



VALUE CHAIN PROJECT

Key Achievements: Palm Oil

PIND's intervention in the palm oil sector centers around stimulating best management practices among farmers and improving access to oil palm seedlings. Previous interventions included stimulating the use of harvesting technologies and improved processing equipment.

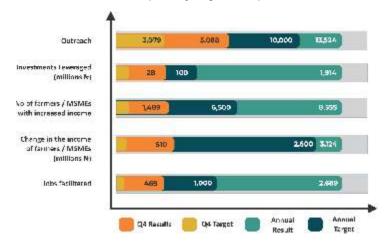
In the period under review, Agro-dealers and Farm Service Providers continued with field demonstrations of best management practice as well as providing improved seedling to farmers. Since the COVID-19 restrictions were relaxed, the equipment sellers were able to receive and market their imported Malaysian Knives to the farmers.

Reaching new farmers through BMP demonstrations and on-farm support by FSP

One of the strategic focus of the palm oil value chain activities for 2020 is to collaborate with partners (input companies, agro-dealers, FSPs, Lead Farmers) to expand the Best Management Practices activities across the Niger Delta, as well as monitoring the sustained adoption of the improved technologies in the sector.

Within the reporting period, through the activities of seven agro-dealers and nine farm service providers, 1,756 BMP farmers (590 females) were reached

Figure 4. Performance status of palm oil interventions as at Q4 2020 - there was no quarterly target for impact indicators in Q4.



across various locations in the region. Also, 179 farmers adopted improved seeds on their farms and 558 farmers adopted improved harvesting tools bringing the total outreach for Q4 to 2,493.

However, 2,595 farmers who adopted improved harvesting/processing technology in Q1 and Q2, were excluded from the total cumulative by error, which is being updated in Q4 2020. This, together with the outreach result of 8,436 recorded as at Q3, brings the year to date performance to 13,524 which is 104% of the 13,000 direct outreach targets for the year (Figure 4).

Table 4. Distribution of outreach activities in Q4 2020

	Abia	Akwa Ibom	Bayelsa	Cross River	Delta	Edo	Imo	Ondo	Rivers	Total
Number of demonstrations	1	1	1	0	2	0	1	2	4	12
Number of agro-dealers	1	1	1	0	1	0	1	1	1	7
Number of farmers trained by agro-dealers	48	2	84	0	228	0	110	94	428	1013
Number of lead farmers/ farm service providers	1	0	0	0	0	0	0	8	0	9
Number of farmers supported by lead farmers/ farm service providers	211	0	0	0	0	0	0	532	0	743
Number of program stakeholders participating in technical training	0	0	0	0	0	0	0	0	0	0
Total										1,756

Strengthening the coordination amongst market actors to increase access to improved seeds for palm oil farmers

In 2017, the access to seeds intervention was developed to ensure the availability of improved

seeds for farmers in the Niger delta. PIND played a facilitative role by strengthening the relationship amongst the different value chain actors and ensuring that there were clear incentives between the nursery operators and seed producers. Over



time, 5 seed producers were engaged and linked to 147 nursery operators who have provided improved seedlings to over a thousand farmers across the Niger Delta.

This year, the focus was on expanding access to seeds/seedlings intervention by increasing the distribution network of the seed producers. In Q1, PIND linked PalmElit CIRAD to 80 business finders (that include nursery operators and agro-dealers) to create awareness on PalmElit CIRAD seedlings available for sale at PRESCO plantation. The incentive for the business finders was a commission of 100 Naira for each seedling purchased by a farmer. In addition to its work with PalmElit CIRAD, PIND improved the communication channel between NIFOR and ALLISEE SEED COMPANY to the nursery operators to ensure ease of business. This led to the purchase of 147, 948 seedlings by 342 farmers at the end of Quarter 3, 2020.

During Quarter 4, field visits were carried out to ascertain the total quantity of improved seedlings that were purchased in the year. It was found that additional 98,317 seedlings were purchased by 179 farmers across the Niger Delta. This brings the total number of seedlings bought in the year to 246,265, for 1,642 hectares of farm, surpassing the annual target of 210,000 seedlings for 1,400 hectares of farm

Improving income of farmers through the adoption of improved BMP and technologies

An effectiveness study from Q3 provided information on the adoption rate of farmers using BMP, the size of farmland owned by smallholder farmers who are newly adopting the improved harvesting tools, and the number of new processing technologies installed in the region. Within the reporting period, income was recorded from the adoption of improved harvesting technologies and best management practices, as verification is still on-going on the only improved processing equipment adopted in Q4.

