



AFRICAN DEVELOPMENT BANK GROUP
GROUPE DE LA BANQUE AFRICAINE
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Technologies for African
Agricultural Transformation

TAAT **In** Benin:

*Together Towards
FoodSystems
Transformation*

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By

Atayi Ezekiel Opaluwah
Welissa Mulei



Technologies for African Agricultural Transformation (TAAT)

Rice

Rice Technology Promotion and Dissemination



- The TAAT Rice Compact, led by AfricaRice, in partnership with the Beninese Agricultural Research Institute (INRAB), disseminated at-scale rice technologies and innovations in Benin. The partnership provided technical support to seed producers and facilitated the Multi-stakeholder Innovation Platforms (MSIPs) at Glazoué, Bant and Malanville.
- The Ministry of Agriculture, Livestock and Aquaculture, through its extension wing, Agence Territoriale de Développement Agricole (ATDA), provided extension support for technology (variety and Good Agricultural Practices) adoption and scale-up. Through the MSIPs, the NGO CECI/PAEFFER provided capacity-building training support to the farmers and facilitated the management of the demonstration sites.

Climate-Smart and High-Performing Rice Varieties and Hybrids

- TAAT has deployed eight climate-smart rice varieties and hybrids to Benin. These are ORYLUX 6, IR841, WAB 638-1 with yield potential ranging from 6.5 to 8.0 tons/ha and hybrids (AR606H, AR708H, AR032H, AR051H, AR647H) with yields of 10 to 12 tons/ha.
- Four seed enterprises in Benin received 0.529 metric tons of breeder seeds of climate-smart varieties for further multiplication into an estimated 26 tons of foundation seeds and 1,324 tons of certified seeds. The beneficiary seed enterprises were: Super Saveur Monkassa Do, Ets Manna, Ets Castor and INOL).
- The certified seeds produced by these enterprises reached 44,133 farmers who cultivated 22,066 hectares. The Farmer Organizations CoMuSe -RIZ, UNIRIZ-C, URFER C established demonstrations of the climate-smart varieties, including ORYLUX 6 and the hybrids (AR606H, AR708H, AR032H, AR051H, AR647H). Farmers' yields in project areas of influence increased by 65%.



Rice Processing and Marketing

- The equipment fabricator TCMS-Benin was trained to produce GEM parboilers for women processors on Multi-Stakeholder Innovation Platforms (MSIPs), which improved rice productivity and post-harvest quality. Women's processing groups in Bantè and Ouèssè acquired the GEM parboiling equipment with the help of NGO CECI PAEFR.
- Groups in Glazoué, Banté, and Malanville continue to process and market rice using GEM technology. Credit support from micro-finance institutions CPEC and UNACREP helped their businesses.
- By 2021, MSIP groups from six locations sold 1,948 MT of various rice products, with parboiled rice priced higher due to its nutritional benefits and reduced environmental and health impacts. The initiative has reached an estimated 2,190,163 people across seven countries through various outreach efforts.

WATER MANAGEMENT

Smart Valley Technology

The adoption of smart valley technology - a water management technology - has enabled farmers in Benin to increase their net income by 267 USD per hectare. Smart Valley technology is a step-by-step procedure focusing on the design, layout and construction of low-cost water control infrastructures. Benefits include improved water retention in fields, reduced risk of fertilizer losses due to flooding, and increased rice yields.

FISH

Fisheries Capacity Building and Production



- TAAT Fish Compact led by WorldFish Centre, in collaboration with INRAB, established three demonstration centres between 2018 and 2022 for the deployment of aquaculture technologies for (i) mass production of mono-sex tilapia fingerlings in hapas, (ii) production of quality catfish seeds, (iii) formulation and production of quality low-cost fish feed and (iv) fish processing and value-added technologies.
- More than 238 players in the Benin aquaculture value chain were reached, including women and youth. The training was accompanied by improved management practices and better production systems. This has helped to increase fish production yields for tilapia and catfish.
- In total, 418 beneficiaries have been reached (including women and children) and 178 actors in the aquaculture value chain benefitted from these technological investments.
- TAAT sponsored the training of Beninese Aquaculture Value Chain Actors in Egypt, Ghana and Nigeria. The training exposed the participants to cutting-edge innovations in the mass production of mono-sex tilapia in the hapa system and better management practices (BMPs).



