



International Conference 2017

Sustainable Intensification of Agriculture Through Resource Management and Conservation

To ensure the food security for a growing world population with the possible repercussions of climate change is one of the major challenges to agriculture. This leads to constant pressure on crop production systems in order to enhance food quantity without increasing environmental degradation. Sustainable intensification (SI) of agriculture is a way forward to match these issues. That means to enhance efficiency of agricultural production, either by increasing yields without additional negative environmental impact as well as without expansion of cropland or by reducing negative external effects under constant yields. Several highly regarded studies and reports pointed out that sustainable intensification is the only possibility to ensure future food security and quantified the global potential of SI by projections and modelling. Against this scientific background, transferability and applicability of sustainable intensification has to be discussed: How does the framework fit to various geographic regions, spatial scales or different farming systems (high/low input)? Within the wide range of implementing a general approach like SI in the diverse systems of worldwide agriculture.

Agriculture is of global significance in terms of food production, carbon sequestration environment sustainability and biodiversity preservation. The peatlands, forests and steppe soils are one of the most important carbon sinks worldwide. The increase of drought risk caused by climate change will lead to more challenges in these water-limited agricultural production systems. On farm scale agricultural strategies are being developed for increased efficiencies in crop production systems. Therefore, experiments with different tillage and seeding operations including seed rate,

seed depth with various soil types and fertilization and water regimes need to be installed in various crop production systems while intensively monitoring plant development and yield components during growing season.

In conjunction with progressing climate change there seems to be high potential for enhanced production efficiency should be explored. Besides agrochemicals for plant nutrition (fertilizers, micronutrients) and plant protection (pesticides, fungicides, bactericides, nematicides, herbicides) impetus should also be laid on bioorganic manures, vermicomposts, biofertilizers and plant growth promoting substances and biopesticides to complement each other for enhanced productivity and soil environment sustainability. This way of sustainable intensification of agricultural production will also preserve carbon stocks and biodiversity as there is no need for expanding cropland area into currently natural ecosystems.

Keeping above facts in view, IFSDAA in collaboration with Faculty of Agriculture, University of Applied Science Osnabruek and Afro Asian Studies Promotion Association (AASF) are jointly organizing three days international seminar to sensitize researchers, policy planners and functionaries in public and private sectors from various countries to harness sustainable intensification of agriculture for strengthening production systems for food security and environment sustainability.

The organizers cordially invite you and your colleagues to participate in this seminar at science city of Goettingen, in Lower Saxony, Germany.