Using the data from the effectiveness study and impact level multipliers derived from previous years' assessments, the following were estimated for Q4 2020.

- Income from the adoption of improved harvesting tools (such as mechanical adjustable harvester and Malaysian knife). In Q4 2020, 588 farmers adopted 186 improved harvesting technologies, at an average of 3 farmers per technology to harvest at least 3 hectares of land. Earning 52,092 Naira²³/per hectare from the sales of fresh fruit bunch, the average net income of 165,740 Naira for one farmer brings the combined income for the 558 farmers to 92,482,981.59 Naira.
- Income from the adoption of best management practices: Q4 2020, 1,756 farmers that adopted BMP on their farms are experiencing increased yield. The average farm holding by the BMP adopter is 3.1 hectares. With an average net income per hectare of 144,715.89 Naira,24 the combined net income for 931²⁵ BMP farmers with increased income is 417,520,969 Naira. Therefore, the total income recorded in the palm oil sector in Q4 was 510,003,951 Naira. Adding the previous quarters' income, the cumulative estimated income for the sector Naira in 2020 for 3,124,337,169 8.555 farmers/processors (Figure 4). This exceeded the 2020 target of 2.6 billion Naira.

²³ Average net income per hectare for farmers assessed in 2018 and 2019.

²⁴ Average net income per hectare from assessments carried in 2016, 2017 and 2018.

 $^{^{25}}$ Previous studies showed that 53% had increased income. Income was estimated for only the 53% of 1,756 $\,$



Creating opportunities for farmers and processors to create jobs

Similar to the income change estimation, job creation estimates were calculated using the data from the effectiveness study and impact level multipliers derived from previous years' assessments/

- Improved harvesting tools: Temporary workers are engaged to assist farmers in moving harvesting tools (IHT) and collecting harvested fresh fruit bunches. These jobs were created by farmers that own improved harvesting tools. In comparison to the jobs created by the traditional climbers, farmers who own IHT created 4.7 more jobs (full-time equivalent). In other word, 558 farmers that adopted IHT in Q4 2020 created 118 new jobs.
- Best management practices: Using the multiplier²⁶ derived from previous impact assessment, it was estimated that 1,765 BMP farmers created 351 jobs in Q4 2020. Most of the laborers were engaged to maintain the farmers' farmlands, including slashing, circle weeding, and application of fertilizer.

From the two interventions outlined above, 469 jobs were created in Q4 2020 by 2,314 farmers that adopted new practices. This brings the 2020 cumulative FTE jobs created to 2,689 (Figure 4).

Leveraging investment through the adoption of best management practices and improved technologies

From the previous assessment, the average cost of maintaining a hectare of BMP farm was 51,473 Naira, and the average size of farm holding for BMP in 2020 was 3.1 hectares. The estimated equity investment by 1,756 adopting farmers in 2020 was 280,195,838 Naira at an average of 159,565 Naira per farmer.

Also, during the quarter, 91.056 million Naira was leveraged from market actors across the nine States where PIND works. Majority of the investment was for the procurement of 98,317 seedlings by 179 farmers totaling 84.7 million Naira. Another 1.856 million Naira was spent by 41 farmers in Cross River and Edo States to purchase 186 IHT, and one processor from Imo State invested 4.5 million Naira to purchase one small-scale processing equipment.

The total equity investments within the reporting period was 371,251,838 Naira. When this is summed with the equity investment of 1,453,957,291 Naira as at Q3 2020, the grand total investment leveraged under palm oil sector in 2020 become 1,914,116,130 Naira, which has surpassed the 100 million Naira target for 2020 (Figure 4). There was a significant difference between the 2020 target and the result achieved because we accounted for equity investments of BMP farmers due to the maturity of the intervention, which was not anticipated when the targets were set in January.



²⁶ Average full-time equivalent job created by a BMP adopting farmer in 2019 is 0.2.