

## Annex 1. Program Indicators and Achievements

HORTINIGERIA PROGRAM INDICATORS PERFORMANCE TRACKING TABLE (IPTT)											
S/ N	Indicator description	Unit of Measure	Baseline data	2022	2023			Life of the project		Comments	
					Targets	Achievements	%	Project Targets	Cumulative achievements as at December 2023		%
HN-01	Percentage increase in annual income per farmer (Disaggregated by type of farmers, gender and youth)	Percentage	176 Euro	NA	60%	6.80%	NA	80%	6.80%	NA	
HN-02	Percentage increase in yield of targeted horticultural commodities among program participants (Disaggregated by horticultural crops, women & youth)	Percentage	0	NA	50%	92.60%	NA	60%	92.60%	NA	
	<i>Cabbage</i>	<i>Percentage</i>	<i>6,952 kg/ha</i>	<i>NA</i>	<i>NA</i>	<i>119%</i>	<i>NA</i>	<i>60%</i>	<i>119%</i>	<i>NA</i>	Wet season farmer level yield data as of December 2023.

	<i>Cucumber</i>	<i>Percentage</i>	NA	NA	NA	NA	NA	60%	NA	NA	
	<i>Okra</i>	<i>Percentage</i>	3,751 kg/ha	NA	NA	44%	NA	60%	44%	NA	
	<i>Tomato</i>	<i>Percentage</i>	6,485.5 kg/ha	NA	NA	121%	NA	60%	121%	NA	
	<i>Watermelon</i>	<i>Percentage</i>	NA	NA	NA	NA	NA	60%	NA	NA	
	<i>Pepper</i>	<i>Percentage</i>	6,281.5 kg/ha	NA	NA	26%	NA	60%	26%	NA	
	<i>Onion</i>	<i>Percentage</i>	5,433.2 kg/ha	NA	NA	153%	NA	60%	153%	NA	
	<i>Sweet corn</i>	<i>Percentage</i>	6,281 kg/ha	NA	NA	12%	NA	60%	12%	NA	
	<i>Carrot</i>	<i>Percentage</i>	NA	NA	NA	NA	NA	60%	NA	NA	
HN-03	Number of hectares under eco-efficient practices through EKN assistance.	Hectares	0	367.4	10000	1360	13.6	15000	1,727	12	It was foreseen that farmers will receive training in year 1 of the project (2022) and then adopt new practices in year 2 (2023). New government policies and the elections in February 2023 took away the

											attention of farmers. It is expected that adoption rates will increase in 2024, resulting in higher incomes and hectares under eco-efficient practices.
HN-04	Number of farmers participating in EKN HortiNigeria program (Disaggregated by type of farmers - direct training from TFOs/benefitting from trained agro dealers/other, gender & youth)	Number of Persons	0	16069	37000	42780	93	62000	58849	95	
	Women	Number of person	0	1321	12800	14176	111	24800	15497	62	
	Youth	Number of person	0	4875	29000	41220	142	31000	37037	119	
	SHFs trained by TFOs	Number of person	0	12174	15000	15382	103	37200	27556	74	

Women	Number of Persons	0	1098	6000	10821	180	14880	11919	80	
Youth	Number of Persons	0	9450	7500	10812	144	18600	20262	109	
Farmers receiving advisory services from trained agro-dealers	Number of Persons	0	3895	20000	25425	127	22800	29320	129	
Women	Number of Persons	0	223	6000	2368	39	9120	2591	28	Cultural limitations prevalent in the north. Female agro dealers will be used to access female farmers in the communities to make up for the gender imbalance.
Youth	Number of Persons	0	980	8000	14472	181	11400	15452	136	The program made a deliberate effort targeting youth and women as key farmers.
Entrepreneurial farmers	Number of Persons	0	0	2000	1973	99	2000	1973	99	A total of 1,973 EFs were

