

**SOCIO-ECONOMIC SURVEY OF UTTAR PRADESH, BIHAR AND MAHARASHTRA STATES OF INDIAN CONTINENT**

**Abstract**

BAIF Development Research Foundation implemented Godhan a dairy & socio-economic development project in three states namely Uttar Pradesh, Bihar and Maharashtra states of India. The project Godhan was in operation for during December 2009 to July, 2016. BAIF conducted its post project evaluation to understand the project impact on the beneficiary farmers who availed of various services under Godhan project. This paper utilises micro data on consumption, family composition and land ownership of nearly 3000 rural Indian households to analyse socio economic condition of three states namely Maharashtra, Bihar and Uttar Pradesh in rural India. Out of total 51.6% farmers were covered in Bihar and minimum 21.7% in Maharashtra. Percentage of farmers interviewed in Uttar Pradesh was 26.7%. Average size of family in the sample was 7.66 persons with 4.12 male members and 3.53 female members. Out of total 67% farmers had undergone formal education, maximum (29.3%) were those who were 10<sup>th</sup> pass, followed by 22.5% who had cleared their 8<sup>th</sup> grade. Around 20% farmers were 12<sup>th</sup> pass while 11% were either graduates or post graduates. In social category findings the dominant caste group to which the farmers belong was Other Backward Class accounting for 57% of the farmers, followed by general category (32.5%), scheduled caste (7.3%) and scheduled tribes (2.9%). State-wise data shows that the concentration of poor farmers is relatively high in Bihar (35.5%), followed by Uttar Pradesh (30.9%). In case of Maharashtra only 16.3% of the total sample farmers were under “poor category”. Out of the total sample, 90.3% farmers were those who owned land. Maximum proportion of farmers who owned land was noticed in Maharashtra (94.6%), followed by Uttar Pradesh (91%), and Bihar (88.2%). As regards to the size of land owned, nearly 56 percent of the land owners were Marginal farmers (owning 0.1 -1 ha of land), 23 percent were small (1.1-2 ha) land owners while about 12 percent farmers owned above 2 ha of land

Key words - Socio-Economic, population

**Background**

The BAIF Development Research Foundation is an award-winning charitable organisation based in Urali Kanchan near Pune in Maharashtra that pioneers agricultural development. It was founded as the Bharatiya Agro Industries Foundation during the year 1967 with a view to provide sustainable livelihoods to the rural poor through creation of employment opportunities. BAIF's Mission is to create opportunities for gainful self employment for the rural poor families, especially the disadvantaged sections, ensuring sustainable livelihoods, enriched environment, improved quality of life and good human values. Thus the Vision of BAIF was to build a self reliant rural society assured of food security, safe drinking water, good health, gender equity, low child mortality, literacy and high moral values and clean environment. BAIF had implemented dairy development project named Godhan .The project Godhan was in operation for more than six years commencing from Dec, 2009 to July, 2016. Main objective of Godhan project was to develop and document an approach for a sustainable dairy development by using frozen semen technology that results in increased income to the poor farmers. Godhan Project was the Pilot phase to test around ten approaches in establishing Cattle development centers to find out which approach would be more appropriate and cost effective that could be replicated subsequently. Thus the Godhan project contemplated in rigorously evaluating the impact and financial sustainability of the CDCs formed through two models and eight operational approaches which would help in taking up policy decisions for up-scaling. The number of CDCs being taken up during the pilot phase are 170 in number spread over in the identified 14 districts of the three selected project States viz. Bihar, Maharashtra and Uttar Pradesh. BAIF has accomplished all the envisaged activities during the Pilot phase by the end of May 2016. After the project completion, BAIF arranged to conduct an Impact Assessment Study to document the project outcome and the lessons learnt which would be useful for Research & Development as well as while taking future policy decisions for replication and up-scaling of similar programs. This task has been assigned to CMSR, New Delhi which undertook the Impact Assessment Study during April-June'2016.

Socio-Economic survey is a very development activity. In socio-economic we prepare demographic details, household category wise, population report, education status, land holding details of the village. Annual income and expenditure of families in the village the information regarding every family in the village can be retrieved in any manner required. Once village information is collected and analysis the changes that take place in the entire village as well as in each individual family.

