CONSTRAINTS ANALYSIS OF DAIRY FARMERS IN BIHAR
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ABSTRACT
The study was conducted in Kalwari, Nariyar, Pilki, and Mohammadpur villages of Muzaffarpur district and Mahuawa, Bisunpurwa, Pipradih and Bela villages of East Champaran district of North Bihar. Data were collected from a total of 128 dairy farmers belonging to Beneficiaries (64) and non-Beneficiaries (64) of Tirhut Milk Producers' Co-operative Union Limited. Majority of the respondents were found to be experiencing moderate level of constraints in adoption of SDFPs. The extent of constraints were 50.48 and 46.08 per cent as experienced by beneficiaries and non-beneficiaries, respectively. Extent of constraints was maximum in breeding and minimum in management among both categories of respondents.

INTRODUCTION
Animal husbandry and dairying are contributing sectors to the rural economy and empowerment. Since inception of Operation Flood planned dairy development was taken and under its aegis a network of infrastructure were created throughout the country. The waves of White Revolution have reached in Bihar with the establishment of Bihar State Cooperative Milk Producers' Federation Ltd. (COMPFED) in 1983. The newly created Tirhut Milk Producers' Co-operative Union Limited (TIMUL) under COMPFED is striving hard since a decade for dairy development in Bihar. Since last 10 years, TIMUL is constantly channelising supply and services, and awareness programmes for the ultimate development of dairying in its milk shed areas. TIMUL's innovative approach with traditional milk products has won many prestigious honours, including the one for stimulating industrial growth in North Bihar (Roychaudhary, 1997). It is expected that as a result of dairy co-operatives, the farmers have acquired knowledge and adopted scientific dairy farming practices. This study was taken up to ascertain the constraints impeding the adoption of SDFPs in the state in general and in the milk shed area of TIMUL in particular.

MATERIAL AND METHODS
The study was conducted in 8 villages of Northern Plains of Bihar, Kalwari, Nariyar, Pilki, and Mohammadpur villages of Muzaffarpur district and Mahuawa, Bisunpurwa, Pipradih and Bela villages of East Champaran districts were selected randomly. From each village, 8 beneficiaries and 8 non-beneficiaries of TIMUL were interviewed during February - March of 1998. The constraints were measured with the help of scale developed by Sharma (1980).

RESULTS AND DISCUSSION
Categorisation of Respondents according to their Perceived Constraints
Breeding: Data in Table 1 depict that a large percentage of beneficiaries (73.44%) and majority of the non-beneficiaries (59.37%) were facing moderate level of constraints. Major constraints in adoption of breeding practices were perceived by 7.81 per cent of beneficiaries and 23.44 per cent of non-beneficiaries. Only 18.75 per cent of beneficiaries and 17.19 per cent of non-beneficiaries perceived minor level of constraints in adoption of breeding practices.

Feeding: A moderate level of constraints in adoption of feeding practices was perceived by majority of the beneficiaries (54.12%) and non-beneficiaries (53.13%). Major and minor

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### Table 1. Distribution of respondents according to their perceived constraints

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Area</th>
<th>Categories (Score)</th>
<th>Respondents</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Beneficiaries (n=64)</td>
<td>Non-Beneficiaries (n=64)</td>
<td>Pooled (n=128)</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Breeding</td>
<td>Major (Less than 12.58)</td>
<td>5 (7.81)</td>
<td>15 (23.44)</td>
<td>20 (15.62)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate (12.58 to 22.68)</td>
<td>47 (73.44)</td>
<td>38 (59.37)</td>
<td>85 (66.41)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minor (Above 22.68)</td>
<td>12 (18.75)</td>
<td>11 (17.19)</td>
<td>23 (17.97)</td>
</tr>
</tbody>
</table>

| 2.      | Feeding      | Major (Less than 14.13)    | 17 (26.57)  | 22 (34.37) | 39 (30.47) |
|         |              | Moderate (14.13 to 20.75)  | 34 (54.12)  | 34 (53.13) | 68 (53.12) |
|         |              | Minor (Above 20.75)       | 13 (20.31)  | 8 (12.50)  | 21 (16.41) |

| 3.      | Health care  | Major (Less than 8.17)     | 1 (1.56)    | 0 (0.00)   | 1 (0.78)   |
|         |              | Moderate (8.17 to 13.59)   | 47 (73.44)  | 55 (85.94) | 71 (55.47) |
|         |              | Minor (Above 13.59)       | 16 (25.00)  | 9 (14.06)  | 56 (43.75) |

| 4.      | Management   | Major (Less than 6.50)     | 0 (0.00)    | 0 (0.00)   | 0 (0.00)   |
|         |              | Moderate (6.50 to 8.56)    | 45 (70.31)  | 58 (90.62) | 103 (80.47) |
|         |              | Minor (Above 8.56)        | 19 (29.69)  | 6 (9.38)   | 25 (19.53) |

| Overall | Major (Less than 43.72) | 9 (14.06) | 13 (20.31) | 22 (17.19) |
|         | Moderate (43.72 to 63.20) | 38 (59.38) | 44 (68.75) | 82 (64.06) |
|         | Minor (Above 63.20)      | 17 (26.56) | 7 (10.94)  | 24 (18.75) |

Figures in parentheses indicate percentage.

Constraints perceived by 26.57 and 20.21 per cent of beneficiaries, respectively. While 34.37 and 12.50 per cent of non-beneficiaries fell under major and minor constraints level, respectively.

