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## EMPOWERING SMALLHOLDER DAIRY FARMERS THROUGH TOURISM INITIATIVES: A SUSTAINABLE PATH TO ECONOMIC GROWTH

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India currently became the milk hub of whole world. Being the largest producer of milk and dairy products it contributes significantly in global supply chain of milk and dairy product. This rise of milk production throughout the nation has mainly started in 1970s with the strong visionary of Dr. Verghese Kurien. This Indian White revolution is generally the byproduct of continuous cumulative growth of small dairy farmers under the umbrella of the dairy Cooperatives. Those farmers who has at least small herd of 2-3 milking cows or buffalos are known as the small holder dairy farmers. They generally recognized as the backbone of Indian dairy sector.

After the green revolution Indian Agriculture and allied sector came across numerous achievements by adopting paradigm shift as well as changes along with the time. From traditional subsistence oriented, supply driven (seed to seed) farming approach to demand driven, market oriented participatory approach by farmers themselves, we came a long way. With technological innovation and farmers friendly govt policy delivery through strong extension network the agriculture and allied sector, especially dairy is moving slowly towards the motto of sustainability by promoting self-employment in dairy sector. In this way to make farming as well as dairy more profitable a new emerging concept called 'Dairy Tourism' evolved among the policy makers.

If we look at the overall tourism industry in India, mostly it has worth of 15.7 Rs 15.7 trillion in 2022 and the future predicted value will be Rs.16.5 trillion in 2023 as per the data released by World Travel & Tourism Council (WTTC). Dairy tourism aims to match this huge amount of potential by integrating and modernising dairy industry, dairy farms with tourism industry. Govt of India has taken innovative steps through the schemes like 'Dekho Apna Desh', 'Swadesh Darshan Scheme' and 'Vibrant Villages Programme' to promote the tourism sector and rural tourism.

## **The Significance of Smallholder Dairy Farmers**

Dairy products currently leading among the top ranked commodity in India. The contribution of small-scale dairy farmers is 62% of total milk produced in the country. There is an expectation that dairy industry of India will exhibit a CAGR of 13% during 2023-2028. The small holder farmers in dairy play the major key role in this growth. In the total supply chain of daily milk production by all the dairy cooperatives of different states and UTs small holder farmers act as the basic unit. India's small dairy farmers actively support the sector, which contributes significantly to the country's rural economy. It significantly affects the nation's economic progress. Due to the fact that small dairy farmers are essential to providing food security and the importance of dairying in India, it helps the rural population preserve their way of life and serves as a source of income.

## **Challenges Faced by Smallholder Dairy Farmers**

Challenges are the causes against the course of action and make the path harder for any individuals. As per the Indian dairy scenario some of the most acknowledged challenges faced by Indian small holder dairy farmers are listed below –

- Depends more upon traditional dairy farming practices.
- Lack of availability of doorstep A.I facilities and PD (Pregnancy diagnostic) kit.
- Lower ratio of VEO (Veterinary Extension Officer) and Dairy Farmer.
- Improper supply chain management of milk and milk processed foods.
- Limited access to commercial markets by the individual farmers.
- Farmer exploitation by the middle man and commission agents.
- Farmers attitude towards practicing dairy farming as a stand-alone enterprise by ignoring the emerging other sector which can be integrated with it.
- Young farmers` non participation in dairy as they feel dairy as a loss-making enterprise.
- Lack of credit as well as insurance accessibility by small holder dairy farmers.
- Besides non availability of year-round feed and fodder, improper health and hygiene, disease outbreak like lumpy skin disease, mastitis, repeat breeding etc.

## **Need for Innovative Approaches to Support and Empower Smallholder Dairy Farmers**

The popularity of an innovation systems approach to development is founded on its inclusivity and the interactions of actors to co-influence one another, learn from one another, invent new things, and provide real advantages. Innovative approaches are crucial to support and empower smallholder dairy farmers due to their unique challenges. By harnessing technology and modern agricultural practices, these farmers can increase productivity, access to markets, and financial services. Novel solutions can provide training and knowledge-sharing platforms, enabling them to adapt to changing climates and sustainability practices. Additionally, innovative financing models can enhance their access to credit and resources, fostering investment in infrastructure and equipment. Empowering smallholder dairy farmers through innovation strengthens rural economies, ensures food security, and contributes to sustainable development, creating a more resilient and inclusive agricultural and dairy sector.

