CID NEWS #2 2019 NIBIO Centre for International Development (CID)

CID News provides short news, relevant project updates and calls from NIBIO's perspective within the area of development research in Africa, Latin America and South and South East Asia.

See all CID News on CID's webpage, and all NIBIO's English news articles here.

News stories from nibio.no



Photo: Udaya Sekhar Nagothu, NIBIO



Photo: Ragnar Våga Pedersen, NIBIO



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Increased climate resilience and higher yields: Promising project results from India

One year on, results from the Resilience project in India show higher yields following the implementation of new agronomic practices and improved climate resilient rice varieties. Further activities which address food and nutrition security are being carried out, along with the development and use of innovative digital applications to enhance precision-based agriculture.

- Read the full article <u>here</u>.
- Related project: Resilience

We need to promote female farmers

In the NIBIO projects Resilience and InnovAfrica, one key goal is to strengthen the position of female smallholders in India and several African countries. Empowering women and giving them the same opportunities as men when it comes to knowledge and support systems, can lead to a more profitable and climate smart agriculture. It may also increase food and nutrition security in large parts of the world.

- Read the full article in Norwegian here.
- **Related project:** InnovAfrica and Resilience

NIBIO in dialogue with Israel Embassy for future research cooperation

Israel's Ambassador to Norway, Alon Roth, visited NIBIO in September 2019. On the agenda were possible areas of cooperation between NIBIO and Israeli institutions.

• Read more about it in Norwegian <u>here</u>.

New book on climate extremes and how they are addressed

A new book presents challenges, opportunities and various methodologies for the analysis of climate extreme impacts across different sectors.

• Read full article <u>here</u>.

CID updates



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Potential future research collaboration with Peru

Instituto Tecnológico de la Producción (ITP) visited NIBIO in October to discuss possible areas of collaboration. Under ITP there is a national network of Centres for Productive Innovation and Technology Transfer (CITE), contributing to making value of research results for SMEs in Peru. The visitors were particularly interested in NIBIO's competence and solutions in administrative tools within forest monitoring, forest health and forest preservation. The intention is for NIBIO and ITP to sign an MoU, and to investigate concrete project opportunities in 2020. Read more about it in Norwegian <u>here</u> (link to Vibio/NIBIO Intranet).

CID meeting 17 September

A contact meeting/workshop in the CID network was arranged to encourage more international activity in NIBIO. The regional coordinators presented ongoing projects and new initiatives, and shared common practices and experiences. The participants were also given some tips on project management in general, and how the CID can be of help with expertise in various administrative areas. The meeting ended in a group work for more in-depth discussions with the aim to point the work in CID in the right direction within some selected areas. The following topics were discussed:

- How can we through CID capitalize on the breadth of competence within NIBIO?
- How can we strengthen NIBIO's resources in order to increase their participation in international projects?
- What are the most relevant competence areas in NIBIO and how can we build them further?

Consultative Meeting on Fall Armyworm in Asia

Participation to this meeting taking place 20-22 March was funded under the Norad framework agreement. Purpose of the meeting:

- Awareness raising of risks of having FAW spread into countries and within countries.
- Introduction of tools and guidance available that help the countries to monitor and sustainably manage FAW.
- Exchange of experiences and lessons learnt from the recent invasion in Africa and developing a community of experts to provide technical and policy advice.
- Fine-tuning the strategic framework for sustainable FAW management to the Asian context including actions that can be taken at regional and country level.

NIBIO team invited to Bollestad and Ulstein

Representatives from NIBIO met with the Minister of Agriculture and Food and the Minister of International Development in September. On the agenda was NIBIO's involvement in development projects and how we have worked to achieve success in collaborative projects in India and several African countries. NIBIO gave a presentation of the international initiatives through CID, and the thematical areas covered in the various activities. Both Ministers were very interested in the NIBIO approach and methods, and they were impressed by our international achievements.

Gliricidia Impacts on Soil fertility, Crop yields and Nutrition in Zambia

A two-year project in Zambia to be coordinated by NIBIO together with COMACO, Zambia, ICRAF and IITA (Nov 2019 – Oct 2021). The consortium has initiated a joint research effort for documenting the effects of *Gliricidia* under Conservation Agriculture (CA) in different farming systems in Zambia. The emphasis will be to do some in-depth analysis on the potential yield gains in maize cropping systems using *Gliricidia* and build up on the existing knowledge generated from previous research by the consortium partners and other sources. There is a need for correlating the available *Gliricidia* agroforestry technology with soil health to improve crop nutrition. The research should help how small-scale farmers adopting CA with agroforestry may be contributing to healthier, more-nutrient rich food crops. This is in line with Norad/government priority to invest in areas related to food security and nutrition.

