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# Importance and Economic Viability of Indigenous Cow Husbandry

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**Abstract**

Cow is our Gaumata. Even though from the point of view of science, cow is an animal, according to Indian culture, we have the same respect towards our cow as mother cow, Gaumata. The milk of this indigenous cow has been considered as nectar. Since ancient times, the importance of Gaumata has been unique. Our country India was a 95% agricultural country. The agriculture here was very prosperous. The basis of this agriculture was our native cow. But the deceitful and strategic Britishers planned to attack the very basis of this agriculture to fulfill their selfish desires. In 1820, a slaughterhouse was opened in Calcutta and a large number of indigenous cows were slaughtered. Beef was in increasing demand abroad. As a result, today, after 200 years, only 1% of indigenous cows remain in India. It is our duty as an Indian to preserve the indigenous cows, Gaumata and Nandi Maharaj. To avoid the shortage of milk, breeds of cows like Jersey and Hosten were increased. Due to the milk of these cows, the Indian people suffered and suffered from diseases like diabetes and cancer. Unemployment is a big problem facing the economy. Indigenous cow husbandry can provide employment opportunities.

**Keywords:** Gaumata, Cow Husbandry, Cattle Breed, Feasibility, Milk Production.

**Introduction:**

It is said that 'as is the condition of the cow, so is the condition of the country'. The cow is our Gaumata. Even though the cow is an animal according to science, according to Indian culture, the same respect is given to our cow as the mother. The milk of this indigenous cow is considered to be like nectar. The importance of Gaumata has been unique since ancient times. We also find many references in the Puranas.

For example,

1. Cow service performed by King Dilip of the Ikshvaku clan (the great grandfather of Lord Shri Ram)
2. Lord Shri Krishna and the Cows
3. Cow service performed by Satyakama on the orders of Acharya Haridrumat in the medieval period
4. There are three references to the cow in the Sarth Sri Sukta. They are as follows,

**१. तां म आवह जातवेदो लक्ष्मीमनपगामिनीम् ।**
**यस्यां हिरण्यं प्रभूतं गावो दास्योऽश्वान् विन्देयं पुरुषानहम् ॥**
**२. अश्वदायि गोदायि धनदायि महाधने ।**
**धनं मे जुषतां देवि सर्वकामांश्च देहि मे ।**
**३. पुत्रपौत्र धनं धान्यं हस्त्यश्वादिगवे रथम् ।**
**प्रजानां भवसि माता आयुष्मन्तं करोतु माम् ।**

In Indian culture, the cow is given the status of 'Mother'. Gaumata is inherently sign of positivity. Her milk, cow urine and cow dung everything is useful. Therefore, cow milk, cow urine and cow dung are used in sacrificial offerings and religious rituals. In the past, every household in India had a cow. Everyone drank its milk. This milk made people healthy, intelligent and strong. Cow urine and cow dung were used in agriculture. Due to this, the trees and shrubs were also disease-free and strong.

**Objectives:**

1. To know the importance of indigenous cow husbandry.

2. To know the difference between indigenous and foreign cows, A1 and A2 milk, as well as the advantages and disadvantages.