HN -05											trained (Y=67%, W=50%) out of which a total of 510 NYSC (national service) were trained	
	Women	Number of Persons	0	0	800	987	123	800	987	123	The was deliberate about engaging W&Y in the program	
	Youth	Number of Persons	0	0	1000	1323	132	1000	1323	132		
	Number of horticulture-related MSMEs supported to invest, trade, or provide services to small holder farmers (Disaggregated to Agro-dealers, SSPs, offtakers, innovatio providers etc)	Number of Enterprises										
<b>Agro dealers</b>		0	30	10	37	370	40	67	168	1. The number of agro dealers was increased from 40 to 67 due to the delay in mapping agro dealers in		

											the first year.
	<b>SSPs</b>		0	0	300	0	0	600	0	0	The program prioritized formation of ABC to create enabling environment for SSPs against anticipated plan.
	<b>BCs</b>		0	0	20	14	70	20	14	70	
	<b>Other MSMEs</b>		0	0	50	122	244	50	122	244	
HN-06	Amount of finance facilitated for MSME (€) - (Disaggregated by region, gender & youth)	Euros	0	0	2,000,000.00	##### #	22	6,000,000.00	444,851.00	7	Issues in NIRSAL hindered agro dealers accessing the funds as anticipated in the proposal document from achieving the targets. The second reason of the shortfall is tied to the MSMEs. These include their limited transaction record and their inpatient to see through

												the loan application process. However, bureaucratic issues in NIRSAL affected the program hindered agro dealers accessing the funds as anticipated in the proposal document from achieving it targets.
HN-07	Number of jobs created (Disaggregated by Gender & Youth)	Number	0	10	600	70	12	1000	105	11	As of midterm, 80 jobs have been created under component 2. Component 3 recorded zero, however, efforts have been made such as Challenge fund for youth employment (CFYE), empowering spray	

											service providers
HN-08	Number of Federal/State horticultural policies or regulations improved	Number	0	0	1	0	0	2	0	0	Three policies have been identified and concerted efforts made. The policy context is ever changing which also affects ongoing discussions. However, Component 4 has engaged NABG to conduct a presidential roundtable meeting as platform to gain attention of government towards policies on importation of fertilizer, Tomato policy, Road tax policy in the horticulture context.



HN-09	Number of B2B partnership brokered	Number	0	8	50	18	36	100	26	26	196 B2B identified, hence, the component is piloting signed agreements between partners to build trust, and confidence. Out grower schemes will be strengthened to increase aggregated farm produce.
HN-10	Value of annual sales of MSMEs receiving EKN assistance (Dissaggregated by POS, Agro-dealers, EFs, Aggregators)	Euros	0	0	300000	TBD	#VALUE!	300000	TBD	#VALUE!	NA
HN-11	Percentage of reduction in postharvest losses	Percentage	0	0	60	53	88	60	53	88	NA
HN-12	Total annual incremental production value of targeted horticultural crops	Euros	0	0	2910000	TBD	#VALUE!	9700000	TBD	#VALUE!	NA

	(Disaggregated by horticultural crops, agrodealers, entrepreneurial farmers, aggregators etc)											
HN-13	Number of ABC and Entrepreneurial hubs formed (Disaggregated by region, gender & youth)	Number	0	0	20	29	145	40	29	73	NA	
HN-14	Number of innovative vegetable production system piloted	Number	0	0	3	18	600	9	18	200	Innovations are piloted to address the needs of the BCs	
HN-15	Number of farmers practicing/adopting sustainable vegetable production (Disaggregated by SHFs and EFs)	Number	0	0	600	652	109	2000	652	33	A total of 1,973 EFs were trained (Y=67%, W=50%) out of which a total of 510 NYSC (national service) were trained.	
HN-16	Number of MSMEs trained on Business plan development, financial management,	Number	50	0	50	122	244	50	122	244	The program trained more MSMEs to allow them to achieve	

	and brokering finance										the 6m euro
HN-17	Number of horticulture related MSMEs having access to financial solution to implement their business plans	Number	0	0	6	12	200	20	12	60	Out of the 12 women SME, only one SME met the requirement of the financial institution to access finance.
HN-18	Number of financial innovations piloted	Number	0	0	1	0	0	2	1	50	NA
HN-19	Value of Private Sector Engagement to the Horticultural sector in Nigeria	Euros	0	0	2000000	0	0	5000000	0	0	NA

## Annex 2. Risk Assessment

Risks	Risks (High/Medium/Low)	Influence on Output of Activities	Mitigation Measures
<b>Component 1</b>			
Gender Inclusion: Women participate passively in agriculture in the north, partly due to culture (there are certain jobs for men and women) and	Medium	Meeting the target of 40% women poses some difficulties.	Deliberate efforts and strategically planned activities/events for women inclusion to obtain the current 40% women targets, e.g., women' staff recruitment, gender-

