

## **Area Development Schemes for Dairy in North-East India: Replicable Models for Doubling Farmers' Incomes**

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Livestock contributes about 36% of the income of small and marginal farmers in India. Naturally for doubling the incomes of farmers, it is important to focus on the animal husbandry sector. Inadequate flow of bank credit is one of the reason for low private capital formation in agriculture (including animal husbandry) – and it is still low in the North-Eastern States. Area Development Schemes along with Banking Plans for dairy and animal husbandry activities were developed by NABARD, to facilitate adequate long-term institutional credit flow to the farmers, for private capital formation in the States of Assam, Meghalaya and Manipur. This issue of Rural Pulse portrays salient features of distinct models of Area Development Schemes and Banking Plans, successfully implemented in the North-Eastern States during 2014-15 to 2016-17, for credible replication in other States of the country.

### **Doubling Farmers' Incomes**

The Situation Assessment Survey (SAS)-2014 of the National Sample Survey Organisation (NSSO) categorizes farmers' income (all size-classes of farmers) under four heads: (i) net receipts from cultivation; (ii) net receipts from farming of animals (including poultry, fishery); (iii) income from non-farm businesses; and (iv) income from wages and salaries. Farmers' total income is growing at 3.5% annually. However, income from livestock is growing at about 14.5% per year. The share of income of all farmers from cultivation rose marginally from 45.8% in 2002-03 to 47.9% in 2012-13, yet share of receipts from livestock farming increased perceptibly from 4.3% to 11.9% over the same period. So, to double the incomes of farmers it is important to facilitate capital formation under the animal husbandry sector.

### **Investment Credit for Capital Formation**

Small and marginal farmers' capital base is low and their investible surplus is also limited to allow investments in fixed assets. Capital formation is predominantly dependent on investment credit.

Credit acts as an enabling and critical input in agriculture production process at the farmers' level. The share of investment credit in total agriculture credit declined drastically from 35.4% (2006-07) to 19.6% (2015-16). International Livestock Research Institute conducted a study in Assam and reported that limited credit facility to the resource-poor rural farmers was a major constraint for the development of animal husbandry in Assam. To boost farm level investments through credit from banks as a strategic mechanism, NABARD has formulated Area Development Schemes (ADS) with different models and Banking Plans.

### **(A) Area Development Schemes**

Area Development Schemes (ADSs), based on the identified potential for investment credit, backward-forward linkages available and farmers' felt needs, are implemented and monitored with the involvement of banks and all other stakeholders. NABARD, Assam RO, has prepared ADSs on dairy, fisheries, goatery and piggery activities by adopting cluster approach. Banking plans were incorporated as part of these ADSs involving

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branches of various banks, especially Regional Rural Banks (RRBs) to facilitate the flow of ground level credit to the sector. District Development Managers (DDMs) of NABARD ensured proper launching and implementation of the schemes (ADSs) in association with the line departments, marketing agencies, NGOs and banks. This issue of Rural Pulse highlights the salient features of various models of ADSs implemented in Assam, Meghalaya and Manipur states.

### **Model-1: ADS-Dairy (Tripartite Agreement for Loan Repayment), Barpeta District, Assam**

The ADS (Model-I) was implemented during 2015-16 in Bajali Block of Barpeta district, with the participation of 12 Dairy Cooperative Societies (DCSs) and eight branches of banks. The DCSs established under Assam Agricultural Competitiveness Project (AACP) were involved in identifying suitable borrowers. The characteristic feature of this model is tripartite agreement executed among Societies, banks and dairy farmers. Subsidy was provided under Dairy Entrepreneurship Development Scheme (DEDS). Bank loan was disbursed through the DCSs. During 2015-16, 202 dairy units were financed by banks; repayment of bank loan was done by DCSs on behalf of borrowers. Banks reported 100% recovery. Implementation of ADS-Model-I increased the Ground Level Credit (GLC) flow to dairy sector in Bajali block by 120% within a year, with additional production of 10,000 litres of milk per day. Investments were also made under ADS in processing unit for milk products through bank loan from Canara Bank, and marketing outlet for milk products through term loan from IDBI Bank, thus taking care of the value chain of milk.

### **Model II: ADS-Dairy (Convergence), Dibrugarh District, Assam**

A characteristic feature of ADS (Model-II) is the convergence of efforts of line departments. Department of Animal Husbandry was involved

in identifying dairy farmers for bank loan. Exclusive review meetings on regular basis were convened by District Collector (DC) to ensure progress under the scheme. Initially there were less than 100 dairy units financed under DEDS since inception in Dibrugarh district. It invoked preparation of ADS for implementation. The ADS was launched on 15 May 2015. It covered five blocks of the district, setting a target of financing during 2015-16 minimum 50 dairy units per block on cluster basis in selected villages by Allahabad Bank, Assam Gramin Vikash Bank (AGVB), United Bank of India and State Bank of India. A special meeting was conducted for wide deliberations and a detailed action plan was drawn in association with the identified Banks, Department of Animal Husbandry and Veterinary Services, Dairy Development Department, KVK and Lead Bank Office. Coordination ensured among all agencies could facilitate setting up of 239 new Small Dairy units, achieving 95% of target during 2015-16.

