EXTENT OF ADOPTION OF AGRO- ENTERPRISES BY WOMEN AGRIPRENEURS AND CONSTRAINTS FACED DUE TO THE CLIMATIC SEVERITY IN COASTAL ODISHA, INDIA

ABSTRACT

Women agripreneurship development became an essential part of human resource development. It makes the women financially independent and enhances the self esteem of them. Technological interventions and climate-resilient farming are helping them navigate the barriers to their recognition. Living in the disaster-prone area of Odisha, women farmers have been attempting to minimise the impact of cyclones on their farms by implementing practices learned in a training from agricultural scientists. The present study has been conducted to know the extent of adoption of agricultural enterprises by women agripreneurs of Coastal Odisha and it also determine climatic constraints. The study has been conducted in two districts of Odisha that are Balasore and Jagatsinghpur. Total 210 women agripreneurs were included in the study. Total sample size for the present study was 210. Result shows that in the research area Crop production enerprise is the highly adopted enterprise with a mean score of 2.00 and gap percentage of 33.34 where the fishery enterprise is the least adopted enterprise with a mean score of 1.19 and gap percentage of 60.15 . Among the constraints incidence of flood and cyclone emerged as the main constraint.

KEYWORD: Agripreneurship, Extent of adoption, Gap percentage, Climate

INTRODUCTION:

Agriculture sector provides diversified opportunities like Organic farming, Agro based industries, farm mechanization, post- harvest processing, synthesis of bio fertilizers like vermi composting, medicinal plant farming, pickle production, floriculture, mushroom cultivation so on. Furthermore, an important allied sector of agriculture i.e. Veterinary and Animal Husbandry Sector provides opportunities for dairy farming, poultry farming and other livestock farming along with other allied sectors like honey bee rearing, fishery etc. These are the innovative ways to take agriculture as a means of commercialization and profitable venture. Opportunities are not lacking, concern is proper implementation of those. The geo-climatic setting of the Odisha coast is prone to natural calamities like cyclones, storm surges, inundation, along with changing sea level, which indicates a higher level of coastal vulnerability. Climate-induced natural hazards are frequent on the Odisha coast, which leads to adverse impacts on life and property and intensive crop damage. The frequent natural hazards and sea-level rise are accelerating the probable impact from severe storm surges and high waves in the future. Odisha are very dynamic and complex. Like other coastal areas, the entire coastal system is based on complex multifunctional

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systems (Richards and Nicholls, 2009; Dube et al., 2000). A lot of human-centric socio-economic activities are happening in these areas. The susceptibility includes increasing frequency and intensity of cyclones, Strom surges and coastal floods. The significant effects of climate change in the coastal areas are sea-level rise and changes in precipitation and temperature. Global climate change and Sea Level Rise accelerate the existing risk of storm surges and severe waves in the future (Hazra et al., 2022). Living in this disaster-prone area, women farmers have been attempting to minimise the impact of cyclones on their farms by implementing practices learned in a training from agricultural scientists (Elakkiya and Sujeetha, 2018). Women farmers needed to be aware, motivated and trained about these various agripreneurial opportunities and skilled to manage those, which will solve the purpose of women empowerment in terms economic and socio-cultural aspect as well as will make agriculture more attractive and lucrative.

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MATERIALS AND METHODS:

The objective of the study was to analyse the extent of adoption of agricultural enterprises. The study was conducted in two district viz. Balasore and Jagatsighpur of Odisha. 210 women from the above two coastal districts were included in the study. Purposive sampling method and random sampling method were used in the study. Here the ex-post facto research design was followed.

Data were collected through personal interview method using semi structured interview schedule

Measurement of variables:

Statements were formed from review of literature and by consulting the exports on the management practices that should be practiced in the agricultural related enterprises. Then score was given (0 if the respondent do not follow thr practice and 1 if she is following the practice). Then they are divided to 3 categories that were not adopted, adopted and partially adopted on the basis of mean and SD.

Then mean score and gap percentage was calculated.

MS=
Σ
Where, M.S. = mean score
$\Sigma x =$ Sum of total score obtained by the individual
N = Total no. of items / respondents

Gap percentage= (Maximum score- obtained score)/Maximum score *100

Constraints faced due to the climatic condition for adoption of Agro enterprises were studied using the 3 point continuum scale. Then rank was given according to the mean score.

RESULT AND DISCUSSION

Table 1 Distribution of respondents according to their extent of adoption of agricultural enterprises

Name of the enterprise	Not adopted		Partially adopted		Fully adopted		Mean score	Gap percentage
	F	P	F	P	F	P		
Dairy	105	50	60	28.57	45	21.43	1.71	42.86
Poultry	80	38.09	82	39.05	48	22.86	1.84	38.42
Fishery	176	83.80	27	12.86	7	3.34	1.19	60.15
Mushroom	140	66.67	48	22.86	22	10.47	1.44	52.06
crop	52	43.34	106	50.48	52	43.34	2.00	33.34
Horticulture	71	33.80	94	44.77	45	21.43	1.87	37.46
Value added	138	65.71	60	28.57	12	5.72	1.40	53.33

Adoption of the agro enterprises depends on the feasibility, compatibility, sustainability and profitability of the enterprises.

