensions viz. diversification to focus products and markets, infrastructure leverage and strengthening, capacity building, fiscal incentives, export promotion campaigns, and institutional streamlining.

Focus Product and Market

Diversifying production capacities towards higher value-added products and enhancing market penetration in the top importing markets would be crucial for a substantive increase in exports from the state and imparting resilience to the state's exports basket.

The Study identifies a set of prospective high value-added products to help diversify the exports basket of Andhra Pradesh. These include products in the sectors of agricultural and allied sector, pharmaceuticals, textiles, auto and auto components, petroleum and petrochemicals, electronics, electrical machinery and equipment, tourism and creative services.

In the agriculture and allied sector, the state could also focus on diversification towards greater value-added products such as cereal preparations, gluten-free food items, and spice oleoresins, which could fetch higher margins in the exports markets.

Fish and crustaceans are important exports from Andhra Pradesh. Effective product diversification in the sector towards newer varieties, organic aquaculture and processed marine products could help leverage the emerging opportunities and further augment exports from the state.

Within manufacturing, sectors like pharmaceuticals, automobile and auto components, textiles, electronics and petrochemicals present significant opportunities for exports. Andhra Pradesh's export of pharmaceutical products consists of a wide range of bulk drugs and formulations. For product diversification, pharmaceutical players in the state could be encouraged to enhance capacities in biosimilars. Globally, the demand for biosimilars is expected to increase. Patent expiry of nearly 17 blockbuster biologics² during 2020 to 2025 is expected to create an opportunity worth US\$ 60 billion, due to loss of exclusivity of these patented drugs.

² A blockbuster drug is an extremely popular drug that generates at least US\$ 1 billion worth of annual sales revenue for the pharmaceutical company that produces them.

Exports of electronics accounted for only 1 percent share in the state's total merchandise exports in 2021-22. Although the state currently exports products like static converters, mobile phones, receptors, digital camera, automatic circuit breakers, lithium ion, etc., the state is currently not competitive in the exports of these product. Exporters from the state need to focus on enhancing production and export capacities in these high-technology intensive sectors, as these are less prone to fluctuations in commodity prices as compared to agricultural products and resource-intensive manufactures. Export-oriented firms need to be encouraged to leverage incentives in the sector such as the state-level PLI scheme to bolster capacities in this segment.

In the automotive sector, there is need for diversification towards the electric vehicles (EV) space, considering the rising global demand for EVs in the recent years. The incentives in the AP Electric Mobility Policy 2018-23 could help increase production capabilities and enhance exports of EVs in the medium term.

In the textile sector, the state's exports mainly comprise cotton; knitted/crocheted fabric; and knitted and non-knitted articles of apparel and clothing. Technical textiles which are used for non-aesthetic purposes in sectors of automobiles, pharmaceuticals, infrastructure, sports, construction, packaging, agriculture, etc. would be an important avenue for diversification in the sector.

In the petroleum and petrochemicals sector, players could be encouraged to enhance exports of petroleum bitumen in the medium to long term, by strengthening production capacities for these products in the state. Moreover, exporters could also be encouraged to diversify towards petrochemicals such as olefins (ethylene, propylene and butadiene) and aromatics (benzene and toluene).

In the services sector, tourism has been a major source of revenue for the state. There is substantial scope for developing new circuits for enhancing eco-tourism, adventure, and recreational tourism in the state. Given the rich cultural heritage of the state, there is immense potential in the areas of heritage tourism and rural tourism. There is also substantial scope for

enhancing culinary tourism through state-sponsored food festivals for showcasing the unique culinary delicacies of the state.

Creative services is another emerging area that can be targeted for expanding services exports from the state. In order to promote creative services, particularly audio-visual services like motion picture and video tape production services, the state could focus on conservation, development and promotion of its unique ecological, cultural and heritage sites to attract national and international film production in the state. Moreover, given the potential of films to generate foreign exchange earnings, the state could also incentivise production of movies that may have greater international audience. The scope and quantum of the existing incentives for film production in the state could be expanded to incentivise production of films in English as well. Further, financial incentives could also be given to movies that secure international awards.

Market Diversification

Analysis in the Study also highlights that there remains substantial scope for exporters from the state to diversify towards key global markets including several developed economies such as Germany, Japan, France, the UK, the Netherlands, Italy and Belgium. Sector-wise top potential countries for market diversification that may be targeted by exporters have been identified and presented in the Study.

Infrastructure Leverage and Strengthening

Transport Infrastructure

Share of budgeted expenditure allotted for roads and bridges in Andhra Pradesh during 2022-23 was lower when compared to top exporting coastal states such as Maharashtra, Tamil Nadu, Gujarat, and Karnataka. An essential first step towards improving trade-related transport infrastructure would be allocating more capital expenditure towards expansion/widening of roads.

In addition to strengthening road transport network, there is also a need to strengthen the air cargo facilities as well as inland waterways networks in the State. The State is already working towards addressing the existing gaps in air cargo facilities and inland waterways, with plans for development of integrated air cargo complex at Visakhapatnam airport, and prioritisation of inland waterway terminals at 27 locations, outlined in the AP Export Promotion Policy 2022-27. Apart from this, the state could also focus on developing the inland waterways' connectivity to major ports. The State could also consider strengthening the performance and operation of minor ports to optimise trade and bring the point of exports closer to the production centres. To that end, the state should consider speeding up the implementation of the ongoing port-development projects in the state, on a priority basis. Capacity building of more non-major ports could be identified by the state under the Sagarmala project.

The state has a total of 14 CFSs and 3 ICDs, which is significantly low when compared to other top exporting coastal states such as Tamil Nadu (57 CFSs and 10 ICDs), Maharashtra (45 CFSs and 11 ICDs), and Gujarat (28 CFSs and 10 ICDs). Further, there is significant concentration of existing facilities in a handful of districts, while many key districts remain underserved. There is an urgent need for developing new ICDs/CFSs to cater to some of the underserved districts. In this regard, the districts of West Godavari, Krishna and Chittoor could be considered as priority districts for setting up of new ICDs. These three districts have significant contribution to the gross value added of the state, but do not have any ICD/CFS or any minor/intermediate port.

Storage Infrastructure

Andhra Pradesh is among the top producers of agro-based products such as spices, cereals, fruits and vegetables, as well as marine products in the country. With huge untapped export potential in these segments, there is need for well-developed cold storage and warehousing facilities in the state. Analysis in the study indicates that there exists significant demand-supply gap in the state's warehousing infrastructure. As per industry norms, the storage facility for agriculture alone should typically be 60 percent of the production volume.

However, Andhra Pradesh's overall warehousing capacity caters to only about 22.7 percent of the total foodgrain production in the state, indicating the need to substantially augment warehousing capacity. Recognising the existing demand-supply gap in the State's warehousing infrastructure, the AP Export Promotion Policy 2022-27 has set out a plan to augment the state's warehousing capacity to 56 lakh MT during the policy period. However, as per India Exim Bank analysis, the capacity of 56 lakh MT would still be inadequate to cater to the State's demand. As per India Exim Bank estimates and in line with the industry benchmark, the State should have at least 67.6 lakh MT of warehousing capacity just for the existing foodgrains produce in the State.

Other than warehousing, the state also needs robust cold storage infrastructure given that there is substantial exports from sectors such as agriculture and allied activities and pharmaceuticals. The state's existing cold storage capacity at 15.67 MT is significantly low considering the volume of horticulture and fish production in the state. Besides, pharmaceuticals also form a significant part of the state's merchandise exports and require cold storage infrastructure, highlighting the urgent need for augmenting cold storage capacity in the state.

The Parliamentary Committee Report on "Augmenting Infrastructure Facilities to Boost Exports" 2021 also emphasised the need for cold chain infrastructure in the Guntur district of the state, considering the huge volume of chilli exported from the district.

Though the state has implemented 13 cold storage projects under the centrally sponsored scheme viz. Pradhan Mantri Kisan Sampada Yojana (PMKSY), with 19 additional cold storage projects under implementation, the cumulative additional cold storage capacity under these 32 projects is still not large enough to bridge the capacity gap. Thus, assistance for more projects could be sought under the PMKSY scheme of the central government.

The State is already working on development of 2 multi-modal logistics parks in the districts of Visakhapatnam and Anantapur, and one more is proposed to be developed in the YSR Kadapa district. The State also envisages the

development of multimodal cold chain network involving two or more modes of transport. This would help facilitate transportation and storage of perishable products. In addition to this, Andhra Pradesh could also encourage setting up of energy efficient and environmentally sustainable cold storage in the state through tie ups with agri-tech companies. Apart from this, Andhra Pradesh could also leverage IT-enabled services to manage harvesting and logistics infrastructure.

The state can utilise the support under the central government's Trade Infrastructure for Export Scheme (TIES) for developing and strengthening the ICDs, CFSSs, warehousing and cold storage facilities, and other essential export infrastructure in the state.

Infrastructure For Services Sector

Improving infrastructure in niche sectors such as Animation, Visual Effects, Gaming and Comics (AVGC) can drive growth of services exports. In this regard, Andhra Pradesh could consider developing a Centre of Excellence (CoE) for AVGC with state-of-the-art facilities in one of the IT parks in the state. The CoE could be leveraged to transform the capacity and capability of the AVGC industry in the state.

To augment exports of creative services, particularly audio-visual services, capital investment subsidy up to 15 percent, subject to a specified maximum limit could be considered by the state government, for creation of infrastructure for film making, including establishment of film studios and film institutes, etc.

Capacity Building

Andhra Pradesh has a total of 19 GIs out of which 3 GIs belong to the agriculture sector, 2 GIs are food stuff, and the rest 14 GIs belong to the handicraft sector. To reap the benefits of the GI Status, it is important for the GI brand to be recognised as a reliable and preferred brand in the market, with distinguishable positioning. The logo and the GI brand name need to be developed and marketed, and mechanism needs to be devised for ensuring

that all products marketed under the GI brand adhere to minimum specific standards. The branding efforts made in promoting Araku coffee from the state could serve as a learning template for other GI products.

Initiatives are also needed for identifying more products from the state which can be accorded GI status. This could include culinary delicacies that are unique to the state such as 'Pootharekulu' (rice paper sweet), 'Kakinada gottam kaja', 'Ulavacharu', 'Bandar Halwa', 'Gongura pacchadi', 'Chegodilu', 'Boorelu', etc. which could further boost exports of these processed food items from the state, as also promote culinary tourism.

Interventions are also needed to meet standards, regulations and quality requirements in import markets. India Exim Bank's discussions with existing and aspiring exporters from the state revealed that there was limited awareness about export procedures, export related documentation and procedures for obtaining certifications required for exporting to regulated markets. Recognising this, the State Government, under the AP Export Promotion Policy 2022-27, plans to develop an exclusive web-portal to provide single point access to information related to exports from the State. This will be helpful in bridging the information gap and creating awareness among exporters. In addition to this, the state government could also conduct regular district-level workshops / seminars / conferences on different aspects of international trade and across different sectors to create awareness among exporters about export procedures, regulations and standards related to various products.

With a view to improve market access for existing exporters, the State Government, in the AP Export Promotion Policy 2022-27, plans to provide refund of expenses incurred for obtaining statutory certifications like Conformite Europeenne (CE), China Compulsory Certificate (CCC), Good Manufacturing Practices (GMP), Phytosanitary certifications, etc., to the extent of 50 percent, subject to a ceiling of ₹ 2 lakh per exporting unit. In addition to these, the state government is also considering reimbursement of expenditure incurred on obtaining certificates of WHO-GMP, to the extent of 50 percent, subject to a suitable ceiling per company.

Further, to encourage medical tourism and provide foreign visitors with world class medical services in the state, the Government of Andhra Pradesh could consider providing reimbursements of nearly 15-20 percent of the total expense incurred by hospitals in the state for getting Joint Commission International (JCI) accreditation.

There is also a need to create awareness among exporters and stakeholders in Andhra Pradesh about various financial and risk mitigation products available for exports, through seminars and workshops. Andhra Pradesh government could also encourage exporters to access trade finance related information from various portals, including 'Exim Mitra' portal of India Exim Bank.

Fiscal Incentives

Fiscal incentives in the form of refunds/ reimbursements and concessions could be a major step for mitigating the cost burden and enhancing the competitiveness of exporters in Andhra Pradesh. The state government could consider extending freight subsidy for subsidising the freight component in exports of key products from the state, with special focus on districts that are far from the port.

Moreover, in order to assist manufacturers, particularly MSMEs, to acquire and evolve cutting-edge technologies, catalyse growth and compete in global market, technology acquisition support could also be extended by the Government of Andhra Pradesh. The state could consider setting up a Technology Acquisition Fund to provide firms with funds to improve product, process, and performance efficiency. The state could also consider reimbursement of up to 50 percent of the cost incurred in adopting technology from a recognised national institute, subject to maximum limit per firm.

It is further suggested that the state government retain some of the fiscal incentives provided in the Export Policy 2015-2020 like the reimbursement of electricity duty up to a certain limit, particularly for the product champion sectors. This would help in reducing operating costs and improving export competitiveness.

Export Promotion Campaign

To encourage and acknowledge exporters in Andhra Pradesh, export awards could be given for best performers across various key sectors such as agricultural and allied products, marine products, food processing, pharmaceuticals, chemicals, textile and garments, handloom and handicrafts, electronics, information technology, among others.

Export promotion efforts of the state government should also focus on various industrial clusters in the state. As an essential first step, the state government could develop a mechanism for assessment of the existing clusters in the state. Upon assessment of the clusters, relevant capacity building activities can be undertaken. The state government could avail financial support for capacity building activities under the Micro & Small Enterprises - Cluster Development Programme (MSE-CDP).

The AP Export Promotion Policy 2022-27 envisions the setting up of a dedicated fund with a corpus of Rs. 10 Crore to support marketing of export produce and building market facilitation centers across all districts of the State. It is suggested that a part of this fund be set aside as a brand equity fund, with an aim to build globally competitive brands for products originating from the state.

The state government could also create awareness about the various central government schemes for marketing assistance to exporters. A state-level MDA scheme has been put in place in the AP Export Promotion Policy 2022-27, for encouraging participation of exporters from the state in the various export promotion events. Under this scheme, a 30 percent subsidy on ground rent would be extended to exporters for participating in international trade fairs. Apart from this, under the MDA scheme, the state could also consider providing incentives at a fixed percentage of the export turnover to exporters for conducting regional/sectoral expos at the district level. Apart from this, the State government could also collaborate with the Ministry of Tourism, GOI for providing marketing assistance to entities engaged in niche tourism verticals.

Institutional Streamlining

Currently, the State's institutional framework for export promotion and facilitation involves a multitude of departments, committees, and agencies. The overall institutional ecosystem in Andhra Pradesh needs to be reframed in a manner that facilitates the various schemes proposed for exports, allows regular monitoring of the proposed targets, and thereby propels the state to a higher export trajectory. In this context, the study recommends setting up of an Andhra Pradesh Export Promotion Council (AEPC) under the Department of Industries, Government of Andhra Pradesh, with the objective of ensuring strong export performance for the state. The AEPC could be set up with the participation of the state government, exporters and industry associations. It would also provide a forum for exchange of views, sharing of information, identifying obstacles faced by the exporters and implementing mechanisms to overcome them. The proposed structure of the AEPC has four key operational areas viz. merchandise exports division; services exports division; export connect division; and information technology division. Apart from this, a Programme Management Unit could also be set up for integrating the various functions of the AEPC. The functions of the various divisions are given in detail in the Study.

Conclusion

Andhra Pradesh has the potential to achieve an exports target of US\$ 60 billion by 2027-28. While sectors in which the state is traditionally strong shall continue to be important from the exports perspective, there is a need to diversify the exports basket to impart further resilience to exports from the state. The six-pronged strategy outlined in the study shall help enhance trade competitiveness, enhance value addition in the production cycles, create awareness about exports, promote innovation, increase visibility of Andhra Pradesh's exports, and create an institutional mechanism for nudging exports to a higher growth trajectory.

1. Background

Economic Backdrop

Andhra Pradesh is a coastal state, positioned along the south-eastern coast of India. In terms of geographical area, it is the 8th largest state in the country, covering an area of 1,62,970 Sq. Km. The State consists of 13 districts namely, Srikakulam, Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Krishna, Guntur, Prakasam, Sri Potti Sriramulu Nellore, YSR Kadapa, Kurnool, Anantapur and Chittoor. Of these, nine are coastal districts, while Anantapur, Chittoor, Kadapa and Kurnool are part of the Rayalaseema area of Andhra Pradesh, which is a landlocked region³.

The state has a diverse topography, stretching from the hills of Eastern Ghats and Nallamala to the shores of Bay of Bengal. Owing to this diversity, the economy of the State is multi-faceted, with the coastal region providing requisite environment for development of manufacturing activities; the fertile river plains supporting agriculture and allied activities, and the districts in Rayalaseema being conducive for the mineral-based industries.

Andhra Pradesh's gross state domestic product (GSDP) at constant prices is estimated to be ₹ 7.5 lakh crore in 2021-22, accounting for a share of nearly 5.1 percent in India's GDP (at constant 2011-12 prices) during the year. During the year, Andhra Pradesh's GSDP (at constant prices) is estimated to have registered a robust y-o-y growth of 11.4 percent, primarily due to a recovery in

³ It may be noted that in April 2022, 10 out of the 13 districts have been further bifurcated to create 23 new districts in the State. Accordingly, the State now has 26 districts. However, analysis in the study has been undertaken based on the old district classification of 13 districts, as macroeconomic data as per new classification is not yet available.

the industrial sector from the slowdown triggered by the Covid-19 pandemic, as also a strong growth in agriculture GSVA. In terms of per capital GSDP (at current prices), Andhra Pradesh is relatively well-positioned at an estimated ₹ 2,07,771 in 2021-22, as compared to an estimated national average of ₹ 1,49,848 during 2021-22.

The State also has a rich pool of human resources. Andhra Pradesh is the 10th most populous state in India⁴, accounting for nearly 4.1 percent of the country's total population. The state has a sex ratio of 993 females per 1000 males, which is higher than the country average of 943⁵. Further, the State has taken substantial strides towards sustainable development. In fact, according to Niti Aayog's Sustainable Development Goals (SDG) India Index 2020-21, Andhra Pradesh is among the frontrunners in achieving the UN SDGs, ranking fourth among Indian states in achieving overall SDGs, after Kerala, Himachal Pradesh and Tamil Nadu⁶.

Andhra Pradesh has a conducive business environment as evinced by its position in the Ease of Doing business (EODB) Index⁷ in 2019-20. Andhra Pradesh is the best performing state and has maintained its position in the EODB index for two consecutive evaluation periods viz. 2017-18 and 2019-20. The State also has a favourable ecosystem for innovation and a stable logistic infrastructure. Andhra Pradesh ranked 9th among all States/UTs in the Niti Aayog's India Innovation Index 2021, and also ranked 9th among all States/UTs in the Logistics Ease Across Different States (LEADS) index 2021 (Table 1).

⁴ Socio-Economic Survey 2021-22, Government of Andhra Pradesh.

⁵ Data pertains to the year 2011; Sourced from the Economic Survey 2021-22 Statistical Appendix.

⁶ "SDG India Index 2020", Niti Aayog.

⁷ The EODB Index is calculated based on the implementation of the Business Reform Action Plan (BRAP) recommended by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industries, Government of India. The BRAP includes 405 recommendations for reforms in regulatory processes, policies, practices and procedures, spread across 12 reform areas including labour regulation enablers; contract enforcements; registering property; inspection reform enablers; single window system; land availability and allotment; construction permit enablers; environmental registration enablers; obtaining utility permits; paying taxes; access to information and transparency enablers; and sector specific reforms spanning the lifecycle of a typical business.

However, its ranking was below other coastal states of comparable economic size. There remains substantial scope for improvement in the areas of logistics infrastructure and innovation ecosystem in Andhra Pradesh.

Table 1: Andhra Pradesh's Rankings on Various State-level Indices

Indicator	Year	AP's Rank
Ease of Doing Business Index	2019-20	1
SGD Index	2020-21	4
LEADS Index	2020-21	9
India Innovation Index	2020-21	9
Export Preparedness Index	2020-21	9

Source: Niti Aayog; Ministry of Commerce and Industry, Government of India; India Exim Bank Research

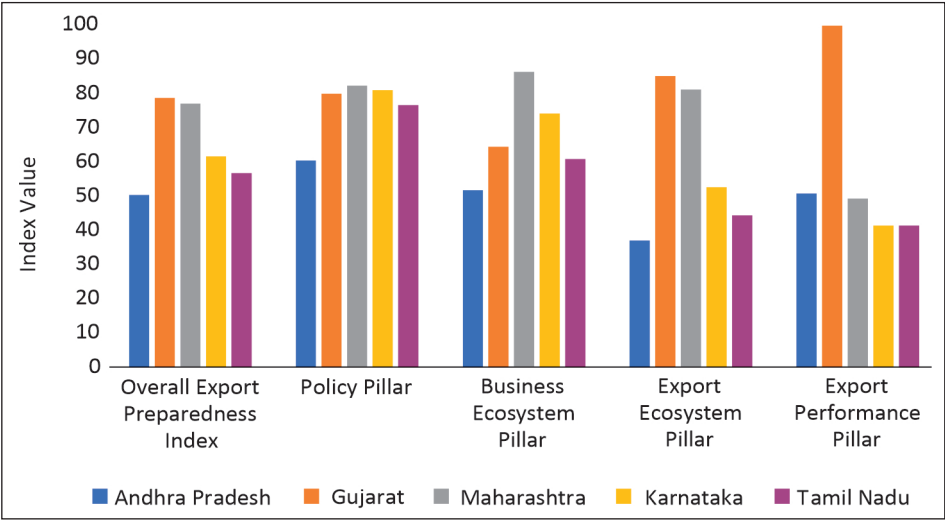
Need for Export Strategy

Among all states/UTs, Andhra Pradesh ranks 6th in terms of merchandise exports, accounting for a share of 4.6 percent in India's total merchandise exports during 2021-22. Andhra Pradesh has clear advantages in terms of its long coastline of nearly 974 KM, with one major port at Visakhapatnam, 4 operational non-major ports, and 1 captive port⁸. The State also has good connectivity through road and rail infrastructure. Despite the favourable policy environment and transport infrastructure in the State, the share of merchandise exports in Andhra Pradesh's GSDP (at current prices) stood at only about 12.0 percent in 2021-22. Although this is a substantial improvement over the share of 2.1 percent in 2013-14, the share remains below the share of merchandise exports in India's GDP of 13.2 percent in 2021-22. The share is also substantially lower when compared to coastal states such as Gujarat (share of 27.4 percent in GSDP) and Maharashtra (15.9 percent), as also a few relatively smaller coastal states such as Goa (22.6 percent) and Odisha (14.2 percent). Besides, the State ranked 9th in the Niti Ayog's Export Preparedness Index (EPI) 2021, which is significantly lower than neighbouring coastal states such as Karnataka (ranked 3rd) and Tamil Nadu (ranked 4th). Though the State

⁸ Socio-Economic Survey 2021-22, Govt. of Andhra Pradesh.

ranked 2nd on the export performance pillar of the EPI 2021, when compared to other coastal states like Gujarat, Maharashtra, Karnataka and Tamil Nadu, its relative performance in the areas of export ecosystem, policy framework and business ecosystem remained subpar (Exhibit 1).

