



ATSAF - CGIAR++ Junior Scientists Program Final Report

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Title: Assessment and comparison of animal welfare conditions in rural dairy farming systems of Warangal and urban dairy farming systems of Hyderabad in Telangana

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Junior Scientist Program (JSP) at ATSAF :

It is a great honor and privilege to receive a Junior scientist program scholarship at ATSAF for my master thesis at ILRI, India.

I would like to express my gratitude towards ATSAF (Arbeitsgemeinschaft Tropische und Subtropische Agrarforschung e.v.) chair of selection and selection committee members and sponsors for accepting my application for the junior scientist program and sanctioning scholarship for my master thesis expenses. I feel proud to have the junior scientist program (JSP) funding award for my master thesis at ILRI, India.

I would like to convey my sincere gratitude to Dr. Ram Pratim Deka, who has been working in ILRI as a scientist & research management coordinator for accepting my thesis proposal to work with ILRI, India, and guiding me personally on every step of my master thesis journey. I would also convey my thankfulness to Pro. Dr. Mizeck Chagunda, The head of Animal breeding and husbandry at the University of Hohenheim, and Dr. Christoph Reiber for guiding me throughout developing my thesis proposal, questionnaire and data analysis has been supported me in every move of my master thesis.

Thesis Work and Pandemic

I was extremely happy and proud to work for the international livestock research institute (ILRI) as it is one of the international agricultural research centers (IARC) which comes under the consultative group of international agriculture research (CGIAR) institutes. ILRI is co-hosted by Kenya and Ethiopia, works for better lives through livestock in developing countries. It has various research projects among the developing countries in Asia and Africa which are monitored by 14 regional offices around the globe. ILRI India works for the upliftment of smallholder farmers through encouragement for livestock production in India.

Due to the widespread corona pandemic all around the world, the progress of research projects declined across the globe. Keeping the conditions in mind, I was planned for a mixed start for my master thesis. I have developed a proposal, literature review and was involved in questionnaire design in February and march in Germany.

I had traveled to India on April 2nd, 2021. The pandemic situations rapidly changed in India and lockdown was announced. I was infected with the coronavirus in May and my health condition was critical. The government of India imposed lockdown restrictions. As a result of the lockdown, the data collection was delayed, and the study is restricted to Telangana state.



A lockdown in several states of India made situations impossible to visit Assam, we have decided to modify the topic and the study will be restricted to the state of Telangana focusing on animal welfare of dairy cattle in urban and rural areas of the state i.e., in Warangal, and Hyderabad districts.

In June, I had visited the urban dairy farming systems of Hyderabad. Individual body scores (Mobility, body condition, and cleanliness), herd measures, and record measures are assessed with the Assurewel welfare assessment protocol. In each farm, 3 animals are assessed for their body scores and whole-farm assessed for herd measures and record measures. In the urban dairy farming systems, I have assessed the 25 cow farms and 25 buffalo farms. With the use of a questionnaire, socio-economic details of the farmers, herd size of the farm, farming system details, milk production and price, knowledge, perceptions, socio-economic problems, adaptation strategies, and attitude towards animal welfare by farmers have been collected to assess the associated problems encountered by farmers to maintain animal welfare.

In July, To assess the animal welfare conditions in the rural dairy farming systems, I have traveled to villages in the Warangal district. 25 cow farms and 25 buffalo farms had been assessed for the individual measures, herd measures, and recorded measures. The data of socio-economic details of the farmers, her size of the farm, farming system details, milk production and price, knowledge, perceptions, socio-economic problems, adaptation strategies, and attitude towards animal welfare had been collected to compare assess the animal welfare conditions between urban dairying farming systems in Hyderabad and rural dairy farming systems in Warangal of the Telangana state.

Preliminary Results of Thesis Research

The key results observed are the critical conditions of animal welfare in both urban and rural dairy farming systems. The rural dairy farmers have poor knowledge of animal welfare and parameters to maintain animal welfare on the farm. Most of the rural dairy farmers are uneducated and do not know the technical knowledge of maintaining animal welfare on the farm. The urban dairy farmers are comparatively better in maintain animal welfare conditions on the farm. The animal body conditions, herd measures, and record measures are in a better manner compared to the rural dairy farms. The socio-economic standards of urban farmers are far better than farmers living in the rural areas and urban farmers have strategies, plans, and interests in maintaining the animal welfare conditions in comparison to rural dairy farmers.



Problems Encountered and Solutions

I have faced some of the major issues before starting the project. In the initial stages, I didn't get accommodation in ICRISAT, Hyderabad due to the corona pandemic situation. I had found accommodation in a private apartment. The project was delayed in April due to various dilemmas like the place of work, widespread of covid, developments in the questionnaire. In the month may I was infected. These two months were critical and I was faced extreme hardness at times.

In the initial stages of the work, it was difficult to find farmers in urban areas of Hyderabad because ILRI, Hyderabad staff has no data available on farmers' details. Dr. Thanammal Ravichandran, a consultant of ILRI, arranged a research assistant personal to help me in the data collection of farms in the rural areas in the m9nth of June. He helped me to approach the farmers as he is a native and has good connections, which is made it easy for me to get the details.

In Hyderabad, As the corona novel virus is widespread in India, some farmers were hesitant to allow me to visit their farms. I have explained about my project and promised that I will maintain corona regulations while visiting and collecting the data at the farm. I have requested ILRI, Hyderabad staff to attach a research assistant to help me in my fieldwork. They agreed and it made it easy to collect the data in the urban areas.

Impact of ATSAF Funding

Junior Scientist Program (JSP), ATSAF offered me a great opportunity to work with one of the internationally renowned agriculture research institutes, ILRI in collaboration with the University of Hohenheim. The second part is the financial help of the JSP, at ATSAF. I have accomplished my dream to work for an international research institute for my thesis with the help of ATSAF. I was able to work more efficiently on my thesis because of financial freedom.

Once again I thank you ATSAf giving me this great opportunity.