From the table it was observed that in the research area Crop production enerprise is the highly adopted enterprise with a mean score of 2.00 and gap percentage of 33.34 where the fishery enterprise is the least adopted enterprise with a mean score of 1.19 and gap percentage of 60.15 . The mean score of Dairy enterprise, Poultry Mushroom enterprise, Horticultural enterprise and value added enterprise is 1.71,1.84, 1.44,1.87 and 1.40 respectively with a gap percentage of 42.86,38.42,60.15,52.06,37.46 and 53.33 respectively

From the above table it was observed that, availability of huge water resources is the most favourable factor among the 4 factor.

Table 3 Climatic constraints (n=210)

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Particulars	Agree	Undecided	Disagree	Mean score	Rank
Incidence of flood, cyclone every year	150	20	40	530	I
Increase in the temperature	100	50	60	460	II
Decreasing rainfall	90	50	70	440	III
Lack of awareness about the crop insurance scheme	60	70	80	400	IV
Bad weather condition preventing disesase of crop and animal	70	50	90	400	IV

From the table, it was observed that the most severe constraints was incidence of flood and cyclone every year among the four constraints enlisted here.

CONCLUSION:

Adoption of the agro enterprises depends on the feasibility, compatibility, sustainability and profitability of the enterprises. In the research area , most of the respondents adopt all the practices of crop production enterprises followed by horticultural enterprise and poultry enterprise. To increase the extent of adoption more training programmes should be conducted and the women farmers should be supplied with the necessary inputs.

REFERENCES

Dayaram, N., Margaret, B and Singh, M.K. 2014. Entrepreneurial behavior of farmers in Imphal district of Manipur. *Indian Journal of Extension Education*. 50(1&2):4-7

Dejong, P.J.,Parker, S.K.,Wennekers, S. and Chiahuei, W. 2015.Entrepreneurial behavior in organizations:does job design matter. *LSE Reseach Journal*. 39(4): 981-995.

Jaiswal, A and Patel , M.M. 2012. Entrepreneurial behavior of rural women . *Indian Research Journal of Extension Education.* 12(1): 55-59.

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Lahoti, S.R., Chole, S.R., Rathi, N.S.2012. Role of women in dairy farming. *Maharastra Journal of Extension Education*. 22(2): 81-85.

Malikadas , H. 2013.Women Entrepreneurs from India: problems, motivation and success factors. *Journal of Small business and Entrepreneurship.*7(3): 67-79.

Maziku, P., Annastazia, M. Robert, G.M.2014. The effects of Socio- cultural factors on the performance of women small and medium enterprises of Tanzania. Journal of Economics and Sustainable Development. 5(21):51-62.

Nagalakshmi , T., Sudhakar, M. 2013. Agripreneurs: A case study of Dharmapuri farmers. International Journal of Science and Research. 12(8): 208-214.

Norhan , A., Kalthum, H.,Rohana, Y.2014. A Preliminary study of Rural Women Entrepreneurs, characteristics and business success factors. *International Review Of Social Sciences and Humanities. 7(2): 172-181.*

Ram, D., Singh, M.K.,Chouddary, K.P.and Jayarani, l.2013. Entrepreneurial behavior of women entrepreneurs in Imphal district of Manipur. *Indian Research Journal of Extension Education.*13(2) 31-35.

Rasmi, G. 2010.Impact of women entrepreneurship development on families. A study on women run micro enterprises in selected districts of Maharastra. *Ph.D Thesis* , Padmashree Dr.D.Y. Patil University, Mumbai

Hazra S, Ghosh A, Ghosh S, Pal I, Ghosh T. Assessing coastal vulnerability and governance in Mahanadi Delta, Odisha, India. Progress in Disaster Science. 2022 Apr 1;14:100223.

Richards JA, Nicholls RJ. Impacts of climate change in coastal systems in Europe. PESETA-Coastal Systems study. Luxembourg: European Commission, Joint Research Center. JRC Scientific and Technical Reports, JRC. 2009 Dec;55390.

Dube SK, Chittibabu P, Rao AD, Sinha PC, Murty TS. Sea levels and coastal inundation due to tropical cyclones in Indian coastal regions of Andhra and Orissa. Marine Geodesy. 2000 Apr 1;23(2):65-73.

Elakkiya S, Sujeetha TN. Constraints faced by rural women self-help groups-an analysis in Theni district, Tamil Nadu. International Journal of Farm Sciences. 2018;8(1):28-30.

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