### **Material and Method - Study Tools & Schedules**

Study tools designed by BAIF were taken-up for pre-testing by CMSR consultant private limited. Schedule for conducting "Face to face interviews"

with farmers. Schedule for interviewing women members of Dairy Interest Groups. Interview guide for receiving feedback from women employees of Godhan project. Questionnaire for obtaining information through Telephonic interviews from farmers. Study here is presented face to face interview of farmers across three states. Training included classroom training, mock interviews in classroom, going to the field for filling-in a few questionnaires for practice, their scrutiny to identify problems and then re-train the teams for overcoming the problems observed in the field. The data was collected through both quantitative and qualitative survey. The required information was secured through interviews, focused group discussions and telephonic calls.

### **Result and Discussion –**

The list of farmers for all the three states was provided by BAIF and from that list, the team selected around 3000 farmers for administering the tool designed for the purpose.

**Face to face interviews of around 3,000 farmers** –The list provided contains contact details of farmers i.e. name, addresses and names of CDC etc. Based on the data provided, the field team secured information by contacting the sampled farmers, prepared data files, analyzed information and prepared required number of tables as per the analysis plan. The deliverables for this survey included filled in questionnaires, data files and tables in MS Excel. Out of total 51.6% farmers were covered in Bihar and minimum 21.7% in Maharashtra. Percentage of farmers interviewed in Uttar Pradesh was 26.7%.

**Table 1: State wise distribution of sample farmers**

State	Sample farmers	
	No.	%
Bihar	1550	51.6
Maharashtra	650	21.7
Uttar Pradesh	800	26.7
<b>Total</b>	<b>3000</b>	<b>100.0</b>

### **Age group and gender wise distribution of farmers**

The average age of the farmers in the sample was about 45 years with 46 years as the average age of males and 40 years of females. Majority of the farmers (50%) belonged to the two dominant age-groups - 31-40 years and 41-50 years. Around 19.2% farmers were in the age-group of 51-60 years while 16.6% were above 60 years of age. The sample also comprised of 14 percent farmers who were below the age-group of 30 years. The pattern of age-distribution of both males and females was similar with more females in 31-40 years (34.8%) as compared to their male counterparts (22.8%). This finding is in line with the findings of Rathod et al., (2011) who reported that higher proportion of farmers were middle age. State-wise distribution of male and female farmers shows the same pattern.

**Table 2: Distribution of farmers by age group and gender (%)**

Age (in years)	Gender		State			
	Male	Female	Bihar	Maharashtra	Uttar Pradesh	Total states
Up to 20	2.2	4.3	0.6	3.5	5.3	2.5
21 - 30	10.8	14.8	7.4	19.1	12.4	11.3
31 - 40	22.6	34.8	19.3	27.4	30.4	24.0
41 - 50	26.5	26.2	27.2	22.9	27.9	26.4
51 - 60	19.9	14.2	21.7	14.3	18.4	19.2
> 60	18.1	5.7	23.9	12.8	5.8	16.6
Average age	<b>45.57</b>	<b>40.36</b>	<b>48.16</b>	<b>41.65</b>	<b>41.46</b>	<b>44.97</b>
<b>Total number of farmers</b>	<b>2649</b>	<b>351</b>	<b>1550</b>	<b>650</b>	<b>800</b>	<b>3000</b>

### Average size of household

The average size of family in the sample was 7.66 persons with 4.12 male members and 3.53 female members. State-wise differentials shows that on an average there were 8.74 members per household in Bihar, followed by Uttar Pradesh (6.76 members) and Maharashtra (6.17 members). In all the three states, households had more male members as compared to female members. This is also in tune with the demographic pattern of the country.

**Table 3: Distribution of farmers by average number of male and female members per household (%)**

Gender	State			
	Bihar	Maharashtra	Uttar Pradesh	Total states
Male	4.75	3.28	3.59	4.12
Female	4.00	2.89	3.17	3.53
Average family size	<b>8.74</b>	<b>6.17</b>	<b>6.76</b>	<b>7.66</b>
<b>Total number of farmers</b>	<b>1550</b>	<b>650</b>	<b>800</b>	<b>3000</b>

## Educational status

The data indicates that nearly 33% of the farmers from all the three states were not formally educated which comprised of 80% males and 20% females. Among the 67% farmers who had undergone formal education, maximum (29.3%) were those who were 10<sup>th</sup> pass, followed by 22.5% who had cleared their 8<sup>th</sup> grade. Around 20% farmers were 12<sup>th</sup> pass while 11% were either graduates or post graduates. State-wise differentials show that literacy level is comparatively higher among farmers of Maharashtra (71.6%) as compared to Uttar Pradesh (65.8%) and Bihar (65.4%).