Exhibit 1: Comparison of Performance of Select Coastal States in EPI 2021



Source: Niti Aayog Export Preparedness Index 2021; India Exim Bank Research

A robust export strategy can help in bridging the existing gaps in the export ecosystem and further boost the export performance of the State. A well-designed export strategy can also have a positive impact on employment generation in the State (Box 1). A well formulated export strategy has the potential to bring down the labour market gap and persistent informality in the state.

Against this backdrop, the study examines the economic profile and export performance of Andhra Pradesh at a granular level, making an attempt to map the supply side capabilities of the State with the demand emanating from the international market. The study analyses the potential for exports from the state, and also identifies dynamic products and leading markets for exporters. The study also recommends apposite reforms and strategies for the Government to enhance trade competitiveness at the state level, and create an enabling environment for exports.

Box 1: Impact of Exports on Employment and Wages

Exports can be a key driver of economic growth, not only by its virtue of expanding the market for producers in a country, but through its effects on efficiency improvements, technology transfers, and improvement in the skills of workers. Contemporary analytical enquiries have focused on how exports foster inclusive growth, especially on its linkages with employment in an economy. According to India Exim Bank Research, export-supported employment accounted for nearly 14.5 percent of the total employment in India during 2012-13. A study by the World Bank-ILO corroborates the positive impact of exports on employment, in terms of increasing wages and reduction in informality. According to the Study, an increase of US\$ 1,500 in India's exports per worker increases wages per worker by ₹ 8,000, and reduces informality by 12.4 million workers. The Study further highlights that a large part of the increase in exports percolates to the wage earners. For every US\$ 100 increase in exports per worker, average wage increases by about ₹ 572, essentially indicating that 12.7 percent of the increase in output is transferred to workers through wage increase. During 1999-2011, nearly 5.6 percent of wage increase in Andhra Pradesh can be attributed to greater exports, and about 3.2 percent of the reduction in informality is attributable to trade. A robust export-led growth strategy can enhance the gains for the labour market in the state.

A well-formulated export growth strategy has the potential to bring down the labour market gap and persistent informality in the state, for which strategies need to be complemented by policies that make the gains from trade more inclusive. This includes policies which (1) improve skills of workers and prepare the workforce to handle the complexities of globalised production systems; (2) move exports to a more capital-intensive growth path and a concomitant increase in training efforts; and (3) eliminate distortions in capital/labour inputs, increase participation of women in merchandise exports and increase worker mobility, among others.

Source: "Exports to Jobs: Boosting the Gains from Trade in South Asia", February 2019, World Bank

2. Economic Scenario

Overview of the State Economy

Analysis in this section highlights the changes in the overall economy of the State, as evident from the changes in important macroeconomic indicators. Gross State Domestic Product (GSDP) is an important indicator to measure the growth and economic development in a state and gauge the structural changes in a state economy. It is equal to the income generated from the production of goods and services within the geographical boundaries of a state. The estimates of value added at the state-level without any adjustments for the capital depreciation/ consumption is termed as the Gross State Value Added (GSVA).

Among the recent shocks to the Indian economy, the Covid-19 pandemic has been particularly disruptive for both lives and livelihoods. In terms of economic activities, the adverse effect of the pandemic was felt across all sectors, impacting both supply and demand in the economy. As a result, India's Gross Domestic Product (GDP) (at constant 2011-12 prices) is estimated to have registered a sharp y-o-y decline of (-) 6.6 percent in 2020-21. However, the economy of Andhra Pradesh exhibited significant resilience to the shocks triggered by the pandemic, with the GSDP of the State (at constant 2011-12 prices) registering a modest growth of 0.1 percent in 2020-21 (Table 2). The growth remained robust in the following year as well. As per advance estimates for the year 2021-22, Andhra Pradesh's GSDP (constant prices) registered a robust y-o-y growth of 11.4 percent, primarily due to a significant recovery in industrial activities from a low base, as also a robust growth in agriculture GSVA during the year. Andhra Pradesh's GSDP growth was significantly higher than India's GDP growth rate, which stood at an estimated 8.7 percent in 2021-22. In fact, the State has consistently been among the

top performing states of India. The State has consistently recorded higher GSDP (at constant prices) growth rates than the GDP growth rate of India over the recent years, except in 2018-19 (Table 2). Andhra Pradesh had the 7th largest GSDP (at current prices) among all states/UTs in 2020-21. The States of Rajasthan, Madhya Pradesh and Telangana had GSDP in similar range as that of Andhra Pradesh (Exhibit 2).

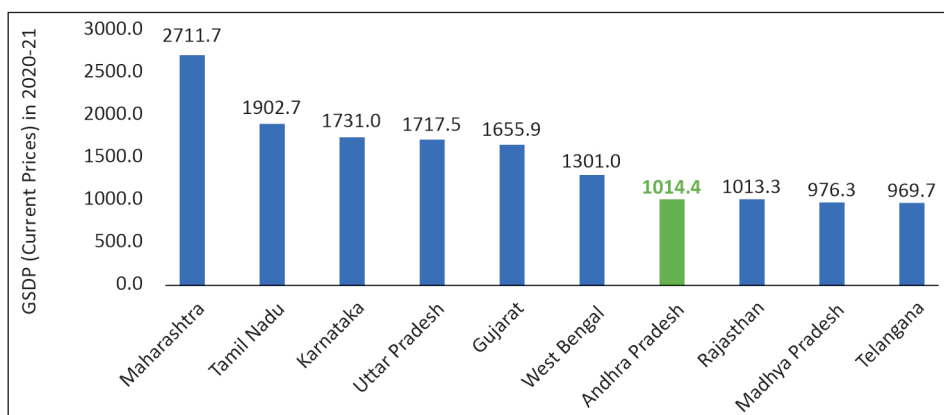
Table 2: Comparison of Gross State Domestic Product of Andhra Pradesh with the Gross Domestic Product of India (₹ '000 Crore)

Year	Andhra Pradesh				India			
	GSDP at Current Prices	Y-o-Y Growth %	GSDP at Constant (2011-12) Prices	Y-o-Y Growth %	GDP at Current Prices	Y-o-Y Growth %	GDP at Constant (2011-12) Prices	Y-o-Y Growth %
2015-16	604.2	15.1	498.6	12.2	13771.9	10.5	11369.5	8.0
2016-17	684.4	13.3	540.2	8.3	15391.7	11.8	12308.2	8.3
2017-18	786.1	14.9	594.7	10.1	17090.0	11.0	13144.6	6.8
2018-19	873.7	11.1	626.6	5.4	18899.7	10.6	13992.9	6.5
2019-20	966.1	10.6	669.8	6.9	20074.9	6.2	14516.0	3.7
2020-21	1014.4	5.0	670.3	0.1	19800.9	-1.4	13558.5	-6.6
2021-22 ^{ae}	1201.7	18.5	746.9	11.4	23664.6	19.5	14735.5	8.7

Note: 2021-22 data is as per advance estimates.

Source: MOSPI; India Exim Bank Research

Exhibit 2: Top 10 States of India in terms of GSDP at Current Prices (Value in ₹ '000 Crore)



Source: MOSPI; India Exim Bank Research

The growth in GSVA at constant (2011-12) prices for Andhra Pradesh has been robust, recording a CAGR of 7.0 percent during the period FY16-FY22, to reach an estimated ₹ 676.3 thousand crore in 2021-22. This growth can largely be attributed to the agriculture and allied sector which registered a robust CAGR of 9.7 percent during FY16-FY22. This robust growth in agriculture and allied activities in the State has led to a significant structural change in the State's economy during the period under consideration, whereby the share of agriculture and allied activities in the State's GSVA has increased from 27.0 percent in 2015-16 to an estimated 31.4 percent in 2021-22. Concomitantly, the share of services in the State's GSVA has shrunk from 45.5 percent to 42.2 percent during the same period, while the share of industries also witnessed a slight contraction.

Table 3: Sector-wise Gross State Value Added (GSVA) of Andhra Pradesh at Constant (2011-12) Prices (Values in ₹ '000 Crore)

Item	FY16	FY17	FY18	FY19	FY20	FY21	FY22 ^{ae}	% Share in GSVA (FY22)	CAGR (FY16-FY22)
Agriculture and Allied	121.5	139.7	165.2	171.0	185.7	190.7	212.2	31.4%	9.7%
Industry	123.9	139.3	147.3	152.0	158.0	158.5	178.7	26.4%	6.3%
Services	205.1	208.7	225.3	236.3	255.7	260.0	285.3	42.2%	5.7%
GSVA	450.5	487.7	537.9	559.3	599.4	609.2	676.3	100.0%	7.0%
GSDP	498.6	540.2	594.7	626.6	669.8	670.3	746.9	-	7.0%

Note: ^{ae} - Advance estimates.

Source: MOSPI; India Exim Bank Research

Key Economic Activities

Agriculture and Allied Sector

Agriculture and allied sector is the bedrock of Andhra Pradesh's economy, constituting nearly one-third of the State's gross value added during 2021-22. Besides, the sector is also a major source of livelihood for the population,

providing employment to nearly 63.9 percent of the working population in the rural areas in 2020-21⁹. Currently, the net area sown (including fish culture) in the state stood at nearly 60.88 lakh hectares (accounting for 37.4 percent of the State's total geographical area) of which more than two-third area (41.44 lakh hectares) is used for food grain cultivation, as of 2021-22¹⁰. Besides farming, segments such as fishery, dairy, meat and poultry are also important sources of gainful employment and economic output in the State.

Contribution to Gross State Value Added

As noted earlier, the agriculture and allied sector in the State has been a key growth driver for the state economy over the recent years. The growth in the sector was primarily driven by a strong growth in the fishing and aquaculture segment, which registered a CAGR of 18.2 percent during FY16-FY22, followed by livestock segment that also recorded a robust CAGR of 8.7 percent during the same period (Table 4). Notwithstanding the disruptions caused by the Covid-19 pandemic during 2020-21, the agriculture GSVA recorded y-o-y growth rates of 2.7 percent and 11.3 percent, respectively, during 2020-21 and 2021-22. This was primarily driven by a strong growth in fisheries and livestock segments in both the years, as also by a robust recovery in crops segment in 2021-22.

In terms of contribution to agriculture GSVA, crops segment accounted for the largest share of 39.2 percent in AP's agriculture GSVA during 2021-22, followed by fishing and aquaculture (share of 31.4 percent), livestock (28.1 percent), and forestry and logging (1.3 percent). Analysis indicates that the share of fishing and aquaculture in AP's agriculture GSVA has expanded substantially over the recent years, from 20.2 percent in FY16 to 31.4 percent in FY22, while that of other three segments have declined.

⁹ Source: PLFS Annual Report July 2020-June 2021.

¹⁰ Socio-Economic Survey 2021-22, Govt. of Andhra Pradesh.

Table 4: Segment-wise GSVA in Agriculture and Allied Sector (₹ '000 Crore)

	FY16	FY17	FY18	FY19	FY20	FY21	FY22 ^e	% Share in Agri GSVA FY22	CAGR % (FY16-FY22)
Agriculture, forestry & fishing	121.5	139.7	165.2	171.0	185.7	190.7	212.2	100.0%	9.7%
Crops	58.5	64.3	74.1	69.3	78.5	76.9	83.2	39.2%	6.1%
Livestock	36.2	41.9	46.9	50.8	53.4	55.8	59.7	28.1%	8.7%
Forestry and logging	2.4	2.5	2.7	2.7	2.7	2.7	2.7	1.3%	2.2%
Fishing and aquaculture	24.5	31.0	41.5	48.2	51.2	55.3	66.6	31.4%	18.2%

Note: ^e - Advance estimates.

Source: MOSPI; Socio-Economic Survey 2021-22, Govt. of Andhra Pradesh; India Exim Bank Research

Food Grains

The diverse topographic, climatic and soil conditions of Andhra Pradesh enable production of both cash crops and food crops in the State. Andhra Pradesh stands 12th among all states/UTs in terms of production of food grains in the country, accounting for a share of 3.6 percent in the country's total food grain production during 2021-22 (Table 5). It is noteworthy that in 2019-20, Andhra Pradesh stood 10th among all states/UTs in terms of food grain production, outperforming some of its neighbouring states like Tamil Nadu, Telangana, and Odisha. However, foodgrain production in Andhra Pradesh witnessed two consecutive years of decline in 2020-21 and 2021-22.

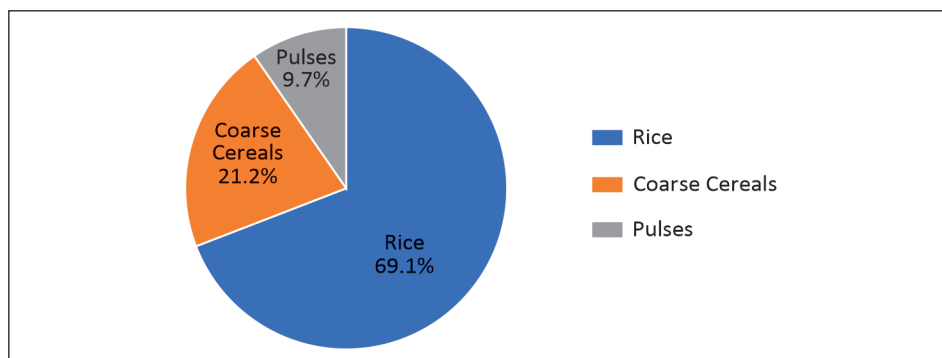
Table 5: Top States for Food Grains Production in India in 2021-22

States	Food Grain Production (In '000 Tonnes)	Share in India's Total Food Grain Production
Uttar Pradesh	56113.0	17.8%
Madhya Pradesh	39053.8	12.4%
Punjab	28212.1	8.9%
Rajasthan	21049.3	6.7%
West Bengal	20502.3	6.5%
Maharashtra	17137.2	5.4%
Haryana	16329.2	5.2%
Bihar	16194.4	5.1%
Telangana	15095.4	4.8%
Karnataka	13809.4	4.4%
Tamil Nadu	12046.3	3.8%
Andhra Pradesh	11266.0	3.6%
Gujarat	10057.4	3.2%
Odisha	9950.8	3.2%
Chhattisgarh	8897.0	2.8%
Others	20009.3	6.3%
Total	315722.7	100.0%

Source: Handbook of Statistics on Indian Economy 2022, RBI; India Exim Bank Research

Rice is one of the most important crops cultivated in the State, accounting for the largest share of 69.1 percent in the total food grains produced in the State during 2021-22 (Exhibit 3), followed by coarse cereals (share of 21.2 percent) and pulses (9.7 percent). Though wheat is also produced in the State, its share in total food grain production is negligible.

Exhibit 3: Category-wise Food Grains Produced in Andhra Pradesh (2021-22)



Source: Handbook of Statistics on Indian Economy 2022, RBI; India Exim Bank Research

Total rice production in the state stood at an estimated 77.8 lakh tonnes in 2021-22. A comparative analysis of rice production across states/UTs indicates that Andhra Pradesh is the eighth largest producer of rice in the country, accounting for an estimated share of 6.0 percent¹¹ in India's total rice production in 2021-22.

The yield of rice cultivated in Andhra Pradesh stood at nearly 3,393 kg/hectare in 2020-21¹², which is higher compared to the yield in the top 4 rice producing states viz. West Bengal (yield of 2,958 kg/hectare), Uttar Pradesh (2,733 kg/hectare), Telangana (3,206 kg/hectare), and Odisha (2,182 kg/hectare) during the same year.

It is noteworthy that rice cultivation is an important activity across all the 13 districts of the State and in both Rabi and Kharif seasons, though the intensity varies across districts. West Godavari district accounted for the largest share in the state's total production of rice in 2019-20¹³ at 19.4 percent, followed by East Godavari (share of 17.8 percent), Krishna (13.9 percent), SPSR Nellore (10.8 percent); and Guntur (10.8 percent) (Table 6).

¹¹ India Exim Bank Research based on data from Handbook of Statistics on Indian Economy 2022, RBI.

¹² Ministry of Agriculture and Farmers' Welfare, GOI.

¹³ As per latest available data.

Table 6: District-wise Rice Cultivation in Andhra Pradesh (2019-20)

District	Production (Lakh Tonnes)	% Share in Andhra Pradesh's Total Rice Production
West Godavari	17.7	19.4%
East Godavari	16.3	17.8%
Krishna	12.7	13.9%
SPSR Nellore	9.9	10.8%
Guntur	9.9	10.8%
Srikakulam	6.2	6.8%
Kurnool	4.8	5.3%
Vizianagaram	4.0	4.4%
Prakasam	3.0	3.3%
Visakhapatnam	2.5	2.7%
Chittoor	2.0	2.2%
Kadapa	1.3	1.4%
Anantapur	1.1	1.2%
Grand Total	91.4	100.0%

Source: Ministry of Agriculture and Farmers' Welfare, GOI; India Exim Bank Research

Apart from rice, other major food grains cultivated in the State include pulses and coarse cereals including Jowar, Bajra, Ragi and small millets. Andhra Pradesh was the 7th largest producer of pulses and 9th largest producer of coarse cereals in the country¹⁴ in 2021-22.

Other Major Crops

Major commercial crops cultivated in the state include sugarcane, oilseeds (including mainly groundnut, castor seeds, sesamum, sunflower, soyabean, niger, rapeseeds and safflower), spices (mainly chillies and turmeric), tobacco,

¹⁴ India Exim Bank Research based on data from Ministry of Agriculture and Farmers' welfare, GOI.

cotton and raw jute and mesta, among others. Andhra Pradesh was the 5th largest producer of raw jute and mesta, as well as cotton (lint); 10th largest producer of sugarcane; and 11th largest producer of oilseeds in the country during 2021-22 (Table 7).

**Table 7: Other Major Crops Cultivated in Andhra Pradesh in 2021-22
(in '000 Tonnes)**

Category	Production Volume	Rank in India's Production
Sugarcane	3654.2	10
Coarse Cereals	2388.7	9
Cotton (Lint)	1707.6	5
Oilseeds	555.4	11
Raw Jute and Mesta	11.0	5

Source: Handbook of Statistics on Indian Economy 2022, RBI; India Exim Bank Research

Horticulture

Andhra Pradesh accounts for only 5.6 percent of India's total land area under horticulture production but it is the fifth largest producer of horticulture crops in the country, accounting for a share of 8.0 percent in the total horticulture production of India during 2020-21. Andhra Pradesh is the largest producer of fruits in the country, accounting for 17.6 percent of India's total production of fruits in 2020-21. The State is one of the largest producers of fruits such as Mango, Papaya and Lemon in the country. Andhra Pradesh is also the third largest producer of flowers, with a share of 15.6 percent in the total flower production in the country in 2020-21 and is the fourth largest producer of plantation crops and spices in the country, accounting for shares of 6.2 percent and 8.3 percent, respectively, in India's total production of plantation crops and spices during 2020-21. Major plantation crops cultivated in the state include coconut, cashew nut, and arecanut, while major spices cultivated in the state include chillies, turmeric and black pepper.

Table 8: Horticulture Production in Andhra Pradesh (2020-21)

Horticulture Products	Andhra Pradesh		All-India		AP's Share in India	
	Area ('000 Ha)	Production ('000 MT)	Area ('000 Ha)	Production ('000 MT)	% Share in Area	% Share in Production
Fruits	730.2	18104.5	6913.5	103027.0	10.6%	17.6%
Vegetables	228.7	6084.7	10965.7	197230.4	2.1%	3.1%
Plantation	351.5	1024.2	4190.4	16601.9	8.4%	6.2%
Aromatics and Medicinal	6.4	13.3	658.9	779.3	1.0%	1.7%
Flowers	19.8	406.9	329.0	2605.1	6.0%	15.6%
Spices	217.1	885.6	4528.2	10679.2	4.8%	8.3%
Honey	-	1.9	-	125.0	-	1.5%
Total	1553.7	26520.9	27585.7	331047.9	5.6%	8.0%

Source: Agriculture at Glance 2021, Ministry of Agriculture and Farmers' Welfare, GOI; India Exim Bank Research

It is noteworthy that although the share of Andhra Pradesh in the country's vegetable production is relatively low, the State is among the top producers of some vegetables such as tomato and onion. In 2020-21, Andhra Pradesh was the third largest producer of tomatoes and 7th largest producer of onions in the country, accounting for 10.5 percent and 2.4 percent, respectively, of India's total production of tomatoes and onions.

Animal Husbandry

Livestock is one of the fastest growing segments within the agri and allied sector of Andhra Pradesh, registering a CAGR of 8.7 percent during FY16-FY22. The total livestock resources in the State stood at 340.67 lakh units, including cattle, buffaloes, sheep, goats, pigs and other livestock, as per the latest Livestock Census 2019. Besides, the poultry population in the State stood at 1078.63 lakh units¹⁵. During 2020-2021, Andhra Pradesh stood 1st in egg production, 2nd in meat production and 5th in milk production in the country¹⁶.

¹⁵ Socio-Economic Survey 2021-22, Govt. of Andhra Pradesh.

¹⁶ Socio-Economic Survey 2021-22, Govt. of Andhra Pradesh.

Table 9: Production of Animal-based Products in Andhra Pradesh (2020-21)

Product	Unit	Production in Andhra Pradesh
Eggs	Crore Numbers	2496.4
Meat	Lakh Tonnes	9.5
Milk	Lakh Tonnes	147.14

Source: Socio-Economic Survey 2021-22, Govt. of Andhra Pradesh; India Exim Bank Research

Fisheries

In addition to its livestock wealth, the State's vast coastline and favourable agro-climatic conditions are conducive for the fisheries and aquaculture sector. Fish production in Andhra Pradesh stood at 46.2 lakh tonnes in 2020-21. Of this, inland fish and freshwater prawn production accounted for a share of 74.3 percent in the total fish, shrimp and prawn produced in the State during 2020-21, while production of marine fish and shrimp, and brackish water shrimp held relatively lower shares of 12.8 percent each. With 9 out of its 13 districts along the east coast of the country, there is significant potential for enhancing production of fish, shrimp and prawn in the state, with adequate policy support.

Table 10: Production of Fish, Shrimp and Prawn in Andhra Pradesh (2020-21)

Type of Fish/Shrimp/Prawn	Production in Lakh MTs	Share in Total Fish/Shrimp/Prawn Production in State
Marine Fish and Shrimp	5.9	12.8%
Inland Fish and Freshwater Prawn	34.4	74.3%
Brackish Water Shrimp	5.9	12.8%
Total	46.2	100.0%

Source: Socio-Economic Survey 2021-22, Government of Andhra Pradesh; India Exim Bank Research

Industrial Sector

Some of the key industrial sectors in Andhra Pradesh are food processing, pharmaceuticals and biotechnology, electronics, automotive, textiles, and

mineral-based industries. As per data from the Annual Survey of Industries (ASI) by the Government of India, there were 13,504 operating factories in Andhra Pradesh in 2019-20 in the organised manufacturing sector. These units contributed nearly ₹ 51,700.0 crore to the gross value added in the manufacturing sector in 2019-20. Gross fixed capital formation in these factories in Andhra Pradesh was estimated at ₹ 26,456.7 crore in 2019-20.