Region: Africa – Zambia NIBIO's role: Project coordinator Contact: <u>Udaya Sekhar Nagothu</u> and <u>Mehreteab Tesfai</u> Funding: Norad Photo: Wikipedia



Combating Arthropod Pests for Better Health, Food and Resilience to Climate Change (CAP-Africa)

NIBIO's responsibility in this project is to screen for major pollinators, pests and natural enemies on tomato, watermelon and avocado, identify the major ones, and select a few of them to be modelled under different climate change scenarios. Torstein Kvamme and Marta Bosque Fajardo went to Kenya in April to collect insects from Embu and Taita Hills using Malaise traps and sweep nets. The material is sorted and some of it in the process of being identified. During the project NIBIO will host a total of six MSc students on three months internships. These are students from partner universities in Kenya, Uganda and Tanzania who take their degree in collaboration with Icipe. Three students will visit NIBIO in 2020, on Integrated Pest Management (IPM), Pest Risk Assessment (PRA) and Value Chain Analysis (VCA), respectively.

Region: Africa – Kenya, Uganda and Tanzania NIBIO's role: Project partner Contact: <u>Karl Thunes</u> Funding: Norad Photo: Wikipedia



System of Rice Intensification (SRI)

NORAD assigned NIBIO to review the SRI activities in Tanzania supported by Norway. NIBIO (in cooperation with RUDI, Tanzania and National Rice Research Institute, India) will carry out the assignment. In the review, the emphasis will be agronomic practices and the quality of the SRI, and the extension activities that support the SRI farmers in the project areas in Tanzania. Experiences from NIBIO coordinated CSA projects in India (Climarice, ClimaAdapt and ongoing RESILIENCE) will be used in this context.

Regions: Africa NIBIO's role: Project partner Contact and coordination: Udaya Sekhar Nagothu Funding: Norad Photo: www.resilienceindia.org



Sustainable management of the Fall Armyworm (FAW) in Africa, North Africa and the Middle East

NIBIO has been cooperating with the Plant Production and Protection Division of FAO in improving their FAMEWS (FAW Monitoring & Early Warning System) app for identification of and fighting Fall Armyworm (FAW) in Africa, North Africa and the Middle East. Using our VIPS technology platform for pest prediction, we built an algorithm for estimating the risk of FAW presence in a maize field, using farm management information and nearby field observations as the major input. This algorithm was implemented as a VIPS prediction model and integrated into the new version of FAMEWS. NIBIO also facilitated the use of global 5-day weather forecasts from Yr.no, the open weather forecasting service from the Norwegian Met Office. The data are provided via the VIPS weather service and are integrated as part of the FAMEWS app. Next steps are firstly improving the pest prediction algorithm, secondly to identify natural enemies of FAW and to estimate their impact on the pest development. The aim of these developments is to build an online IPM platform for Mali and Niger to serve local maize farmers, so they have easy access to FAW diagnostics, forecast and countermeasures in line with EWRR, early warning – rapid response.

Region: Africa NIBIO's role: Project partner Contact: <u>Karl Thunes</u> Funding: Norad through FAO



Development of ICT tools, the VIPS platform (Mali)

One of two parallel projects on Climate-Smart Agricultural Technologies for Improved Rural Livelihoods and Food Security in Mali and Niger. The object of this is to access and curate real-time weather data from Mali for inclusion in the VIPS platform. A test setup of weather forecasts from yr.no for CSAT communes in Mali has been established in a test environment at the BIMAF website. In connection with the project launch in Bamako, an initial meeting with Mali Meteo was organized to initiate collaboration and to explore the potential for access to online weather data in Mali. In June, Berit Nordskog and Brita Linnestad from NIBIO had a meeting with representatives from Mali Meteo and Norce (Norwegian Research Center) in Bergen Norway to look into the potential for collaboration between CSAT and the project 'Adaption of Climate Change of Agriculture and Livestock' led by Noragric. We see a great potential for synergies between these projects, particularly in relation to the validation of weather data and weather forecasts for use in the FIA-VIPS pest prediction systems, and to better understand where and how weather information can best be disseminated in Mali. An MoU between CSAT and Mali Meteo has been drafted. Mali Meteo would like to collaborate instead of selling us data, and we aim to offer capacity building, and to develop something they can use after project end. It has also been suggested to connect with The Trans-African HydroMeteorological Observatory (TAHMO) to get access to weather data, and potentially establish weather stations at locations where this is missing.