CASSAVA

Intensifying Cassava Production

- The TAAT Cassava Compact, led by the International Institute of Tropical Agriculture (IITA), set out to achieve cassava intensification as a panacea to the identified challenges of poor productivity, low-value addition, and lack of access to improved varieties facing cassava production in Benin.
- In collaboration with INRAB, Université d'Abomey Calavi, Laboratoire de Biotechnologies, Ressources Génétiques et Amélioration des Espèces Animales et Végétales (BIORAVE) and HarvestPlus, TAAT facilitated the transfer of planting materials of provitamin A cassava varieties from IITA in Nigeria to Benin alongside extensive sensitisation campaigns in key villages to ramp up adoption.
- The planting materials were multiplied to provide 200,000 cuttings that were distributed to seed growers and farmers in 43 villages such as Massi, Akouègba in Glazoué, Houèdo in Abomey-Calavi, and Tatonnoukon in Adjohoun, Allada, Niaouli, Attogon, Lotodonou, Agon, Sakete 1, Sakete 2, Houmbo, Daagbe Djedje, Chada, Hego, Adodo, Ifangni, Sahorot-Nagot, Adanmanyi, Dagba, Meke, Dagbaou, and Yoko.
- Others include Agbanto, Eglime, Massè, Adja-Ouéré, Banigbé, Fouditi, Trobossi, Ikpilè, Oke-Ata, Pobè, Igbo-Itche, Adakplamè, Tovlamè (Camp), Agbotolou, Kokoua, Dotortanou, Zassa, and Détékpa.



YOUTH IN AGRIBUSINESS

Developing Youth Entrepreneurship for Job and Wealth Creation

- TAAT, via its Youth in Agribusiness Compact (ENABLE TAAT), has trained over 1,000 youths in lucrative agricultural value chains, including maize, cassava, sweet potato, fisheries, and vegetables.
- These comprehensive training programs, supplemented with coaching and mentorship, have led to the creation

of vibrant youth-led businesses in areas such as seed production and aquaculture (fingerlings and day-old chicks).

- In partnership with INRAB, the Plant Production Department (DPV) and the Departmental Directorate of Agriculture, Livestock and Fisheries (DDAEP), TAAT has trained more than 150 young individuals in six Beninese communes (Abomey Calavi, Kandi, Ndali, Banikoara, Ketu and Allada) on maize seed production techniques.
- TAAT equally expanded its reach by training over 500 youths in propagating orange-fleshed sweet potato vines and further enhancing cassava stem multiplication knowledge for 35 select individuals in 6 communes (Abomey Calavi, Allada, Tori, Zogbodomey, Djija, Bohicon and Dassa).
- ENABLE TAAT's determination to engage more young people is not just about job and wealth creation; it's also about equipping them to spread innovative agricultural technologies within their communities. This dual thrust aims at both empowering the youth and driving forward Benin's agricultural renaissance.



MAIZE

Capacity building for climate-resilient and high-yielding varieties

- TAAT, in collaboration with the Benin unit of the Programme for Integrated Development and Adaptation to Climate Change in the Niger Basin (PIDACC-NB) and Lifeworks, held a training of trainers (ToT) which reinforced the capacity of 60 (including 23 women) representatives of cooperatives, including representatives of communal farmers' organisations and extension workers. The training covered climate-resilient and high-yielding varieties of maize and rice, water-harvesting technologies for agriculture, contour lines for applying the technology, and smart valleys. Participants practised composting and fallow improvement techniques using ameliorating plants and liquid fertilizers.

- The ToT, which held in three locations (Pehunco, Bembereke and Kandi), attracted participants from Kerou, Kouande, Pehunco, Nikki, Kalale, Sinende, Karimama, Malanville and Ségbana and extension and training materials based on TAAT technologies were given to the participants



SOIL FERTILITY

Innovative agronomic practices for Soil Health



- TAAT, in collaboration with the Sasakawa Africa Association (SAA), held a two-day Training of Trainers (ToT) for Extension Agents, Subject Matter Specialists and Lead Rice Farmers at Covè.
- The participants were trained on Good Agronomic Practices for rice (GAP), Post-harvest Handling Practices, Urea Deep Placement (UDP), Biochar technology, Climate change and its effect on agriculture, Alternate Wetting and Drying (AWD) Demo protocol/Layout and farmers networking and profiling. The trainees also underwent field practical sessions on demarcation and line planting.

Contact

Dr Chrys Akem – TAAT Program Coordinator;
+234 8169020531

Dr Solomon Gizaw – Head, TAAT Clearinghouse;
+251900461992

Email: taat-africa@cgiar.org

Site : <https://taat-africa.org>