The value added in the industrial sector of Andhra Pradesh has witnessed a steady growth over the recent years, registering an estimated CAGR of 6.3 percent during 2015-16 to 2021-22. This surge in industrial value added is primarily driven by growth in 'electricity, gas, water supply and other utility services' segment and 'manufacturing' segment, which recorded strong CAGRs of 15.1 percent and 6.3 percent, respectively, during the same period (Table 11). Within industries, the share of manufacturing was 44.4 percent during 2021-22, which is nearly same as the share in 2015-16.

Table 11: Segment-wise GSVA in the Industry Sector (₹ '000 Crore)

	FY16	FY17	FY18	FY19	FY20	FY21	FY22 ^e	% Share in Industry GSVA (FY22)	CAGR % (FY16 - FY22)
Industry	123.9	139.3	147.3	152.0	158.0	158.5	178.7	100.0%	6.3%
Mining and Quarrying	17.4	20.6	20.1	19.7	18.8	20.2	24.2	13.5%	5.7%
Manufacturing	55.0	60.5	65.7	71.5	72.4	70.6	79.3	44.4%	6.3%
Electricity, Gas, Water Supply and Other Utility Services	11.5	14.5	17.7	15.0	20.6	24.1	26.8	15.0%	15.1%
Construction	39.9	43.7	43.9	45.8	46.1	43.5	48.5	27.1%	3.3%

Note: ^e- Advance estimates.

Source: MOSPI; India Exim Bank Research

Food-based Industries

Agro and food processing is one of the focus sectors for the Government of Andhra Pradesh. Andhra Pradesh currently has about 4,306 operating units engaged in manufacture of food products, contributing ₹ 9,790.5 crore to the gross value added in 2019-20¹⁷. The large production base has also positioned the State as an important exporter of processed food. In 2021-22, Andhra Pradesh was the largest exporter of processed food among all states/UTs, accounting for nearly 22.6 percent of the country's total exports of processed food¹⁸. Within the food-based industries, the key segments for the State include rice mills, dal mills, edible oil units, aquaculture processing units like shrimp processing, sugar, cashew nut processing units, fruit processing units, and bakery products, among others.

Pharmaceuticals and Chemicals

There were about 456 chemicals manufacturing units and 224 pharmaceuticals manufacturing units in the state in 2019-20. These units collectively contributed nearly ₹ 45,941.6 crore to the State's gross value added and registered gross fixed capital formation of ₹ 4,843.4 crore, during 2019-20. The significant production of pharmaceuticals in Andhra Pradesh has helped the State emerge as the 5th largest exporter of bulk drugs, intermediaries and drug formulations in the country, accounting for 6.0 percent of the country's total exports of these products in 2021-22.

At the district level, Visakhapatnam, Vizianagaram, Krishna, Nellore, Srikakulam and Anantapuram are some of the major districts that have bulk drugs and pharmaceuticals manufacturing units, and there is substantial focus on further augmenting capacities and enhancing pharma exports from these districts. The state government has identified pharmaceuticals as a champion sector, with an aim to double the exports from the sector by 2025, and the aforementioned districts would play a key role in achievement of this target.

¹⁷ Annual Survey of Industries 2019-20.

¹⁸ Includes preparations of meat, of fish, or of crustaceans, molluscs; cocoa and cocoa preparations; preparations of cereals, flour, starch or milk; preparations of vegetables, fruits, nuts; and miscellaneous edible preparations.

In Visakhapatnam, there are more than 120 operational pharma companies and nearly 50 more companies are expected to invest in the district. These are mainly export-oriented manufacturing units, and are primarily located in Jawaharlal Nehru Pharmacity in Paravada and Andhra Pradesh Special Economic Zone (APSEZ) in Atchutapuram, in the Visakhapatnam district. In Srikakulam district, 13 major pharma manufacturing units are currently operational, while 5 other major manufacturing units are expected to be established. The Pydibhimavaram industrial estate in Srikakulam district is being targeted for development of a pharmaceutical hub in the district. In Nellore district as well, several prominent pharmaceutical manufacturers are operational, and there is substantial scope for establishing pharma hubs in the SEZs located in Naidupet and Sricity areas of the district, owing to their strong connectivity network by road, rail and sea.

The State is also the 3rd largest exporter of chemical products, accounting for 8.8 percent of the country's total exports of these products in 2021-22¹⁹. One of the important chemicals manufactured in the State, from exports perspective, is barium compounds, that are primarily exported from Kadapa district. There is substantial scope for building further capacity in the segment.

Mineral-based Industries

The mining sector is one of the growth engines for the State. The State has reserves of several minerals such as manganese, iron ore, beach sands, limestone, feldspar, clays, quartz, silica, gold, diamond, dolomite, oil and natural gas, uranium, garnet, titanium, among others. The State is particularly known for its exclusive range of coloured granite varieties including Chimakurthy black galaxy, steel grey, ocean blue, and black pearl in Prakasam district; Srikakulam blue granite in Srikakulam district; Vizianagaram green in Vizianagaram district; river white, Kashmir white and moon white in Visakhapatnam district; yellow granite in East Godavari district; silver pearl, Indian Labrador, blur paradise, copper green, and platinum blur in Guntur district; viscon white, tiger black, Kuppam green English teak in Chittoor

¹⁹ Includes agro chemicals, inorganic chemicals, organic chemicals, other miscellaneous chemicals, residual chemicals and allied products.

district; pista green in Kadapa district; chilli red in Anantapuram district; and chocolate brown in Kurnool district²⁰.

According to the ASI, the State had nearly 4,190 manufacturing units for mineral-based products²¹ in 2019-20. These units are engaged in the production of cement, steel, sponge iron, ferroalloys, glass, ceramics, refractories, chemicals, granite, marble, quartz, silica, limestone, and slate products, among others. Many of these manufacturing units are primarily export oriented. In fact, the State is the second largest exporter of granite, natural stones and their products, with a share of 24.9 percent in India's total exports of these products in 2021-22, and the 6th largest exporter of iron and steel in the country, accounting for 9.0 percent of India's total iron and steel exports in 2021-22. Owing to the rich mineral endowments of the State, the Government of Andhra Pradesh has identified mineral-based sector as a champion sector for doubling exports, with a focus on the segments of iron and steel and processed stones.

Service Sector

Services sector accounts for the largest share in Andhra Pradesh's GSVA, at nearly 42.2 percent in 2021-22. The services sector GSVA in Andhra Pradesh registered a CAGR of 5.7 percent during 2015-16 to 2021-22. Within the services sector, 'transport, storage, communication and services related to broadcasting' contributed significantly to the overall GSVA of the services sector of Andhra Pradesh, with a share of 20.3 percent in 2021-22, followed by 'trade, repair, hotels and restaurants' segment (share of 19.8 percent in the services GSVA), 'real estate, ownership of dwelling and professional services' segment (18.9 percent), and 'financial services' (11.3 percent), among others. Financial services segment has been a major growth driver in the service sector, witnessing robust CAGR of 9.1 percent during 2015-16 to 2021-22 (Table 12).

²⁰ Department of Mines and Geology, Government of Andhra Pradesh.

²¹ Including both manufacturers of other non-metallic mineral products, as well as manufacturers of basic metals and fabricated metal products (except machinery and equipment).

Table 12: Segment-wise GSVA in the Services Sector (₹ '000 Crore)

	FY16	FY17	FY18	FY19	FY20	FY21	FY22 ^e	% Share in Services GSVA (FY22)	CAGR % (FY16-FY22)
Services	205.1	208.7	225.3	236.3	255.7	260.0	285.3	100.0%	5.7%
Trade, Repair, Hotels and Restaurants	43.2	43.5	47.3	52.5	56.9	51.9	56.5	19.8%	4.6%
Transport, Storage, Communication and Services Related to Broadcasting	47.1	47.0	50.9	53.4	56.1	50.4	58.0	20.3%	3.5%
Financial Services	19.1	19.8	21.5	26.7	27.7	29.1	32.2	11.3%	9.1%
Real Estate, Ownership of Dwelling and Professional Services	39.0	40.9	43.8	40.4	42.1	49.5	54.0	18.9%	5.6%
Public Administration	19.0	18.5	20.0	21.4	24.8	28.2	30.7	10.8%	8.3%
Other Services	37.7	39.0	41.9	41.8	48.1	50.9	53.9	18.9%	6.1%

Note: ^e - Advance estimates.

Source: MOSPI; India Exim Bank Research

Resource Profiling

An analysis of the resource profile of the state can shed light on the areas in which the State has competitive advantage. This can help in identification of the latent export potential in the State and in devising strategies for harnessing this potential for overall economic development in the State.

Agriculture

Agriculture is a key sector for the economy of Andhra Pradesh. For a comprehensive understanding of the State's agricultural potential,

identification of various agro-climatic zones within the state would be an essential first step. The concept of agro-climatic zones helps to identify agriculturally potent areas suitable for a particular genotype, so that the optimum production potential of a crop and cropping sequence could be attained. India has a total of 15 agro-climatic regions that have been identified based on agro climatic features, particularly soil type, climate including temperature and rainfall and its variation, and water resources availability²².

Andhra Pradesh falls under the agro-climatic region named 'Southern Plateau and Hills Region', and comprises 6 agro-climatic zones viz. North Coastal Zone, Godavari Zone, Krishna Zone, Southern Zone, Scarce Rainfall Zone and High Altitude and Tribal Areas Zone, which are conducive for the cultivation of a vast range of agricultural produce, as identified in the table below (Table 13).

Table 13: Agro-climatic Delineations of Andhra Pradesh

Agro-Climatic Zone	Districts	Crops
North Coastal Zone	Srikakulam, Vizianagaram, Visakhapatnam	Paddy, maize, jowar, ragi, bajra, pulses, green gram, groundnut, niger, sugarcane, sesamum, mesta, cotton, chillies, cashew, coconut, mango, oil palm, pineapple, tapioca, banana, etc.
Godavari Zone	East Godavari, West Godavari	Paddy, maize, tobacco, groundnut, pulses and sunflower, sugarcane, coconut, oil palm, cashew, mango, citrus, banana, turmeric, sapota, papaya, cucumber, gourds, okra, brinjal, tomato, cabbage, leafy vegetables, etc.

²² Department of Water Resources, RD and GR, GOI.

Agro-Climatic Zone	Districts	Crops
Krishna Zone	Krishna, Guntur, Prakasam	Chillies, turmeric, paddy, jowar, bajra, black gram, bengal gram, red gram, sugarcane, coconut, cotton, tobacco, castor, sunflower, groundnut, lemon, mango, banana, sapota, vegetables, etc.
Southern Zone	Chittoor, YSR Kadapa, SPSR Nellore	Paddy, jowar, bajra, sugarcane, groundnut, vegetables, chillies, cotton and tobacco, sunflower, mangoes, cashew nut, tomato, papaya, sweet orange, acid lime, tamarind etc.
Scarce Rainfall Zone	Kurnool, Anantapur	Jowar, bajra, paddy, bengal gram, red gram, tobacco, cotton, groundnut, sunflower, chillies, turmeric, tomato, onion, mangoes, oranges, guava, papaya, sapota, etc.
High Altitude and Tribal areas Zone	High altitude and tribal areas of Srikakulam, Visakhapatnam, East Godavari districts	Horticultural crops, millets, pulses, chillies, turmeric, coffee and pepper.

Source: State Agro-Meteorological Centre, India Meteorological Department, GOI; State Export Action Plan, Govt. of Andhra Pradesh; India Exim Bank Research

Mineral

Mineral resources are of paramount importance for industrial activities. They enter into production cycle of several industries in the form of raw materials and contribute to growth in industrial sector. Andhra Pradesh is a mineral rich state containing a vast variety of mineral wealth, particularly industrial minerals. Andhra Pradesh is well known globally for variety of rocks and minerals and is popularly known as 'Ratna Garbha'.

Mineral-based industries are one of the major contributors to the economic growth of the State and are also a major source of revenue for the State. According to the Socio-Economic Survey of Andhra Pradesh 2021-22, the State's mineral and mining sector contributed ₹ 2,029.8 crores to the state exchequer during 2020-21, and about ₹ 2,904 Crores during 2021-22 (up to December 2021).

There are 434 mining leases for major minerals, 1,598 quarry leases for cut and dressed blocks of granites, 892 quarry leases for industrial minerals, and 2,875 quarry leases for other minor minerals (construction minerals) in the state. Mining for limestone, barytes and natural gas falls under large scale mechanised sector, while that of granite, dolomite, quartz, feldspar, and clays fall under semi-mechanised medium scale sector. Other minerals fall under semi-mechanised small-scale sector²³.

The State holds reserves of various minerals including crude oil and natural gas, barytes, heavy mineral beach sand, manganese, limestone, dolomite, quartz, feldspar, silica sand, semi-precious stones, ball clay, laterite, iron ore, gold and diamonds, mica, asbestos, calcite, uranium, lead, zinc, shale, pyrophyllite, steatite, serpentine, graphite, kyanite, vermiculite, clays, ochre, black and colour granites, limestone slabs, fullers earth, marble, road metal/building stone/ballast, gravel/earth, mosaic chips and ordinary sand.

The State is focusing on developing policies to manage its mineral resources, address key issues in legislation, as also to align the State's objectives with the National Mineral Policy for augmenting growth and overall development of the mining sector. The State has also launched several new policies for ensuring sustainable mining, augmenting revenues and streamlining processes in the mining industry. This includes the New Sand Mining Policy 2019, Silica Sand Policy, geo referencing of the leases using the Mines Surveillance System (MSS), single desk portal for online filing of fresh mineral concession applications and renewal, automated e-permits for all mineral leases having statutory clearances, among others.

²³ Socio-Economic Survey of Andhra Pradesh 2021-22, Govt. of Andhra Pradesh

Conclusion

Analysis in this Chapter indicates that the State's key sectors are largely resource intensive, with a few exceptions such as chemicals and pharmaceuticals. The State has the potential to emerge as one of the key contributors to growth in exports from India. To realise this potential, there is a need to focus on areas of traditional advantage, but also build capabilities in other resilient sources of growth in exports, especially technology-intensive manufacturing sectors in which the State already has some capacities. The State has enterprises in technology-intensive sectors such as electronics, transport vehicles, textiles etc. There is also a policy push for strengthening the capabilities in these segments. The State government has already introduced the "Andhra Pradesh Electronics Policy 2021-24" with the objective of "transforming the State of Andhra Pradesh into a preferred investment destination for the electronics sector while focusing on backward integration of the manufacturing value chain, moving beyond assembly operations".

There is also potential for reorienting the agriculture sector towards greater value-added activities. Alongside, the services sector in the State also requires a dynamic, demand responsive strategy, especially in light of the challenges and opportunities posed by the pandemic.

3. Export Scenario of Andhra Pradesh

Andhra Pradesh's abundant resources, skilled workforce, and a favourable policy environment have positioned the state as an important contributor to India's economic output and exports. However, there remains substantial latent export potential, which can be tapped through multi-faceted intervention.

Merchandise Exports from Andhra Pradesh

Andhra Pradesh ranked 6th among Indian states/UTs in terms of merchandise exports²⁴, with a share of 4.6 percent in India's total merchandise exports in 2021-22. During 2017-18 to 2019-20, Andhra Pradesh was the 7th largest merchandise exporting state in India, with share in the range of 4.3 percent to 4.7 percent in India's merchandise exports during this period. In 2020-21, Andhra Pradesh's share in India's merchandise exports increased to 5.8 percent on account of strong growth in exports, thereby positioning the State as the 4th largest merchandise exporting state during the year. In 2021-22, however, due to relatively stronger growth in merchandise exports from states like Karnataka and Uttar Pradesh as compared to Andhra Pradesh, the position and share of Andhra Pradesh in India's merchandise exports came down.

²⁴ Note: State-wise export data are compiled by DGCIS on the basis of State Codes reported by the exporters in the shipping bills with the customs authority. While filing such shipping bills, exporters are to report such State of Origin Codes where the item is originated (produced). The primary source of data in the form of shipping bill is generated in customs from where DGCIS sources export data in the form of Daily Trade Return (DTR) as secondary source of data. DGCIS does not validate the State Codes given by the exporters.

Andhra Pradesh's merchandise exports have grown steadily over the recent years, registering a robust CAGR of 10.4 percent during 2017-18 to 2021-22. Merchandise exports from Andhra Pradesh have remained remarkably resilient to external shocks, including the Covid-19 pandemic. In 2019-20 and 2020-21, while India witnessed two consecutive years of decline in merchandise exports, Andhra Pradesh's merchandise exports registered strong y-o-y growth rates of 5.0 percent and 13.9 percent, respectively (Table 14). It is noteworthy that, Andhra Pradesh was the only state among the top 5 merchandise exporting states in the country to have recorded a positive y-o-y growth in merchandise exports during 2020-21. In 2021-22, Andhra Pradesh's exports continued to witness robust growth, registering a y-o-y growth rate of 14.7 percent, albeit below all-India levels.

Table 14: Trends in Merchandise Export from India and Andhra Pradesh

Year	AP's Merchandise Exports (US\$ bn)	Y-o-Y Growth in AP's Merchandise Exports (%)	India's Merchandise Exports (US\$ bn)	Y-o-Y Growth in India's Merchandise Exports	Share of AP in India's Overall Merchandise Exports (%)
2017-18	13.0	-	303.5	-	4.3
2018-19	14.1	8.2	330.1	8.8	4.3
2019-20	14.8	5.0	313.4	-5.1	4.7
2020-21	16.8	13.9	291.8	-6.9	5.8
2021-22	19.3	14.7	422.0	44.6	4.6

Source: DGCIS, India Exim Bank Research

Key Exported Products

Marine products are some of the key exported products from Andhra Pradesh, with the State being a key exporter of both processed and raw marine products from the country. In 2021-22, fish and crustaceans were the largest export category accounting for a share of 14.6 percent in Andhra Pradesh's merchandise exports. Other top exported products from Andhra Pradesh during 2021-22 include organic chemicals (share of 10.7 percent), iron and

steel (10.7 percent), ships, boats and floating structure (8.8 percent), cereals (5.7 percent) and pharmaceuticals (5.1 percent), among others (Table 15).

Table 15: Top 10 Merchandise Exports from Andhra Pradesh at HS 2-Digit (2021-22)

HS Codes	Commodity	Value of Exports (US\$ Million)	Share in Merchandise Exports of AP (Percent)
03	Fish and Crustaceans	2822.5	14.6
29	Organic Chemicals	2072.0	10.7
72	Iron and Steel	2059.5	10.7
89	Ships, Boat and Floating Structures	1702.5	8.8
10	Cereals	1110.1	5.7
30	Pharmaceutical Products	989.9	5.1
87	Transport Vehicles and Parts	941.8	4.9
84	Machinery and Mechanical Appliances	675.7	3.5
38	Miscellaneous Chemical Products	541.5	2.8
09	Coffee, Tea, Mate and Spices	537.3	2.8
Total Merchandise Exports		19,311.8	100.0

Source: DGCIS, India Exim Bank Research

Andhra Pradesh is the largest exporter of ‘fish and crustaceans’ and ‘preparations of meat, fish, crustaceans and molluscs’ in India, accounting for shares of 40.9 percent and 65.8 percent, respectively, in India’s merchandise exports of these products during 2021-22 (Table 16). Besides marine products, in several manufactured products, Andhra Pradesh has a substantially high share in India’s overall merchandise exports. For instance, Andhra Pradesh is the largest exporter of tobacco and manufactured tobacco substitutes in India, with a share of 53.7 percent in India’s total exports of the product during 2021-22. Andhra Pradesh is also a key exporter of ‘ship, boat and floating structure’ and ‘railway/ tramway locomotives, trucks and parts’ in the country, with

shares of 46.8 percent and 34.5 percent, respectively, in India's total exports of these products. Other exports from Andhra Pradesh with a high share in India's exports include prepared feathers articles, artificial flowers and articles of human hair (share of 24.0 percent in India's total exports of the product), salt; sulphur; earths and stone (22.6 percent), vegetable plaiting materials (17.6 percent), miscellaneous edible preparations (15.8 percent), and articles of stone, plaster, cement, asbestos, mica (15.6 percent), among others (Table 16).

Table 16: Products with Highest Share in India's Exports at HS 2-Digit (2021-22)

HS Codes	Commodity	Value of Exports from the State (US\$ Million)	Share of AP in India's Exports of the Product (Percent)
16	Preparations of Meat, of Fish or Crustaceans, Molluscs	507.3	65.8
24	Tobacco and Manufactured Tobacco Substitutes	495.5	53.7
89	Ships, Boat and Floating Structures	1702.5	46.8
03	Fish and Crustaceans, Molluscs and Other Aquatic Invertebrate	2822.5	40.9
86	Railway/Tramway Locomotives, Trucks and Parts	143.6	34.5
67	Prepared Feathers Articles, Artificial Flowers, Articles of Human Hair	144.4	24.0
25	Salt; Sulphur; Earths and Stone	511.9	22.6
14	Vegetable Plaiting Materials	9.4	17.6
21	Miscellaneous Edible Preparations	175.0	15.8
68	Articles of Stone, Plaster, Cement, Asbestos, Mica	355.5	15.6
09	Coffee, Tea, Mate and Spices	537.3	13.4

HS Codes	Commodity	Value of Exports from the State (US\$ Million)	Share of AP in India's Exports of the Product (Percent)
20	Preparations of Vegetables, Fruits, Nuts or Other Parts	84.9	11.3
60	Knitted or Crocheted Fabrics	84.0	9.9
29	Organic Chemicals	2072.0	9.4
72	Iron and Steel	2059.5	9.0
78	Lead and Articles Thereof	48.3	8.9
10	Cereals	1110.1	8.6
44	Wood and Articles of Woods; Wood Charcoal	58.7	7.9
38	Miscellaneous Chemical Products	541.5	7.7
17	Sugar and Sugar Confectionery	368.8	7.2
08	Edible Fruit and Nuts; Peel of Citrus Fruit or Melons	100.1	6.5
64	Footwear, Gaiters, and the Like; Parts of Such Articles	159.1	6.3
30	Pharmaceutical Products	989.9	5.1
28	Inorganic Chemicals; Compounds of Precious Metals, or Rare-Earth metals	128.3	4.8
87	Road Vehicles and Parts	941.8	4.8
Grand Total		19,311.8	4.6

Source: DGCIS, India Exim Bank Research

Key Export Destinations

The USA is the largest destination for exports from Andhra Pradesh, accounting for a share of nearly 22.3 percent in the merchandise exports from the State during 2021-22, followed by China (share of 9.0 percent),

Sri Lanka (4.1 percent), Singapore (4.0 percent) and UAE (3.6 percent), among others (Table 17).

