

AFICAT Newsletter (Nigeria No. 3)

Issued on February 19, 2024

This newsletter highlights the activities of the “Africa Field Innovation Center for Agricultural Technology” (AFICAT). In this third and final issue for Nigeria, we present activities conducted by the Nigerian government and Japanese companies under the coordination of the AFICAT team from June to November 2023 in Nigeria.

SPEC's activities

SPEC, a manufacturer and distributor of a soil hardener named “STEIN”, is expanding its business into Nigeria. A study conducted in Cambodia with the support of JICA revealed that the cost of paved roads using STEIN is approximately 1/3 of the cost of local roads, with durability 10 times greater than conventional roads. STEIN has been utilized at more than 1,500 locations in Japan as well as in 14 countries globally. SPEC aims to expand its business into developing countries, especially in Africa, where remarkable economic growth and population increase are anticipated.

The decision to enter Nigeria stemmed from TICAD7, held in Japan in 2019. In Nigeria, where population growth is rapid, the pavement rate of roads remains low, posing significant challenges for road maintenance. Following the exhibition of SPEC's product, STEIN, at TICAD7, a Nigerian supporter facilitated SPEC's visit to Nigeria in July 2022 to discuss the potential use of STEIN with local government agencies.

Subsequently, SPEC received an order from the Edo State Government to pave a 200-meter road as a trial. Construction was successfully completed in June 2023, in cooperation with local engineers. SPEC remains committed to collaborating with local partners to pursue further extensions and project orders.



Construction in Edo State

Road after completion of enforcement

- SPEC website:
<http://spec-env.jp/en.html>

Sasakawa Africa Association uses Toromuso's equipment in the project

Sasakawa Africa Association (SAA) is an international NGO established by a Japanese philanthropist, Mr. Ryoichi Sasakawa, in Geneva, Switzerland, 38 years ago. Since then, SAA has implemented projects to support smallholder farmers in Africa. Since last year, SAA has been working to strengthen the rice value chain in Nasarawa State, with grant assistance for Japanese NGO projects funded by the Japanese Ministry of Foreign Affairs. The project has built two aggregation centers and introduced value-adding machines such as rice mills, destoners, and color sorting machines. Additionally, a Japanese company, Toromuso, introduced the “Grind Mill”, a rice husk solid fuel production system. This machine uses 100% rice husks as a raw material and does not require adhesives for solidification, resulting in no nitrogen oxide or sulfur oxide emissions during combustion. Moreover, no new carbon dioxide is generated, making it an environmentally friendly and eco-friendly fuel option that is garnering widespread attention.

On October 24, the AFICAT team visited one of the aggregation centers that was under construction. The center is a multifunctional facility, encompassing rice storage, a training facility, and a processing room. Spanning approximately 35m², the storage area will serve as a temporary location for rice stock, facilitating close monitoring of market demand.



Near the project site lies a river that forms the boundary between Nasarawa and Plateau states before flowing into the Benue River. During the rainy season, when the water level rises, floods spread along the river, fostering the growth of rice and horticultural crops in the area. SAA staff mentioned that implementing riverbank protection and irrigation measures will enable better water control, transforming the area into farmland with increased agricultural production potential.



The river that flows near the project site. The irrigation system is undeveloped.

SAA opened a new office in Abuja on November 7, in addition to its national office in Kano, a major rice growing area. The new office in Abuja is expected to serve as a contact point for the Japanese Embassy, JICA, and Japanese companies planning to do business in Nigeria.



The newly opened SAA Abuja office

- SAA website:
<https://www.saa-safe.org/www/>



The president, Dr. Kitanaka (center), and Nigerian SAA office staff

Kett's activities



Kett Electric Laboratory Co. Ltd. (Kett) organized a product introduction seminar in Nigeria on June

14 in cooperation with the Department of Agribusiness and Marketing Development (ABM) of the Federal Ministry of Agriculture and Food Security (FMAFS) and the Rice Millers' Association of Nigeria (RIMAN). The seminar was held online, as the RIMAN Secretariat and other major participants are based in areas that are difficult for the AFICAT team to visit physically owing to security restrictions.

