# "Impact Assessment and Evaluation of Fodder Seed Production and Sale activities under National Dairy Plan I in Selected States of India"



# **Funded by PMU NDDB**



# **Agro-Economic Research Centre**

(Ministry of Agriculture & Farmers Welfare, GOI) H. M. Patel Institute of Rural Development

Sardar Patel University,

Vallabh Vidyanagar 388120, Dist. Anand, Gujarat.

Ph. +91-2692-230106/230799; Fax- +91-2692-233106

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### **AERC Report No. 186**

Prepared by: Agro-Economic Research Centre, Sardar Patel University, Vallabh Vidyanagar, Anand.

Dr. S. S. Kalamkar, Director and Professor, AERC

Dr. Kinjal Ahir, Deputy Director (Hon), AERC

Dr. S. R. Bhaiya, Field Officer, CCS, AERC

Dr. H. Sharma, Research Officer, AERC

### **State Partners**

Karnataka Agricultural Development and Rural Transformation Centre, Institute for Social and

Economic Change, Nagarbhavi, Bangalore, India

Andhra Pradesh Assistant Professor, Centre for Economic and Social Studies, Nizamiah Observatory

Campus, Begumpet, Hyderabad- 500016, Telangana

Uttar Pradesh Hon. Director and Professor, Agro-Economic Research Centre, Monirba Campus,

Chaitam Line, University of Allahabad, Allahabad-211 002, Uttar Pradesh.

Rajasthan Officer In-charge, Cost of Cultivation Scheme, Maharana Pratap University of

Agriculture & Technology, Udaipur 313 001, Rajasthan

Bihar Director, Agro-Economic Research Centre, T M Bhagalpur University,

Bhagalpur - 812 007, Bihar

Maharashtra Professor, Department of Economics,

Shivaji University, Kolhapur 416 004, Maharashtra

Gujarat Director & Professor, AERC, Sardar Patel University,

Vallabh Vidyanagar, Anand

Punjab Principal Scientist and Head, Division of Dairy Economics, Statistics &

Management, National Dairy Research Institute, Karnal (Haryana), INDIA 132001

### Published by

The Director

### **Agro-Economic Research Centre**

(Ministry of Agriculture & Farmers Welfare, Govt. of India)

Sardar Patel University, Vallabh Vidyanagar, Anand, Gujarat.

Ph. No. +91-2692-230106, 230799, 292865 (direct)

Fax- +91-2692-233106

Email: director.aerc@gmail.com; directoraercgujarat@gmail.com

### Printing and Circulation In-charge:

Shri Deep K. Patel

Report submitted in August 2019

Citation: Kalamkar, S. S.; Ahir Kinjal; Bhiaya S. R.; and Sharma H. (2019). "Impact Assessment and Evaluation of Fodder Seed Production and Sale activities under National Dairy Plan I in Selected States of India", AERC Report No. 186, Agro-Economic Research Centre, Sardar Patel University, Vallabh Vidyanagar, Anand, Gujarat.

## **Foreword**

India is the highest milk producer country in the World but milk production per animal per year is very low. Deficiency in quantity and quality of fodder is one of the major cause of this low productivity. Animals need proper feeding to meet their nutrient requirement to explore their full genetic production potential. Deficiency of green forage is mainly due to the non-availability of land for fodder cultivation. India has vast tracts of grazing land, most of which has fragmented or become degraded due to lack of appropriate policy interventions and management inputs. Fodder is cultivated or grown naturally on degraded and marginal lands with minimum inputs, in terms of fertilizers, water and operational energy. Moreover, in case of forages, regional and seasonal deficiencies are more important than the national deficiencies, as it is not economical to transport the forage over long distances.

The marginal and small farmers own only 44 per cent of the agricultural land while they own 80 per cent livestock assets. Quite logically, if the income of the farmer is to be doubled by 2022 as per the vision given by the Hon Prime Minister in 2016, then livestock is perhaps the best and most available assets. Livestock development is important to enhance farmers' income due to higher availability of the livestock as compared to land as an asset for income generation. Overall productivity of livestock has been low in past, because of inadequate nutrition from green fodder, along with dry residue and protein concentrate. As per NIANP (ICAR) estimate, there is shortage of up to 36 per cent of green fodder and protein concentrates besides up to 23 per cent shortage of dry fodder.