## **The Emergence of Dairy Tourism**

The term 'Dairy Tourism' is new one which is designed by integrating the dairy farming along with the highly demanding tourism industry, if we look into the origin of dairy tourism, it generally comes as well as evolved from the concept of Rural Tourism as well as Agro-Tourism. Rural tourism, according to the World Tourism Organization (WTO), is defined as travel that allows tourists to interact personally with locals, experience the physical and social environment of the countryside, and, to the extent possible, engage in their customs, traditions, and way of life. The Organization for Economic Co-Operation and Development (OECD) claims that tourism is what occurs in rural areas (Reichel et al., 2000). The concept of dairy tourism gets popularity in twenty first century .it is also called as `Cow Tourism`.

## **Why Dairy Tourism?**

Agriculture and animal husbandry practice is getting more and more costlier day by day. And due to various unfortunate reason like climate change, flood, heat wave, market failure, distress sale of agricultural and milk or milk-based product induces the farmers to quit their job of farming and migrate towards urban salary-based work. Besides 60-70% people who are in the corporate work culture and those who mostly belong to the congested city or town in most of their life already started feeling losing connection with the rural India. Being surrounded by closed work culture in cities full of concrete and artificial things the

stress and anxiety level of most of the urban people are increasing and they feel the urge to be enjoy with the nature apart from the urban hectic life. The concept of Cow therapy also get popularity in this context. Dairy tourism acts as a common platform to address and mitigate these two burning problems of both urban people and rural frustrated farmers. In one side it helps the dairy farmers to adopt the commercial dairy farming with the philosophy of tourism so that it helps them to get extra complementary income by selling the dairy products like packaged milk, flavoured milk, various types of sweets. Beside the locally famous dishes can also be presented to the visitors. For making the dairy business profitable as well as sustainable in long run Dairy tourism is the easiest alternative.

### **Principle of Dairy Tourism**

Some of the basic principles are

#### **Provide something to see for visitors**

In the Dairy Tourism Park visitors can enjoy the natural scenic beauty of nature along with different dairy breeds like – Sahiwal, Gir, Karan Fries etc, buffalo breeds, goat breeds etc. the visitor also can enjoy the cow milking, the processing of milk and milk products. Dairy farmers can arrange live demonstration of calf rearing, animal feeding practices which will definitely pleasure for the visitors. The well managed, clean cattle shade, the bathing practices of cow, wallowing of buffalo shall provide close connection with the outsiders. Even the visitors can go to the nearby fodder field to enjoy natural beauty of farm. The nearby water pump in fodder field and the adjacent bio gas plant helps the visitor to grow interest. Apart from these the rural culture, dresses, festivals create enough enthusiasm among the visitors.

#### **Provide something to do for visitors**

Dairy tourism also provides the opportunity to outsiders for practicing hands on practices for milking, Cow riding, cow feeding and calf management. The bullock cart riding, practicing agricultural operation, playing rural games with farming community, participating in cooking, chilling in nearby ponds, by arranging cultural programmes with the villagers and doing party, dance in rural local songs create ample opportunity to the urban visitors.

## **Provide something to buy for visitors**

Dairy tourism also provides the outsider visitors to have rural crafts, buy authentic dairy products like desi ghee, pure milk, curd, Paneer other milk products. Even the fresh organic, chemical free vegetables, rural handicrafts, arts can also be bought by the guests during the village fair or festival. This will definitely push the rural small-scale industry by providing enough business opportunities for both the farmers and community members.\

### **Enterprises That Should Be Present in Dairy Tourism**

- |   |  |
|---|--|
| A. Cattle house                             | B. Milking centre                            |
| C. Fodder field (Maize field/Sorghum field) | D. Pond/Water tank for fishing or boating    |
| E. Milk Outlet                              | F. Handicraft Shop                           |
| G. Childrens`park                           | H. Bullock cart                              |
| I. Bio gas plant/Solar panel                | J. Cottage/Camp                              |
| K. Restaurant                               | L. Picnic ground, Sport Ground/Swimming pool |

### **Sustainable Practices in Dairy Tourism**

Sustainable practices in dairy tourism entail using eco-friendly techniques to reduce the environmental impact while delivering a satisfying visitor experience. For instance, supporting responsible waste management, using renewable energy sources, and using organic farming methods to lessen the need of chemicals. offering educational initiatives to promote understanding of conservation and sustainable agriculture. These initiatives ensure that dairy farming and tourism coexist peacefully, protecting the environment's beauty and resources for future generations.