Initially, Kett staff from Japan presented grain moisture testers and a rice whiteness tester. During the Q&A session, participants discussed the issue of rice deterioration during transportation and storage in other states after harvest. One participant highlighted that transporting paddy from a northern state with dry conditions to a southern state with humid conditions in the rainy season increases its moisture content due to environmental moisture equilibrium, making the grain more susceptible to mold. The seminar underscored the significance of accurately measuring the initial grain moisture content to facilitate pre-drying of the paddy to align with destination storage conditions and moisture equilibrium. It emphasized the necessity of precise moisture testers to ensure quality control and highlighted problems such as water leaks in the paddy storage facilities and the



importance of packaging materials.

The significance of the whiteness of white rice was also discussed. Unlike in Thailand and India, where the whiteness of rice is crucial and assessed before export, this is not applicable in Nigeria. The color and luster of the surface of white rice vary depending on the parboiling process (steam heating treatment) after harvest. While local color codes such as Diamond White, Golden Yellow, and Golden Brown exist, rice color varies depending on the variety and water temperature in the parboiling process. For example, Golden Brown is the standard color for the market in Lagos. However, different markets prefer different colors, and thus color selection is necessary. Conversely, seminar participants highlighted the necessity for brilliant white rice for exported products.

In response to these discussions, ABM, as one of AFICAT focal points, planned to introduce Kett products to large rice mills, agricultural universities, and other laboratories that were unable to attend the seminar. Among them, 43 universities were already contacted individually, of which five expressed interest. Thus, on October 25, two ABM staff members and one from the Federal Department of Agriculture (FDA), another AFICAT focal point, visited two universities in Nasarawa State: The College of Agriculture and Animal Husbandry, Nasarawa State University in Keffi, and the Faculty of Agriculture, the Federal University of Technology in Lafia.

When Kett products were introduced along with leaflets, all the institutions responded positively, expressing their intent to consider purchasing the products once they received product introduction letters (including price lists) to be issued by FMAFS. In particular, the Vice President of the Federal University of Technology in Lafia, whose field of expertise is agriculture, exhibited a good understanding of agricultural practices and expressed keen interest in adopting new technology and equipment. ABM and FDA staff were advised to directly address the letter to the Vice President to ensure a more favorable

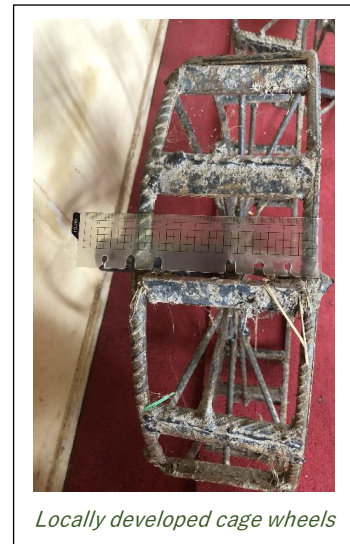
response.

- Kett website: <https://www.kett.co.jp/english/>

Collaboration between Honda and NADP

HONDA Honda Motor Co., Ltd. (Honda) products have been promoted in collaboration with the Nasarawa Agriculture Development Program (NADP).

NADP, responsible for agricultural technical extension, received a tiller (FQ650) lent to them by Honda Manufacturing Nigeria Limited (HMN) for their extension activities. The program has further lent the machine to farmers in specific areas for trial purposes in their own fields. The feedback gathered from farmers will be conveyed to HMN and utilized for future dissemination endeavors.



Locally developed cage wheels

Upon learning that some farmers were developing implements to be attached to the Honda tiller at their own expense to address the challenges in their fields, it became apparent that certain fields presented difficulties with control water, resulting in poor drainage and muddy conditions. Therefore, instead of using rotaries for plowing before watering, farmers had designed their own cage wheels to agitate the paddy soil, which were then manufactured at a local factory. However, upon inspection of the actual product, design flaws became evident. Interviews with the farmers who designed the cage wheels revealed that they did not effectively agitate the soil as required. Moving forward, we will continue to exchange information



and insights with HMN on these issues and extend support for local innovation initiatives in the future.