Region: Africa – Mali NIBIO's role: Project partner Contact: <u>Karl Thunes</u> Funding: Norwegian Ministry of Foreign Affairs



Development of ICT tools, the VIPS platform (Niger)

One of two parallel projects on **Climate-Smart Agricultural Technologies for Improved Rural Livelihoods and Food Security in Mali and Niger**. The object of this is to access and curate real-time weather data from Niger for inclusion in the VIPS platform. A test setup of weather forecasts from yr.no for CSAT communes in Niger has been established in a test environment at the <u>BIMAF website</u>. This also serves as a test for establishments of weather forecasts from yr.no for the country. In connection with the project launch in Niamey, an initial meeting with Direction de la Météorologie Nationale in Niger was organized to initiate collaboration and to explore the potential for access to online weather data in Niger. The outcome from this meeting was raising an idea of purchasing at least one online weather station for establishment in Niger, to facilitate access to weather data for use by the Niger Meteo and for use in CSAT developments. It has been suggested to connect with <u>The Trans-African HydroMeteorological Observatory</u> (TAHMO) to get access to weather data, and to establish weather stations at locations where this is missing through this organisation.

Region: Africa – Niger NIBIO's role: Project partner Contact: <u>Karl Thunes</u> Funding: Norwegian Ministry of Foreign Affairs



Resilience

The project completed one year in October, and all partners annual review meeting was hosted by OUAT and NRRI from 13-15 November in Odisha, India. The Resilience project partners and stakeholders participated in the annual review meeting and field exposure visits to Tangi block (Cuttack district, Odisha state) on 14 November, to observe the different farmer community led on farm demonstration of selected climate Smart Agriculture (CSA) interventions. On 15 November, the annual review meeting was organized at OUAT, where all partners and stakeholders were present to discuss the progress made during the first year, the main outputs achieved, risks encountered and addressed.

Region: South and South-East Asia – India More information: www.resilienceindia.org and NIBIO news article NIBIO's role: Project coordinator Contact: Udaya Sekhar Nagothu Funding: Norwegian Ministry of Foreign Affairs and the Norwegian Embassy in New Delhi Photo: Udaya Sekhar Nagothu, NIBIO



Improving livelihoods for small scale coffee farmers through innovations in coffee value chain in Columbia The second assignment for NIBIO on the project was to develop a plan on how to treat waste products from the production of raw coffee beans. The process of separating the pulp from the bean requires a big volume of water and together with the organic waste representing a contamination challenge to soil and water. NIBIO's task is to evaluate how the production plant ECOM is going to construct in Pitalito, Huila can best be equipped to transform the 180 tons/week wet organic matter into compost and treat 60 m3/day of wastewater. Alice Budai and Håkon Borch, respectively, were in Colombia in the beginning of November to begin the assessment.

Region: Latin America and the Caribbean, Columbia
NIBIO's role: Resource partner
Contact: Karl Thunes
Funding: Joint funding from Norad and private partners
Photo: Karl Thunes, NIBIO



Project title: Establishing a national carbon monitoring centre in Tanzania (NCMC) Period: 2015-2020 NIBIO's role: Project partner Contact: <u>Belachew Gizachew Zeleke</u> Funding: Norwegian Embassy in Tanzania

Project title: Forest Landscape Restoration in Amhara Region Ethiopia (FLR) Period: 2018-2020 NIBIO's role: Project partner Contact: <u>Belachew Gizachew Zeleke</u> Funding: Norwegian Ministry of Foreign Affairs

Project title: Biofuel4Kenya NIBIO's role: Project coordinator Contact: <u>Belachew Gizachew Zeleke</u> Funding: Norad

Project title: Farms4Biodiversity NIBIO's role: Project partner Contact: <u>Udaya Sekhar Nagothu</u> Funding: BiodivERsA-EC Joint Call, ERA-NET Co-fund EU Horizon2020

In the pipeline

HealthyFoodAfrica (H2020-SFS-2019-2, LC-SFS-34-2019, RIA) NIBIO role: Project partner, NIBIO contact: Udaya Sekhar Nagothu, Funding: EU H2020

Follow-up project based on the above project 'Sustainable management of the Fall Armyworm (FAW) in Africa, North Africa and the Middle East' **NIBIO role:** Project partner, **NIBIO contact:** Karl Thunes, **Funding:** Norad