

ATSAF - CGIAR++ Junior Scientists Program

Final Report

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Supervisor at University: Prof. Dr. Vollan

**International Agricultural Research Center: International Crops Research
Institute for the Semi-Arid Tropics (ICRISAT)**

Country: India

Supervisor at IARC: Dr. Falk

Start and end date of stay at IARC: -

Start and end date of remotely supervised project: 01 Dec 2020 - 31 May 2021

**Title: Methodological measurement of social norms in the context of
sustainable water practices in rural India**

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In the course of the JSP, my research tied in with the broader project ‘Scaling-up experiential learning tools for sustainable water governance’ in rural regions within India. The project aims to conduct field research to collect data on agricultural behavioral change in nearly 1,500 communities in six Indian states. Thereby, I worked together with colleagues from ICIRSAT, IFPRI, Philipps-University of Marburg, as well as the Indian NGO FES (Foundation for Ecological Security).

The overall objective of the project is to induce behavioral change toward more sustainable water management and hence to contribute to the CGIAR System Level Outcomes (SLOs) in improved natural resources and ecosystems to reduce poverty. This is accomplished through experiential learning from collective action games, community debriefing, and participatory water planning tools. It is intended to achieve greater awareness and improved water governance through the interventions.

In the past months I developed a methodological research design to measure whether the game-based interventions led to an increase of pro-social norms to save water. In this my experimental design aims to investigate effects on social learning in water governance practices such as the maintenance of a stop dam or the choice of water efficient or a water intensive crop. Thereby, I closely worked together with my supervisors Dr. Thomas Falk (ICRISAT), as well as with Prof. Dr. Björn Vollan (Philipps-University of Marburg), which constantly provided me with helpful feedback. As planned before, I was supposed to conduct field research to collect data in several states of India. However, under the given circumstances of the pandemic we collectively tried our best to bridge the benefits of meeting each other while working remote. This included regular video calls, as well as short submissions to keep track of the current work process.

Social norms are a key factor to understand the nature of collective behavior and why people engage in them in diverse ecological settings, such as water scarce regions in rural India. I therefore intended to tailor the research design as close as possible to the local conditions although I could not be on site. Hence, I took part in several virtual meetings together with the Indian NGO FES, as well as with the members of the other organizations. My supervisor even made it possible for me to hold a presentation about my remote project together with all the participants and researchers of the broader research project. In this course, several (senior) research professionals gave me valuable feedback and engaged in fruitful discussions with me. I became aware of the hurdles and obstacles that are implicit in conducting my research in the field. Together we took considerations on sample size,



budget, and the complete feasibility of the research.

Personally, being part of such a research environment and atmosphere enabled me to get hands-on experience of the work and challenges as a professional researcher. From a master students' perspective, this is a crucial point since it is hardly possible to get such valuable insights while being a student. So, receiving this feedback made a big part of my experience during my period under the support of ATSAF.

Another point worth mentioning during this support period, was the participation at the international Water Commons conference realized by IASC (International Association for the Study of the Commons). This conference was held in order to explore the use of water as common-pool resource from diverse perspectives and disciplines with water related cases all over the world. In the context of the conference, ICRISAT among others prepared a workshop to study social learning through the realization of experiential games. Herein, I was able to actively engage as a volunteer and supporter during the phase of the workshop. The games were played with several scholars in order to explore new solutions and to gain a better understanding in the decision-making processes of farmers. Moreover, I was able to widen my lens on the global challenge of managing water resources in agriculture (e.g. irrigation schemes). This experience supported the notion to embed my project in a more profound manner into the overall context of global water struggles.

Ultimately, the goal of my research design was to contribute to a greater understanding of social norms to strengthen self-regulatory mechanisms of local communities in water consumption behavior. This was a fairly new approach in this context, also regarding the methodology of vignette experiments. At some point, crucial elements of the design, such as the design efficiency, had to be discussed in detail for all to be at the same page. In this, admittedly being in contact personally would have made communication easier and misunderstandings less frequent. Yet, when working remote this was part of the experience too. From my experience there always the need to remove all ambiguities, which contributed to my personal growth as a young career starter.

To sum up, with the support of ATSAF I was able to focus on my project on agricultural development and thus enabled to accomplish a productive work routine, as well as a good feedback loop with my coordinators. Being a student during this pandemic, the financial support of ATSAF was



crucial and has contributed considerably to finish my Master studies at the Philipps-University of Marburg. The organization of the JSP, as well as the correspondence has always been smooth and clear. Thereby, coming up with question e.g. on the application process was never considered an issue and always answered professionally. Hereby, I want to express my gratitude as a participant of the JSP.

Regarding the future outlook, it is planned to attach my research design at the endline survey of the respective treatment and control groups in the list of villages and households given by the broader research project. The methodological design on measuring social norms then serves as an impact evaluation of the previously conducted game-based interventions.