- Honda website:
<https://global.honda/en/>
- HMN website:
<https://honda-nig.com/>

Support to conduct performance testing of HONDA tillers at NCAM

A plan is underway to conduct performance testing of Honda tillers at the National Center for Agricultural Mechanization (NCAM). NCAM, among its functions, oversees performance certification testing of agricultural machinery intended for use in Nigeria. While certification by NCAM is not mandatory for selling or using agricultural machinery in Nigeria, it offers the advantage of making the product eligible for public procurement. The AFICAT team visited NCAM on October 27 to discuss the procedures, including HMN's concerns regarding the cost of testing and the handling of agricultural machinery post-performance test. This information was relayed to HMN during the AFICAT team's visit. HMN expressed their intention to review the matter at the management level and decide whether to proceed with NCAM for the test implementation.

The AFICAT team visits Honda (HMN) in Ota, Ogun State

On October 31, the AFICAT team visited the HMN office and factory in Ota, Ogun State. During the visit, discussions were held with four individuals, including managers in charge of sales, spare parts, and customer service. The topics covered a wide range of activities, such as the lending of a tiller (FQ650) to NADP and its technical extension activities, machinery certification testing at NCAM, and potential cooperation with microfinance institutions. The direct meeting allowed for a mutual understanding of the challenges associated with each activity and the difficulties involved in promoting cooperation with various organizations.



HMN's exhibition space

In addition to the office building, HMN has an assembly plant, canteen, and product display space. Establishing a base in Nigeria for providing spare parts and after-sales service presents a significant advantage in introducing their products to the market. Moreover, it will prove beneficial when introducing Honda products to donor projects in the agricultural value chain through AFICAT. Lastly, during our visit, we had the opportunity to explore the exhibit space, which featured numerous motorcycle models, reminding us of Honda's renowned reputation in the motorcycle industry! In addition to several models of Honda motorcycles, we also observed their power products, including tillers, brush cutters, generators, water pumps, and other agricultural production equipment, each displayed with its retail price. The microfinance organization we discussed earlier has expressed interest in visiting Ota to personally inspect Honda's power products and gain a better understanding of their products.



Thanks to everyone at HMN for allowing the AFICAT team to visit!

The AFICAT team visits a farmers' cooperative dealing with a microfinance institution in Ibadan

In June 2023, the AFICAT team interviewed several microfinance institutions and other financial institutions primarily in Lagos to investigate their financing services for farmers purchasing agricultural machinery. One of these institutions, Daylight Microfinance Bank, operates a branch in Ojodu and serves clients in the states of Lagos, Ogun, and Oyo. As the bank primarily targets farmers' organized associations, it offers advantages to associations with large numbers of members, as there is a greater demand for loans within these groups. Particularly, they may assist us in reaching a larger number of smallholder farmers for demonstrations of Honda's small tillers, for instance.

Therefore, the AFICAT team requested another meeting with Daylight Microfinance Bank and sought their assistance in introducing us to a large farmers' association with whom they had prior business dealings. Consequently, the AFICAT team visited the All Farmers Association (AFAN), Oyo State Chapter, in Ibadan on November 3. Two staff members from Daylight Microfinance Bank escorted the AFICAT team to the meeting in Ibadan. Seven AFAN representatives attended the meeting, and two representatives from HMN also joined to present their products.



Photograph with staff of Daylight Microfinance Bank in front of their office

During the meeting, an overview of AFICAT was provided, and the AFAN representative expressed interest in AFICAT's demonstration function,

highlighting local needs for construction equipment such as excavators and brush cutters for land preparation in forested areas, tractors and work equipment suitable for muddy fields, and rice post-harvest processing. AFAN, with 20,000 registered farmers, has procured its own tractors from Pakistan with financial support from Daylight Microfinance Bank. They are implementing a business model to ensure all members have access to agricultural machinery and expressed interest in Honda small tillers, brush cutters, and water pumps. Additionally, the presence of a microfinance institution is expected to facilitate product sales combined with financial support.



Tractors imported by AFAN from Pakistan

Support for a business trip by Sumitomo Corporation



住友商事

Sumitomo Corporation (Sumitomo),

one of Japan's largest trading companies, is promoting the development of telematics devices for agricultural machinery in Africa. These devices, developed in collaboration with Tierra of Italy, are installed on agricultural machinery and other equipment, enabling remote monitoring of various parameters, including operating status, performance, location, fuel consumption, and other essential data points.

