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Start up and Aquaculture challenges in Raigad District of Maharashtra, India.

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ABSTRACT: - Since last few decades, due to globalization and advancement in technology competition for self – employment has been increasing day by day rapidly. Also, India is second most populous country and due to large population pressure it is a need of hour to develop entrepreneurial skill among the people. Hence, Government launched Start up India Plan to support young, inspiring and innovative entrepreneurs. This Paper aims to investigate the challenges and Opportunities in the way of startups in Aquaculture in Raigad district of Maharashtra, India. This paper is intends to explore the major difficulties faced by Start up in Aquaculture in Raigad district of Maharashtra, India, and discuss the various opportunities of Start up in the study area for sustainable aquaculture.

Keywords: Aquaculture, Innovative, Start - ups, Raigad – District

I. Introduction

Actually, there is no clear definition of a "Start-up" in India due to its subjectivity and complexity. But some conceptual definitions are there in consideration with the parameters of business like the stage of their lifecycle, the amount and level of funding, the amount of revenue, the area of operations etc.
A Start-up is a young company that is beginning to develop and grow, is in the first stages of operation, and is usually financed by an individual or small group of individuals

A Start-up is a young, dynamic company built on technology and innovation wherein the founders attempt to capitalize on developing a product or service for which they believe there is a demand.

The Indian government has announced start up India programme on 15th August, 2015 to promote entrepreneurship and job creation.

II. Review of Literature

It is important for the expansion and extension of new start-ups. According to Ensley, Hmieleski and Pearce (2006) the descriptive value of shared leadership goes over the vertical leadership.

Bosma, Praag, Thurik and Wit (2002) have presented a detailed study of firms investing in the human and social capital for improving the performance. They also explained that one cannot be sure

about the favourable aspect, due to investing or somewhat due to the innovative entrepreneurs put more in their human and social capital. They also found that an individual entrepreneur who is more skill full in the industry perform well than the others. And finally, they conclude that investing in human and social capital increase the entrepreneur's performance.

Sharma (2013) made a study on women entrepreneurs in India. She concluded that women entrepreneurs face many problems like social barriers, legal aspects, lack of education, family support etc. She also explained the various factors like pull and push factors affecting entrepreneurship. According to her women have the probable and firmness in setting up the enterprise and fighting against the all odds.
Goyal P. (2011) in their research paper concluded that at present the position of entrepreneur is better than before. Economies are taking the efforts to make and enhance the entrepreneurship. Government is providing the awareness and necessary steps taken up by them. Start-ups must be configured properly with the business expertise to encounter the latest trends and changes in the environment and capable enough for aspiring the supremacy in the entrepreneurial coliseum.

Caliendo, Kunn, Wiebner and Hogenager (2015) found the difference between subsidized start-ups out of unemployment and non-subsidized start-ups out of non-employment. It reveals that the initiator of the subsidized start-ups have no lack of conventional education, although, they have less employment and less exposure to the industry.

After reviewing the literature, researcher has found that there is an absence of research on the problems and solutions on Start-up of Aquaculture in the Raigad District of Maharashtra, India.

III. Hypothesis

The Policymakers have defined, the policies on Start – ups taking into consideration the very wide aspects. However, the entrepreneurs in Aquaculture do not properly forecast the problems and hurdles which may arise in the future and therefore; naturally the proportion of failures in this type of business is higher.

IV. Methodology and Objectives

The present study is based on literature searches and analysis of primary and secondary data gathered from satellite images, toposheet and field observations, websites, newspapers, magazines, Government reports, books, research papers etc.

To identify increasing aquaculture activities in the study area Landsat ETM 2004, 2005 and LISS III 2010, 2011 and 2015 satellite data sets are used. The survey of India (SOI) topographical maps 47 – B/15, 47 – F/3, 47 – F/4 with scale 1:50000 have been used.

The study is based on following objectives:

1) To study the Start-up policy of India

2) To study the influence of government cooperation

3) To study the various policies, programs, and agencies involved in enhancing the start-ups in Aquaculture

4) To analyse the important problems faced by the start-ups in Aquaculture

V. Aquaculture Scenario in Raigad District

Aquaculture is a type of agriculture which includes cultivation and marketing of aquatic organisms in enclosed ponds under controlled or semi - controlled conditions. It is considered to be the large-scale husbandry of rearing of aquatic organisms for commercial purposes. The goal of aquaculture is to increase production with minimum input costs for getting higher profits.

