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Impact of Facilitating Factors on Aqua Industries in Nellore district of Andhra Pradesh

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Abstract

The growth of aqua industries in Nellore District, Andhra Pradesh, has been remarkable over the past two decades, making the region one of India's leading aquaculture hubs. This research paper explores the facilitating factors that have contributed to the expansion and success of the aqua sector in the district. The study identifies key enablers such as favorable geographical conditions, including an extensive coastline, availability of brackish and freshwater resources, and suitable climatic conditions. In addition, infrastructural development, government support through fisheries policies and subsidies, and the presence of export-oriented processing units have significantly strengthened the industry's base.

Introduction

Aquaculture, also known as the aqua industry, is one of the fastest-growing sectors within India's agro-based economy, contributing significantly to food production, employment, and export earnings. Among the leading aquaculture regions of the country, Nellore district in Andhra Pradesh has gained national and international prominence for its large-scale cultivation of fish and shrimp. The district's unique geographical and ecological features—including a long coastline of about 100 km, vast stretches of brackish water, and favorable climatic conditions—make it exceptionally suitable for aquaculture development. Nellore's aqua industry has evolved rapidly over the past two decades, supported by government policies, technological innovations, and strong export linkages. The availability of quality seed hatcheries, feed mills, and processing units has further strengthened the aquaculture value chain. Moreover, proximity to major ports such as Krishnapatnam and Chennai facilitates international trade, making the district a key contributor to India's seafood exports.

In addition to its economic significance, the aqua sector in Nellore provides direct and indirect employment to thousands of rural households, contributing to livelihood

improvement and regional development. However, challenges such as disease outbreaks, environmental degradation, and market volatility continue to pose threats to sustainable growth. Therefore, understanding the facilitating factors and challenges in the aqua industry of Nellore district is essential for framing policies that promote sustainable aquaculture and long-term economic resilience.

Objective of the study

1. To analyse the impact of facilitating factors on Aqua industries in Nellore District.

Research methodology and Sample Design

The study covers the SSI units registered with the District Industries Centre, Nellore District as on 31-03-2025. For the purpose of selection of sample units, these SSI units are classified into eight categories of industries viz., agro-based, forest based, textile based, mineral based, engineering based, chemical based, leather based and miscellaneous categories. 300 units have been selected on the basis of stratified random sampling method giving equal importance to each of these eight categories of units. The sample works out to approximately 2 per cent of units in each category.

Collation of data

Survey method has been adopted for the study. The primary data required for the study were collected from the sample entrepreneurs with the help of a schedule designed for the purpose and through personal interviews. The schedule used for collection of information covered various aspects of entrepreneurial development in motivating factors. To elicit opinions of the respondents on various factors a five point scale based on likert's summated rating scale has been constructed. Secondary data were obtained from publications of the Government of India, Government of Andhra Pradesh, DIC, Nellore and other publications.

Facilitating Factors for Aqua industries

Opinions of 88 sample entrepreneurs of Agro based units with regard to various facilitating factors are presented in Table 1.

Among these factors the weighted mean scores for "financial assistance factors" (3.18), "technical assistance factors" (3.24), "infrastructure factors" (3.53) and "factors which helped to become an entrepreneur" (3.16) lie between 3 and 4 implying that entrepreneurs have agreed to a considerable extent about these factors whereas in the case of "factors leading to the present location" the weighted means score (2.80) lies between 2 and 3 showing that the entrepreneurs have agreed only to a moderate extent about this factor.