3. To verify whether this business is viable if started as an employment opportunity.

**Literature Review:**

1. Mrs. Madhura Dhananjay Karve, Research Department, Maharishi Adhyatma Vishwavidyalaya, Goa, conducted a scientific test to verify 'What is the effect of vibrations emitted by foreign cows, buffaloes and indigenous cows on the environment?' The test used a technology called 'P.I.P. (Polycontrast Interference Photography)'. This technology allows us to see the colored aura of an object that is normally invisible to the naked eye. This computer system can be connected to a video camera to display the positive and negative vibrations in the electromagnetic field of an object, building, or person through colors.
The following conclusions were drawn through this test:-
The pictures of foreign cows and buffaloes decreased the positivity in the atmosphere. On the contrary, the pictures of indigenous cows increased the positivity in the atmosphere significantly. The reason for this is that indigenous cows have the ability to absorb the divine principle, while foreign cows and buffaloes do not. Foreign cows and buffaloes are of the 'Tamoguni', while indigenous cows are of the 'Sattvaguni'. Therefore, foreign cows and buffaloes emit negative vibrations, while indigenous cows emit positive vibrations.
2. K Dhama, Rajesh Rathod, R. S. Chauhan and Simmi Tomar from the Indian Veterinary Research Institute in Izzatnagar, Uttar Pradesh, conducted in-depth research on the topic of PANCHGAVYA (COWPATHY): AN OVERVIEW. Accordingly, the cow is central to our lives and biodiversity. Its reproduction and its Panchagavya have wide-ranging uses and have the potential to contribute to sustainable agricultural production, human health and nutrition, production of biofertilizers, production of non-conventional energy, and preservation of biodiversity in the environment. There is huge potential in this area that has not been tapped. Food production levels have been achieved at high cost through chemical fertilizers, pesticides and groundwater exploitation, but the fertility and health of the land and the quality of the food produced are also low. The only solution to achieve balance is organic farming and the cow and her offspring and other animals can provide the solution. Raising cows and their offspring is a viable option to alleviate poverty in rural and semi-urban areas and provide employment opportunities for long-term sustainable economic growth.
3. Hridesh Sharma and Nilabh Talukdar (MSc. (Agriculture), Department of Agronomy, Assam Agricultural University, Jorhat) in their article 'Dasagavya and Panchagavya: Elixirs of Organic Farming' conclude that both Dasagavya and Panchagavya exemplify the potential of organic farming solutions in modern agriculture.
4. According to the opinion expressed by Komal Bajaj, Vishal Chavan, Nishikant Raut and Shailendra Gurav in their article 'Panchgavya: A precious gift to mankind', Panchgavya has shown its potential to serve humanity and is a promising treatment for various human diseases.

**Research Methodology:**

1. This was a primarily descriptive and analytical research work. Empirical challenges and various issues will be explored primarily through surveys and detailed well-structured questionnaires or interviews with cowherds.
2. Field visits
Field visit locations and total number of cattle:
a. Satkarma Shraddhashray, Degrang, Panvel (20)
b. IIT, Powai, Mumbai (70)
c. Nirwal Gaushala, Nirwal (25)
d. Golavli Gaushala, Golavli, Sangmeshwar (60)
e. Desi Gaay Sanshodhan aani Prashikshan Kendra, Pune (200)
f. Chhatrapati Sambhaji Maharaj Gaushala, Bhosari, Pune (150)
g. Kamdhenu Gaushala, Kamthe (20)
3. Secondary Sources:- Information/articles in the form of books, journals, newspapers or social media

**Data Analysis:**

India is considered a leader in milk production. There are many different types of cows in India. India played a major role in the White Revolution in Brazil. In 1960, Nandi, a Gir breed, was sent to Brazil from India. The white revolution took place in Brazil as it produced 4 times more milk than the hybrid breed. Today, 80% of the cows in Brazil are of the Gir breed. But in India, a tragic situation is seen. Many Indians have fallen for the temptation of foreign cows, abandoning their own domestic cattle because foreign cows give more milk. Many indigenous cows were sent to the slaughterhouse. We are seeing the consequences of this on the current generation today. Some species are on the verge of extinction. It is the need of the hour to preserve our indigenous cattle, to conserve them, and to prepare a strong indigenous cattle for the coming generation.

**Types of Desi Cows:**

- **Geer Cow:**

Origin: Gir forest
Physical characteristics: Hanging and long ears, red or white color (lily), long tail, broad forehead, calm nature, strong build
Dairy production: 2000 to 2800 kg per cow

- **Sahiwal Cow:**

Origin: Border region Punjab, Montgomery, Multan Province, Pakistan-occupied Punjab, taken to other states of the country and maintained. Nicknames: Multani, Lola, Montgomery, Lambi Bar
Physical characteristics: Red color, loose skin, short ears with rounded horns, whip-like tail, large udder in bulls, bull weight 550 kg, cow weight 300 to 350 kg
Dairy production: The best dairy breed in the country, average yield per cow is 1600 to 2750 kg

- **Khillar Cow:**

Origin: Solapur, Pandharpur, Sangli, Satara, Ahilyanagar
Nicknames: Atpadi Khilar, Mhaswad Khilar, Tapadi Khilar, Nakli Khilar
Physical characteristics: Medium strong body, round long body, skin tight to the body, strong legs, small pointed ears, small eyes, long horns, black nostrils, white or white-gray color, agile bull, good for transportation and agricultural work. Average milk production: 240 to 515 kg per cow.