With an aim to increase productivity of milch animals and thereby increase milk production to meet the rapidly growing demand for milk as well as to provide rural milk producers with greater access to the organised milk-processing sector, Government of India approved the scientifically planned multi-state initiative, i.e. National Dairy Plan Phase I (NDP I) as a Central Sector Scheme for a period of six years from 2011-12 to 2016-17. This plan was launched to cover 15 major milk producing States viz. Andhra Pradesh, Telangana (after separation), Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal which account for over 90 per cent of the country's milk production, having 87 per cent of breedable cattle and buffalo population and 98 per cent of the fodder resources. In June/August 2015, the Union Government included three more states viz. Uttarakhand, Jharkhand and Chhattisgarh and it was extended up to 2018-19. This plan was implemented wholly by National Dairy Development Board, Anand (Gujarat) through milk co-operatives and state agencies. The project includes a number of programs, of which Fodder Development Programme (FDP) was designed with an aim to enhance green fodder yield of cultivated fodder crops from the land already under fodder production as well as to increase seed production of fodder crops and enhance use of quality fodder seeds. To strengthen fodder seed multiplication and distribution chain, an important component of sub-project plan on Fodder Development, NDP I was to create required infrastructure of fodder seed production, processing, storage and marketing of fodder seeds at dairy cooperative level, and encourage production and usage of fodder seeds by farmers for enhancing yield and availability of green fodder. About 3.18 per cent of total project cost (Rs. 2060 Crore) was earmarked for this component. Fodder Development Programme under NDP I had entered into its 5<sup>th</sup> year of operations in April, 2017. It was planned to undertake an impact assessment and evaluation for strengthening fodder seed multiplication and distribution chain at dairy cooperative level under sub project of FDP. Therefore, present study was undertaken in eight states covered under NDPI fodder development programme (Andhra Pradesh, Bihar, Gujarat, Karnataka, Maharashtra, Punjab, Rajasthan and Uttar Pradesh) for a comprehensive assessment of the present status of fodder development programme under NDP I thereby enhancing dairy development. The study came out with important and relevant policy implications which would help to enhance efficiency of implementation benefitting the milk producers.

I thank the National Dairy Development Board, Anand for giving us an opportunity to undertake this study. I am also thankful to authors and the research team for putting in a lot of efforts to complete this excellent piece of work. I hope this report will be useful for policy makers and researchers.

### **Agro-Economic Research Centre**

For the states of Gujarat and Rajasthan (Ministry of Agriculture and Farmers Welfare, Govt. of India) Sardar Patel University,

Sardar Patel University, Vallabh Vidyanagar 388120 (Dr. S.S. Kalamkar)
Director & Professor

# **Acknowledgements**

The study on "Impact Assessment and Evaluation of Fodder Seed Production and Sale activities under National Dairy Plan I in Selected States of India" has been carried out at the Agro-Economic Research Centre, Sardar Patel University, Vallabh Vidyanagar, Anand, Gujarat, as supported by National Dairy Development Board, Anand, Gujarat.

We have benefited immensely from various scholars and officials from different government departments while carrying out this study. At the outset, we would like to thank **Prof. Shirish Kulkarni**, Vice Chancellor of our University and Chairman, AERC Governing Body for his constant encouragement and support for undertaking such research activity at the Centre.

We are deeply grateful to our Honorary Advisor Prof. **Mahesh Pathak** for his constant support and guidance in undertaking and completion of this project work.

We are grateful to **Dr. Dilip Rath**, Chairman, National Dairy Development Board (NDDB) for giving us an opportunity to undertake this study. We also thank the officers of NDDB, Shri O. P. Sachan (GH, Purchase), Shri Meenesh C Shah (GH, CMC), Shri Chokalingam (GH, SA&S), Shri V. Sridhar (GH, AN), Dr. Jignesh Shah (Sr. Manager), Shri S. Y. Krishna (Sr. Manager Purchase), Shri Arvind Kumar (Sr. Manager, CMC), Dr. Anil Patel and Shri V. Bhattacharya for their support and help during the study.

We are thankful to **Dr. Digvijay Singh**, Senior Manager (AN), NDDB, Anand for his constant support during the execution of field survey data work.

We thank all the corresponding officers of NDDB in selected States for providing the necessary support in primary data collection. We are grateful to the all the Chairman and Managing Director of selected District Co-operative Milk Producers' Union Ltd as well as Primary Dairy Cooperative Societies of selected villages from all the States covered under study for providing the necessary data and support in primary data collection.

We are also thankful to all our state partners, viz. Agricultural Development and Rural Transformation Centre, Institute for Social and Economic Change, Bangalore, India; Assistant Professor, Centre for Economic and Social Studies, Nizamiah Observatory Campus, Begumpet, Hyderabad- 500016,\_Telangana; Hon. Director and Professor, Agro-Economic Research Centre, Monirba Campus, Chaitam Line, University of Allahabad, Allahabad, Uttar Pradesh; Officer Incharge, Cost of Cultivation Scheme, Maharana Pratap University of Agriculture & Technology, Udaipur, Rajasthan; Director, Agro-Economic Research Centre, T M Bhagalpur University, Bhagalpur, Bihar; Professor, Department of Economics, Shivaji University, Kolhapur, Maharashtra; Principal Scientist and Head, Division of Dairy Economics, Statistics & Management, National Dairy Research Institute, Karnal (Haryana) for their support in primary data collection in respective state.

The study would not have reached to this stage without the active co-operation of the respondent fodder seed and green growers from selected villages who provided all the required data for the study without any hesitation and expectation. We thank each one of them for their invaluable support.

We have also received support and encouragement from our colleagues in the Centre while carrying out the study. We are thankful to our fieldsmen (for collecting data from the field and government/dairy union offices), accounts and supporting staff for necessary support.

Thanks to Shri Deep Patel (Research and Reference Assistant-Lib) for preparing the cover page of report and making necessary arrangements for printing of the report.

Lastly but not least, we thank the all other AERC staff for their direct and indirect support.

Agro-Economic Research Centre
For the states of Gujarat and Rajasthan
(Ministry of Agriculture, Govt. of India)
Sardar Patel University,
Vallabh Vidyanagar 388120, Anand, Gujarat.

S. S. Kalamkar Kinjal Ahir S. R. Bhaiya Hemant Sharma

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