Table 17: Top 10 Destinations for Merchandise Exports from Andhra Pradesh (2021-22)

Country	Value of Exports (US\$ Million)	Share in Merchandise Exports from Andhra Pradesh (Percent)
The USA	4300.3	22.3
China	1729.5	9.0
Sri Lanka	787.2	4.1
Singapore	775.9	4.0
UAE	686.8	3.6
Vietnam	514.0	2.7
Malaysia	510.9	2.6
Indonesia	478.3	2.5
Bangladesh	467.6	2.4
Saudi Arabia	465.8	2.4
Total Exports	19,311.8	100.0

Source: DGCIS, India Exim Bank Research

An analysis of top 5 items exported to the top 10 export destinations for Andhra Pradesh, highlights predominance of fish and crustaceans in Andhra Pradesh's exports to several top export destinations for the state. Analysis indicates that nearly 45.1 percent of Andhra Pradesh's export to the USA in 2021-22 were from only one product category viz. fish and crustaceans (Table 18). Likewise, nearly 45.2 percent of Andhra Pradesh's export to Sri Lanka and nearly two-third of Andhra Pradesh's exports to Singapore were from only one product category viz. ships, boat and floating structure. Similar pattern is observed in exports to the other destinations as well, wherein Andhra Pradesh's export is concentrated in a few top items. This highlights the need for product diversification in key export markets.

Table 18: Share of Top 5 Items in Exports to the Top 10 Export Destinations for Andhra Pradesh (2021-22)

Country	Items	Share of Product in Andhra Pradesh's Exports to the Country
The USA	Fish and Crustaceans, Molluscs and Other Aquatic Invertebrate	45.1
	Pharmaceutical Products	10.8
	Preparations of Meat, Fish, Crustaceans, Molluscs	10.7
	Organic Chemicals	8.5
	Miscellaneous Chemical Products	4.2
China	Fish and Crustaceans, Molluscs and Other Aquatic Invertebrate	19.1
	Iron and Steel	18.5
	Salt; Sulphur; Earths and Stone; Plastering Materials	13.6
	Cotton	11.1
	Coffee, Tea, Mate and Spices	10.9
Sri Lanka	Ships, Boat and Floating Structures	45.2
	Iron and Steel	25.3
	Knitted or Crocheted Fabrics	7.4
	Coffee, Tea, Mate and Spices	6.5
	Cereals	5.3
Singapore	Ships, Boat and Floating Structures	65.6
	Mineral Fuels, Mineral Oils and Products; Bituminous Substances	11.8
	Organic Chemicals	9.2
	Optical, Measuring, Medical and Similar Instruments and Parts	2.3
	Nuclear Reactors, Boilers, Machinery and Mechanical Appliance	2.3

Country	Items	Share of Product in Andhra Pradesh's Exports to the Country
UAE	Ships, Boat and Floating Structures	32.4
	Iron and Steel	14.9
	Fish and Crustaceans, Molluscs and Other Aquatic Invertebrate	9.3
	Electrical Machinery and Equipment and Parts Thereof	4.6
	Pharmaceutical Products	3.7
Vietnam	Cereals	21.8
	Road Vehicles and Parts	15.6
	Fish and Crustaceans, Molluscs and Other Aquatic Invertebrate	13.4
	Articles of Stone, Plaster, Cement, Asbestos, Mica	9.8
	Inorganic Chemicals; Compounds of Precious Metals, or Rare-Earth Metals	5.9
Malaysia	Ships, Boat and Floating Structures	40.4
	Mineral Fuels, Mineral Oils and Products; Bituminous Substances	12.3
	Coffee, Tea, Mate and Spices	8.6
	Iron and Steel	7.6
	Electrical Machinery and Equipment and Parts Thereof	5.9
Indonesia	Ships, Boat and Floating Structures	22.3
	Iron and Steel	18.7
	Coffee, Tea, Mate and Spices	9.7
	Cereals	7.6
	Oil Seeds, Oleaginous Fruits; Misc. Grains, Seeds and Fruits	6.3

Country	Items	Share of Product in Andhra Pradesh's Exports to the Country
Bangladesh	Cotton	23.2
	Nuclear Reactors, Boilers, Machinery and Mechanical Appliances	14.7
	Coffee, Tea, Mate and Spices	14.3
	Electrical Machinery and Equipment and Parts Thereof	13.5
	Organic Chemicals	9.4
Saudi Arabia	Road Vehicles and Parts	42.2
	Nuclear Reactors, Boilers, Machinery and Mechanical appliances	15.2
	Salt; Sulphur; Earths and Stone; Plastering Materials	10.4
	Mineral Fuels, Mineral Oils and Products; Bituminous Substances	8.0
	Iron and Steel	6.5

Source: DGCIS, India Exim Bank Research

Port-wise Exports from Andhra Pradesh

Andhra Pradesh has a total of 6 operational ports, including 4 non-major ports, one captive port and one major port at Visakhapatnam. The State Government has envisaged the development of three new ports viz. the Ramayapatnam, Bhavanapadu and Machilipatnam Ports²⁵.

Majority of the exports from the state are carried through the ports in Vishakhapatnam (including Vishakhapatnam Seaport, APIIC SEZ Vizag, and Visakhapatnam Special Economic Zone), which jointly accounted for nearly 27.2 percent of Andhra Pradesh's total merchandise exports in 2021-22. The USA, China, Vietnam, Brazil and UAE were the top five destinations for merchandise exports from the Vishakhapatnam Seaport. Nearly 51.1

²⁵ Socio-Economic Survey 2021-22, Govt. of Andhra Pradesh

percent of Andhra Pradesh's exports of fish and crustaceans are from the Vishakhapatnam Seaport. Besides this, iron and steel, preparations of meat, fish and crustaceans, mineral fuels, organic chemicals and miscellaneous chemical products are the other major commodities exported from the port.

It is noteworthy that a substantial share of Andhra Pradesh's exports is routed through ports in neighbouring states like Tamil Nadu and Telangana. In fact, seven ports in Tamil Nadu namely Chennai Seaport, Kattupalli Port, Ennore sea port, Chennai airport, ICD Tondiarpet, ICD Irungattukottai, and Tuticorin sea port jointly accounted for about 25 percent of Andhra Pradesh's merchandise exports in 2021-22.

Table 19: Port-wise Merchandise Exports from Andhra Pradesh (2021-22)

Port	State	% Share in Total Merchandise Exports from Andhra Pradesh
Visakhapatnam Sea	Andhra Pradesh	20.2%
Chennai Sea	Tamil Nadu	15.2%
Kakinada Sea	Andhra Pradesh	14.0%
APIIC Multi Prod SEZ Vizag	Andhra Pradesh	5.5%
Krishnapatnam Port	Andhra Pradesh	4.9%
Devi S Laboratories Ltd	Andhra Pradesh	4.3%
Gangavaram Port	Andhra Pradesh	4.2%
Kattupalli Port/ Tiruvallur	Tamil Nadu	3.6%
Ennore Sea	Tamil Nadu	3.6%
Hyderabad Airport	Telangana	2.9%
Nhava Sheva Sea	Maharashtra	1.9%
APIIC Limited (Naidupeta)	Andhra Pradesh	1.8%
ICD Marriapallaem	Andhra Pradesh	1.6%
Visakhapatnam Special Economic Zone	Andhra Pradesh	1.5%

Port	State	% Share in Total Merchandise Exports from Andhra Pradesh
Brandix India Apparel Pvt Ltd	Andhra Pradesh	1.5%
Ramki Pharma City (India) Pvt	Andhra Pradesh	1.4%
Chennai Air	Tamil Nadu	1.2%
Sri City Pvt Ltd	Andhra Pradesh	0.9%
ICD Hyderabad	Telangana	0.9%
Others	-	8.9%

Source: DGCIS; India Exim Bank Research

Key Products and Markets for Merchandise Exports

RCA Analysis for Identification of Target Products

During 2021, Andhra Pradesh exported 2089 products at HS 6-digit level. Among these products, the export strategy of the state should focus on those items which have the maximum potential for growth, taking into consideration both supply and demand side aspects. The present section undertakes a granular analysis of the products where the state has comparative advantage and matches it with the global import demand for these products. Quantification of comparative advantage will help in identification of products where exports from the state have been performing well, as also those where success has been limited, although opportunities are significant.

Based on analysis in this section, two sets of products have been identified for Andhra Pradesh. The first set of products include those where the state has comparative advantage and global import demand is increasing. These products could be targeted for achieving export growth in short to medium term. The second set of products include those where the state does not have a comparative advantage, but the global import demand has been robust. Capacity building in this second set of products would enable growth in the medium to long term.

Methodology

For analysing the export competitiveness, the concept of Revealed Comparative Advantage (RCA) is used. RCA indices are used to identify categories of exports in which an economy has a comparative advantage by way of comparison of the country's trade scenario with the world trade scenario. The basic assumption underlying the concept of revealed comparative advantage is that trade profile reflects the inter-country differences in terms of relative costs as well as non-price aspects. As per Balassa's (1965) measure, index for country i , commodity j is-

$$RCA_{ij} = \frac{(X_{ji}/X_i)}{(X_{jw}/X_w)}$$

Where,

X_{ji} : exports of commodity j from country i

X_i : total exports from country i

X_{jw} : total exports of commodity j from world

X_w : total exports from world

The RCA index ranges from zero to infinity, with 1 as the break-even point. That is, an RCA value of less than 1 means that the country does not have comparative advantage in the product, while a value above 1 indicates that the country has a comparative advantage in the product.

The normalized revealed comparative advantage (NRCA) index has been demonstrated capable of revealing the extent of comparative advantage more precisely and consistently than other alternative RCA indices in the literature. NRCA can be defined in the following manner-

$$NRCA_{ij} = \frac{RCA_{ij}-1}{RCA_{ij}+1}$$

The export competitiveness of Andhra Pradesh, as reflected in the NRCA, has been mapped with global demand for the products. Based on this mapping, four categories of products have been identified:

- **Product Champions – Competitive Exports (NRCA > 0); Growing Import Demand (Product Import AAGR > 0):** These products have the maximum potential, as the world demand for these products during 2017 to 2021 has shown robust growth, and Andhra Pradesh has comparative advantage in exports of these products.
- **Underachievers – Exports not competitive (NRCA < 0); Growing Import Demand (Product Import AAGR > 0):** Andhra Pradesh does not have comparative advantage in these products, while the import demand for these products has shown positive growth over the period under consideration. The State can strive towards increasing competitiveness in these products.
- **Declining Sectors – Exports not competitive (NRCA < 0); Weak Import Demand (Product Import AAGR < 0):** Andhra Pradesh does not have comparative advantage in these products, and the sector has also registered negative global import growth during the period under consideration.
- **Achievers in Adversity – Competitive Exports (NRCA > 0); Weak Import Demand (Product Import AAGR < 0):** Andhra Pradesh has comparative advantage in these products, but the world import demand for these products has been negative.

In the short to medium term, the State can focus on leveraging the opportunities arising in the Product Champions segment, as these are low hanging fruits. In the medium to long term, the State needs to encourage development of capacities in the Underachievers segment.

Identified Products

For the purpose of analysis, those products which contribute to at least 0.1 percent of the merchandise exports from Andhra Pradesh have been considered. This filtration is essential to ensure that the identified products have a certain minimum supply base in the state.

A total of 110 products at HS-6-digit level have a minimum share of 0.1 percent in Andhra Pradesh's merchandise exports, which jointly accounted

for 89.8 percent of Andhra Pradesh’s total merchandise exports in 2021-22. Of these, a total of 60 products have been classified as Product Champions, as Andhra Pradesh has comparative advantage in exports of these products and the import demand for these products is growing. The combined exports of Product Champions from Andhra Pradesh stood at US\$ 13.0 billion in 2021, accounting for more than 65.3 percent of the total merchandise exports from the State during the year. World imports of these product champions amounted to US\$ 984.3 billion in 2021, implying that there remains substantial scope for tapping the international market for these products (Exhibit 4).

Exhibit 4: Product Identification for Exports from Andhra Pradesh (2021)



Note: Percentage given in red indicate share of world imports of the products in each categories in total world imports

Source: India Exim Bank Research based on trade data from DGCIS, ITC TradeMap

There are 5 products at HS-6 digit level in the Underachievers category. Exports of these products from the State amounted to US\$ 163.9 million in 2021, accounting for a meagre share of 0.8 percent in the State’s exports. These are products that have a growing demand in the international market,

but Andhra Pradesh currently does not have comparative advantage in exports of these products. Global import of these 5 products stood at nearly US\$ 502.7 billion, presenting significant opportunities for exporters. There is a need for capacity creation in these product categories, through an appropriate incentive framework for attracting investments in the state. Focus on these products will provide much needed resilience to exports from the State, in the face of declining global trade and international commodity price volatilities.

The State also has significant exports in the category of 'Achievers in Adversity,' which are products where the State has comparative advantage in exports but the global demand in these products has declined in the recent period, adding vulnerabilities to the export basket of Andhra Pradesh. The State needs to diversify away from this segment of products and move towards the Product Champions and the Underachievers segment.

Under the 'Declining Sectors,' there are only four products- light oils and preparations; other petroleum oils and oils obtained from bituminous minerals; other parts and accessories of automobile; and other parts of aeroplanes or helicopters. The export of these products from Andhra Pradesh stood at US\$ 286.4 million in 2021, a share of 1.4 percent in the total merchandise exports from the State. Since the global import demand for the product has been declining in the period under consideration, Andhra Pradesh could diversify away from exports of these products.

Key Focus Sectors

The identified product champions can be categorised under 32 major product groups at HS 2-digit level as given in Table 20. It is noteworthy that nearly 10 out of the 60 products identified at HS 6-digit as product champions are in the category of organic chemicals. However, in terms of value, the maximum value of current exports from AP under product champions is in the category of 'fish and crustaceans', followed by 'ships, boats and floating structures', and 'iron and steel' (Table 20).

Table 20: Sector-wise Product Champions for Andhra Pradesh

Broad HS Code	Product Category	AP's Exports in 2021 (US\$ Million)	Number of Products Identified (HS-6 Digit Level)
3	Fish and Crustaceans	2758.7	1
89	Ships, Boats and Floating Structures	2374.6	1
72	Iron and Steel	1508.8	5
29	Organic Chemicals	1166.3	10
30	Pharmaceutical Products	1157.4	2
10	Cereals	781.3	2
9	Coffee, Tea, Mate and Spices	552.2	2
16	Preparations of Meat, Fish or Crustaceans	447.3	2
38	Miscellaneous Chemical Products	426.6	3
85	Electrical Machinery and Equipment	267.3	4
71	Pearls, Precious Stones and Metals	207.0	1
84	Machinery and Mechanical Appliances	171.8	5
67	Prepared Feather Articles, Artificial Flowers, Articles of Human Hair	166.1	1
87	Transport Vehicles other than Railway or Tramway	119.2	1
61	Knitted Articles of Apparel and Clothing	117.1	2
76	Aluminium and Articles	81.2	1
28	Inorganic Chemicals	68.6	2
20	Preparations of Vegetables, Fruit, Nuts	61.4	1
60	Knitted or Crocheted Fabrics	61.0	1

Broad HS Code	Product Category	AP's Exports in 2021 (US\$ Million)	Number of Products Identified (HS-6 Digit Level)
23	Residues and Waste from the Food Industries; Prepared Animal Fodder	54.9	1
68	Articles of Stone, Plaster, Cement, Asbestos, Mica	48.9	1
52	Cotton	45.7	1
12	Oil Seeds and Oleaginous Fruits	45.4	1
33	Essential Oils and Resinoids; Perfumery, Cosmetic or Toilet Preparations	40.9	1
90	Optical, Photographic Cinematographic Apparatus	40.3	1
13	Lac; Gums, Resins and Other Vegetable Saps	39.1	1
2	Meat and Edible Meat Offal	38.0	1
73	Articles of Iron or Steel	35.8	1
8	Edible Fruit and Nuts	29.8	1
17	Sugar and Sugar Confectionery	28.9	1
44	Wood and Articles of Wood; Wood Charcoal	20.4	1
25	Salt; Sulphur; Earths and Stone; Plastering Materials, Lime and Cement	20.1	1
Total		12982.2	60

Source: India Exim Bank Research based on trade data from DGCIS, ITC TradeMap

An assessment of the top export destinations for Andhra Pradesh vis-à-vis the top importers globally in the Product Champion sectors indicates that some of the top global importers in the product champions categories do not feature

among the top destinations for Andhra Pradesh's exports of these products. Moreover, in several product champions sectors, there is significant market concentration in a handful of countries. For instance, in case of 'fish and crustaceans', and 'ships, boats and floating structures', it is noted that the top 5 export destinations account for 88.4 percent and 91.2 percent, respectively, of Andhra Pradesh's total exports of these products in 2021-22. Similar market concentration can also be observed in other product champion categories such as 'preparation of meat, fish and crustaceans', 'coffee, tea, mate and spices', 'miscellaneous chemical products', 'pharmaceuticals', and 'cereals', among others (Table 21). Thus, there is significant scope for augmenting exports of these product champions from the State by expanding export footprints into some of the top markets that are currently under-tapped.

Table 21: Export Destinations for Top 10 Product Champions for Andhra Pradesh vis-à-vis Top Importers in the World

Product Champions	Export Destinations for Andhra Pradesh	% Share of Export Destinations in AP's Export of the Product	Top Importers in the World of the Product	% Share of Importing Country in World Imports of the Product
Fish and Crustaceans	The USA	68.7%	The USA	17.7%
	China	11.7%	China	10.3%
	Canada	3.3%	<i>Japan</i>	8.1%
	Vietnam	2.4%	<i>Spain</i>	5.6%
	UAE	2.3%	<i>France</i>	4.7%
Ships, Boats and Floating Structures	Singapore	29.9%	<i>Liberia</i>	9.2%
	Sri Lanka	20.9%	<i>Marshall Islands</i>	8.9%
	South Africa	15.2%	<i>Russia</i>	5.7%
	UAE	13.1%	<i>Saudi Arabia</i>	5.5%
	Malaysia	12.1%	<i>China</i>	5.3%

Product Champions	Export Destinations for Andhra Pradesh	% Share of Export Destinations in AP's Export of the Product	Top Importers in the World of the Product	% Share of Importing Country in World Imports of the Product
Iron and Steel	China	15.6%	China	7.9%
	Sri Lanka	9.7%	The USA	7.1%
	Egypt	7.4%	Germany	6.4%
	Italy	7.3%	Italy	5.1%
	Japan	5.7%	Turkey	5.0%
Organic Chemicals	The USA	17.7%	The USA	12.2%
	Puerto Rico	6.7%	China	11.3%
	Switzerland	5.5%	Belgium	7.9%
	Canada	5.0%	Germany	7.6%
	Germany	4.5%	Italy	5.1%
Pharmaceutical Products	The USA	47.1%	The USA	17.5%
	Tanzania	4.6%	Germany	9.3%
	Uganda	3.9%	Belgium	8.1%
	South Africa	3.5%	Switzerland	4.9%
	Malta	3.3%	China	4.9%
Cereals	Guinea	14.5%	China	11.9%
	Cote d'Ivoire	11.3%	Iran	4.6%
	Vietnam	10.1%	Mexico	4.6%
	Benin	9.8%	Japan	4.5%
	Senegal	8.0%	South Korea	3.0%
Coffee, Tea, Mate and Spices	China	34.9%	The USA	16.4%
	Bangladesh	12.4%	Germany	9.0%
	Thailand	12.4%	France	6.5%
	Sri Lanka	9.5%	Italy	3.4%
	Indonesia	8.6%	The Netherlands	3.4%

Product Champions	Export Destinations for Andhra Pradesh	% Share of Export Destinations in AP's Export of the Product	Top Importers in the World of the Product	% Share of Importing Country in World Imports of the Product
Preparations of Meat, Fish or Crustaceans	The USA	90.7%	The USA	14.2%
	Canada	6.5%	Japan	12.0%
	France	0.7%	The UK	8.2%
	Belgium	0.6%	Germany	7.2%
	South Africa	0.2%	France	5.1%
Miscellaneous Chemical Products	The USA	33.5%	China	8.0%
	Brazil	31.1%	Germany	7.5%
	Belgium	6.1%	The USA	7.3%
	France	3.7%	The Netherlands	5.4%
	Vietnam	3.1%	The UK	4.4%
Electrical Machinery and Equipment	Bangladesh	13.8%	China	18.6%
	The USA	7.1%	The USA	11.6%
	UAE	6.9%	Hong Kong	11.2%
	Malaysia	6.7%	Germany	5.0%
	Vietnam	6.1%	Singapore	3.8

*Note: In a particular export category, markets in **bold italics** are those which do not feature among the top export destinations for Andhra Pradesh; Data for exports from Andhra Pradesh is for FY22 and global import is for 2021; Data for export destinations and top importing markets is taken at 2-digit HS Code of the Product Champion category.*

Source: India Exim Bank Research based on trade data from DGCIS, ITC TradeMap

Underachievers category for Andhra Pradesh includes products such as 'static converters'; 'telephones (incl. mobile phones)'; 'other articles of iron and steel'; 't-shirts made of cotton'; and 'parts of machinery for construction'. As there already exists some supply base for exports of these products, in the medium to long term, the State could target these segments for strengthening production capacities and enhancing market share in exports of these products.

Table 22: Underachiever Products for Andhra Pradesh

HS-Codes	Underachiever Products	AP's Exports 2021 (US\$ Million)	Share in AP's Merchandise Exports in 2021
850440	Static Converters	41.9	0.2%
851712	Telephones for cellular networks (incl. Mobile Phones)	40.5	0.2%
732690	Other Articles of Iron and Steel	35.1	0.2%
610910	T-Shirts etc. of Cotton	24.9	0.1%
843149	Parts of Machine for Construction	21.6	0.1%

Source: India Exim Bank Research based on trade data from DGCIS, ITC TradeMap

Export Intensity Index Analysis for Identification of Target Markets

Export intensity index is the ratio of a trading partner's share in a country/region's total exports to the share of world exports going to the same trading partner.

It is calculated as follows:

$$XII_{ij} = \frac{x_{ij} / X_{iw}}{x_{wj} / X_{ww}}$$

wherein,

x_{ij} is the value of exports of country/region i to country/region j;

X_{iw} is the value of exports of country/region i to the world;

x_{wj} is the value of world exports to country/region j;

X_{ww} is the value of world exports.

An index value of more than one indicates that exports to a particular partner country or the relative importance of the partner country is larger when compared to their importance in world trade.

Export intensity index (EII) of Andhra Pradesh in 11 out of its 15 top export destination is less than 1, suggesting that the relative importance of these 11 countries in Andhra Pradesh's exports is lower when compared to their relative importance in world exports. A low EII value indicates that these are relatively under-tapped markets and there remains substantial scope for expanding export footprint into these markets. This includes several developed economies such as Germany, Japan, France, the UK, the Netherlands, Italy and Belgium, which jointly accounted for only about 9.6 percent of Andhra Pradesh's exports in 2021-22. Exporters from Andhra Pradesh could therefore target these markets for diversification, in order to augment exports from the State.