- **Red Kandhari Cow:**

Origin: Kandhar, Mukhed, Nanded, Biloli, Jalgaon, Udgir, Chakur and Renapur in the Marathwada region.
Physical characteristics: Dairy cattle, agile bull and ideal for draught work, good work in dry weather and drought conditions, color completely red, head medium size, eyes long, black eyes, rosy skin, good bull for agricultural work

- **Konakn Kapila Cow:**

Origin: Konkan, Konkan districts and Western Ghats area
Nicknames Konkan Gidd
Physical characteristics: Height of the withers, suitable for ploughing, mud, and mud work in Bhat agriculture, as well as grazing in hilly areas in moderately hot, humid and rainy regions. Brown, black or white, brindle and mixed-colored cattle, small to medium size, well-built, good immunity.

- **Others:** Rathi, Tharparkar, Dangi, Kankrej, Punganur, Vechur, Gangathiri, Kangayam, Ongole, Jawari, Malvi, Nagori, Nimadi, Amritmahal, Var, Krishna

**Uses:-**

1. **Cow dung:** Fuel, cow dung gas plants, fertilizers, organic farming, seed protectant, soil conditioner, mud brick mix, heat source, pot cleaner, pond pH balancer, purifier, pest control
2. **Cow urine:** Agriculture, bio-pesticides, kitchen fuel, effective against many diseases (skin diseases, stomach, kidney and heart diseases, kidney stones, diabetes, liver problems, jaundice, foot problems, abscesses, anti-cancer properties)
3. **Cow's Milk:** Nutritious, bio-protective role in human health, kidney disorders, immunity, improves vision, heals ulcers, anti-cancer properties, heart disease, obesity, rich in nutrients, diabetes, effective against weakness, tonic for health
4. **Curd:** Anti-inflammatory, blood purifier, if taken with sugar it is useful for "pitta" induced disorders, tridoshashakshi, useful for piles
5. **Cow Ghee:** Improves memory, voice, vision, intelligence, improves body immunity, Ghee enhances memory, is useful in improving eye sight and digestion, eliminates tridosha, energizing, tonic, and fast-acting vitamins, does not increase cholesterol, does not have any bad effect on the heart, Cow's butter is a blood purifier, increases blood and beauty, cow's ghee promotes wound healing, is useful in preventing and controlling paralysis and asthma, ghee obtained from cow's milk is very useful for people with weak eyesight

- **Difference between A1 and A2 milk**

A2 beta casein is found only in the milk of indigenous cows, while A1 beta casein is found in the milk of foreign cows. Indigenous cow's milk contains only A2 protein. Other than indigenous cow's milk, other milk generally contains both A1 and A2 proteins. Indigenous cow's milk works to build body fat. Foreign cow's milk is harmful to the human body. Indigenous cow's milk is intellectually stimulating. Foreign cow's milk can cause diseases like autism, heart disease, diabetes, and intestinal ulcers.
Indigenous cow's milk has the power to boost immunity. These qualities are not found in foreign cow's milk.

- **Financial viability**

According to the information received, the following budget has been prepared considering this business from both rural and urban perspectives. Assumptions for this:-

1. The minimum number of cows will be 4.

2. The total daily milk collection will be at least 40 liters. The price of milk will be Rs. 50 per liter in rural areas and Rs. 100 per liter in urban areas.

