



# Use of smart subsidies to stimulate market development – A case of the Technology Adoption Grant (TAG)

2019 | Year II

Tuesday 4<sup>th</sup> April , 2019



## Background- Niger Delta Region



- Accounts for a quarter of Nigeria's population- 40M
- Economies dominated by oil and gas in share of revenues and by agriculture, livestock and fisheries in share of labour force engaged
- High levels of youth unemployment and poverty especially in rural areas despite efforts of government and donors
- Wide use of the conventional development approach
  - the traditional direct assistance and subsidising unsustainable practices to solve problems that people or businesses may have on their own
  - limited success arising from failure to ground their actions in market realities
- Market development approach- introduced by PIND and MADE in the region
  - Diagnosis of the market environment
  - Stimulate the system by working with private sector to align incentives and build capacities that allows for the poor to participate and benefits



# MADE Sector Analyses -Palm Oil and Fish



## Why Palm Oil?

- ND accounts for 54% of local production
- 80% of production from small-scale farmers and millers- 60% of processors are women
  - widespread low productivity – 35-50% oil and bunch loss due to use of inefficient semi-manual processing and harvesting technologies

## Opportunities/Potential?

- Annual national supply shortfall of 400K-1.1M metric tons
- Existence of improved processing and harvesting technologies capable of increasing yields within the region

## Constraints

- Poor awareness of economic benefits of technologies/Weak flow of information between small-scale actors and technology suppliers/Lack of skilled suppliers



## Why Fish ?

- Livelihoods for tens of thousands of women in the fishing villages
- High post-harvest losses for fisher-folk and smokers

## Opportunities/Potential?

- Existence of smoking kiln capable of reducing wastage of unprocessed fish

## Constraints

- Lack of awareness of the value proposition for improved smoking technology by smokers and manufacturers.



# MADE Palm Oil and Fish Interventions



Designed a two- pronged pilot strategy



1. Strengthen the capacities of fabricators and marketers to manufacture and promote appropriately sized improved technologies
  - a. Small Scale Processing Equipment for processing palm oil
  - b. Mechanical Adjustable Harvester for harvesting palm fruit bunch
  - c. Smoking kiln for drying fish
3. Support awareness/demand stimulation activities to promote the adoption of for improved technologies

Main Challenge – slow uptake of the technologies by the target groups

- Limited availability of technologies for demonstrations and low awareness
- Unfocused targeting of all actors for purchase
- Limitation of working capital for fabricators and access to finance for smallholders



# MADE Technology Adoption Grant- Concept



Form of smart subsidy - programming tool used as non market-distorting instrument to stimulate market creation processes in a sustainable and long-term manner

- TAG- short-term investment to stimulate the demand for the equipment, by demonstrating commercial incentives, production efficiency and benefits to the actors on the supply and demand sides
  
- Steps taken in TAG design and Implementation
  - I. Sound initial diagnostics for underlying problems that needs to be solved
  - II. Identification of available tools/technologies as solutions and understanding/defining the value proposition for their adoption at a commercially viable scale;
  - III. Careful targeting of subsidy to stimulate adoption of the technology- selection criteria
  - IV. Designed offer to accompany the grants which will result in longer term adoption of behaviours needed for a dynamic system
  - V. Active marketing of the solution by the project (making the offer public); and
  - VI. Knowledge sharing events to promote crowding in and wean the market actors of the subsidy



# MADE TAG - Strategy and Implementation



Target



- supply side actors with commercial incentives to drive promotion, adoption and use of technologies
  - Fabricators, commercial palm oil millers, commercial oil palm harvesters, commercial fish processors

## Offers

- capacity strengthening support, limited price discounts and support for demand stimulation activities in exchange for active marketing and promotional activities targeting smallholders

## Expectation

- triggered demonstration effect leading to broad adoption by other actors in the value chain
- Increased interaction between demand and supply sides leading to innovative technologies