Sea food or fisheries are intended for higher source of protein for world's growing population. Aquaculture is set to become an important source of sea food products and is already becoming an important factor in world's fish market. India ranked second place in Asia for the Aquaculture production and development. In spite of environmental damages due to improperly run aquaculture projects, practices like right management and precautions can help aquaculture farms to operate with minimal environmental impact.

But, there is no organised and sustainable shrimp farming along the Rajapuri creek. Due to which many farms have been suffered with the diseases and got closed. Hence, the present study is undertaken to assess the impacts of unorganized shrimp farming on the environment. Also the improved eco-friendly farming practices are to be suggested which will be economically viable, environmentally sound and socially acceptable.

VI. Study Area

The study area comprises Rajapuri creek of Raigad district of Maharashtra, India. The area is situated on the western side of the district facing the Arabian sea which geographically lying in between 18° 15' N latitude and 73° 04' E longitude (Fig.1). The area under study is Rajpuri creek on Maharashtra coast. The creek is located on the southern shore of Raigad district. The total length of this creek is 30km. The vertical tidal range of the creek is 3m. The creek has number of mud flats and extensive mangrove area. The banks of the creek are covered by narrow shoreline terraces with 5 to 6 meters above the low water line. These terraces and mud flats are reclaimed for the development of aquaculture ponds. Aquaculture and other industries are discharging partially treated effluents into the creek (Maharashtra pollution control board 2004-2005). The aquaculture activity is increasing at a faster rate along the Rajapuri creek. Businessmen are getting huge profit from this activity and are seen only as a currency. If the expansion of the aquaculture is not regulated then it will create long term impact on the water body as well as coastal environment.