Sumitomo expressed interest in gathering information on the agricultural machinery sector in Nigeria. In June 2023, the AFICAT team facilitated meetings and interviews with local organizations involved in agricultural machinery and development assistance, including the Tractor



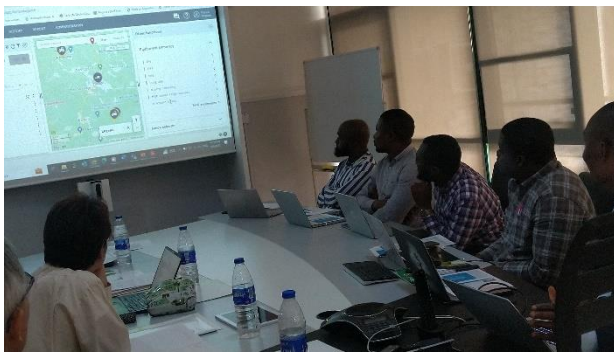
Owners and Hiring Facilities Association of Nigeria (TOHFAN), Nigerian Agricultural Mechanization and Equipment Leasing Company (NAMEL), FMAFS, and the JICA Nigeria office, among others.

their cooperative organizations. We anticipate that these machines will be promoted to these markets effectively.

TOHFAN	A company that provides agricultural machinery work services in Nigeria. Under the TOHFAN umbrella, over 500 tractors are operating, all of which are equipped with monitoring devices (location-based systems).
NAMEL	A company that is involved in farmland development projects and provides farm machinery operation services on developed farmland.

Visit to Lagos International Trade Fair 2023

The AFICAT team attended the Lagos International Trade Fair 2023, held from Friday, November 3 to Sunday, November 12, 2023. Renowned as one of the largest international trade fairs in West Africa, the event showcased a wide array of products from various countries at the Tafawa Balewa Square event site (outdoors) in Lagos.



Introduction of telematics device at NAMEL.

The Japan Pavilion, organized by the Japan External Trade Organization (JETRO), also featured at the venue, showcasing a wide variety of Japanese products from companies including Toyota (automobiles), Mitsubishi Motors, Isuzu Motors, Suzuki, Casio, Pocari Sweat, Ajinomoto, Panasonic, Pilot (stationery), and Choya (plum wine). JETRO also organizes online business matching events in machinery, and medical and agricultural equipment, bringing together Nigerian and Japanese companies in these related fields. These meetings serve as key opportunities for Japanese firms to showcase their latest innovations in agricultural equipment and explore potential partnerships and business opportunities with Nigerian enterprises. Such collaborative efforts are vital for enhancing agricultural productivity and sustainability in Nigeria.

Starting demonstration of FUJIKEN's rice milling machine by STANDAGE Inc.

FUJIKEN (a Japanese plastic manufacturer) developed a rice milling machine and is currently entering the Nigerian market with STANDAGE Inc. as its distributor. FUJIKEN's compact rice milling machine uses an impeller type husking machine. Compared to the rubber roll type that is widely used globally, the impeller type has the advantage of maintaining a high husking rate. FUJIKEN are currently planning distribution and demonstrations in Abuja with local partners.

The AFICAT team has been disseminating information to government agencies and private organizations in Nigeria, especially those interested in machinery for rice mill processing. The compact rice milling machines have garnered significant interest from smallholder farmers and



Appearance of the Japan Pavilion



We would like to introduce some of the agricultural products from Japanese companies to Nigeria, as summarized below.

① Honda Motor Co. (Honda)

HONDA Honda Motor Co., Ltd. operates an assembly plant in Ogun State, adjacent to Lagos, and sells cars, motorcycles, and power products in Nigeria. During the exhibition, the company showcased its range of power products including small tillers, brush cutters, water pumps, and power sprayers, alongside cars and motorcycles, at a booth located to the left of the entrance of the Japan Pavilion.



Honda's booth.

The AFICAT team has support Honda in Nigeria by organizing demonstrations of power products in collaboration with the NADP, as well as by facilitating introductions to NCAM.



Honda HR-V on display.