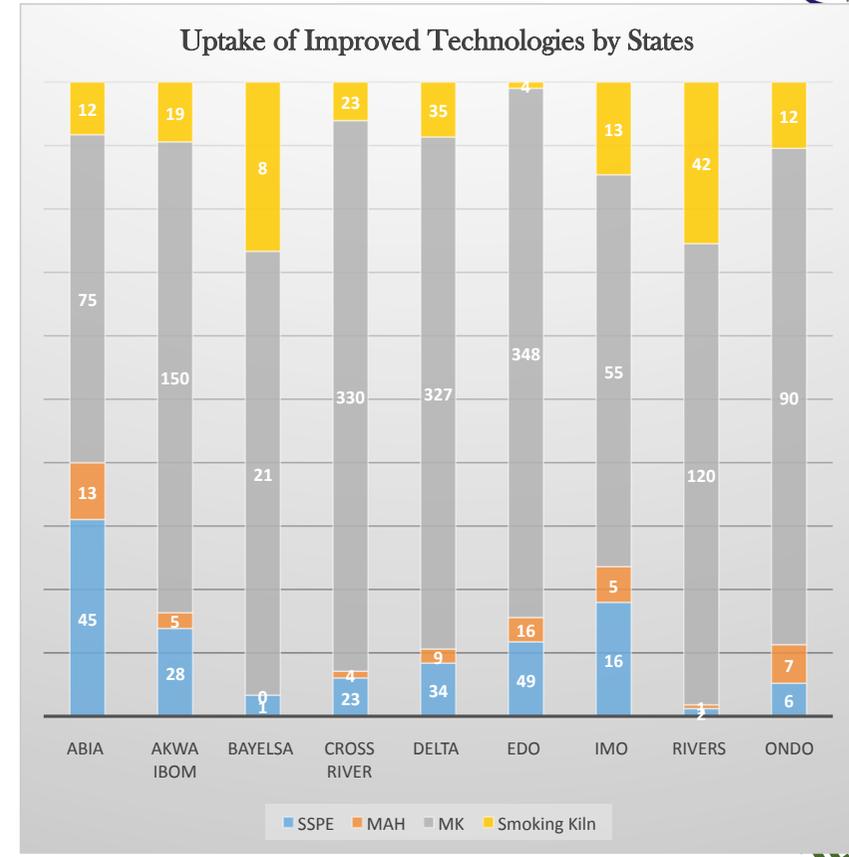
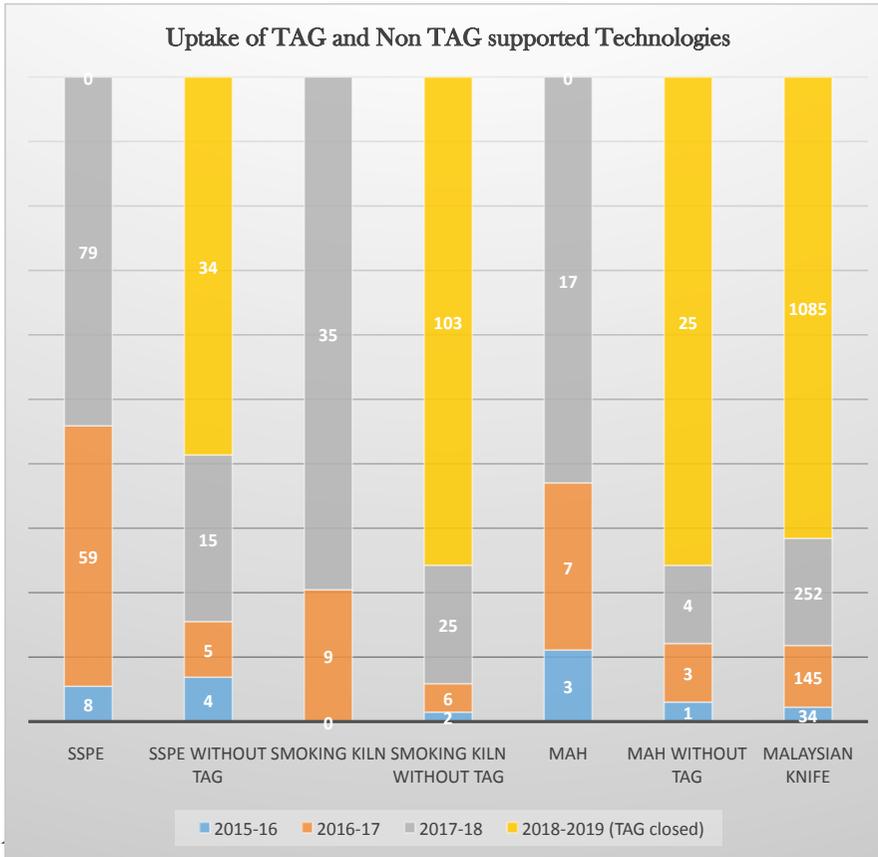
## Implementation Activities

- Engaged with selected fabricators and marketers to promote TAG
- Supported awareness raising events across the region