3. The price of ghee will be Rs. 1500 per kg in rural areas and Rs. 2100 per kg in urban areas.

4. The price of cow dung and urine will be Rs. 10 per kg or per liter in rural and urban areas.

5. The price of fertilizers like Jivamrut, Takramrut will be Rs. 250 per liter in rural and urban areas.

6. Other by-products will include cow dung, incense sticks, toothpaste, cow urine extract.

7. Medical expenses will be Rs. 10,000 per month in rural areas and Rs. 20,000 per month.

8. Fodder expenses will be Rs. 20 per kg in rural areas and Rs. 40 per kg in urban areas.

9. Capital expenditure will be met from grants under the livestock scheme.

10. By-products contain :- Dhupkandi, Dantmanjan, Uple (govrya), Gomutra Arka

**Rural Area:**

| **Supply of Milk only** | | | | |
|---|---|---|---|---|
| **Particulars** | **Duration** | **Qty** | **Rate** | **Amount** |
| **Milk** | **360 days** | **40 ltr / day** | **50 / ltr** | **720,000** |
| **Cow dung and Urine** | **360 days** | **20 kg or ltr/ day** | **10 / kg or ltr** | **72,000** |
| **Fertilizers** | **12 months** | **50 ltr / month** | **250 / ltr** | **150,000** |
| **Others** | | | | **20,000** |
| **Total Income** | | | | **962,000** |
| **Medical Expenses** | **Yearly** | | | **120,000** |
| **Fodder** | **360 days** | **60 kg/ day** | **20 / kg** | **432,000** |
| **Others** | | | | **48,000** |
| **Total Expenses** | | | | **600,000** |
| **Profit / (Loss)** | | | | **362,000** |
| **Monthly Income** | | | | **30,167** |

| **Supply of Vaidik Ghee only** | | | | |
|---|---|---|---|---|
| **Particulars** | **Duration** | **Qty** | **Rate** | **Amount** |

| | | | | |
|---|---|---|---|---|
| Ghee | 360 days | 2 kg /day | 1500 | 1,080,000 |
| Cow dung and Urine | 360 days | 20 kg or ltr/ day | 10 / kg or ltr | 72,000 |
| Fertilizers | 12 months | 50 ltr / month | 250 / ltr | 150,000 |
| Others | | | | 15,000 |
| Total Income | | | | 1,317,000 |
| Medical Expenses | Yearly | | | 120,000 |
| Fodder | 360 days | 60 kg/ day | 20 / kg | 432,000 |
| Others | | | | 48,000 |
| Total Expenses | | | | 600,000 |
| Profit / (Loss) | | | | 717,000 |
| Monthly Income | | | | 59,750 |

Urban Area:

| Supply of Milk only | | | | |
|---|---|---|---|---|
| Particulars | Duration | Qty | Rate | Amount |
| Milk | 360 days | 40 ltr / day | 100 / ltr | 1,440,000 |
| Cow dung and Urine | 360 days | 20 kg or ltr/ day | 10 / kg or ltr | 72,000 |
| Fertilizers | 12 months | 50 ltr / month | 250 / ltr | 150,000 |
| Others | | | | 20,000 |
| Total Income | | | | 1,682,000 |
| Medical Expenses | Yearly | | | 240,000 |
| Fodder | 360 days | 60 kg/ day | 40 / kg | 864,000 |
| Others | | | | 48,000 |
| Total Expenses | | | | 1,152,000 |
| Profit / (Loss) | | | | 530,000 |
| Monthly Income | | | | 44,167 |

| Supply of Vaidik Ghee only | | | | |
|---|---|---|---|---|
| Particulars | Duration | Qty | Rate | Amount |
| Ghee | 360 days | 2 kg /day | 2100 / kg | 1,512,000 |
| Cow dung and Urine | 360 days | 20 kg or ltr/ day | 10 / kg or ltr | 72,000 |
| Fertilizers | 12 months | 50 ltr / month | 250 / ltr | 150,000 |
| Others (byproducts) | | | | 15,000 |
| Total Income | | | | 1,749,000 |
| Medical Expenses | | | | 240,000 |

| | | | | |
|---|---|---|---|---|
| **Fodder** | **360 days** | **60 kg/ day** | **40 / kg** | **864,000** |
| **Others** | | | | **48,000** |
| **Total Expenses** | | | | **1,152,000** |
| **Profit / (Loss)** | | | | **597,000** |
| **Monthly Income** | | | | **49,750** |

**Conclusions:**

1. The indigenous cow has immense importance spiritually, scientifically and agriculturally. The importance of this business is extraordinary from all the aspects.

2. This business can definitely provide an employment opportunity. In both areas, urban or rural, this business is viable.

3. This business of Milk may give more benefit in urban areas around Rs. 44,000 to 45,000 but business of selling Vaidik Ghee is beneficial in rural area. It will generate income around Rs. 60,000.

**Recommendations:**

1. It is very important to preserve the indigenous cattle breed for a capable and healthy generation.

2. It would be preferable to conserve the indigenous cow breed, which is declining in its original form, as well as the endangered

3. The government should take the initiative to attract unemployed youth to this profession and to formulate suitable schemes for indigenous cattle rearing and its effective implementation.

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