② Sumitomo Corporation



Sumitomo showcased three

products at the exhibition: telematics devices manufactured by Tierra of Italy, “Miracool”, a solar heat blocking paint, and the “Asahi Valve”, a thermoplastic valve.



Sumitomo presented a telematics device for the agriculture sector, as mentioned above. Alongside Nigeria, AFICAT has supported Sumitomo in other target countries such as Kenya, Tanzania, Cote d'Ivoire, and Ghana. In Africa, there is often a distinction between the owners and operators of farm machinery. Therefore, products like the telematics device are valuable for farm machinery owners as they enable them to monitor how their equipment is used.

- Sumitomo website: <https://www.sumitomocorp.com/en/jp/>

③ STANDAGE Inc.



STANDAGE was established in 2017 to offer comprehensive

assistance to Japanese companies expanding globally, drawing on extensive experience gained at a major Japanese trading company. Headquartered in Nigeria, STANDAGE is led by Mr. Dave, who has approximately 30 years of experience in Japan and is fluent in Japanese. Serving as Managing Director and CEO, he provides support to various Japanese companies.



Mr. Dave, CEO (in the white shirt), and STANDAGE staff

In the agricultural machinery sector, a plan is underway to import a small rice milling machine that uses an impeller-type rice huller manufactured by Fujiken. In addition to Fujiken, STANDAGE also supports the import and sales of “Fujimin”, a bio stimulant produced by Japan Conservation Engineers & Co., Ltd.

As mentioned in AFICAT’s second edition of the Nigerian newsletter, STANDAGE also works with Mitsubishi Corporation, Honda, and Zowase.com Limited to promote agricultural machinery to smallholder farmers in Nigeria. Mr. Dave stated, “Japanese companies interested in expanding their business in Nigeria should feel free to contact the headquarters of STANDAGE.”

- STANDAGE website: <https://standage.co.jp/en>

④ Sakata Seed Corporation


 Sakata Seed Corporation, a prominent Japanese seed company, also exhibited at the fair. The African region falls within the market scope of Sakata Vegetables Europe SAS, based in France. Staff from the Ghana office attended the exhibition, showcasing seeds for carrots, tomatoes, cabbage, okra, onions, watermelons, and other horticultural crops. High-quality seeds are among the most important factors in agricultural productivity. We believe that superior seeds will help Nigerian farmers increase their income, and better crops can be delivered to consumers.

- Sakata Seed website: <https://corporate.sakataseed.co.jp/en/>
<https://sakata-vegetables.eu/vegetables/>



Sakata Seed's exhibition booth. Mr. Eric from Ghana is on the right.

⑤ TAIYO Inc.

 TAIYO Inc., a trading company headquartered in Bunkyo City, Tokyo, has been operating in Nigeria for over a decade. At the trade fair, President Ito personally presented TAIYO's business to the AFICAT team. His company primarily showcased electrolyzed water generators at the exhibition, but it is also venturing into catfish aquaculture in Nigeria. Furthermore, TAIYO is involved in the discovery and training of athletes in Nigeria, supporting promising young athletes to study in Japan, and has established an office in Nigeria to develop a multifaceted business.



A view of a catfish aquaculture pond. (Provided by TAIYO Inc.)



- TAIYO website:
<http://www.taiyo-industry.jp/>
 - TAIYO International Foundation website:
<https://taiyofoundation.org/>
- (Please click “Translate” on the websites for English)

AFICAT pilot phase wrap-up seminar

The field activities of the AFICAT pilot phase in Nigeria concluded in November 2023. During the final trip to the country, a wrap-up seminar was conducted with stakeholders who had assisted AFICAT, including representatives from federal government agencies, rice millers’ associations, paddy dealers’ associations, state government agencies, and private companies. At the seminar, the Director of ABM, FMAFS, delivered opening remarks, and the AFICAT team presented the results of AFICAT activities, along with proposing an implementation strategy for the future of AFICAT. The team received valuable advice from numerous participants during the seminar.

The AFICAT team proposed involving private sector entities, such as chambers of commerce, in AFICAT activities alongside government agencies in the next phase, a proposal that garnered unanimous agreement. In closing, the Deputy Director of FDA, FMAFS, delivered a speech, highlighting FMAFS’ mechanization efforts, AFICAT’s contribution to mechanization, and expressing his appreciation for Honda’s products following their participation in the demonstration.