Risks	Risks (High/ Medium/ Low)	Influence on Output of Activities	Mitigation Measures
limited access to land, household head issues, and polygamy.			based demos, gender sensitization events for both men and women.
Insecurity: Not all parts of the program state areas are safe for staff due to insecurity, e.g., some LGAs are known for their high rate of kidnapping.	High	This reduces the program activities across the location state.	Areas with security threats are avoided. The program collaborates with community leaders at the point of community entry. Local people to work as support staff, double as informants for program staff, and assist with some farm tasks in cases where TFOs cannot be present.
The approach of identifying project beneficiaries based on willingness to participate in training is against conventional practices, and as the program progresses, some farmers drop out.	High	Quite some number of HortiNigeria sample farmers have dropped out of the program.	Not all of the 1,000 farmers identified in the baseline are still actively involved. To ensure they participate, the program gives extra support and training to these farmers to ensure they realize the goal of HortiNigeria.
Increased climate change events, pest and disease outbreaks, and water shortages occur in targeted areas.	High	It affects the projected yields as experienced with some of the farmers that supplied to Tomato Jos.	The program is focusing on increasing the efficiencies of production systems and technical innovations to deal with climate change.
<b>Component 2</b>			
Climate-related risks: (1) Natural disasters (e.g., flood, drought, etc.) can impact negatively yield and production; (2) impact of drought on water availability for production; or (3) disease and pest outbreaks.	High	Planned field activities are distorted and existing farms may have a total loss or low production.	Partner with Nigerian Agricultural Insurance Corporation for possible risk sharing. Communicate with Nigerian meteorological services to correlate production yield and rainfall data, which will also guide the right planting time and harvesting. Promote technology improvement to manage production with entrepreneurial farmers (e.g., disease-free varieties/pest prevention techniques) and work with research institutes, e.g., NIHORT, FUNAAB, etc.

Risks	Risks (High/ Medium/ Low)	Influence on Output of Activities	Mitigation Measures
Farmers have conflict with pastoralists due to grazing on farmland (also common under Component 1).	High	Destruction of farms, the inability of farmers to visit the farms. This has affected the harvest of some farmers working with Tomato Jos, limiting their ability to pay back the credit taken for the inputs.	Support the business champion to develop a far-reaching corporate social responsibility (CSR) policy targeting customers, employees, host communities, and partners.
The limited willingness of financial institutions to service SMEs in the horticulture value chain. Horticulture is considered a higher risk than less perishable crops. Longer-term capital is almost never available to SMEs. Banks do, however, have the ambition to grow their investment portfolio in agribusiness.	Medium.	The target of mobilized private sector capital will not be achieved, and resolving value chain bottlenecks through input provision, logistics services, aggregation and processing will be difficult.	The access to finance intervention is focusing on SME capacity building, combined with a blended finance approach, to make risks manageable for banks and the cost of capital affordable for SMEs.
Tomato Jos could reduce operation or shut down as a result of security challenges in Kaduna.	Medium	This could adversely affect the expected outputs of farmers harvest being oftaken by TJ.	TJ has invested in the security management of its facilities. Sharing of security updates news to help fortify security at the facility.

Risks	Risks (High/ Medium/ Low)	Influence on Output of Activities	Mitigation Measures
<p>Policy advocacy: Identified policy issues may not be improved or changed during the timeframe of the program implementation due to changes in government or could take longer time than anticipated due to political patronage, political instability, insecurity, and insensitivity to the capacity of the target population.</p>	<p>Medium</p>	<p>This could affect the intended impact on policy advocacy that the program visualized, especially policy advocacy on reduced road taxes for horticulture products and restrictions on the importation of horticulture-specific fertilizers, that ought to be included in fertilizer legislation</p>	<p>HortiNigeria will constructively engage the key stakeholders on the identified policy to have some clarity on the policy direction, ensure intelligence-sharing with constant feedback as to how the implementation is progressing (qualitative updates), and where necessary fast-track next steps/actions via policy lobbying and facilitation of meetings.</p>
<p><b>Youth &amp; Gender</b></p>			
<p>Agribusiness is still being widely considered among youths in Nigeria as an alternative to unemployment. At the slightest opportunity for “white collar” jobs, they have been reported to exit for greener pastures.</p>	<p>High</p>	<p>Empowerment of youths and women requires consistent engagement and opportunity sharing.</p>	<p>Identify and enable youths’ and women’s participation in higher levels of the value chain. Work with component leads to ensure our program implementation remains innovative, attractive, and gainful to the youths.</p>
<p>Community power holders (Component 1), especially in Kano and Kaduna, may enact laws or implement existing laws to exclude women and young females from engaging in vegetable cultivation.</p>	<p>Medium</p>	<p>40% of women inclusion during training may not be attained in such a community.</p>	<p>Community consultation to engage with the community influencers and the men on the benefits to the men, children, and community if the women are allowed to participate. Reassure them of the safety of the women.</p>
<p>Insecurity: The insecurity situation in Nigeria is still difficult to predict.</p>	<p>High</p>	<p>Planned activities may not be able to take place, negatively impacting program results.</p>	<p>The program has developed a proper safety and security plan and protocols. The program also has the obligation to immediately report any case of insecurity to the Embassy.</p>