Table 23: Andhra Pradesh's Export Intensity Index for Top 15 Export Destinations (2021)

Country	% Share of Country in World Imports	Export Intensity Index Value	Relative Importance in AP's Exports Compared to World Exports
The USA	13.6%	1.6	High
China	12.4%	0.7	Low
Germany	6.6%	0.2	Low
Japan	3.6%	0.6	Low
France	3.2%	0.3	Low
The UK	3.2%	0.6	Low
The Netherlands	2.9%	0.5	Low
South Korea	2.8%	0.4	Low
Italy	2.6%	0.5	Low
Belgium	2.5%	0.5	Low
Mexico	2.3%	0.5	Low
Canada	2.3%	0.8	Low
Singapore	1.9%	2.6	High
Vietnam	1.6%	1.5	High
Turkey	1.3%	1.4	High

Country	% Share of Country in World Imports	Export Intensity Index Value	Relative Importance in AP's Exports Compared to World Exports
Thailand	1.2%	1.0	Low
Malaysia	1.1%	2.5	High
Brazil	1.0%	1.5	High
UAE	1.0%	3.3	High
Indonesia	0.9%	5.2	High
Saudi Arabia	0.7%	3.0	High
South Africa	0.4%	11.1	High
Egypt	0.3%	3.1	High
Bangladesh	0.3%	6.2	High
Sri Lanka	0.1%	19.0	High

Source: India Exim Bank Research based on trade data from DGCIS and TradeMap

Services Exports from Andhra Pradesh

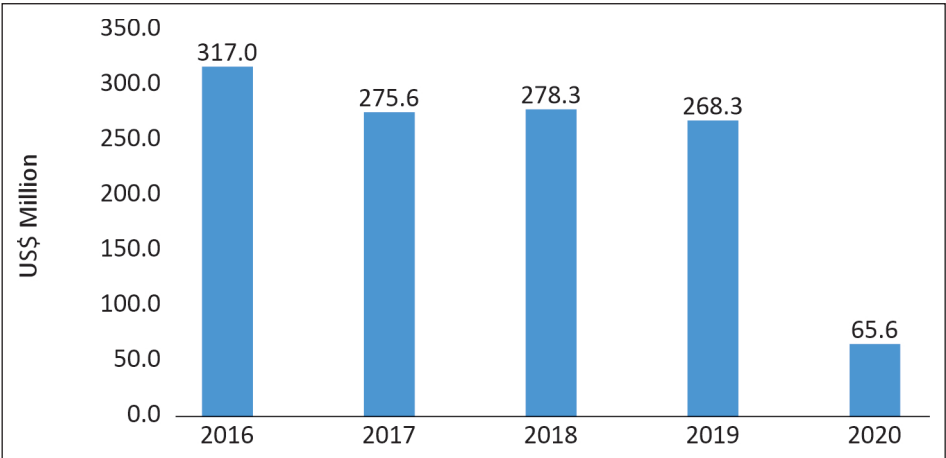
Tourism and IT and ITes are among the major services exports from the state. Both these sectors together generated more than ₹ 1,354.3 crore (nearly US\$ 182.5 million) in export revenues for the state during 2020-21.

Tourism

Tourism is an important sector for the State. With substantial natural heritage in the form of long coastline and beaches, backwaters, forest areas, as well as several renowned circuits for spiritual tours, Andhra Pradesh is a desirable destination for tourism. Andhra Pradesh stood 3rd among all States/UTs in India, in terms of domestic tourist visits, accounting for a share of 10.2 percent in India's total domestic tourism visits in 2019. In 2020, the tourists visit count fell drastically, owing to the Covid-19 related disruptions to movement as well as travel restrictions. Nonetheless, Andhra Pradesh ranked 4th in terms of domestic tourism, with its share in India's total domestic tourism visits increasing to 11.6 percent in 2020.

However, in terms of Foreign Tourist Visits (FTVs), the share of Andhra Pradesh in India’s total FTV count has remained low. Over the recent years, the FTVs in the State have fallen steadily. For instance, in 2016, the total FTVs in the State stood at 3.4 lakh persons, accounting for a share of 1.4 percent in India’s total FTVs during the year. In the following years, FTVs in Andhra Pradesh declined steadily, to reach nearly 2.8 lakh persons in 2019. In 2020, owing to the Covid-19 related disruptions around the world, FTVs declined further. Owing to the decline in FTVs in the State, the Foreign Exchange Earnings (FEE) from tourism in Andhra Pradesh has also declined during the period under consideration. As per India Exim Bank estimates, in 2020, FEE from tourism in Andhra Pradesh stood at nearly US\$ 65.6 million, accounting for nearly 0.9 percent of India’s total FEE from tourism during the year (Exhibit 5). During 2016 to 2020, there has been a moderation in foreign tourist visits to Andhra Pradesh, which led to decline in FEE from the tourism at an estimated AAGR of (-) 22.8 percent.

Exhibit 5: Foreign Exchange Earnings (FEE) from Tourism in Andhra Pradesh



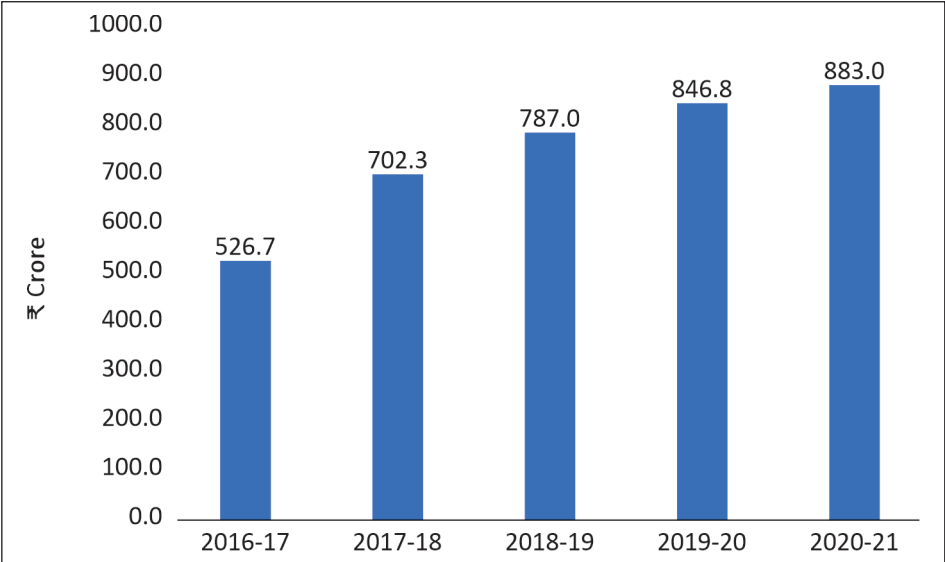
Source: India Exim Bank Research based on data from India Tourism Statistics, Ministry of Tourism, Govt. of India

IT and ITeS

IT and ITeS sector has turned out to be the cornerstone of services exports from India. India is recognised as one of the global leaders in software

technologies and Indian companies have won world-wide recognition in terms of their technical competence, domain knowledge, experience and expertise for offering quality IT services across various platforms and systems. The growth of IT sector in Andhra Pradesh is primarily driven by the development of Software Technology Parks in the state. Andhra Pradesh has 4 software technology parks, located in Visakhapatnam, Vijayawada, Tirupati, and Kakinada²⁶. IT and ITeS sector export earnings from the Software Technology Parks of Andhra Pradesh registered a CAGR of nearly 13.8 percent during the period 2016-17 to 2020-21, increasing from ₹ 526.7 crores in 2016-17 to reach ₹ 883.0 crores in 2020-21 (Exhibit 6).

Exhibit 6: Trends in IT and ITeS Exports from Andhra Pradesh



Source: Rajya Sabha Unstarred Question No. 2274, December 17, 2021; India Exim Bank Research

Export Target

The Indian economy has been on a positive growth trajectory, with a distinct possibility of reaching US\$ 5 trillion in GDP by 2026, owing to the numerous

²⁶ Software Technology Parks of India (STPI), Ministry of Electronics and Information Technology, Government of India

policy initiatives to propel economic growth and restrain the effects of external shocks. It is further expected that merchandise and services exports will reach a level of US\$ 1 trillion each by 2030.

The vision of the exports strategy of Andhra Pradesh should be to bolster growth in exports in order to meet the national target of US\$ 1 trillion each in exports of goods and exports of services by 2030. An essential first step towards contributing to this vision would be setting an exports target for the state.

Presently, the share of Andhra Pradesh's overall exports (merchandise, tourism and IT and ITes) in its GSDP stood at approximately 12.1 percent. Moreover, share of Andhra Pradesh in India's overall exports (merchandise, tourism and IT and ITes) is estimated to be nearly 2.9 percent.

The share of Andhra Pradesh's merchandise exports in its GSDP stood at 12.0 percent, which is low when compared to an average share of 20.0 percent in case of other coastal states of Gujarat, Goa, Maharashtra, and Odisha, and is also below the share of merchandise exports in India's GDP of 13.2 percent. According to India Exim Bank research, the state has an untapped merchandise export potential of nearly US\$ 11.1 billion. Realizing this potential could increase merchandise exports from the state to nearly US\$ 30.4 billion. Through an appropriate medium to long term export strategy, there is potential for propelling the state on an even higher export growth trajectory.

The motive of the state's export strategy should be to increase the share of Andhra Pradesh's overall exports (both merchandise and services combined²⁷) in its GSDP up from the current level of nearly 12.1 percent, to at least match the current national average of 21.2 percent by 2027-28. Further, the export strategy should also attempt to achieve a greater share of services in the exports from the state, because of the substantial potential for growth across several services categories.

²⁷ Services includes only tourism and IT and ITes.

Optimistic Scenario

Analysis indicates that the GDP for India could reach US\$ 5.5 trillion by 2027-28, under an optimistic scenario. Growth under this optimistic scenario would be driven by both exports, as well as domestic demand in the country. As exports will be a critical factor for this high rate of economic growth, exports are expected to account for a higher share in India's GDP, of nearly 25 percent, up from the current levels of nearly 21.2 percent.

In the recent past, the GSDP growth of Andhra Pradesh has outpaced the GDP growth for India. Under this optimistic scenario, Andhra Pradesh should aim to achieve a GSDP growth that exceeds the current levels, and helps the state secure a higher share of 4.5 percent in India's overall GDP, owing to a higher expected growth in GSDP, primarily driven by the increase in exports from the State on the back of an enabling export policy support by the State. The GSDP of Andhra Pradesh in such an optimistic scenario could be around US\$ 249.0 billion during 2027-28. Assuming that Andhra Pradesh achieves exports to GSDP ratio at par with the projected level for India (which is at 25.0 percent), through a multi-faceted exports strategy, the overall exports (merchandise and services combined) from the state could reach nearly US\$ 62.3 billion by 2027-28. Assuming that the share of services in Andhra Pradesh's overall exports will also witness an increase during this period, merchandise exports is expected to reach a level of US\$ 50.8 billion (share of 20.4 percent in the GSDP as compared to 12 percent currently), while services exports is expected to increase to US\$ 11.5 billion. If Andhra Pradesh achieves this level of exports, its share in India's overall exports (merchandise and services combined) would see an improvement, from the current level of approximately 2.9 percent to nearly 4.5 percent.

Baseline Scenario

In a baseline scenario, as per India Exim Bank's estimates, India's GDP is expected to reach a level of US\$ 5.1 trillion by 2027-28, with the share of India's overall exports in GDP remaining constant at 21.2 percent. Growth in this baseline scenario will largely be driven by the domestic demand.

In this baseline scenario, Andhra Pradesh's GSDP is expected to maintain its current share in India's GDP of 4.3 percent, taking the value of GSDP of Andhra Pradesh to US\$ 219.3 billion. With a well-crafted export strategy, the share of exports to GSDP in Andhra Pradesh could be pushed to 21.2 percent of the GSDP, in line with the prevailing share of India's exports in GDP. In this baseline scenario, the state's exports are estimated to reach around US\$ 46.4 billion by 2027-28, with merchandise exports amounting to US\$ 37.8 billion and services exports at US\$ 8.6 billion. Accordingly, the share of Andhra Pradesh's exports in India's overall exports are also expected increase to nearly 4.3 percent from the current levels of nearly 2.9 percent.

Pessimistic Scenario

If the recovery in global trade falters or global trade uncertainties intensify, share of exports in India's GDP is expected to decline. Under this pessimistic scenario, as per India Exim Bank's estimates, India's GDP would reach US\$ 4.7 trillion by 2027-28, and the share of India's exports in GDP is expected to witness a marginal fall (from the present level) to 17.3 percent.

In such a pessimistic scenario, Andhra Pradesh's GSDP is expected to reach nearly 4.0 percent of India's GDP, reaching a level of US\$ 187.3 billion by 2027-28. Exports are expected to grow at a faster than current pace on the back of the export strategy and the exports share in Andhra Pradesh's GSDP is expected to increase to 17.3 percent by 2027-28, from the current level of 14.3 percent. In such a scenario, total exports would reach US\$ 32.4 billion by 2027-28, with merchandise exports amounting to nearly US\$ 26.4 billion, and services exports reaching nearly US\$ 6.0 billion. In the pessimistic scenario, Andhra Pradesh's exports are expected to have a share of nearly 4.0 percent in India's overall exports, up from the current level of approximately 2.9 percent, aided by the robust export policy in the State.

Table 24: Export Targets for Andhra Pradesh under Alternative Scenarios (2027-28)

	Pessimistic Scenario	Baseline Scenario	Optimistic Scenario
GDP India (US\$ trillion)	4.7	5.1	5.5
Share of Exports (Merchandise and Services) in GDP (India)	17.3%	21.2%	25.0%
Share of Andhra Pradesh in India's GSDP	4.0%	4.3%	4.5%
GSDP Andhra Pradesh (US\$ billion)	187.3	219.3	249.0
Exports (Merchandise and Services) from Andhra Pradesh (US\$ billion)	32.4	46.4	62.3
Merchandise Exports (US\$ billion)	26.4	37.8	50.8
Services Exports (US\$ billion)	6.0	8.6	11.5
Share of Andhra Pradesh in India's Exports	4.0%	4.3%	4.5%

Source: Estimated by India Exim Bank, using secondary data from IMF, MOSPI, DGCIS

Based on these consideration in the baseline scenario, the State's exports could reach US\$ 46.4 billion by 2027-28. The Government of Andhra Pradesh has already set an export target of ₹ 3,50,000 crore (nearly US\$ 43 billion) by 2027, in the AP Export Promotion Policy 2022-27. As per India Exim Bank estimates, the State has the potential to achieve a much higher level of exports with adequate policy support. It is recommended that the State's target for exports be set at approximately US\$ 60 billion by 2027-28, with the target for merchandise exports at nearly US\$ 50 billion and for services exports at US\$ 10 billion.

Conclusion

Merchandise exports from Andhra Pradesh have witnessed an upsurge over the recent period, but several of the top exported products are exported to

a limited number of markets, many of which are not among the top global importers of these products. Nearly 65.3 percent of the State's exports basket falls under the category of product champions, indicating that majority of the State's exports have substantial comparative advantage and are also being demanded globally. In the product champions segments, there is need to diversify exports to target top global importers that are currently not among the top export destinations for Andhra Pradesh. Analysis in the chapter also highlights that a considerable value of Andhra Pradesh's exports are in the category of 'Achievers in Adversity,' which are products where the State has comparative advantage but the global demand in these products has declined in the recent period, adding vulnerabilities to the exports basket of Andhra Pradesh. The State needs to diversify away from this segment of products and move towards the Product Champions and the Underachievers segment. Analysis in this section further indicates that while services sector's contribution to the State's GSVA has been high at about 42.2 percent in FY22, there has not been a commensurate increase in the value of services exports from the State. In fact, exports in services such as tourism have witnessed a moderation in growth since 2016. Clearly, there is a need to strengthen the existing services segments as also identify new growth shoots in the services sector. The product and market diversification strategies, coupled with promotional measures, infrastructure strengthening, and institutional streamlining, can help the state achieve the exports target of US\$ 60 billion by 2027-28.

4. Strategies for Exports Promotion

Andhra Pradesh has the potential and the resources to be a key contributor to India's exports. Analysis in the previous chapter indicates that the State can target to increase its overall merchandise and services exports to US\$ 60 billion by 2027-28. Developing a comprehensive export strategy will be an important first step for unleashing the untapped export potential of the state and attaining this target. With the objective of outlining a comprehensive and relevant export strategy for the State, this chapter analyses some of the key challenges faced by exporters in Andhra Pradesh and recommends actionable strategies to address these challenges.

Strategy for promotion of exports from Andhra Pradesh should focus on alleviating the specific challenges faced by exporters in the state, as also improving the preparedness of the state in tapping new export opportunities. In order to take a holistic view of existing gaps and challenges for exporters in the State, India Exim Bank undertook a series of consultations with stakeholders including officials from the District Industries Centres, existing exporters, as well as aspiring exporters. Findings from the discussions were supplemented with extensive secondary research, to recommend export strategies for the State. These strategies are built upon six essential dimensions viz. diversification to focus products and markets, infrastructure leverage and strengthening, capacity building, fiscal incentives, export promotion campaigns, and institutional streamlining (Exhibit 7).

Exhibit 7: Key Pillars of Export Strategy



Focus Products and Markets

Diversifying production capacities towards higher value-added products and enhancing market penetration in the top importing markets would be crucial for a substantive increase in exports from the state and imparting resilience to the state's exports basket.

Based on the identification of 'Product Champions' and 'Underachievers' categories in the previous chapter, this section provides a product diversification strategy for Andhra Pradesh (Table 25). There are two methods for export diversification- horizontal and vertical diversification. While horizontal diversification takes place in the same sector by adding new products to the existing export basket within the same sector, vertical diversification entails a shift from primary to secondary to tertiary sector. Vertical diversification would entail increased value addition in existing products by means of greater value-added services, processing, marketing, etc.

Table 25: Opportunities for Product Diversification in Andhra Pradesh's Export

Sector	Existing Product	Prospective High Value-Added Exports	Comments
Agriculture and Allied sector	Marine Products – L. Vannamei	Black tiger prawns, seabass, tilapia, cobia, mud crab, mangrove crab; organic aquaculture products; prepared fish/shrimp products such as ready to cook fish curries/prawn curries; and fish oils	Effective product diversification in the sector towards newer varieties and processed marine products could help leverage the emerging opportunities and further augment exports from the state.
	Semi/wholly milled rice, broken rice, husked (brown rice)	Processed rice products - snacks, ready to cook/ready to eat products such as rice-based noodles, fermented rice flour, puffed/flaked rice; Processed millet products	Developed countries in North America and Europe including the USA, Canada, Germany, and France are expected to be the top markets for gluten-free product made of rice and millets ²⁸ .
	Spices – dried/powdered chillies, turmeric, cumin, cardamom, coriander, fenugreek, black pepper, mustard, and cinnamon	Spice oleoresins	The global imports of spice oleoresins are estimated to be valued at US\$ 1.0 billion in 2021 ²⁹ . The global market size is expected to register a CAGR of 6.9 percent during 2022 to 2030 ³⁰ .
Pharmaceutical	Wide range of bulk drugs and drug formulations	Focus on biosimilars	Significant opportunities in Europe and the USA for biosimilars due to increasing acceptability of these drugs. According to a recent report by McKinsey, patent expiry during 2020 to 2025 is expected to create an opportunity worth US\$ 60 billion for biosimilar players.

²⁸ ISI Emerging Markets- Grand View Research

²⁹ ITC Trademap

³⁰ ISI Emerging Markets- Grand View Research

Sector	Existing Product	Prospective High Value-Added Exports	Comments
Textiles	Cotton; knitted/ crocheted fabric; knitted and non-knitted articles of apparel and clothing	Technical textiles	The global technical textile market was valued at an estimated US\$ 180.9 billion in 2021 and is expected to record a CAGR of 4.7 percent during 2022 to 2030, owing to greater awareness about the uses of technical textiles in various end-user industries.
Electronics, electrical machinery and equipment	Electronic and electrical equipment, telecommunication equipment	Static converters, mobile phones, receptors, digital camera, automatic circuit breakers, lithium ion	The State Government has already brought out the AP Electronics Policy 2021-24 and a State-level PLI scheme for augmenting capacities in the sector. The scheme needs to be popularised and export-oriented firms need to be encouraged to leverage these incentives.
Auto and Auto Components	IC engine cars, auto parts	Electric Vehicles	The State has introduced the AP Electric Mobility Policy 2018-23 for enhancing production capabilities in the State. Players need to be encouraged to leverage the existing incentives.
Petroleum and Petrochemicals	Vacuum gas oils, light oil and preparations, calcined petroleum coke and petroleum oils obtained from bituminous minerals	Petroleum bitumen; Petrochemical olefins like ethylene, propylene and butadiene; and petrochemical aromatics like benzene and toluene	The global petrochemicals market is expected to register a CAGR of 6.2 percent during 2022 to 2030 ³¹ , driven by demand from various end-use industries such as construction, pharmaceuticals, and automotive.
Tourism	Religious tourism; Coastal tourism	Eco-Tourism; Adventure, and Recreational Tourism; Heritage Tourism; Rural Tourism; Culinary Tourism	Efforts are required to develop and popularise the existing tourism circuits in the State, to increase international footfall.

Source: India Exim Bank Research

³¹ ISI Emerging Markets – Grand View Research

Agri and Allied Sectors

Marine Products

Fish and crustaceans (HS-03) are important exports from Andhra Pradesh, accounting for a share of 14.6 percent in the State's total merchandise exports during 2021-22. Within this category, shrimps, particularly the *L. Vannamei* species, is a major export item for the State. The State is, in fact, the largest producer of shrimps through aquaculture among all states/UTs in the country, accounting for a share of 75.9 percent in the country's total production of these products during 2020-21. Despite the large production and exports base, there remains substantial scope to further scale up the aquaculture activities in the state. According to a MPEDA report, Andhra Pradesh has the largest potential area for aquaculture, at nearly 1,74,000 ha, of which nearly 57.2 percent (i.e., 99,488 ha) remains unutilized³².

There are large and growing opportunities for exports in the sector that can be tapped by Andhra Pradesh. As per the US International Trade Administration's recent report, the global aquaculture market size was valued at an estimated US\$ 204 billion in 2020, and is expected to reach US\$ 262 billion by 2026, recording a CAGR of 3.6 percent during 2021-2026³³. The State Government is already working towards strengthening the infrastructure needed in the aquaculture segment. The AP Export Promotion Policy 2022-27 envisages the setting up of aquatic quarantine lab facilities near Visakhapatnam and Kakinada ports. The policy also envisages setting up of 5 animal feed supply depots in the coastal districts of the State to improve availability of good quality shrimp feed.

There is need for more concerted efforts for product diversification in this sector towards newer varieties and processed marine products, which could help leverage the emerging opportunities and further augment exports from the state.

³² Strategies and action plan for seafood exports by 2025 – Series 5, MPEDA Newsletter, November 2021.

³³ Aquaculture Industry Summary, the US International Trade Administration.

Diversification towards Other Varieties: According to a MPEDA report, the Indian aquaculture segment heavily depends upon a single aquaculture species, L. Vannamei whose production volume accounted for a share of 95.8 percent in the total aquaculture production in the country³⁴ during 2020-21 and nearly 96 percent of the total export volume of aquaculture products from India during 2020-21³⁵. L. Vannamei is also one of the key aquaculture products produced and exported from Andhra Pradesh. L. Vannamei accounted for a share of nearly 99.1 percent in the State's total aquaculture production in 2020-21³⁶ and accounted for a share of 97.3 percent in the State's total exports of fish and crustaceans³⁷ in 2021-22.