The AFICAT team reports on activities



Commemorative photo with all participants

Results of the AFICAT pilot phase in five countries shared in a webinar in Japan

On December 19, the 5th subcommittee meeting for African agriculture of the JICA Platform for Food and Agriculture (JiPFA) was convened online. The AFICAT team presented the results of AFICAT pilot activities over the past 2 years to approximately 100 participants from Japanese companies and other stakeholders.

At the beginning of the meeting, representatives from JICA headquarters and JICA Tsukuba Center highlighted that AFICAT successfully collaborated with numerous Japanese companies through its pilot activities. They emphasized JICA’s commitment to further promoting AFICAT by synergizing with other JICA schemes such as the “Agriculture Co-Creation Hub” at JICA Tsukuba.

Subsequently, the AFICAT team presented the results of their engagements with over 30 Japanese companies across the five countries, along with the lessons learned and their implications. Based on these insights, the AFICAT team proposed the establishment of an AFICAT committee in each of the five countries, composed of representatives from the local public and private sectors, tasked with fielding inquiries from Japanese companies. These committees are expected to facilitate the sustainable implementation of AFICAT initiatives.

Representing Japanese AFICAT partner companies, Kett and Honda Motor Co., Ltd. (Honda) delivered their remarks. Kett expressed gratitude, stating, “Thanks to AFICAT, we received new orders from Ghana where we had no prior



business establishment”. Honda remarked, “We now have a deeper understanding of the realities of agricultural machinery in Africa, previously unknown to us. Agricultural machinery has become a core business for our African subsidiaries”. Their statements underscore the significant contribution of AFICAT support to their business expansion across various fronts.

Five AFICAT advisors, representing the private sector, academia, and media, shared their positive feedback regarding the AFICAT pilot phase and offered suggestions for the next phase. Their valuable recommendations included: “Consider viewing several neighboring countries as one big regional market”; “Promote personnel exchanges to enhance the capacity of engineers, researchers and AFICAT focal persons”; “Increase efforts in PR activities to enhance the visibility of Japanese technologies in African markets. For example, Japanese companies should participate in local exhibition events and JICA should organize Japanese company missions to Africa.”; and many others.

In his closing remarks, Mr. Osamu Kubota, JICA Vice President, highlighted the food security challenges in Africa, driven by population growth and the emergence of a significant market. He emphasized that introducing Japanese technologies on a commercial basis in Africa could enhance agricultural productivity and address food security concerns. To conclude the meeting, he reaffirmed JICA’s commitment to collaborating with Japanese companies through AFICAT to tackle Africa’s food challenges.

- Agriculture Co-Creation Hub: https://www.jica.go.jp/Resource/tsukuba/english/office/activities/activities_11.html

(2) AFICATパイロット活動の実績 ③本邦企業の概要

30社以上の本邦企業と連携（下表はニュースレターで紹介した企業のみ企業名を掲載）

農機メーカー (20社)	Kubota YANMAR EBARA CORPORATION HONDA The Power of Dreams KANRYU SATAKE Kett 株式会社トヨソ TOYOSO CO., LTD. Niplo MATSUYAMA izen etc.
資材 (6社)	Exm. Stone and vegetation JAWA CONSTRUCTION ENGINEERS CO. LTD. BANDO PALSA INTERNATIONAL CORPORATION etc.
技術/システム (4社)	FUJITA Sumitomo Corporation etc.
その他 (4社)	KIIMOL etc.

The AFICAT team’s slide in Japanese. More than 30 Japanese companies benefitted from AFICAT support.

Editors’ postscript

We hope that you enjoyed our third and final newsletter in Nigeria. The first and second newsletters can be accessed from the following URLs from the AFICAT website:

https://www.jica.go.jp/activities/issues/agricul/aficat/v4lphn00000052op-att/aficat_newsletter_nigeria_01.pdf

https://www.jica.go.jp/Resource/activities/issue/s/agricul/aficat/v4lphn00000052op-att/aficat_newsletter_nigeria_02.pdf

We hope that you will continue to read our newsletters in the future.

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