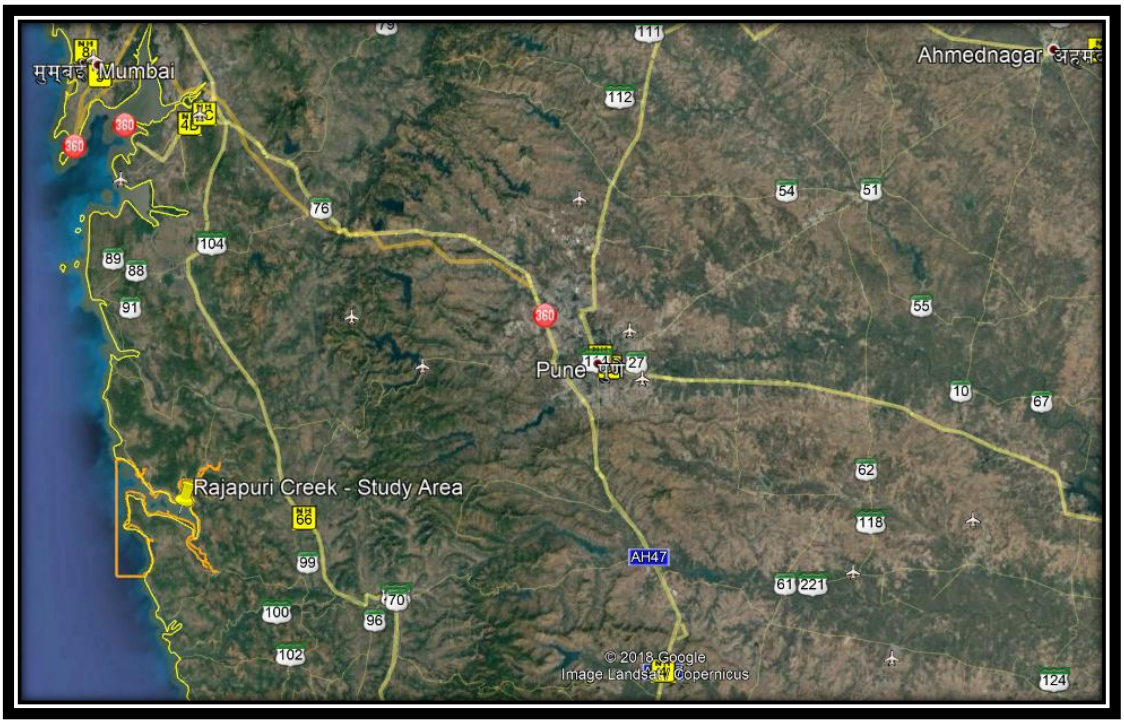


Figure: 1 – Location of study area

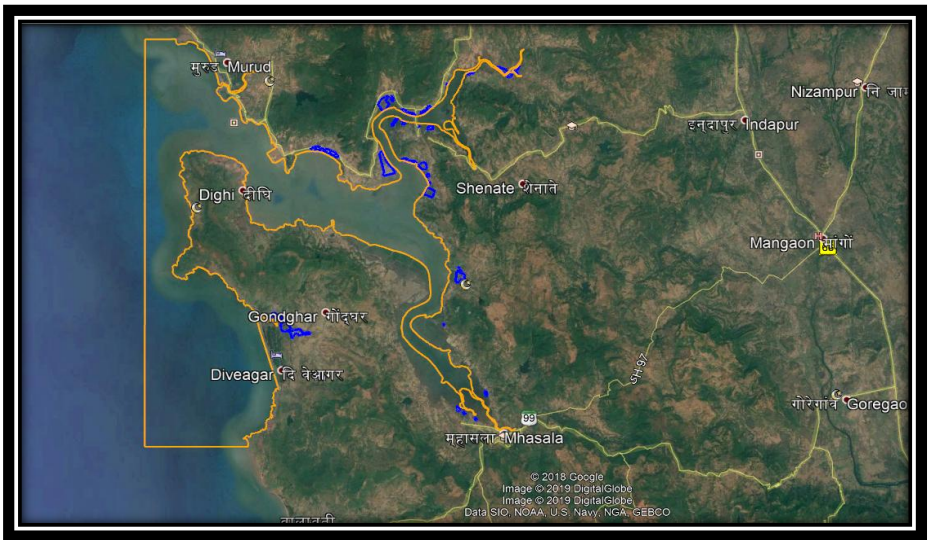
VII. Result and Discussions

The total number of farms surveyed in the study area is 42. Most of the farms are under the lease of Government of Maharashtra and rest ponds are owned the respective company with government subsidy. The field study shows that the there is a rapid increase in the count of Aquaculture ponds in the study area since the year 2010 to 2015. Earlier, since 2005 there were government subsidy for Aquaculture activity but from 2010 government has taken more interest to support and increase the government subsidy to the Aqua farmers.

For the best Aquaculture Pond construction, it requires intertidal mud flats along the creek, narrow shoreline terraces with 3 to 6 meters above low water line and brackish water supply. These all parameters are there along the Rajapuri creek area. Intertidal area contains extensive mud flats along the Rajapuri creek area and these mud flats are considered as a best site for Aquaculture activity. These areas have suitable salinity and easy discharge of waste water. Due to these parameters and increased rate of government subsidy, the Aquaculture growth along the Rajapuri creek area has been increased in three folds. Hence, very close Aquaculture ponds have been seen the study area.

The rapid growth of shrimp aquaculture in an unregulated manner was due to interest taken by government agencies and corporate sectors that promoted the technology with large investments without any master plan. This uncontrolled and unscientific growth of farms growth was responsible for many environmental as well as financial problems like spread of diseases from one pond to another pond which also causing problem to aquatic animals in the surrounding areas. Also, these diseases can be spread into the adjacent ponds of the same farm. So, it's quite impossible to wash out the spread of diseases and to run the farms successfully. Ultimately it leads to heavy financial losses which forced many farmers to close down the ponds in the study area. If the system runs successfully in that case farmer could earn around Rs.1 lakh from an acre annually.

It appears from the field studies that the area of Rajapuri creek is most favourable for brackish water fish farming. There are some regions where coastal fish farming is profitable such as Mud flats, Mangroves, and Shoreline terrace etc. The site selection should normally be area specific considering ecology and carrying capacity of that region to avoid the further losses.



Blue Polygons – Aquaculture sites

Figure: 2 – Aquaculture sites in the study area

VIII. Concluson

At present, Start-ups are growing like a grape wine. Both male and females are getting into it. Rather than males, females are coming with more ideas and they are taking the risk to sustain their credibility. Indian start-ups attempt to build the start-up environment with important education, talent, innovation and incubators with correspondence to funding agencies. Now the government is also supporting the Start-ups.

Aquaculture activity is contributing to food security and provides many benefits like income and employment generation (Paul and Vogl, 2011; Schumann et al., 2011; Slater et al., 2013; Smith et al., 2010). However, the rapid global expansion of aquaculture industry has caused transformation of large areas of valuable coastal and inland environments with subsequent loss of goods and services provided by natural resource systems (Patnaik and Narendra Prasad, 2011).