Risks	Risks (High/ Medium/ Low)	Influence on Output of Activities	Mitigation Measures
Currency redesign	Medium	It hampers economic transactions, and most harvested crops remained unsold and were wasted.	
Fuel scarcity	Medium	This has affected many of the services, especially at rural locations that are forced to buy at exorbitant prices.	
Government transition from one civilian government to another.	Medium	It encourages policy somersault, which tends to cripple some of the program activities	The program is working closely with NABG to close the gap in the shortest possible time.

### Annex 3. Training Programs Innovations Hubs

The table below provides an overview of all training programs organized for innovation hubs, including the number of participants per program.

Content	Date	Hub and Business Champion	State	Participants				Comments
				Female	Male	Youth	Total	
a. Basic post-harvest management of fresh produce and record keeping	23-24 March 2023	Eupepsia (EYIA)	Ogun	289	233	522	522	A governance team for the hub was formed consisting of 21 females and 15 males. Trainees were charged with coming up innovative ideas that are cost effective such as charcoal cooling.

b. Food safety, GAP and introduction to crop protection strategies	7 Apr 2023	FUNAAB	Ogun	19	72	69	91	The EFs were further enlighten on the implications of their field actions on health. The UN stats on illnesses and deaths due to pesticide residue.
c. Onion production	24 Apr 2023	Harvestyield	Ogun	23	43	33	66	To check the adaptability of different onion varieties (Prema, Dayo, Red Jewel, Super Yali) to the climate of the southwest. The hub location (Agbowo) is predominately male dominated.
d. Nursery establishment	5 May 2023	IAP	Ogun		20	18	20	Focus was on the use of seed trays for higher germination rates and cost saving.
e. Improved nursery establishment	27 May 2023	KASPHARYN	Ogun		10	10	10	Innovations demonstrated included seed varietal, greenhouse technologies, and improved nursery establishment. Crops planted are chili pepper, tomato, and233cucumber.
f. Aquaponics	13 Dec 2023	Greenaly	Ogun	12	11	12	23	Focus was on reducing costs on water and nutrients for vegetable production.
g. Inception meeting to introduce Hub concept (Table 10 point 1)	22 Jun 2023	Food World – CKB	Oyo	11	15	1	26	The focus of this hub will be on hybrid seed demonstration.
h. Labor (Table 10, point 2)	5 Jul 2023	We farm - FarmHelp	Oyo	16	10	5	26	Focus was on managing shortage of labor and costs.
i. Access to finance (Table 10, point 3)	7 Jul 2023	Farm Easy – Feed the West	Oyo	6	15	7	21	Focus was on identifying financial opportunities and preparatory work in order to access finance.
j. Access to finance (Table 10, point 4)	7 Nov 2023	Green – DDEE farm	Oyo	3	13	6	16	Focus was on identifying financial opportunities and preparatory work in order to access finance.
k. Nutrient management (Table 10, point 5)	13 Jul 2023	Dexter Food - Green Development	Oyo	4	13	0	17	Focus was on nutrient loss due to continuous use of land, high costs of poultry manure, and introduction to soil enhancers.



