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Country of origin: Germany

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PhD Studies: Jointly using crop modelling and experimentation to improve climate change impact assessments of barley; at University of Goettingen, TROPAGS

I started my Master's, Sustainable International Agriculture (SIA), specialization "Tropical Agricultural and Agroecosystems Sciences", in 2015. In hindsight I can say that I was quite lucky to get the opportunity to study in such an internationally oriented study program. Meeting people from all over the world, learning about their cultures was a very rewarding experience. Of course studying in an international program also comes with some challenges. However, by accepting and overcoming these, one gets the unique chance to improve numerous soft skills such as, intercultural communication, leadership skills and the ability to work in a multicultural team, which are key to a later career in an international working environment. Regarding the professional education SIA equipped me with the necessary tools for my current job. Especially the modules conveying knowledge on different methods utilized in research, such as experimental techniques, qualitative participatory research tools, statistical data analysis with R and the utilization of crop growth models for risk management, were very interesting and helpful.

I wrote my M.Sc. thesis with the topic "Physiological response to heat x drought stress of different wheat cultivars", in the department "Tropical Plant Production and Agricultural Systems Modelling". I conducted greenhouse trials here at Goettingen University comparing 13 wheat varieties for their response to different levels of heat and drought stress.

Now I am working as a Ph.D. student in the same department.

The core of my research is assessing the effect of global climate change on the agricultural production of one of the most important cereal crops - barley. It is mainly used for malting, brewing, animal feed production and other uses in human consumption. As shown exhaustively, climate change, caused by elevated greenhouse gas emissions, principally CO<sub>2</sub>- emissions, will lead to increases in the mean and the variability of global surface temperatures. Additionally weather extremes like heat and drought are expected to occur more frequently. Against this background the special interest of this thesis lies in the interaction of heat\*drought\*elevated CO<sub>2</sub>. Besides an in-depth analysis of currently

available climate change scenarios and the impact of changing environmental conditions on barley and the utilization of crop growth models for ex- ante evaluations of climate change impacts, further experiments will be conducted to increase the understanding of physiological responses of barley to heat\*drought\*elevated CO<sub>2</sub>.