### **Benefits of Dairy Tourism**

Numbers of vital paths can be decoded by changing the overall scenario of Indian Dairy farming along with agriculture sector by bringing the enterprise driven futuristic cultivation practices. Dairy tourism has the potentiality to act as a breakthrough between both the front-end dairy farmers with their customer-oriented hospitality and the back end urban visitors who always find for recreation. So, it is a win-win situation for both the farmers, other rural villagers and visitors.

### Farmers` gain

- Farmers can have a complement income opportunity along with dairy and crop farming.
- Specially during the lean season of low milk production or price fall due to market price farmer can have the alternative gateway to survive through market diversification through dairy tourism.
- Additional employment can be generated for rural landless farm family members.
- A positive attitude towards the dairy farming/dairy entrepreneurship can be inculcated among the rural educated youths.

### Community benefits

- Other villagers will enjoy the fruit of overall rural development or socio-economic change through the strengthen of rural economy.
- The cultural blending by the tourism will make a positive impact in rural community as the rural people have a close contact with the urban modern lifestyle.
- Religious exposer for the people of different cast and creed irrespective of their age, perception and motive may establish the message of *Vasudhaiva Kutumbakam*.
- The **ITK (Indigenous Technology knowledge)** can be trapped by the urban people.
- Besides the innovative scheme like **ODOP (One District One Product)** by Govt of India surely can be promoted by the proper processing, marketing and most importantly by branding of the handicrafts, dairy and agro-processed products along with the name of products` place of origin.
- Conservation of bio-diversity within the dairy farms by establishing enterprise like fish farming, bee keeping, cultivation of horticultural plants and fodder cultivation for cattle.
- Linking and promotion of the historical and religious value of the place.

### Tourists` gain

- Recreation in the lap of nature and also enjoying first hand training of cattle farming, crop production, dairy product processing.
- Opportunity to visit and interact with the real rural India and gathering authentic experiences.
- Free from frustration with crowded cities and resorts.

## **Economic Empowerment through Dairy Tourism**

### **In micro (Individual farmer) level**

The ways of income generation in a dairy tourism model for an Individual farmer: -

1. By selling tickets to the tourists in per head basis or family package basis.
2. Charging for arranging flooding and lodging in traditional huts for the guests.
3. Charging for cow riding, bullock cart riding, swimming practices in ponds.
4. Selling the locally branded dairy products like milk, curd, ghee, kulfi, sweets to the visitors in the dairy outlets of the farm and also make those products available in online market place like amazon-fresh, Flipkart, BigBasket etc.
5. Selling locally famous authentic products like handicrafts, boutique, wooden and pottery products like utensil, earthen toys for children etc.
6. Earning by auctioning fresh farm vegetables, fruits, fishes, honey among the urban people.
7. Exporting daily produce in different cities.
8. Collaboration with local famous brand and earning sponsorship.
9. Creation of You tube channel and earning from social media as a content creation by uploading dairy farming, maintenance, tourism related vlog or videos.
10. Marketing the by-products of dairy farms like cow dung as biofertilizer and earning urban currencies.

### **In macro level**

1. Earning through dairy cooperative model.
2. The tourism industry attracts the hotel industry and enough chances to earn sizeable profit from it.
3. Creation of multiple job opportunities for local villagers as workers in dairy farms, tourist guide for city people.
4. Marketing and branding of indigenous products for export.
5. Strengthening of small and medium scale industry at grassroot level by injecting urban rupee.
6. Overall economic boost for rural farm families and tourism spending will create multiplier effect on consumerism pattern in village level.

7. Making regional economy Atmanirbhar or self-reliant by promoting the concept of Agri entrepreneurship, Agri-tech Start-up etc.