### **Change & Success Story –From ‘Black Tea’ to ‘Milk Tea’: Impact of ADS (Model-II)**

Upper Assam is famous for tea production. However, people consume black tea without milk in the region due to less production of milk than demand. The ADS implemented in Dibrugarh district reported enhanced production of 2800-3000 litres of milk per day in the district and it has brought smile to many small/marginal farmers who otherwise were engaged only in cultivation. With an average yield of 6-8 litres of milk per day per cow, sold @Rs.35/litre, the first-generation dairy farmers could generate additional net income of Rs.4000 to 6800 per month. Besides, consumption of milk is increasing in the area, changing the preference of local people from “black tea” to “milk tea”.

## **Model III: ADS-Animal Husbandry (Joint Liability Groups) Goalpara District, Assam**

The third model of ADS was aimed at landless laborers and implemented during 2016-17. A characteristic feature of the model is the Joint Liability Group (JLG) mode of activity. NGOs acted as JLG Promoting Institutions (JLGPIs). JLGs are financed by banks for Animal Husbandry (AH) activities such as piggery, goatery, dairy, etc. There is maximum convergence of efforts of the line departments. Regular review is undertaken in the meetings convened by District Collector to ensure progress under the scheme.

## **Model IV: ADS-Dairy (Forward Linkage), East Khasi Hills District, Meghalaya**

The ADS was implemented during 2016-17. A characteristic feature of ADS (Model-IV) was that NABARD arranged exposure visit to Bulk Milk Cooling Units (BMCUs) and strengthening forward linkages for the office-bearers of Dairy Cooperative Societies (DCSs), Members and Banks, to Barpeta district (Assam). The BMCU was provided to the Societies to store milk in hilly areas. The Societies were involved in identifying suitable borrowers. The Meghalaya Cooperative Apex Bank and United Bank of India financed dairy units to the members of DCSs.

## **Model V: ADS-Dairy (Value Chain Financing), Thoubal District, Manipur**

This ADS (Model-V) was implemented during 2016-17 and involved financing of Dairy Value Chain in association with a Farmers Producers' Organization (FPO) in Manipur. Milch animals were financed in Thoubal, Imphal West and Bishnupur districts of the State. Youth Volunteer Union (YUV) Milk Producers Company Limited

(YMPCL) at Thoubal, is providing milk marketing facilities and coordinating execution of the tripartite agreement among dairy farmers, milk producers' company and financing banks.

## **(B) Banking Plans**

### **(i) Model-VI: Banking Plan-Dairy (RRB): Multi-Regions/Districts**

This model (banking plan) for dairy activity involved Assam Gramin Vikash Bank (AGVB) branches in 17 districts spread across five regions of Assam State. Targets were fixed for various dairy-based activities, viz., small dairy units, milking machines, bulk milk cooling units, dairy processing units, private veterinary clinics and dairy marketing outlets. Units set up under the Dairy Entrepreneurship Development Scheme (DEDS) are entitled for subsidy @ 25% (general) or 33.33% (SC/ST) of the project cost.

### **(ii) Model-VII: Banking Plan-Piggery (RRB): Multi-Regions/Districts**

A banking plan for piggery was prepared by NABARD for implementation by Langpi Dehangi Rural Bank (LDRB) during 2015-16 on pilot basis in two Development Blocks and expanded to all development blocks of Karbi Anglong and Dima Haso districts during 2016-17. LDRB extended loans for pig fattening units, breeding units and breeding-cum-fattening units. NABARD provides refinance facility to the bank and also arranges facility for capacity building of the beneficiaries. Karbi Anglong is the largest district in Assam covering about 13% of the state area. The rural economy of Karbi Anglong district is agro-based and for 56% of the population, that is tribal, piggery is an integral part of household livelihood strategy.

Pig production in Assam is invariably a small-scale, backyard-based yet market-oriented enterprise. It is a low-external input enterprise, depending on family labour and local inputs, particularly feed, that are of no/low opportunity cost. Despite being small-scale (1-5 pigs), production contributes significantly to the livelihood of the majority of pig-rearing households. The income from pig sales meets essential household and farming expenses, and provides some financial independence to women in the family.

## Conclusions

Animal husbandry activities, including dairy provide a much sought cushion to the small and marginal farmers for farm income in case of crop failure, besides supplementing their farm income with additional output and income –both for home consumption and market sale. Different models of ADSs were prepared based on strengthening the backward and forward linkages of animal husbandry sector in the area. Convergence, Coordination, Tripartite Agreements, Joint Liability Groups, Cooperative Societies, FPOs and Value Chain Financing, Farmers' Producers' Companies, Extension/Capacity Building, etc. are the distinguishing features of distinct models of ADSs and Banking Plans prepared by NABARD and

implemented successfully in association with all stakeholders in selected regions/districts of North-East India. Credit flow, asset creation, production enhancement, better marketing and increased incomes are perceptible deliverables of ADSs, leading to capital formation and generation of additional income for farmers.

## The Way Ahead

The ADS models experimented in the North-Eastern Region (NER) facilitated credit flow to the AH sector. These models may be plausibly replicated in other parts of the country in the process of doubling farmers' income by 2022. A successful implementation of ADSs in the NER suggested that farmers of other States may also benefit from similar planned interventions implemented with the financial support of banks and subsidy support under DEEDS even as implementation of ADSs has led to significant jump in the performance of DEEDS scheme of Government of India. Distinct models of ADSs and Banking Plans with different activities covered under AH sector hold promise for enhancing the incomes of small and marginal farmers by replication in all the states as revealed by success achieved in the NER States.

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