White spot Syndrome Virus and the Yellow head Virus are among the most dangerous diseases in aquaculture. These diseases are responsible for the closing of most of the ponds on the eastern banks of the Rajapuri creek. The main reason behind it is the nearness of ponds and partially treated wastewater from the ponds. Hence this disease causes huge production losses in the study area.
With the help of ground surveys and interviews it can be concluded that, aquaculture has caused tremendous land use changes since 2005 in the study area. Historical satellite data gives a clear picture of the expansion of aquaculture sites in the study area and how these expansions affect the coastal environment.

Researcher has surveyed total 42 Aquaculture sites out of which 18 sites have been closed. It means that 23.33% sites have faced failure. This proves that the hypothesis "The Policymakers have defined, the policies on Start – ups taking into consideration the very wide aspects. However, the entrepreneurs in Aquaculture do not properly forecast the problems and hurdles which may arise in the future and therefore; naturally the proportion of failures in this type of business is higher" is positive. Researcher also finds that Start – up in Aquaculture is increased but due to absence of proper forecasting which leads to the failure of the Start –up in future.

Although, Entrepreneurs are facing problems due to lack of management and information about technologies, still they can rise like a sun. If they will follow the sustainable or eco-friendly way of farming then they can definitely achieve their goals and contributing towards the development of the economy of the country and we will definitely experience the Blue revolution in near future. Hence, the ultimate goal should be the development of natural resource in a manner that ensures a sustainable increase in the level of social and individual welfare as well as coastal environment.

IX. References

1. **Bosma N., Praag M., Thurik R. and Wit G.(2002): "The value of human and social capital investment for the business performance of start-ups".**
2. **Carter, R. W. G. (1988): Coastal Environments - An Introduction to the Physical, Ecological and Cultural Systems of Coastlines, Academic Press Limited, London.**
3. **Caliendo M., Kunn S., Wiebner F. and Hogenacker J. (2015): "Subsidized start-ups out of unmployment: A comparison of regular business start-ups, IZA Discussion Papers".**
4. **Dhavalikar, L. (2000): Use of IRS - IC image in the identification of suitable aquaculture site. A case study of Kochare creek, Maharashtra, in Applications of Remote Sensing Techniques, a special issued Karlekar, S.N. Maeer's MIT Pune Jr. pp. 37 – 42.**
5. **Dutta A. (2016): Start-up initiative.**
6. **Ensley M., Hmieleski K. and Pearce C. (2006): "The importance of vertical and shared leadership with in new venture top management teams: Implication for the performance of the Start-ups".**
7. **Goyal M. and Prakash J. (2011): "Women entrepreneurship in India-problems and prospects", Zenith International Journal of Multidisciplinary Research,1(5).**
8. **Jain S. (2016): Growth of Start-up ecosystems in India.**
9. **Kanojia P. K. (2009): M. Phil Unpublished Thesis**
10. **Karlekar, S.N. (1995): The Morphological assessment and the scheme for the development of Kharlands of Mhasala creek, Maharashtra.**
11. **Karlekar, S.N. (2000): A Geographic assessment of the potential prospect of aquaculture in Majgaon Creek on Konkan coast, Indian Journal O Geomorphology, Volume 5, Number 1 & 2, pp. 161 -167.**
12. **Kirk, R. (1987): A history of Marine fish culture in Europe and North America, Fishing books Ltd., England.**
13. **Kutty, M.N. (1980): Aquaculture in South East Asia, pp. 159 – 168.**
14. **Landau, M. (1992): Introduction to aquaculture, John Wiley and Sons, pp. 3 -38.**
15. **Niti Aayog, Report of the Expert Committee on Innovation and Entrepreneurship, 2015.**
16. **R.S.R.R. (1980): Ratnagiri Sindhudurg Resource Region, Vol.1, paper, pp. 62 & 63.**
17. **Rhodes, R. (1986): Status of world aquaculture, Aquaculture Magazine, Buyer"s Guide, pp. 62 - 63.**
18. **Robbins S.(2009): Organizational Behavior, Motivation concepts, (India :Pearson Education, 2009), 194.**
19. **Sharma Y. (2013): "Women entrepreneur in India", IOSR Journal of Business Management,15(2), 2013.**
20. **Survey of the environment (1998): The Hindu publication Page 29.**
21. **The Hindu, 2016.**
22. **Vivekanandan, V. and Kurian, J. (1980): Aquaculture - Where greed overrides need, in The Hindu, Survey of the environment, Chennai, pp. 27- 29.**
23. **Wheaton, F.W. (1977): Aquacultural Engineering, New York: John Wiley & Sons.**