Currently, aquaculture in India significantly relies on broodstock³⁸ imports for cultured Vannamei species from countries like the USA. Moreover, this species is also more vulnerable to infections³⁹ and early mortality syndrome (EMS). The Asian native shrimp viz. black tiger shrimp/Penaeus Monodon, on the other hand, is known to be resilient to both infections and EMS⁴⁰. P. Monodon also requires lesser technology and infrastructure for production, and hence entail lesser capital investments⁴¹. They can be grown to over 50g and can fetch premium prices in key export markets such as the EU and Japan⁴². However, the scale of domestic production of P. Monodon is relatively lower, with the species accounting for only 3.2 percent of the total aquaculture production in the country and 0.8 percent of the production in Andhra Pradesh during 2020-21. The number of hatcheries⁴³ providing seeds

³⁴ State-wise Aquaculture Production data, MPEDA.

³⁵ Strategies and action plan for seafood exports by 2025 – Series 5, MPEDA Newsletter, November 2021.

³⁶ State-wise Aquaculture Production data, MPEDA.

³⁷ Estimates based on DGCI&S data.

³⁸ Broodstock are a group of mature species of fish/shrimp that are used in aquaculture for breeding purposes.

³⁹ The microsporidian parasite Enterocytozoon hepatopenaei (EHP) is an increasingly common infection in the Pacific white-leg shrimp viz. vannamei.

⁴⁰ Rob Fletcher (2022), "The Rise, Fall And Resurrection Of The Black Tiger Prawn", The Fish Site.

⁴¹ Ibid.

⁴² Rob Fletcher (2022), "500,000 tonne monodon boom predicted for India", The Fish Site.

⁴³ Hatcheries are facilities where broodstock are bred to produce egg and larval under controlled condition.

of *P. monodon* in the country is also low, with only 4 hatcheries operating in this segment⁴⁴. These hatcheries are also dependent on broodstock imports. Realising the potential in the segment and the need for reducing dependence on imported broodstock in the *P. Monodon* segment, both the Government and the private sector have been focusing on this area in the recent years. In 2021, the country's first state-of-the-art broodstock multiplication centre (BMC) for producing high-quality seeds of *P. Monodon* was established in Gujarat. The GOI is also working towards setting up a BMC in Visakhapatnam, for enhancing the production of adequate high-quality seeds of *P. Monodon* in the country. To further scale up the production of *P. Monodon* in the state, there is a need for quick setting up of the BMC in Visakhapatnam and establishment of more such BMCs by the public/private sector in the state.

There is also a need to promote diversification in aquaculture towards fish species like Tilapia, Seabass, and Cobia, and crab species like Mud crab and Mangrove crab. Rajiv Gandhi Centre for Aquaculture has already developed and standardised technologies for the seed production and farming of these species including Genetically Improved Farmed Tilapia (GIFT), Mud crab, Cobia and Sea bass. Aquaculture farmers in the State should be encouraged to utilise these technologies for diversification into newer species.

Exporters from the State could also look at emerging products like Seaweed for further enhancing exports in the marine products sector. The global market for seaweed was estimated at US\$ 16.6 billion in 2020 and is expected to register a CAGR of 10.8 percent⁴⁵ during 2021 to 2028, driven by increasing consumer preferences towards plant-based products, as well as rising awareness about the health benefits of seaweed products. To encourage seaweed cultivation in Andhra Pradesh, the State government could leverage funding under the Pradhan Mantri Matsya Sampada Yojana (PMMSY) for building capacity. A seaweed park can also be established in the State through support under PMMSY.

⁴⁴ List of Hatcheries with Imported SPF Broodstock of *P. Monodon* May 2022-Sept 2022, Coastal Aquaculture Authority, Government of India.

⁴⁵ ISI Emerging Markets- Grand View Research

Organic Aquaculture: Besides, opportunities can also be explored in the area of organic fish farming, also known as organic aquaculture, so as to obtain a premium pricing for fishery products in the overseas markets. Organic aquaculture is a developing sector wherein farmers produce a wide range of aquatic species – including fish, seaweeds and molluscs – in line with organic principles, thereby ensuring sustained animal welfare, good water quality and human health. Environmentally conscious consumers around the world are willing to pay a higher price for such organic fishery products.

Diversification towards Value-added Products: Product diversification in prepared fish/shrimp products could also be encouraged. Prepared shrimps and prawns (HS-160521 and HS-160529) have been identified as product champions for the State. However, the share of these products in the State's merchandise exports was only 2.3 percent in 2021-22. Exports of prepared marine products such as ready to cook fish curries/prawn curries, filleted frozen fish, and breaded and battered fish/shrimp products should be encouraged, as these could fetch higher margins for the players and garner greater revenues.

Besides, exports of fish oils (HS-1504) should also be promoted, which the State currently does not export. Fish oil is derived from the tissues of fish and are a rich source of omega 3 fatty acids. Global imports of fish oil are estimated to be valued at US\$ 2.5 billion in 2021⁴⁶. The global fish oil market is expected to record a CAGR of 5.8 percent during 2021 to 2027 driven by increasing consumer awareness about the various health benefits of fish oil⁴⁷. Clearly, diversification towards this area can benefit exporters in Andhra Pradesh.

Processed Cereal Products

Cereal (HS-10), particularly rice, is a key exported product from the state, but the state's exports of processed cereal products is currently limited. Existing exports of cereal products largely comprise semi/wholly milled rice, broken

⁴⁶ ITC Trademap

⁴⁷ ISI Emerging Markets- Allied Market Research

rice, husked rice (brown rice) and to a lesser extent include millets, barley, sorghum etc.

Diversification towards Cereal Preparations: The exports of cereal preparations from Andhra Pradesh is currently low. Exports of these products accounted for a meagre share of 0.01 percent in the State's total merchandise exports during 2021-22. Diversification of exports towards high value-added cereal preparations like snacks, ready to cook/ ready to eat products including pasta and noodles made from rice and/or millets, fermented rice flour, puffed or flaked cereals items, can garner greater exports from the state.

Diversification towards Gluten-free Food: Owing to the increasing incidences of lifestyle diseases due to gluten-resistance, as well as rising fitness consciousness across the world, the demand for gluten-free food products is increasing. These gluten-free food products are typically characterised by high fibre and low caloric content and have significant health benefits. According to recent research, the global market for gluten-free food products stood at an estimated US\$ 5.9 billion in 2021 and is expected to register a robust CAGR of 9.8 percent during 2022 to 2030.

Opportunities emerging in the gluten-free food industry can be tapped by encouraging capacity expansion in processed cereal items made from rice and millets. It may be noted that Andhra Pradesh has the highest yield of millets in the country. The State Government also has a programme for Comprehensive Revival of Millets Cultivation by tribals in North Coastal Andhra and parts of Rayalaseema, which is an end-to-end program on Millets Revival in Andhra Pradesh. The focus of the programme could be expanded to include aspects pertaining to exports.

Developed countries from North America and Europe including the USA, Canada, Germany, and France are expected to be the top markets for gluten-free products, going forward⁴⁸. These markets could be targeted for exports of gluten-free preparations from Andhra Pradesh.

⁴⁸ ISI Emerging Markets- Grand View Research

Market Diversification in Cereal Exports

There is also a need for tapping key global markets for cereals. Exports of cereals from the State are directed mainly to the African countries such as Guinea, Cote d'Ivoire, Benin, Senegal, Togo, Cameroon etc. as well as Asian markets such as Vietnam, China, Sri Lanka, Indonesia, among others. Top global importers of cereals, particularly rice, include countries like Philippines, Saudi Arabia, the USA, Bangladesh, Iran, among others, which currently account for a meagre share in the State's exports of cereals. Thus, there is also a need for market diversification in cereals exports.

Spice Oleoresins

Andhra Pradesh produces and exports a wide range of spices in dried and/or powdered form, including chillies, turmeric, cumin, cardamom, coriander, fenugreek, black pepper, mustard, and cinnamon, among others. The State is the largest exporter of dried chillies (HS-090421) in the country, accounting for a share of 70.3 percent in the country's total exports of these products during 2021-22. The State is also the 3rd largest exporter of chilli powder (HS- 090422) in the country, accounting for a share of 11.6 percent in the country's total chilli powder exports during 2021-22. Exports of these two products accounted for 2.6 percent of the State's total merchandise exports in 2021-22. Andhra Pradesh is also the 4th largest exporter of dried turmeric (HS-09103020) and cumin powder (HS-09093200) accounting for shares of 11.3 percent and 5.1 percent in the country's total exports of dried turmeric and cumin powder, respectively, in 2021-22.

There is substantial scope for diversification of exports into higher value-added processed spice segment. One area for such diversification would be spice oleoresins (mainly under HS- 330190), which has also emerged as a product champion for the State. Oleoresins have high potency of active components that enable their usage in small dosages, while also leading to standardisation in taste and consistency. Oleoresins find application in industries such as beverages, confectionery, meat canning, sauces, pharmaceuticals, seasonings, etc.

Exports of oleoresins from Andhra Pradesh was valued at US\$ 43.6 million in 2021-22. The State is the 4th largest exporter of oleoresins in the country, accounting for a share of 6.7 percent in India's total oleoresin exports in 2021-22. Top exported products from the State in the oleoresins category include capsicum oleoresins⁴⁹ (HS-33019022), ginger oleoresins (HS-33019012), and oleoresins of other spices (HS-33019029). There is potential for further expanding the exports of oleoresins from the State given the growing demand for these products. The global imports of these products were estimated to be around US\$ 1.0 billion in 2021⁵⁰ and the global market for oleoresins is expected to register strong growth at a CAGR of 6.9 percent during 2022 to 2030⁵¹. The USA and European countries such as the UK, Germany, Belgium, Spain and Austria are among the top importers of spice oleoresins in the world⁵², that can be targeted by the exporters from the State.

For capacity building in the segment, the State could incentivise investments in spice processing units for production of spice oleoresins, with specific focus in the districts of Prakasam and Guntur where a major portion of the State's spice cultivation is located. This could help enhance capacity for exports of these products from the State.

Pharmaceuticals

Andhra Pradesh's exports of pharmaceutical products consist of a wide range of bulk drugs as well as drug formulations. The State has 4 existing Pharma Clusters – 2 in Visakhapatnam, 1 in Srikakulam and 1 in Nellore district⁵³. Drug formulations accounted for a share of 5.1 percent in the State's merchandise exports during 2021-22, while bulk drugs exports accounted for 2.2 percent of the merchandise exports from the State. Several top exported products under bulk drugs as well as drug formulations have been identified as product champions for the State.

⁴⁹ Capsicum oleoresin is an oily organic resin derived from the fruit of plants in the Capsicum genus, such as chilli peppers.

⁵⁰ ITC trademap

⁵¹ ISI Emerging Markets- Grand View Research

⁵² ISI Emerging Markets- Grand View Research

⁵³ AP Pharma Ecosystem, Andhra Pradesh Economic Development Board

The State has already brought out a special package for encouraging investments in bulk drugs park. This includes fiscal incentives like reimbursement of 100 percent of net SGST accrued to the State, for a period of 10 years; reimbursement of 100 percent of stamp duty and transfer duty on purchase and lease of industrial land; waste and effluent treatment services through Common Effluent Treatment Plants in bulk drugs park, among others. This could help attract investments in the bulk drugs segment of Andhra Pradesh, enhance exports from the State and neutralise the trade deficit of India in this segment.

For product diversification, pharmaceutical players in the State could also be encouraged to enhance capacities in biosimilars, which could provide new avenues for growth in exports. Globally, the demand for biologics is growing steadily as they can be used to treat several chronic diseases including cancer, diabetes, infectious disorders, hormonal disorders, etc⁵⁴. Biosimilars are highly similar biological products that are made using state-of-the-art technology to be comparable in characteristics to the reference biologics in terms of purity, bioactivity, and chemical identity⁵⁵. Europe is the largest market for biosimilars currently with nearly 73 approved biosimilars as of July 2022⁵⁶. The US FDA has also approved 39 biosimilars as of September 2022⁵⁷. According to a recent report by McKinsey, patent expiry of nearly 17 blockbuster biologics⁵⁸ during 2020 to 2025 is expected to create an opportunity worth US\$ 60 billion, due to loss of exclusivity of these patented drugs. This would create

⁵⁴ Biologics are products derived from living organisms like bacteria, as well as from mammals, plants, and animals through genetic engineering. Some of the commonly known biologics include monoclonal antibodies (MAbs), vaccines, recombinant proteins, antisense, RNAi, molecular therapy, among others.

⁵⁵ Biosimilars have essentially no differences from existing FDA-approved reference biologics, indicating that the biosimilar and the reference biologics are structurally and functionally similar in nature. Minor differences in the clinically inactive components such as a stabilizer or a buffer are acceptable by regulators in key global markets.

⁵⁶ Biosimilars approved in Europe (July 2022), Generics and Biosimilar Initiative.

⁵⁷ The US FDA Biosimilar Product Information (Sept 2022), the US FDA

⁵⁸ A blockbuster drug is an extremely popular drug that generates at least US\$ 1 billion worth of annual sales revenue for the pharmaceutical company that produces them.

large opportunities for biosimilar players⁵⁹. Thus, exporters from the State could consider diversification into this key emerging segment.

Electronics

‘Electronics, computer and optical products’ and ‘electrical equipment and machinery’ sectors are among the emerging high-tech sectors in Andhra Pradesh. Exports of electronics accounted for only 1 percent share in the state’s total merchandise exports in 2021-22. Exporters from the state need to focus on enhancing production and export capacities in these high-technology intensive sectors, as these are less prone to fluctuations in commodity prices as compared to agricultural products and resource-intensive manufactures. These sectors would also create high-skill employment for the skilled workforce in the state.

Although the state currently exports products like static converters, mobile phones, receptors, digital camera, automatic circuit breakers, lithium ion, etc., the State does not have comparative advantage in the exports of these product. Recognising the potential that the sector offers, the Government of Andhra Pradesh has already brought out the AP Electronics Policy 2021-24 for strengthening the electronics manufacturing base in the State. The State Government has also brought out a State-level PLI scheme for the sector for encouraging production and exports of high-tech electronic items. Export-oriented firms need to be encouraged to leverage these incentives to further expand their production and export capacities.

Automobile and Auto Components

Automobile comprised 4 percent of the State’s merchandise exports in 2021-22, while auto components accounted for a share of nearly 1 percent in the State’s merchandise exports during the same year. There is need for diversification towards the electric vehicles (EV) space. According to the International Energy Agency, the global sales of electric cars have nearly doubled during 2021, driven by the rising demand for battery electric vehicles

⁵⁹ Ying Chen, Alex Monnard, and Jorge Santos da Silva (2021), An inflection point for biosimilars, McKinsey & Company

(BEVs) and plug-in hybrid electric vehicles (PHEVs). Globally, the total number of electric cars on roads have tripled during 2018 to 2021, to reach over 16.5 million in 2021.

Andhra Pradesh is also focussing on attracting investments from EV manufacturers. The State has introduced the AP Electric Mobility Policy 2018-23, which offers a range of incentives to augment manufacturing of electric vehicles in the State. This includes investment subsidy, capital subsidy, stamp duty exemptions, power and water subsidy, SGST reimbursement, marketing incentive, skill development incentive, R&D grants, among others. The Policy also includes allocation of 500 to 1,000 acres of land for developing EV Parks with plug and play infrastructure. An incubation center for handholding of start-ups in the EV Parks is also envisioned in the policy. These incentives could help increase production capabilities and enhance exports of EVs in the medium term.













Textile and Allied Sector

Andhra Pradesh's exports of textile and allied products (HS-50 to HS-63) accounted for 3.9 percent of the State's total merchandise exports in FY22. Exports of textile and allied products from the State are currently concentrated in select products. For instance, Cotton (HS-52) comprised the largest share of nearly 54.0 percent in the state's exports of textile and allied products in FY22, followed by apparel and clothing accessories (HS-61 and HS-62), and knitted or crocheted fabrics (HS 60), which accounted for shares of 22.2 percent and 11.0 percent, respectively, in the State's total exports of textile and allied products during the year. Although the State also exports products like manmade filaments and manmade staple fibres (HS-55 and HS-56), other vegetable textile fibres; paper yarn and fabrics (HS-53), coated & laminated textile fabrics (HS-59), etc., the share of these products in the State's total exports of textile and allied products is negligible.

Currently, low value-added textile products account for a large share of exports from the textile and allied industry in Andhra Pradesh. There is a need for diversification towards exports of greater value-added and technology-intensive textile products. One such area of diversification could be technical

textiles. Technical textiles are used for non-aesthetic purposes across a multitude of sectors, such as automobiles, pharmaceuticals, infrastructure, sports, construction, packaging, agriculture, etc. (Exhibit 8). These products also have huge potential for exports owing to the rising global demand. The global technical textile market was valued at an estimated US\$ 180.9 billion in 2021 and is expected to record a CAGR of 4.7 percent during 2022 to 2030, owing to increasing awareness about the uses of technical textiles in various end-user industries⁶⁰.

Exhibit 8: Types and Applications of Technical Textiles

					
InduTech	MobilTech	SportTech	BuildTech	HomeTech	MediTech
Industrial brushes, computer printer ribbon, composites, ropes and cordages, coated abrasives, drive bells, conveyor belts, etc.,	Seat cover, upholstery, tyre cord fabrics tufted carpet, insulation felts, seat belts, cabin filters, helmets etc.,	Sports nets, parachutes, artificial grass and turfs, sports composites, hot-air balloons sleeping bags, etc.,	Floor & wall coverings, scaffolding nets, awnings & canopies, etc.,	Pillows, mattresses, blinds, mosquito nets, carpet backing cloth, filters, vacuum cleaner consumables, etc.,	Contact lenses, baby diapers, sanitary napkins, surgical sutures, surgical disposables, etc.,
					
ClothTech	AgroTech	ProTech	PackTech	OekoTech	GeoTech
Interlinings, labels, elastic narrow fabrics, shoe laces, etc.,	Fishing nets, bird protection nets, mulch mats, crop covers, shade nets, etc.,	Bullet-proof protective clothing, high visibility clothing, Fire retardant products, etc.,	Soft luggage, woven jute sacks, wrapping fabric, tea bag filter paper, etc.,	Waste management, environmental protection, recycling	Geo-composites, geo-bags, geogrids, geonets

Source: Technical textiles: Emerging opportunities and investments, FICCI, KPMG, March 2021

The Government of India has launched several programmes for strengthening the Indian technical textiles segment, including setting up a National Technical Textiles Mission, and PLI scheme for textile sector with focus on technical textiles and manmade fibres segments, among others. The Government

⁶⁰ ISI Emerging Markets- Grand View Research

of Andhra Pradesh could sensitise business enterprises about the various opportunities in the technical textiles segment and could also encourage collaboration with foreign players to facilitate technology transfer.

Petroleum and Petrochemicals

Another focus sector for the State is petroleum and petrochemicals. Andhra Pradesh houses the country's largest offshore gas fields, which is situated in the Krishna-Godavari Basin. The State has several projects in pipeline in the sector, including brownfield expansion of refinery in Visakhapatnam from existing 8.33 MMTPA to 15 MMTPA; building a cracker complex at Kakinada; LNG terminals in Kakinada, Gangavaram, and Krishnapatnam; crude oil caverns in Visakhapatnam; off-shore LNG Floating Storage Regasification Unit (FSRU) in Kakinada; and specialised educational institutions in the area of petroleum and energy, as well as in plastic engineering and technology, among others⁶¹.

Despite the large resource base and focus of the Government on the sector, the State's exports of mineral fuels, mineral oils and their products (HS-27) was low at 1.8 percent of the State's total merchandise exports in FY22. Key exported products from Andhra Pradesh include vacuum gas oils, light oil and preparations, calcined petroleum coke and petroleum oils obtained from bituminous minerals, among others. Exports of petroleum bitumen can be increased in the medium to long term, by strengthening production capacities for these products in the State. Moreover, exporters could also be encouraged to diversify towards petrochemicals such as olefins (ethylene, propylene and butadiene) and aromatics (benzene and toluene). Global petrochemicals market is estimated to be worth US\$ 556.1 billion in 2021 and is expected to witness a CAGR of 6.2 percent during 2022 to 2030⁶². The demand for petrochemicals is driven by demand from various end-use industries such as construction, pharmaceuticals, and automotive.

⁶¹ Andhra Pradesh Economic Development Board, Government of Andhra Pradesh

⁶² ISI Emerging Markets – Grand View Research

Tourism

Andhra Pradesh stood 3rd among all States/UTs in India, in terms of domestic tourist visits, accounting for a share of 10.2 percent in India's total domestic tourism visits in 2019. However, the share of the State in India's total foreign tourist visits is meagre.

According to latest data, 3 tourism circuits including 2 coastal circuits and 1 Buddhist circuit have been developed in Andhra Pradesh under the Swadesh Darshan Scheme of the Ministry of Tourism, Government of India⁶³. Efforts are required to develop and popularise the existing tourism circuits in the State, to increase international footfall. Moreover, given the vast coastline and diverse topography of the State, there is substantial scope for developing new circuits for enhancing eco-tourism, adventure, and recreational tourism. Given the rich cultural heritage of the state, there is also immense potential in the areas of heritage tourism and rural tourism. There is also substantial scope for enhancing culinary tourism through state-sponsored food festivals for showcasing the unique culinary delicacies of the State. The State government has already introduced the AP Tourism Policy 2020-25, with a view to sustainably develop tourism in Andhra Pradesh and position the State as a preferred tourist destination. The action plan for developing tourism sector charted in the policy could be speedily implemented.

Creative Services – Audio-visual Services

Creative services is another emerging area that can be targeted for expanding services exports from the State. The UNCTAD classifies creative services into 6 services groups viz. i) research and development licenses and services; ii) software licenses and services; iii) audio-visual licenses and services; iv) information services; v) advertising, market research and architecture; and vi) cultural, recreational and heritages services. According to a recent report by the UNCTAD⁶⁴, the global exports of creative services were valued at an estimated US\$ 1.1 trillion during 2020, accounting for nearly 21 percent of the

⁶³ New Tourism Projects In Andhra Pradesh, Lok Sabha Unstarred Question No. 2337, August 2022

⁶⁴ Creative Economy Outlook 2022, UNCTAD, October, 2022

global services exports. Creative services exports exhibited greater resilience during the Covid-19 pandemic, as compared to the overall services exports. While global exports of services declined by nearly (-) 20 percent in 2020, exports of creative services registered a much lower y-o-y decline of only (-) 1.8 percent.

In order to promote creative services particularly audio-visual services like motion picture and video tape production services, the State could focus on conservation, development and promotion of its unique ecological, cultural and heritage sites to attract national and international film production in the State. Moreover, given the potential of films to generate foreign exchange earnings, the State could also incentivise production of movies that may have greater international audience. The State government is already providing incentives for promoting shooting of low budget Telugu films in the State, including free of cost shooting permits; reimbursement of GST to producers on sale of tickets; special cash subsidy, etc. The scope and quantum of the existing incentives could be expanded to incentivise production of films in English as well. States like Uttar Pradesh, Odisha and Himachal Pradesh also provide subsidies for English films shot in their respective states, subject to a specified maximum limit. Further, financial incentives could also be given to movies that secure international awards. A similar incentive is being given by Gujarat Government⁶⁵.

Market Diversification

As highlighted in the previous chapter, there remains substantial scope for exporters from the State to diversify towards key global markets including several developed economies such as Germany, Japan, France, the UK, the Netherlands, Italy and Belgium. Sector-wise top potential countries for market diversification that may be targeted by exporters is given in Table 26.