### **Bottlenecks Present in The Way of Dairy Tourism for Small Holder Dairy Farmers**

- ❖ Lack of initial capital investment for small holder farmers.
- ❖ Low risk bearing ability to start a new venture.
- ❖ Strong attitude in traditional dairy practices and preserving prejudice for dairy tourism type of innovative idea.
- ❖ As most of the Indian dairy farmers belong to small or marginal category, the fragmentation of land makes it difficult to initiate a venture like modern dairy plant, eco-tourism etc.
- ❖ Lack of transportation facilities in remote rural areas of tourism.
- ❖ Low range of skill of villagers to meet the customer/tourists` satisfaction.
- ❖ Sometimes the language barrier between the rural and urban people along with strong taboos, myth in rural areas towards outsiders may create hinderance.
- ❖ Political issues

### **Promotional Strategy of Cow/Dairy Tourism**

#### **Capacity building of the farmers**

The farmers should be properly trained and educated about the basics of tourism and dairy farming. Here the extension personnel from veterinary as well as agriculture and specialists from tourism industry can play the active role to train the farmer and make them motivate to start the business in commercial way.

- Making the bank credit smoothly accessible to the maximum number of willing farmers through commercial banks or micro finance agency is absolutely important.
- Weekly or monthly training of the dairy farmers, arranging workshops in village level, showcasing the dairy tourism model and demonstrating it in front of farmers can build capacity of the small holder farmer.
- Motivate the farmer through sharing successful dairy tourism or agro tourism farmer friend, taking the group pf farmers to exposer visit of such type dairy farms.
- Providing monetary incentives in terms of subsidy or cost cutting of various inputs.



- Teaching the farmers regarding how to deal with the guests, make them feel homely, maintain cleanliness in tourist spots, how to get feedback from the outsiders etc.

In order to educate farmers about the vast potential of cow tourism, students and researchers in dairy extension and agriculture extension are welcome to join. A model of dairy tourism was recently presented by M.Sc. research students from the ICAR-NDRI dairy extension division at the National Dairy Mela 2023, which was held in Karnal, Haryana.

### **Collaboration with other organization**

For growing the tourism and dairy industry collaboration with multiple organizations or agencies is necessary. For promotional activity, marketing, brand building and even for well sophisticated infrastructure dairy entrepreneur should go for 3p( public-private partnership) model. Joint venture with hotel or hospitality industry, Partnership with restaurant food and beverage industry etc can also be done to expand the business in large scale.

### **Other ways of promotion**

A satisfied customer is the best advertiser of any product or services. So, businessman should concentrate to please the visitors whole heartedly by means of all the possible services. Besides promotion and marketing in newspaper, radio, television can create enough enthusiasm among urban people. Now in today's era Facebook, tweeter, You-tube, Instagram, LinkedIn are the primary tools to reach a million numbers of people in short span of time. So advertisement in Social media platform will be more effective.

### **Policy Support and Future Directions**

The Union government is exploring a new tourism opportunity. States for this circuit have been identified as Haryana, UP, Rajasthan, Gujarat, Maharashtra, Karnataka, Kerala, and Goa. Himachal Pradesh plans to raise visitation to its "cow sanctuaries". According to reports, the ruling party is working on a plan to connect the tourism industry with eleven new cow sanctuaries. To now, five cow barns totalling Rs 26 lakh each have been constructed at a cost of Rs 1.30 crore with steel foundations and pre-painted sheet roofs. Together with an NGO named Hari Gaussian, the department of animal husbandry is currently running a Gausadan at Sunni that can accommodate 200 animals. Kotla Barog (Sirmour), Thana Kalan Khas (Una), Handa Kundi (Solan), Khairi (Hamirpur), and Luthan (Kangra) are the only cow

snatching grounds left in existence today. Thus by bringing the private sector, NGOs ,dairy cooperatives in one place the virgin market of dairy tourism can be trapped and a new path will be opened for small holder farmers.

### Conclusion

Since India's economy is largely rural, rural tourism and agritourism are essential for creating jobs, reducing poverty, and fostering long-term human development. They also considerably contribute to the GDP of any nation. Two and a half times faster than the world growth rate, the Indian tourist industry is expanding at a 10% annual rate. Health tourism (medical tourism), religious tourism, sports tourism, educational tourism, etc. are some of the niche tourist arteries that have recently acquired pace in India. The Indian tourism industry increasingly includes dairy tourism as another artery. Although it is currently in its infancy, it has the potential to take off with the right government incubation. so spreading the idea of agrotourism throughout India, not just the current.

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