k. Insurance	30 Nov 2023	Green Development – Dexter Food	Oyo	11	14	8	25	Focus was on financial security through insurance and the need for audited report to access finance.
l. Access to finance (Table 10, point 6)	15 Jul 2023	Mabaa Food – Solokad	Oyo	4	12	5	16	Main challenges are limited access to loans, limited financial experience to manage the business, and collateral in accessing finance. Focus was on financial security through insurance and the need for audited report to access finance.
m. Pepper processing (Table 10, point 7)	23 Jun 2023	Olarenforward – Olarenforward	Oyo	21	0	0	21	Focus was on use of hybrid seeds instead of local seed varieties.
n. Starting a vegetable farm (Table 10, point 8)	11 May 2023	We Farm NYSC – Farmhelp	Oyo	350	160	510	510	Introduction to HortiNigeria and the hub.
o. Mobilizing meeting	9 Nov 2023	Oke-Ogun Polytechnic	Oyo	114	71	185	185	Focus was on access to finance and insurance.
Improved nursery establishment	20 May 2023	IAP	Ogun	5	15	18	20	Media for nursery establishment
Improved nursery establishment	26 May 2023	FUNAAB (OLED)	Ogun	10	2	10	12	A regular field visit with sensitization of the participant
Field visit to Harvestyield field day	24 Apr 2023	Harvestyield	Ogun	18	47	25	65	Youths from Eupepsia hub supported for field visit to onion production.
Nursery establishment	16 May 2023	Eupepsia	Ogun	4	7	10	11	A regular field visit with sensitization of the participant.
Drone technology demonstration	20 May 2023	IAP	Ogun	19	33	38	52	Training Facilitated by BC with demonstration of the practical use of the drone.
Improved nursery establishment	21 May 2023	FUNAAB (WELP)	Ogun	18	2	19	20	A regular field visit with sensitization of the participant.
Power tiller	31 May 2023	Eupepsia	Ogun	9	11	20	20	The application is better suited for Cleared and plough able land which is currently being worked on.

GAP of transplanting seedlings	20 Jun 2023	IAP	Ogun	19	33	38	52	This was a follow up of the field visit focused on nursery establishment on May 5.
Organic fertilizer	25 Jun 2023	Eupepsia	Ogun	15	10	25	25	A regular field visit with sensitization of the participant.
GAP of transplanting seedlings	12 Jul 2023	KASPHARYN	Ogun	0	9	6	9	A regular field visit with sensitization of the participant.
GAP of transplanting seedlings	14 Jul 2023	FUNAAB (OLED)	Ogun	10	2	6	12	A regular field visit with sensitization of the participant.
Role of technology in agriculture (uniyd)	15 Aug 2023	FUNAAB	Ogun	36	65	81	101	The training was to mark the UN international youth day with the theme on Greenskills.

## Annex 4. List of Entrepreneurial Hubs Formed

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#	Name	Hub Name	State	Number of entrepreneurial farmers trained
1	Farm Help	We-Farm	Oyo	26
2	Feed the West	Farm Eazy	Oyo	21
3	Ddee Farm	Green Hub	Oyo	16
4	Kartlos Farm Limited		Oyo	
5	Solokad	Mabaa Food World	Oyo	16
6	CKB	Food World	Oyo	26
7	Federal University of Agriculture Abeokuta (FUNAAB)	FUNAAB	Ogun	123
8	BIC	Pepper	Ogun	35
9	Green Development	Dexter Food	Oyo	30
10	Eupepsia	EyiA	Ogun	522
11	HarvestYield		Ogun	66
12	Kaspharyn Solutions		Ogun	10
13	Integrated Aerial Precision (IAP)		Ogun	52
14	Greenaly Entreprise		Ogun	23

## Annex 5. List of Innovations Piloted

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#	Innovation type	Innovation name	Business Champion
1	Training	Improved nursery establishment	IAP FUNAAB
2	Training	Greenhouse Technology	Eupepsia
3	Training	Organic agriculture	FUNAAB
4	Training	Precision agriculture	IAP
5	Training	Record keeping	<i>All hubs</i>
6	Training	Post-harvest handling	Eupepsia
7	Training	Agribusiness and modern agriculture	BIC
8	Field demonstration	Plastic mulch	Feed the West IAP
9	Field demonstration	Seed variety demonstration	<i>All hubs</i>
10	Innovation pilot	Soil enhancers	Ddee Farm

			Feed the West
			Farm Help
			IAP
			FUNAAB
11	Innovation pilot	Soluble fertilizer	Kartlos Farm Limited
12	Innovation pilot	Onion variety trial	HarvestYield
			Eupepsia
13	Field demonstration	Aquaponic (Irrigation with water from fishpond)	Greenaly
14	Innovation pilot	Soil Amendment	FUNAAB
15	Innovation pilot	Soil Replenishment	Green Development