## Social category

The dominant caste group to which the farmers belong was Other Backward Class accounting for 57% of the farmers, followed by general category (32.5%), scheduled caste (7.3%) and scheduled tribes (2.9%). State-wise analysis of data shows that representation of OBC was highest in Uttar Pradesh (74%) as compared to Bihar (59.4%) and Maharashtra (31.8%). Likewise the concentration of general category was found maximum in Maharashtra (58.8%). Farmers who belonged to general category were 29.8% and 16.4% in Bihar and Uttar Pradesh respectively. Relatively more number of farmers belonged to scheduled tribes in Maharashtra (5.5%), followed by Bihar (2.7%) and Uttar Pradesh (1.0%).

**Table 4: Distribution of farmers by social category (%)**

Caste	State			
	Bihar	Maharashtra	Uttar Pradesh	Total states
Scheduled caste	8.1	3.8	8.6	7.3
Scheduled tribe	2.7	5.5	1	2.9
Other backward class	59.4	31.8	74	57.3
General	29.8	58.8	16.4	32.5
<b>Total number of farmers</b>	<b>1550</b>	<b>650</b>	<b>800</b>	<b>3000</b>

## Economic status

Overall the data of the three states indicated that 30% of the farmers were poor (households having income of < 2 USD per day) and 70% belonged to 'Others' category. State-wise data shows that the concentration of poor farmers is relatively high in Bihar (35.5%), followed by Uttar Pradesh (30.9%). In case of

Maharashtra only 16.3% of the total sample farmers were under “poor category”.

**Table 5: Distribution of farmers by economic status (%)**

Economic Status	State			
	Bihar	Maharashtra	Uttar Pradesh	Total States
Poor	35.5	16.3	30.9	30.1
Other	64.5	83.7	69.1	69.9
<b>Total number of farmers</b>	<b>1550</b>	<b>650</b>	<b>800</b>	<b>3000</b>

### Land holding

Of the total sample, 90.3% farmers were those who owned land. Maximum proportion of farmers who owned land was noticed in Maharashtra (94.6%), followed by Uttar Pradesh (91%), and Bihar (88.2%). As regards to the size of land owned, nearly 56 percent of the land owners were Marginal farmers (owning 0.1 -1 ha of land), 23 percent were small (1.1-2 ha) land owners while about 12 percent farmers owned above 2 ha of land. State-wise data revealed that Bihar has maximum proportion of marginal land owners (71%) followed by 46.9% in Uttar Pradesh and 29.7% in Maharashtra. The average size of land owned was in the range of 2-3 ha across the three states.

**Table 6: Distribution of farmers by land holding status (%)**

Land ownership	State			
	Bihar	Maharashtra	Uttar Pradesh	Total 3 states
<b>Farmers not owning land (n)</b>	227	35	72	334
<b>(%)</b>	11.8	5.4	9.0	9.7
<b>Farmers owning land (n)</b>	1323	615	728	2666
<b>(%)</b>	88.2	94.6	91	90.3
<b>Size of land owned</b>				
Marginal (0.1-1ha)	71.0	29.7	46.9	55.6
Small (1.1- 2 ha)	13.7	34.6	31.3	22.9
Above 2 Ha	3.5	30.3	12.9	11.8
<b>Average size of land owned</b>	<b>2.24</b>	<b>3.01</b>	<b>2.63</b>	<b>2.52</b>

Total no. of farmers	1550	650	800	3000
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**Table 7: Distribution of farmers by land holding status (%)**

Land ownership	State			
	Bihar	Maharashtra	Uttar Pradesh	Total states
<b>Farmers not owning land (n)</b>	227	35	72	334
(%)	11.8	5.4	9.0	9.7
<b>Farmers owning land (n)</b>	1323	615	728	2666
(%)	88.2	94.6	91	90.3
<b>Size of land owned</b>				
Marginal (0.1-1ha)	71.0	29.7	46.9	55.6
Small (1.1- 2 ha)	13.7	34.6	31.3	22.9
Above 2 Ha	3.5	30.3	12.9	11.8
<b>Average size of land owned</b>	<b>2.24</b>	<b>3.01</b>	<b>2.63</b>	<b>2.52</b>
<b>Total no. of farmers</b>	<b>1550</b>	<b>650</b>	<b>800</b>	<b>3000</b>

#### **COMPETING INTERESTS DISCLAIMER:**

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

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