Table 1 Facilitating Factors for Agro-based Units

Sl. No.	Particulars	1	Wt	2	Wt	3	Wt	4	Wt	5	Wt	Total	Wt	Wt. mean score
1	Factors Leading to Present location													
1.1	Nearer to residence	2	2	30	60	41	123	11	44	4	20	88	249	2.83
1.2	Own land	12	12	48	96	13	39	13	52	2	10	88	209	2.38
1.3	Infrastructural facilities	4	4	13	26	49	147	21	84	1	5	88	266	3.02
1.4	Availability of raw materials and cheap labour	3	3	24	48	16	48	37	148	8	40	88	287	3.26
1.5	To cater to local demand	5	5	25	70	32	86	16	64	0	0	88	215	2.44
1.6	Absence of competition	4	4	29	58	32	96	20	80	3	15	88	253	2.88
1.7	Govt. Policies for location	15	15	21	42	26	78	23	92	3	15	88	242	2.75
1.8	Facilities offered by financial institutions	3	3	24	48	33	89	25	90	3	15	88	245	2.78
	TOTAL	48	48	224	448	242	706	166	654	24	120	704	1976	2.80
2	Financial Assistance Factors													
2.1	Asst. from Govt. & Financial Corporation	4	4	33	66	35	105	10	40	6	30	88	245	2.78
2.2	Asst. from Nationalised Commercial banks	5	5	10	20	14	42	47	188	12	60	88	215	3.58
2.3	Asst. from Private Commercial Banks	4	4	13	26	5	15	31	124	35	175	88	344	3,91
2.4	Asst. from Money lenders	5	5	49	98	16	48	10	40	8	40	88	231	2,63
2.5	Asst. from Family members/ relatives	7	7	17	34	40	120	21	84	3	15	88	260	2.95
2.6	Asst. from Friends	5	5	9	18	16	48	43	172	15	75	88	318	3.61
2.7	Asst. from Co-operative banks & other agencies	13	13	27	54	23	59	15	60	10	50	88	246	2,80
	TOTAL	43	43	158	316	149	447	177	708	89	445	616	1959	3,18
3	Technical Assistance Factors													
3.1	Asst. from Government Agencies	5	5	27	54	38	114	14	56	4	20	88	249	2.83
3.2	Asst. from Non-Govt. Agencies	0	0	12	24	17	51	49	196	10	50	88	321	3.65
	TOTAL	5	5	39	78	55	165	63	252	14	70	176	570	3.24
4	Infrastructure Factors													
4.1	Accommodation	4	4	14	28	48	144	18	72	4	20	88	268	3.05
4.2	Power	3	3	18	26	15	45	39	156	13	65	88	305	3,47
4.3	Transport	0	0	18	36	43	129	21	84	6	30	88	279	3,17
4.4	Communication	2	2	9	18	18	54	35	140	24	120	88	334	3,80
4.5	Storage	0	0	8	16	25	75	26	104	29	145	88	340	3.86
4.6	Water	2	2	3	6	26	78	37	148	20	100	88	334	3,80
4.7	Insurance	0	0	8	16	35	105	27	105	27	108	18	90	88
319	Marketing	0	0	15	30	42	126	23	92	8	40	88	288	3.27
4.9	Banking	2	2	14	28	11	33	42	168	19	95	88	326	3.70
	TOTAL	13	13	107	214	263	789	268	1072	141	705	792	2793	3.53
5	Factgors which Helped to Become an Entrepreneur													
5.1	Education	3	3	23	46	43	129	16	64	3	15	88	257	2.92
5.2	Training/Experience	5	5	23	46	22	66	30	120	8	40	88	277	3.15
5.3	Technical know-how	13	13	42	84	20	60	9	36	4	20	88	213	2.42
5.4	Professional experience	16	16	30	60	20	60	16	64	6	30	88	230	2.61
5.5	Government policy	11	11	25	50	26	78	19	76	7	35	88	250	2.84
5.6	Trade information	1	1	11	22	34	102	38	152	4	20	88	297	3.38
5.7	Capital	1	1	8	16	9	27	39	156	31	155	88	355	4.03
5.8	Help from other entrepreneurs	2	2	18	36	5	15	25	100	38	190	88	343	3.90
	TOTAL	52	52	180	360	179	537	192	768	101	505	704	2222	3.16

Source: Field Survey
Wt: Weighted Score

The analysis of eight items under "factors leading to the present location" reveals that weighted mean scores varied between 2 and 4 with regard to 'availability of raw material and cheap labour' (3.26) and 'infrastructure facilities' (3.02) indicating that these is considerable extent of agreement about these items. For the remaining six items the mean scores varied between 2 and 3 implying that there is the responses agreement to a moderate extent agreement only.

Out of seven items considered under "financial assistance factors", for three items viz., 'assistance from private commercial banks' (3.19), 'assistance from friends' (3.61), 'assistance from nationalized commercial banks' (3.58), there is agreement to a considerable extent as revealed by the mean scores which lie between 3 and 4. Remaining four items (items 2.1, 2.4, 2.5 and 2.7) the opinion indicating that is agreement to a moderate extent.

It is observed that in the case of "technical assistance factors", 'assistance from non-government agencies' (3.65) is more important than 'assistance from Government agencies' (2.83).

All the nine items considered under "infrastructure factors" have mean scores between 3 and 4 indicating that entrepreneurs have agreed to a considerable extent about all these items. Among "factors which helped to become entrepreneur", 'capital' has highest weighted mean score (4.03) indicating that agro-based entrepreneurs agreed about this aspect to a great extent. For 'training/experience' (3.15), 'trade information' (3.38) and 'help from other entrepreneurs' (3.90), there is agreement among entrepreneurs to a considerable extent and for other items ('education', technical know-how', 'professional experience' and 'Govt. policy') the responses as reveal agreement to a moderate extent only.

Summary

The analysis of factors influencing entrepreneurship highlights varying degrees of agreement among respondents. Under location factors, availability of raw material, cheap labour (3.26) and infrastructure facilities (3.02) received considerable agreement, while the remaining items showed only moderate agreement. For financial assistance factors, support from private banks (3.19), friends (3.61), and nationalized banks (3.58) were considered important to a considerable extent, whereas other sources reflected moderate agreement. In terms of technical assistance, non-government agencies (3.65) were rated more significant than government agencies (2.83). All nine infrastructure factors were found to have considerable importance, with mean scores between 3 and 4. Regarding factors aiding entrepreneurship, 'capital' (4.03) was rated the highest; showing strong agreement, while training/experience (3.15), trade information (3.38), and help from other entrepreneurs (3.90) also received considerable importance. Other elements like education, technical know-how, professional experience, and government policy reflected only moderate agreement.

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