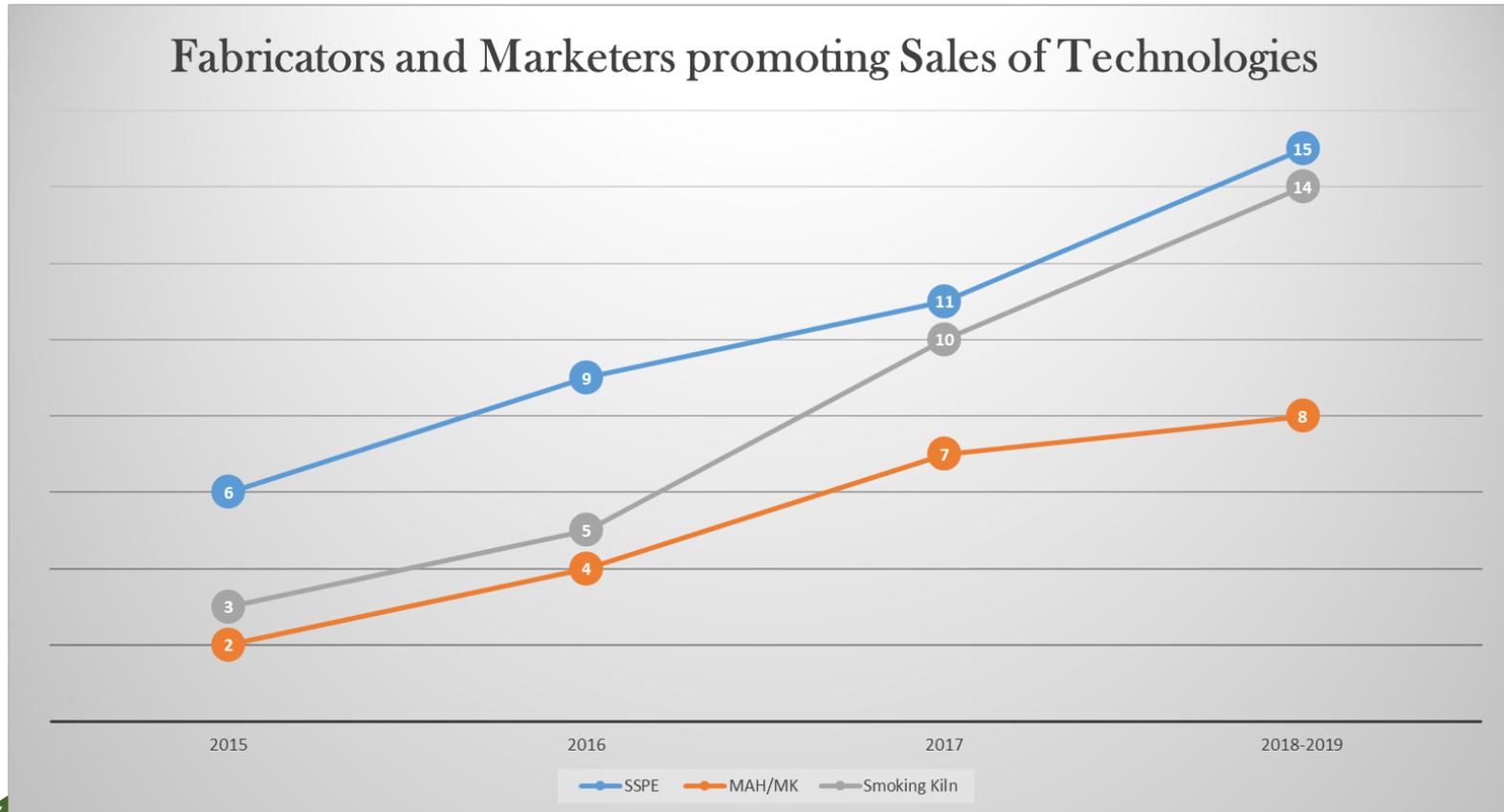
# MADE TAG – Results



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## Fabricators and Marketers promoting Sales of Technologies



# MADE TAG – Results



## Summary of Results- March 2019

Palm Oil		Fisheries
Improved Processing Technologies	Improved Harvesting Technologies	Improved Processing Technologies
15	8	14
Fabricators promoting improved processing technologies	Agro-equipment dealers promote use of MAH and MK	Fabricators promoting the smoking kiln technology
204 SSPE worth N160M sold to private and commercial millers	60 MAH and 1,516 MK worth N44.2M purchased by Oil palm farmer groups and commercial harvesters	208 Smoking Kiln worth N85 M purchased by fish smokers and processors
7,433	7,361	11,600
Palm oil millers and mill users involved in SSPE demonstrations	Oil palm farmers and harvesters involved in MAH/MK demonstrations	Fish smokers involved in smoking kiln demonstrations
3,325 (74% women)	4,805	3,234
mill users are using improved processing technologies and experiencing average increase of 33% oil yield	Farmers used improved harvesting technologies and experienced 40% increase in FFBS harvested	people use improved smoking technologies and experience 25% reduction in post harvest loss



# MADE TAG - Key System Changes and Challenges



## Key System Changes



- Development of commercial markets for improved technologies
  - Leading to adaptation, promotion and crowding in of new actors
- Leveraged private sector investment from smallholders in technologies and associated sectors:
  - Palm Oil TAG investment NGN71.6 million leveraged additional NGN158.6 million investment.
  - Fish TAG investment N35.7 million leveraged an additional N51 million investment
- Increased and sustained capacity utilization of technologies improving the poor's access to improved technologies

## Challenges

- Limited options of appropriate technologies
- Lack of asset financing schemes for smallholders' limits uptake of improved agro-technologies



# MADE TAG – Lessons Learned



- A more holistic approach of addressing market constraints leads to enhanced and sustained level of changes within the system which benefits the poor in the long term
- Ensure selection of right targets with right offers to minimize the potential risk of non targets hijacking the offer
- Capacity strengthening support reinforced ability of supply side actors to implement TAG
- Limited role of facilitator in implementation of TAG ensures continuity of market changes post- grant implementation phase
- Need for periodic review of approach and flexibility in order to achieve desired outcomes