Health Care: A large percentage of beneficiaries (73.44) and non-beneficiaries (85.94) perceive moderate level of constraints in adoption of scientific health care practices. Only 1.56 per cent of beneficiaries and none of the non-beneficiaries perceived major constraints in adoption of health care practices and 25.00 per cent beneficiaries and 14.06 per cent non-beneficiaries were lying under minor category.

Management: Most of the beneficiaries (70.31%) and non-beneficiaries (90.62%) perceived moderate constraints in adoption of scientific management practices. None of the respondents perceived major constraints in adoption of scientific management practices. A 29.69 per cent of the beneficiaries and 9.38 per cent of non-beneficiaries perceived minor level of constraints.

Overall Perceived Constraints in Adoption of SDFPs: Majority of the beneficiaries (59.38%) and non-beneficiaries (68.75%) perceived moderate level of constraints in adoption of SDFPs. Under perceived major constraints category, 14.06 per cent of the beneficiaries and 20.31 per cent of non-beneficiaries were falling. Minor level of constraints were experienced more frequently by the beneficiaries (26.56%) than non-beneficiaries (10.94%).

Extent of Constraints Among Beneficiaries and Non-beneficiaries: Among beneficiaries of TIMUL, extent of overall perceived constraints was 50.08 per cent, while it was 46.08 per cent in case of non-beneficiaries of TIMUL. Findings in Table 2 clearly depict that ranking order of extent of perceived constraints was same in case of both categories of respondents. Breeding, feeding, health care and management practices were ranked I, II, III and IV, respectively. In case of beneficiaries, the extent of perceived constraints was highest in breeding practices (67.30%), followed by feeding (49.69%), health care (40.96%) and management (36.77%). Incase of non-beneficiaries, the extent of perceived constraints were also in the same
Table 2. Extent of constraints among respondents

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Area</th>
<th>Beneficiaries</th>
<th>Non-Beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extent of constraints</td>
<td>Rank</td>
<td>Extent of constraints</td>
</tr>
<tr>
<td>1.</td>
<td>Breeding</td>
<td>67.30</td>
<td>I</td>
</tr>
<tr>
<td>2.</td>
<td>Feeding</td>
<td>49.69</td>
<td>II</td>
</tr>
<tr>
<td>3.</td>
<td>Health care</td>
<td>40.96</td>
<td>III</td>
</tr>
<tr>
<td>4.</td>
<td>Management</td>
<td>36.77</td>
<td>IV</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>50.48</td>
<td></td>
</tr>
</tbody>
</table>

Appendix I

i) BREEDING:
   a) Poor results of A.I.
   b) Non-availability of semen at SMC/A.I. Centres
   c) Inefficient services at A.I. centre
   d) Demanding of money for doing A.I. in addition to prescribed fee
   e) Inadequate knowledge to detect heat in animals
   f) Ignorance of the utility of A.I. practices
   g) Location of A.I. centre at a long distance
   h) Preference to natural services as compared to A.I.
   i) Ignorance about the existence of A.I. centre

ii) FEEDING:
   a) Non-availability of HYVs fodder seeds and other planting material
   b) Lack of clean drinking water for providing to animals
   c) Lack of irrigation facilities for growing fodder
   d) High cost of compound feed
   e) Non-availability of land for fodder production
   f) Interest in growing cash/food crops rather than in fodder production
   g) Non-availability of mineral mixture in the area
   h) High cost of mineral mixture
   i) Lack of knowledge of recommended feeding practices for milch animals
   j) Lack of technical guidance for growing green fodder
   k) Non-availability of compound feed in the area

iii) DISEASE CONTROL / HEALTH CARE:
   a) Non-availability of medicines in hospital / SMC
   b) Ignorance of services and facilities available for animal health at SMC
   c) Ignorance of utility of vaccines as a prophylactic measure against Contagious diseases
   d) Lack of knowledge of common contagious diseases, their causes and control measures
   e) Location of dispensary/hospital at distant places
   f) Treatment facilities are not readily available
   g) Inadequate supply of FMD vaccine
   h) High cost of FMD vaccine
   i) Medicine market is not within reach

iv) MANAGEMENT:
   a) Traditional practices of providing inadequate housing to animals
   b) Knowledge of cheap and scientific housing of animals not available
   c) Lack of resources for providing scientific housing
   d) Poor education of modern dairy husbandry practices
   e) Lack of appreciation and recognition of hygienic milking and pre-testing of milk for mastitis
   f) Ignorance of importance of deworming and delicking animals
   g) Lack of knowledge of keeping data wise record of calving Service, etc.

order with (63.77%), relatively lower percentage; But in case of feeding practices the extent was more for non-beneficiaries.

The discussion made in this sub-head revealed, only the level of constraints experienced by both the categories of respondents. Findings, however, are silent about the various bottlenecks constraining the dairy farming activities in the study area. Hence a comprehensive list of such constraints as experienced by the dairy farmers in the areas of feeding, breeding, health-care and management of SDFPs has been made and furnished in Appendix I.

CONCLUSION

From the above findings, it can be concluded that except feeding, beneficiaries had perceived more constraints than non-
beneficiaries of TIMUL in adoption of SDFPs. This may be attributed to the fact that the quality breeds were being reared by the beneficiaries which requires more care regarding their breeding, health care and management practices. Non-beneficiaries on the other hand, resorted mostly to the indigenous breeds and buffaloes, and perhaps they were contended with their traditional practices with lesser degree of constraints in their adoption in comparison to SDFPs.

REFERENCES