⁶⁵ Filming Incentives in India, Filming Facilitation Office, Government of India

Table 26: Top 10 Exported Product-wise Potential Countries for Market Diversification from Andhra Pradesh

Product Classification	Current Top Markets	Potential Markets
Fish and Crustaceans	The USA, China, Canada, Vietnam, UAE	Japan, Spain, France, South Korea, Italy, Hong Kong
Organic Chemicals	The USA, Puerto Rico, Switzerland, Canada, Germany, China	Belgium, Italy, The Netherlands, Japan, France, South Korea, Spain
Iron and Steel	China, Sri Lanka, Egypt, Italy, Japan, Turkey, Taiwan, UAE, Indonesia	The USA, Germany, South Korea, Belgium, Mexico, Thailand, Poland, France
Ships, Boats and Floating Structures	Singapore, Sri Lanka, South Africa, UAE, Malaysia, Indonesia, Australia	Liberia, Russia, Saudi Arabia, China, Italy, South Korea
Cereals	Guinea, Cote D'Ivoire, Vietnam, Benin, Senegal, China, Togo, Cameroon, Sri Lanka, Indonesia	Philippines, Saudi Arabia, The USA, Bangladesh, Iran, Iraq, Malaysia, The UK, France, Japan
Pharmaceuticals	The USA, Tanzania, Uganda, South Africa, Malta, Canada, Mozambique, UAE, Nigeria, the UK, France	Germany, Belgium, Switzerland, China, Japan, Italy, The Netherlands, Spain, Russia, Ireland
Transport Vehicles and Parts	Saudi Arabia, Mexico, Vietnam, South Africa, Chile, The USA, Indonesia, Nepal, Ecuador	Germany, China, France, Canada, The UK, Belgium, Italy, Spain, Australia, The Netherlands, Poland, Russia, Japan
Machinery, Mechanical Appliances and Parts	The USA, Turkey, Saudi Arabia, Bangladesh, Malaysia, UAE, Poland, Singapore, Germany, Romania	China, France, Hong Kong, The UK, Mexico, The Netherlands, Japan, Canada, South Korea
Miscellaneous Chemical Products	The USA, Brazil, Belgium, France, Vietnam, South Korea, Thailand, The Netherlands, Australia, Indonesia	China, Germany, The UK, Italy, Mexico, Japan, Spain, Taiwan, Canada, Brazil
Coffee, Tea, Mate and Spices	China, Bangladesh, Thailand, Sri Lanka, Indonesia, Malaysia, The USA, Nepal, Italy, The UK	Spain, Mexico, Germany, Japan, Vietnam, South Korea, UAE, The Netherlands, France

Note: 1) The State's top 10 exported products at HS-2 digit level have been considered for the analysis;

2) Potential markets include global top importers in the respective product category in 2021, that did not feature among top export destinations for Andhra Pradesh during 2021-22.

Source: DGCI&S; ITC TradeMap; India Exim Bank Research

Infrastructure Leverage and Strengthening

Transportation

Transport infrastructure plays a vital role in trade logistics, as inefficient connectivity can increase logistics cost and narrow the margins from exports. The State has a large base of transport infrastructure, which includes 7,340 km of national highway, 13,500 km of state highway, 7,714 track-km of railways, 14 container freight stations (CFS), 3 inland container depots (ICD), 3 private freight stations (PFT), and 5 air cargo terminals⁶⁶, one major seaport, 4 operational non-major ports, and 1 captive port, among other facilities.

There are issues related to the quality and condition of the existing infrastructure in the State, which hinder the cost-effectiveness and timely movement of goods in the State. As per the LEADS 2021 report, the quality of road stretching from Vijayawada to Visakhapatnam via Rajahmundry, particularly the Kovvur bridge crossing over the Godavari River is noted to be below par and needs strengthening. Likewise, the report notes frequent congestion on the road connecting ports to the warehouses/ CFSs primarily along the NH-65 due to heavy movement of container trailers. Further, non-availability of adequate parking spaces for trucks at key ports in Visakhapatnam and Kakinada has also been noted as a challenge, leading to congestion on roads leading to Port. Thus, there is an urgent need to upgrade existing road networks, particularly focusing on quality improvements in access roads to the ports.

The Logistics Policy of Andhra Pradesh 2022-27 has laid emphasis on strengthening the transport connectivity in the State, including road transportation. However, an essential first step towards improving trade-related transport infrastructure would be infusing more capital expenditure towards expansion/widening of roads. It is noted that only 1.9 percent of the total budgeted expenditure for Andhra Pradesh in 2022-23 is allotted for roads and bridges, which is lower when compared to other top exporting coastal States such as Maharashtra (5.7 percent of total budgeted expenditure

⁶⁶ Logistics Ease Across Different States (LEADS) index Report 2021, DPIIT, Government of India

allocated to roads and bridges), Tamil Nadu (5.4 percent), Gujarat (4.3 percent), and Karnataka (4.1 percent)⁶⁷. The budgeted capital outlay for roads and bridges in Andhra Pradesh at 7.1 percent of total capital outlay for the State in 2022-23, is also low when compared to neighbouring states like Tamil Nadu (37.9 percent) and Telangana (15.0 percent). There is a need to increase the budget allocation to strengthen the existing road network in the State.

Apart from road networks, there is also a need to strengthen the Air Cargo facilities as well as inland waterways networks in the State. Recognising this, the State is already considering development of integrated air cargo complex at Visakhapatnam airport, and creation of a hub and spoke model connecting flights to international airports in Visakhapatnam, YSR Kadapa, and Tirupati. The State is also considering strengthening inland waterways by utilising the existing network of national waterways in the State⁶⁸, and has prioritised waterway terminals at 27 locations. In addition to this the State could also focus on developing the inland waterways' connectivity to major ports.

Besides, there is also a need to strengthen the performance and operation of minor ports to optimise trade and bring the point of exports closer to the production centres. Andhra Pradesh has a coastline of about 974 km, with 9 out of its 13 districts being coastal districts. Yet, the State has only one Major Port at Visakhapatnam. Moreover, though there are 14 notified Ports under the control of the Government of Andhra Pradesh, only 5 ports are operational⁶⁹. As noted in the previous chapter, a large portion of merchandise export from Andhra Pradesh is routed through ports in other states such as Tamil Nadu, Telangana, Maharashtra, among others. The State government envisages the development of ports at Ramayapatnam, Bhavanapadu and Machilipatnam, as also the development of Kakinada SEZ port under PPP mode⁷⁰. The state also envisages to develop two new ports viz. Vodarevu Port in Prakasham District and Nizampatnam Port in Guntur District under Public Private Participation

⁶⁷ Analysis of State Budgets 2022-23, PRS Legislative Research

⁶⁸ AP Export Promotion Policy 2022-27

⁶⁹ Socio-Economic Survey of Andhra Pradesh 2019-20

⁷⁰ Logistics Policy of Andhra Pradesh 2022-27

mode on Build, Own, Operate and Transfer (BOOT) basis⁷¹. The State should consider speeding up the implementation of these projects on a priority basis.

The State could also consider strengthening and expanding the capacity of existing non-major ports in the State. An essential step would be assessing the status of existing infrastructure at the non-major ports and identifying potential for further development of these ports. The State can utilise the Centrally sponsored Sagarmala Programme for strengthening these ports. As of July 22, 2022, 13 projects under Sagarmala programme, worth ₹ 1,533 Crore have been approved in Andhra Pradesh, of which, 5 projects worth ₹ 754 Crore have been completed, and the remaining projects are under various stages of implementation. However, out of these 13 projects, only one project pertains to modernisation of a non-major viz. Kakinada Anchorage Ports, which is currently being developed⁷². More such projects for development of non-major ports could be identified by the State under the Sagarmala project. In addition, the State could create a separate fund for development and maintenance of existing export infrastructure in the non-major ports. This would provide a major thrust to integrated connectivity in the state. Amongst others, the fund could focus on managing and upgrading gantry cranes, berths, roads, storage facilities, communication equipment, and computer systems. Strengthening of non-major ports in the State would also help in achieving the State's target average turnaround time of 1.4 days in non-major ports, as envisaged in the AP Export Promotion Policy 2022-27.

Container Freight Stations (CFSs) and Inland Container Depot (ICDs)

The state has a total of 14 CFSs and 3 ICDs which is significantly low when compared to other top exporting coastal states such as Tamil Nadu (57 CFSs and 10 ICDs), Maharashtra (45 CFSs and 11 ICDs), and Gujarat (28 CFSs and 10 ICDs)⁷³.

⁷¹ Socio-Economic Survey of Andhra Pradesh 2021-22

⁷² Status of Sagarmala Programme in Andhra Pradesh, Lok Sabha Unstarred Question No. 973, July 22, 2022, Ministry of Ports, Shipping and Waterways, Government Of India

⁷³ LEADS Index Report 2021, DPIIT, Government of India

Further, there is significant concentration of existing facilities in a handful of districts, while many key districts remain underserved (Table 27). There is an urgent need for developing new ICDs/CFSSs to cater to some of the underserved districts. The Logistics Policy of Andhra Pradesh 2022-27 lays emphasis on development of ICD in PPP mode in the State. In this regard, the districts of West Godavari, Krishna and Chittoor districts could be considered as priority districts for setting up of new ICDs. These three districts have significant contribution to the gross value added of the state, but do not have any ICD/CFS or any minor/intermediate port. West Godavari and Krishna districts are the top two districts in terms of production of marine products (particularly inland fish and freshwater shrimps⁷⁴), and are important exporters of shrimps and prawns from State. Besides, the three identified districts are also important for the State's exports of processed foods. Both West Godavari and Chittoor districts also have mega food parks, and another mega food park is under implementation in Krishna District⁷⁵. The need for an ICD in Chittoor was also highlighted during India Exim Bank's interaction with exporters from the processed fruits segment in the district. As per the discussions with stakeholders, lack of ICD in the district adds to the logistics cost, thereby affecting the price competitiveness of exporters. Thus, the State could consider building ICDs in the three identified districts on priority basis.

Table 27: Comparison of District-wise Gross Value Addition (GVA) and Number of ICDs/ CFSSs

Districts	% Share in AP's GVA	Number of ICDs	Number of CFSSs
Krishna	14.2%		
Visakhapatnam	11.6%		10
East Godavari	10.7%		2
West Godavari	9.6%		
Guntur	9.0%	1	
Chittoor	7.9%		

⁷⁴ Socio-Economic Survey of Andhra Pradesh, 2021-22

⁷⁵ "Why Invest in Andhra Pradesh?", Investor Portal, Ministry of Food Processing Industries, Government of India

Districts	% Share in AP's GVA	Number of ICDs	Number of CFSs
Ananthapuram	6.6%		
Kurnool	6.3%		
S.P.S.R Nellore	5.8%		2
Prakasam	5.6%	2	
Y.S.R Kadapa	5.1%		
Srikakulam	3.9%		
Vizianagaram	3.7%		

Note: Districts shaded in blue have major/non- major ports

Source: Directorate of Economics and Statistics, Govt. of Andhra Pradesh; India Exim Bank Research

Storage

Warehousing Infrastructure

Storage is an important link in the overall logistics chain for exports. As discussed in the preceding chapters, Andhra Pradesh is among the top producers of agro-based products such as spices, fruits, vegetables, rice, as well as marine products in the country. With significant exports and potential for exports in these segments, the need for well-developed cold storage and warehousing facilities in the state cannot be overemphasised.

As per the latest available data, there are a total of 106 Warehousing Development and Regulatory Authority (WRDA) approved warehouses in Andhra Pradesh, with cumulative storage capacity of 16.1 lakh MT. Of this, about 65 warehouses with a capacity of 7.47 lakh MT are managed by the Andhra Pradesh State Warehousing Corporation across various districts, while the Central Warehousing Corporation (CWC) manages nearly 24 warehouses with a total capacity of 7.48 lakh MT, and the remaining 17 warehouses with a combined capacity of 1.14 lakh MT are managed by private entities⁷⁶. Besides

⁷⁶ WRDA List of Registered Warehouses, accessed on October 10, 2022

these, Andhra Pradesh also has 9.41 lakh MT of storage capacity (owned + hired) managed by the Food Corporation of India (FCI)⁷⁷. The total storage capacity in the State thus stands at an estimated 25.5 lakh MT.

As per industry norms, the storage facility for agriculture alone should typically be 60 percent of the production volume. In 2021-22, foodgrain production in the State was estimated at 112.7 lakh MT. Analysis of warehousing capacity and food grain production in the State suggests that Andhra Pradesh's overall warehousing capacity caters to only about 22.7 percent of the total foodgrain production in the State, indicating the need to substantially augment warehousing capacity. Recognising the existing demand-supply gap in the State's warehousing infrastructure, the AP Export Promotion Policy 2022-27 has set out a plan to augment the state's warehousing capacity to 56 lakh MT during the policy period. However, as per India Exim Bank analysis, the capacity of 56 lakh MT would still be inadequate to cater to the State's demand. As per India Exim Bank estimates and in line with the industry benchmark, the State should have at least 67.6 lakh MT of warehousing capacity just for the existing foodgrains produce in the State.

Cold Storage Infrastructure

Other than warehousing, the state also needs robust cold storage infrastructure given that there is substantial exports from sectors such as agriculture and allied activities and pharmaceuticals. The overall cold storage capacity in the State stood at 15.67 lakh MT, of which cold storage, chilled storage, dry storage and other storage for marine products stood at 12.08 lakh MT (Table 28)⁷⁸. This is significantly low considering that fish production in the State alone stood at 46.2 lakh tonnes in 2020-21, while total horticulture production stood at 265.2 lakh tonnes in 2020-21. Besides, pharmaceuticals also form a significant part of the State's merchandise exports and requires cold storage infrastructure. Clearly, there is an urgent need for augmenting cold storage capacity in the State.

⁷⁷ FCI Agency-wise Storage Capacity and Utilization Summary, August 2022

⁷⁸ MPEDA, As of October 10, 2022

Table 28: Existing Storage and Marine Processing Infrastructure in Andhra Pradesh

Sr. No	Existing Facilities	Number	Capacity ('000 MT)
1	Cold Storage	122	96,806.2
2	Chilled Storage	4	6,134
3	Dry Fish Storage	14	13,315
4	Other Storage Capacity	4	4,515
5	EU-Approved Marine Processing Plants	86	4,892.24
6	Marine Processing Plants not holding EU approval	18	961.3
7	Ice Plants	7	185
8	Pre-Processing Plants	109	4,544.52

Note: Processing plants capacity is with reference to per day capacity; Data as on October 10, 2022

Source: MPEDA, Ministry of Commerce and Industry, GoI; India Exim Bank Research

The Parliamentary Committee Report on “Augmenting Infrastructure Facilities to Boost Exports” 2021, particularly underscored the need for cold chain infrastructure in the Guntur district of the State, considering the huge volume of chilli exported from the district⁷⁹.

Under the central government sponsored scheme viz. the Pradhan Mantri Kisan Sampada Yojana (PMKSY), the State has implemented 13 cold storage projects, while 19 cold storage projects are under implementation⁸⁰, as of August 2022. However, the cumulative additional cold storage capacity under these 32 projects is only 0.59 lakh MT, indicating that the gap is still significantly large. Assistance for more projects could be sought under the PMKSY scheme of the central government.

⁷⁹ Parliamentary Committee Report on “Augmenting Infrastructure Facilities to Boost Exports”, September 2021

⁸⁰ Consolidated list of State-wise Approved Cold Chain Projects, August 2022, Ministry of Food Processing Industries, Government of India

The State is already working on development of 2 multi-modal logistics parks in the districts of Visakhapatnam and Anantapur, and one more is proposed to be developed in the YSR Kadapa district. The State also envisages the development of multimodal cold chain network involving two or more modes of transport. This would help facilitate transportation and storage of perishable products. In addition to this, Andhra Pradesh could also encourage setting up of energy efficient and environmentally sustainable cold storage in the State. In this context, the State government has recently signed an MoU with Tabdreed Asia, to build energy-efficient cold storages and provide technology support to exporters in the State. More such initiatives with agri-tech companies and start-ups could be considered by the State.

The State could also leverage IT-enabled services in the harvesting and logistics infrastructure. These services could include synchronising the timing of harvesting, storing, and marketing to match the needs of the worldwide market, thereby reducing losses and improving the supply chain. Utilising IT-enabled services will also increase access and connectivity in rural areas, eliminate intermediaries, and speed up the transportation of farm products. New businesses that provide farm-to-port services in the State could be identified, encouraged and supported by the State government. Promoting IT-based systems will also be helpful for ensuring business continuity during unsure times, like the nationwide shutdown triggered by the Covid-19 pandemic.

The state can utilise the support under the central government's Trade Infrastructure for Export Scheme (TIES) for developing and strengthening the ICDs, CFSS, warehousing and cold storage facilities, and other essential export infrastructure in the State. The Government of India launched the TIES in March 2017, with the objective of assisting State Governments and government-owned agencies in the creation of appropriate infrastructure for growth of exports. Financial assistance under the scheme is provided in the form of grant-in-aid. A total of 51 projects have been sanctioned under the TIES scheme, as of January 2022, but only 4 out of these 51 projects have been approved in the State of Andhra Pradesh⁸¹, of which 1 has been completed.

⁸¹ Trade Infrastructure of Export Scheme, Lok Sabha Starred Question No. 10, February 2022 <http://164.100.24.220/loksabhaquestions/annex/178/AS10.pdf>

This is much below that of the states like Tamil Nadu, wherein 10 projects have been approved under the Scheme during 2019-20 to 2021-22. The State needs to enhance the utilisation of support provided under the Scheme for developing and strengthening essential export infrastructure.

Infrastructure For Services Sector

As discussed in the previous chapter, the share of services sector in total export earnings of the state is comparatively less when compared to its share in the GVA of the state. Hence, enhancing the export orientation of these sectors would be essential in boosting exports. Improving infrastructure in niche sectors such as Animation, Visual Effects, Gaming and Comics (AVGC) can drive growth of services exports.

The AVGC sector has emerged as one of the fastest growing services sectors in the world over the past decade. Andhra Pradesh could consider developing a Centre of Excellence (CoE) for AVGC with state-of-the-art facilities in one of the IT parks in the State. The CoE could be leveraged to transform the capacity and capability of AVGC industry in the State. As per the Ministry of Skill Development and Entrepreneurship, Government of India, a CoE is a body that provides leadership, best practices, research, support, training of trainers and skill training for specific sector(s). States such as Karnataka and Telangana have successfully set up CoEs for AVGC sector.

To augment exports of creative services, particularly audio-visual services, capital investment subsidy up to 15 percent subject to a specified maximum limit could be considered by the state government, for creation of infrastructure for film making, including establishment of film studios and film institutes, etc. A similar support is provided by the Government of Madhya Pradesh for building infrastructure related to film studio, film museum, aquarium, theme park with minimum project cost of Rs. 3 crore⁸².

⁸² Filming Incentives in India, Filming Facilitation Office, Government of India

Capacity Building

While exporters in the state produce a wide array of products, there is need for improving the design, quality and quantum of production in order to effectively tap the international market. In several products, there may not be enough exportable surplus, or the production may not be attuned to the requirements of the global market, necessitating capacity building efforts.

Branding of Geographical Indications

Geographical Indications (GI) status for agricultural, handloom and handicraft products of Andhra Pradesh can function as product differentiators and serve as important tools for marketing. Andhra Pradesh has a total of 19 GIs, of which 3 GIs belong to the agriculture sector, 2 GIs are food stuff, and the rest 14 GIs belong to the handicraft sector (Table 29). The reference to geographical origin, along with the use of traditional practices and processing methods, can provide substantial marketing potential for exports of these products from Andhra Pradesh.

Table 29: List of Geographical Indications in Andhra Pradesh as on July 2022

Sr. no.	Geographical Indications	Industry
1	Srikalahasthi Kalamkari	Handicraft
2	Kondapalli Bommallu	Handicraft
3	Machilipatnam Kalamkari	Handicraft
4	Budithi Bell & Brass Metal Craft	Handicraft
5	Andhra Pradesh Leather Puppetry	Handicraft
6	Uppada Jamdani Sarees	Handicraft
7	Tirupathi Laddu	Food stuff
8	Guntur Sannam Chilli	Agricultural
9	Venkatagiri Sarees	Handicraft
10	Bobbili Veena	Handicraft
11	Mangalagiri Sarees and Fabrics	Handicraft
12	Dharmavaram Handloom Pattu Sarees and Paavadas	Handicraft
13	Bandar Laddu	Food stuff

Sr. no.	Geographical Indications	Industry
14	Udayagiri Wooden Cutlery	Handicrafts
15	Banaganapalle Mangoes	Agricultural
16	Durgi Stone Carvings	Handicrafts
17	Etikoppaka Toys	Handicrafts
18	Allagadda Stone Carving	Handicraft
19	Araku Valley Arabica Coffee	Agricultural

Source: Intellectual Property India⁸³

To reap the benefits of the GI Status, it is important for the GI brand to be recognised as a reliable and preferred brand in the market, with distinguishable positioning. Products such as Darjeeling Tea, for example, have been able to gain substantial market share on account of this brand building. In order to attain similar levels of success, key value proposition needs to be defined for the products having GI status. The logo and the GI brand name need to be developed and marketed, and mechanism needs to be devised for ensuring that all products marketed under the GI brand adhere to minimum specific standards. To ensure the quality and uniqueness of the products, the state government could set up a GI certification body, that will provide certificate of authenticity to select high-potential export items in agriculture and handicraft categories. A repository of information about the artisans involved in production and exports of the GI products could be maintained by the certifying body.

The branding efforts made in promoting Araku coffee from the state could serve as a learning template for other GI products. The Naandi Foundation launched the brand – Araku Coffee and has made remarkable efforts to make it a globally recognised brand through a shared value framework which enables coffee farmers to benefit from value addition obtained from grading, processing, roasting, packaging, and retailing in niche global markets. In 2017, the Araku coffee brand was launched in Paris, France, which then won the Prix Epicures Award for Best Coffee in 2018.

⁸³ GI Application Register List, July 2022, Intellectual Property India, DPIIT, Government of India

Technology has been extensively leveraged to make the Araku Coffee model sustainable. An international NGO named TechnoServe gives agronomy training to coffee farmers in Araku valley, manages post-harvest to increase coffee productivity, and provides the necessary market linkages. TechnoServe also provides the farmers an end-to-end traceability solution, with a view to build a transparent, ethical, and sustainable supply chain. Artisan of other GI products in the State can learn from the best practices adopted in making Araku Coffee a globally recognised and sustainable brand.

Initiatives are also needed for identifying more products from the state which can be accorded GI status. This could include culinary delicacies that are unique to the State such as 'Pootharekulu' (rice paper sweet), 'Kakinada gottam kaja', 'Ulavacharu', 'Bandar Halwa', 'Gongura pacchadi', 'Chegodilu', 'Boorelu', etc. GI tags could enhance the popularity of these processed food items and thereby boost exports of these products from the state. Obtaining GI for such prepared food stuff could also be helpful in promoting culinary tourism in the State.

Standards, Rules and Regulations

Exporters need to have in-depth knowledge of the latest global developments pertaining to packaging / eco-labelling, quality standards, regulatory norms and mandatory certification requirements, among others, to be able to expand their footprint into highly regulated markets in developed countries. Exporters also need to acquaint themselves with the rules and procedures of importing countries. It is therefore imperative to create an eco-system which facilitates and supports exporters in adhering to the requirements in the export markets. The Government of Andhra Pradesh is already working towards strengthening the State's quality testing infrastructure. As per the AP Export Promotion Policy 2022-27, the State government is planning to upgrade the existing NABL accredited quality testing labs, and establish new world class testing labs, including drug testing labs in the State. The State also envisages to create food safety testing infrastructure in remote areas by introducing 50 Food Safety on Wheels (FSWs), in consultation with the FSSAI. In addition to these, there is a need to create awareness about the rules, procedures and standards required across other key export sectors.

Awareness Workshops/ Programmes

Based on India Exim Bank's discussions with existing and aspiring exporters from the State, it was noted that awareness pertaining to export procedures and export related documentation was a challenge. For instance, it was noted that entrepreneurs often sell their products to trading firms in other States such as Maharashtra, Tamil Nadu and West Bengal for exporting, instead of engaging directly in the export business due to the lack of understanding of rules and procedures for exporting. Further, it was also noted that lack of clarity about the procedures for obtaining certifications required for exporting to regulated markets is prohibiting entrepreneurs from entering the export arena. The need for awareness related to sanitary and phytosanitary (SPS) measures, particularly for agro products exports, as also the Codex Alimentarius international food standards, guidelines and codes of practices, was also highlighted in the District Export Action Plan of West Godavari District⁸⁴.

There is clearly a need to create awareness among exporters about export procedures, regulations and standards related to various products, as well as the procedures to obtain clearances and certifications for exporting to the more regulated markets. Recognising this, the State Government, under the AP Export Promotion Policy 2022-27, plans to develop an exclusive web-portal to provide single point access to information related to exports from the State. This will be helpful in bridging the information gap and creating awareness among exporters. In addition to this, the State government could also conduct regular district-level Workshops / Seminars / Conferences on different aspects of international trade and across different sectors. Industry associations and agencies, in coordination with the proposed State Export Promotion Council (discussed later) can help in organising such programmes. For instance, in order to impart training to farmers and agro exporters regarding SPS measures, the Codex Alimentarius international food standards and other regulations, the State could collaborate with APEDA for conducting district-level workshops for exporters in the State. Training and awareness drives could also be conducted in major production hubs for dissemination

⁸⁴ District Export Action Plan of West Godavari District, 2020

of information pertaining to the certifications required for exports, including process of application and support provided by the Government of Andhra Pradesh.

Reimbursement of Certification Costs

Adhering to standards and obtaining the requisite certifications entail considerable cost to the exporters, due to which many small players may be unable to access the international market.

With a view to improve market access for existing exporters, the State Government, in the AP Export Promotion Policy 2022-27, plans to provide refund of expenses incurred for obtaining statutory certifications like Conformite Europeenne (CE), China Compulsory Certificate (CCC), Good Manufacturing Practices (GMP), Phytosanitary certifications, etc., to the extent of 50 percent, subject to a ceiling of ₹ 2 lakh per exporting unit. An additional 5 percent subsidy would also be extended to MSME exporting units run by women, and individuals of reserved communities, under the export promotion policy. This would certainly help promote exports from high technology sectors in the State. In addition to the above, to encourage exports of pharmaceuticals, the State government has also proposed reimbursement of expenditure incurred on obtaining certificate of WHO-GMP to the extent of 50 percent, subject to a suitable ceiling per company, under its Export Promotion Policy.

To encourage medical tourism and provide foreign visitors with world class medical services in the state, the Government of Andhra Pradesh could provide incentives to hospitals in the state to get Joint Commission International (JCI) accreditation. The JCI is a US-based organization that evaluates hospitals on most rigorous international standards in quality and patient safety and provides healthcare accreditation. Andhra Pradesh has only 1 JCI accredited hospital, in the district of Guntur. To encourage more hospitals to get the JCI accreditation, the government could consider providing reimbursements of nearly 15-20 percent of the total expense incurred by the hospitals for getting the accreditation.

Besides, the State government could also make efforts to create awareness among aspiring and first-time micro and small enterprises (MSE) exporters in Andhra Pradesh about the 'Capacity Building of First Time MSE Exporters' (CBFTE) scheme of the GOI, and encourage exporters to avail benefits under the scheme. The Ministry of MSMEs, GOI has recently launched the CBFTE scheme, with a view to facilitate the internationalisation efforts of Indian MSEs and encourage MSEs to produce and offer products and services of international standards for the export markets. The scheme provides reimbursement of various costs incurred by first time MSEs exporters on their export shipments, including a) fees paid for Registration- cum-Membership Certificate (RCMC) for registration with Export Promotion Councils (EPCs); b) export insurance premium paid by MSEs; and c) fee paid on testing and quality certification acquired by MSEs to export products.

Enhancing Access to Finance

During India Exim Bank's interactions with exporters, it was noted that several small exporting firms in the State seldom avail export credit such as pre-shipment and post-shipment finance. It was noted that exporters instead wait for about 90 days to receive the payment or utilise the overdraft facilities available in banks. Thus, there is a need to create awareness amongst exporters and stakeholders in Andhra Pradesh about various financial and risk mitigation products through seminars and workshops. Apart from conducting knowledge sharing seminars, Andhra Pradesh government could also encourage exporters to access trade finance related information from various portals, including 'Exim Mitra' portal developed by Exim Bank. Exim Mitra offers diverse range of information, advisory and support services. The portal has a trade finance section wherein product details and location of select banks have been provided along with broad terms and conditions for availing the facilities from these banks. Exporters can also submit preliminary information for availing trade finance on the website, which is shared with partner banks and financial institutions.

Fiscal Incentives

One of the major reasons for producers to refrain from exporting is the high cost of export operations. Costs are high due to large capital investment required for generating adequate volumes for exports, compliance cost of certifications and standards, tariffs, etc. These costs affect the competitiveness of exporters. Fiscal incentives in the form of refunds/ reimbursements and concessions could be a major step for mitigating the cost burden and enhancing the competitiveness of exporters in Andhra Pradesh.

The state government could consider extending freight subsidy for subsidising the freight component in exports of key products from the State. Keeping in mind the budget considerations, district and product-wise schedule for eligibility of reimbursement and amount for reimbursement can be developed by the State for the freight subsidy, with special focus on districts that may be far from the ports. Several state governments provide such freight assistance for export promotion. For instance, the Government of Uttar Pradesh incentivises export-oriented units by providing subsidy on export cargo sent by air and subsidy on freight charges on gateway port. On similar lines, the Government of Punjab provides freight assistance to MSMEs in the state for export of goods manufactured by MSME, to the extent of 1 percent of Free on Board (FOB) value or actual freight (excluding government fee and taxes on transportation of goods from place of manufacture to the seaport and airport from where they are shipped), whichever is less, and maximum up to Rs. 20 lakh per annum⁸⁵.

Moreover, in order to assist manufacturers, particularly MSMEs, to acquire and evolve cutting-edge technologies, catalyse growth and compete in global market, technology acquisition support could also be extended by the Government of Andhra Pradesh. The State could consider setting up a Technology Acquisition Fund to provides firms with funds to improve product, process, and performance efficiency. The fund could be utilised for adoption of advanced technologies by export-oriented MSMEs in the State, including

⁸⁵ Fiscal Incentives for MSME units, Department of Industries & Commerce, Government of Punjab

Internet of Things (IoT), Robotics, and Additive Manufacturing etc. The State could consider reimbursement of up to 50 percent of the cost incurred in adopting technology from a recognised National Institute, subject to maximum limit per firm. Likewise, reimbursement of expenses incurred on plant and machinery/testing equipment for obtaining at least silver category status under the GOI's Zero Defect Zero Effect (ZED) scheme for MSME exporters, could also be considered by the State. Such support is also provided by the Government of Punjab for MSMEs in the State.

The state government could also consider retaining some of the fiscal incentives provided in its Export Policy 2015-2020, like the reimbursement of electricity duty up to a certain limit, particularly for product champion sectors identified in the study. This would help in reducing operating costs and improving export competitiveness.

Export Promotion Campaign

Export Awards

Rewards can be an indirect mechanism to encourage existing and potential firms to enhance their export orientation. To encourage and acknowledge exporters in Andhra Pradesh, export awards could be given for best performers across various key sectors such as agricultural and allied products, marine products, food processing, pharmaceuticals, chemicals, textile and garments, handloom and handicrafts, electronics, information technology, among others. A selection committee comprising officials from key government agencies and eminent industrialists can evaluate the applications for Export Awards, taking into consideration the value of exports, ratio of exports to sales, level of value addition, market orientation, adoption of best practices, product and process innovation, R&D activity, etc.

Capacity Building of Industrial Clusters

Industrial clusters often aim to provide specialised infrastructure and services that can be used by clustered firms, thereby reducing their individual

investment needs. Clusters also benefit from technological/ knowledge spillovers arising from geographical proximity, development of specialized skills and possibilities for flexible specialization. Clusters also facilitate better integration into GVCs as enterprises that participate in clusters, including SMEs, have the ability to join GVCs through the external linkages developed by the cluster. Moreover, enterprises can also achieve high level of competitiveness if they work in a cluster environment as this ensures complementarities, availability of common facilities, and collaboration through collective activities, including collective sourcing and marketing. Clusters can also engender adequate exportable surplus from entities which are otherwise unable to export on a standalone basis. In the Indian scenario also, development of clusters has proven to be advantageous in promoting the industrial growth across several industry sectors.

Andhra Pradesh already has a number of industrial clusters spread across an array of sectors, which are at various stages of development. In order to ensure continued progress across these industrial clusters, an essential initiative would be to develop a mechanism for assessing the performance of these clusters, in order to review the current status of the clusters and identify sectors/subsectors for developing new clusters. Such an assessment must cover aspects pertaining to prevailing infrastructure bottlenecks, as well as challenges in technological upgradation, access to skilled human resources, environmental sustainability, etc. The State Government could undertake such studies with support from the Central Government under the Market Access Initiative (MAI) scheme.

Upon assessment of the clusters, relevant capacity building activities can be undertaken by the state government, including construction/ upgradation of physical infrastructure, building institutions, setting up of quality certification labs, common facility centres, design centres, and development of human resources, among others. The State Government could avail financial support for capacity building activities under the Micro & Small Enterprises - Cluster Development Programme (MSE-CDP). As of April 4, 2022, only 10 projects under the MSE-CDP have been completed in Andhra Pradesh. This is low when compared to neighbouring states like Tamil Nadu (61 projects completed),

Kerala (20 projects completed) and Karnataka (15 projects completed) that have much higher utilisation of the programme⁸⁶.

Setting up a Brand Equity Fund

The AP Export Promotion Policy 2022-27 envisions the setting up of a dedicated fund with a corpus of Rs. 10 crore to support marketing of export produce and building market facilitation centers across all districts of the State. It is suggested that a part of this fund be set aside as a brand equity fund with an aim to build globally competitive brands for products originating from the state. The fund can assist in marketing the branded products from the State in the international arena. Export related brochures, interactive CDs, etc. can be created for popularising the products in the state in the international market.

Market Development Assistance

Market Development Assistance (MDA) Scheme of the Government of India assists exporters in undertaking their export promotion activities abroad. Entrepreneurs get funding for participating in trade delegations/ buyer-seller meets/ fairs/ exhibitions etc. These initiatives have proven to be helpful for exporters in their export promotion activities. A similar initiative at the state-level has been envisaged in the AP Export Promotion Policy 2022-27, whereby a 30 percent subsidy on ground rent will be extended to exporters for participating in international trade fairs. In addition, the state could also consider providing incentives at a fixed percentage of the export turnover to exporters for conducting regional/sectoral expos at the district level. Apart from this, the State government could also collaborate with the Ministry of Tourism, GOI for providing marketing assistance to entities engaged in niche tourism verticals.

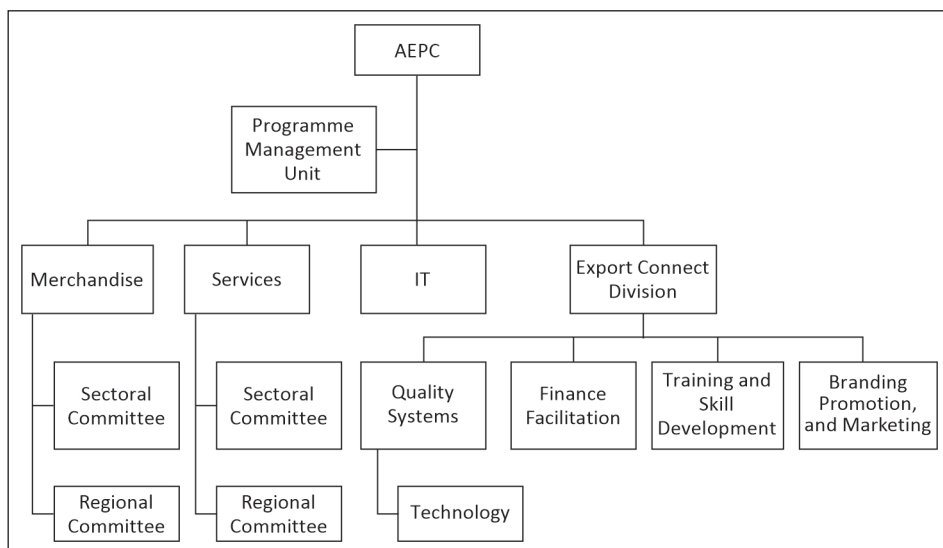
⁸⁶ Physical Status of MSE-CDP Interventions, April 2022, Development Commissioner, Ministry of Micro, Small & Medium Enterprises, Government of India

Institutional Streamlining

To streamline the activities pertaining to export promotion in the state, a single platform would be essential for exporters and stakeholders in the state. Currently, the State's institutional framework for export promotion and facilitation involves a multitude of departments, committees, and agencies. Andhra Pradesh has a State Export Promotion Committee to resolve issues pertaining to export promotion, including speedy customs and state clearances. Apart from this, the AP Trade Promotion Corporation (APTPC) works as a dedicated export facilitation cell to provide guidance and support services to exporters. As per the AP Export Promotion Policy 2022-27, the State Government aims to work through the APTPC to extend marketing support to exporters. Besides these, the State has also put in place district-level mechanism such as district-level export facilitation cells, as well as district industrial and export promotion committees. There is a need for the overall institutional ecosystem in Andhra Pradesh to be re-framed in a manner that facilitates the various schemes proposed for exports, allows regular monitoring of the proposed targets, and thereby propels the state to a higher export trajectory. In this context, the State could consider streamlining and strengthening the institutional structure for export promotion at the state-level through setting up of the Andhra Pradesh Export Promotion Council (AEPC) under the Department of Industries, Government of Andhra Pradesh, with the objective of ensuring strong export performance for the state. The AEPC could be set up with the participation of the state government, exporters and industry associations. It would also provide a forum for exchange of views, sharing of information, identifying obstacles faced by the exporters and implementing mechanism to overcome them.

The proposed structure of the AEPC has four key operational areas – merchandise exports division; services exports division; export connect division; and information technology (IT) division (Exhibit 9). Apart from this, a Programme Management Unit (PMU) could also be set up for integrating the various functions of the AEPC. The functions of the various divisions would be:

Exhibit 9: Structure of the Andhra Pradesh Export Promotion Council



- 1. Merchandise and Services Divisions:** The merchandise wing of AEPC could focus on merchandise export segments by coordinating with state bodies, exporters, etc., while the services wing could focus on services segment such as IT and tourism. These wings would largely be composed of government officials, who would outline strategies for ensuring that the targets are met in their respective areas. These shall also provide advisory services to exporters.

The Merchandise and Services wings could in turn be composed of sectoral committee and regional committee. The sectoral committee could manage the delivery of export promotion products and services to the exporting sectors, while the regional committee could work with the trade and commerce related offices located in India and abroad through the Embassies/ High Commissions, Export Promotion Councils, India Exim Bank and other chambers of commerce and industry. The sectoral committee could inter alia, focus on application for GIs, assessing applications under the proposed brand equity fund, and providing support to exporters for availing benefits under the proposed technology acquisition fund. The regional committee could inter alia,

focus on the proposed market development assistance programme, and reimbursement of costs for certifications required for exports to various markets.

2. Export Connect Division: This could offer critical export-related support services and could comprise separate divisions for each of the support services – quality systems; technology; finance facilitation; training and skill development; and branding, promotion and marketing. The Division could comprise subject experts. The functions of the various segments within the Export Connect Division could be:

- **Quality Division:**
 - ✦ Enhancing focus on quality control and inspection protocols.
 - ✦ Disseminate the key inputs to export stakeholders.
 - ✦ Provide input to the regional committee on standards and certification.
- **Technology Division:**
 - ✦ This shall have linkages with the quality division, and will include subject matter experts who will work with export stakeholders for boosting the technology and innovation quotient.
 - ✦ Disseminate information on value addition, and use of technology for enhancing competitiveness of local products/ services.
 - ✦ Provide inputs to the sectoral committee for its support to companies applying for technology acquisition funding.
- **Training and Skill Development Division:**
 - ✦ Work with the National Skill Development Council, Andhra Pradesh Academy for Skills Excellence, Sector Skill Council, and State-level institutes to build export relevant skills in the state.
- **Finance Facilitation Division:**
 - ✦ Disseminate information on procedures to avail export finance and guarantee.

- Branding, Promotion and Marketing Division:
 - ✦ Work towards improving the branding and marketing of local products.
 - ✦ Provide inputs to the sectoral committee for financing under the proposed brand equity fund.
 - ✦ Advise the sectoral committee on application of GIs.
 - ✦ Advise the regional committee on financing under the MDA scheme.

3. **IT Division:** The IT division could manage systems for providing information to stakeholders in a timely manner. For this purpose, a comprehensive and interactive website for exporters could be developed and managed by the division. This portal could enable exporters to improve their know-how and access information pertaining to markets, finance, export promotion programs, event details, etc. The website could comprise information and data pertaining to exports including inter alia monthly/ quarterly trade journal; Hand Book on export procedures and documentation requirements; list of available export logistics and export infrastructure facilities; potential products and markets for exports from the state; export guidance FAQs; relevant application forms/ form formats; tariffs; details of export/import duties; and links to various Export Promotion Councils, Commodity Boards, related Government Departments / undertakings, among others. Advisory services can also be provided through the portal. The website could also contain online training modules for exporters, as well as updates on upcoming skill development programmes in the State that may be of relevance for exporters.

4. **Program Management Unit:** The PMU could be set up to integrate all the functions of the various divisions of AEPC. The PMU could undertake continuous monitoring of the export targets, their achievements and key constraints for the same on a periodical basis, so that prompt corrective actions can be taken should there be a deviation from the projected targets. The PMU could also liaison with national export bodies on issues of importance.

Conclusion

Andhra Pradesh has the potential to achieve an exports target of US\$ 60 billion by 2027-28. While sectors in which the state is traditionally strong shall continue to be important from the exports perspective, there is a need to diversify the exports basket to impart resilience to exports from the state. In the short to medium term, the focus of the exports strategy should be on the product champions sectors where the state possesses comparative advantage. Alongside, the state needs to provide incentives for encouraging capacity building in the underachiever's products where the global market demand is growing but the state does not have comparative advantage in exports. The six-pronged strategy outlined in the study shall help enhance trade competitiveness, enhance value addition in the production cycles, create awareness about exports, promote innovation, increase visibility of Andhra Pradesh's exports, and create an institutional mechanism for nudging exports to a higher growth trajectory.

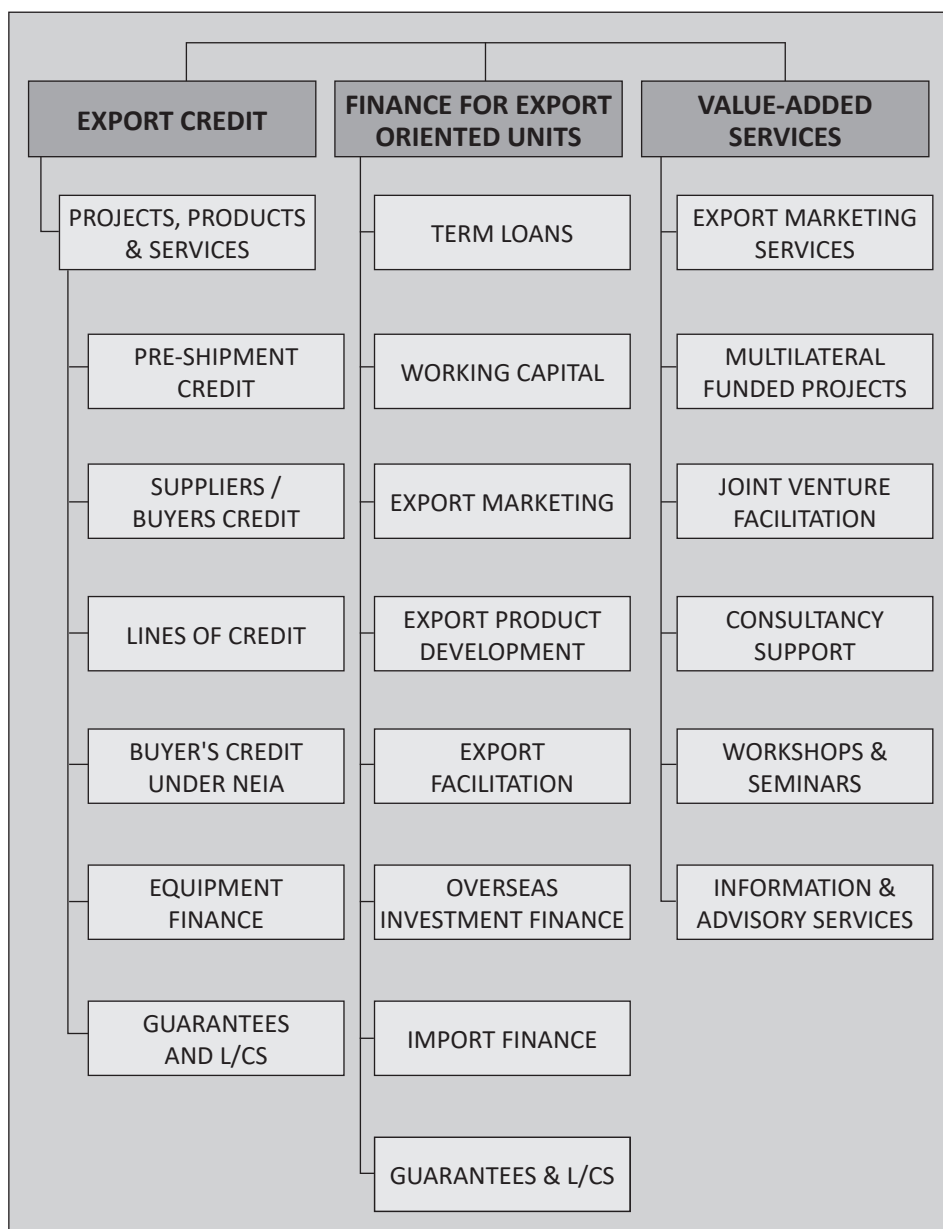
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Nariman Point,
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OVERSEAS OFFICES

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