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# Overview and Strategy of Feed the Future Ghana's Agriculture Technology Transfer Project

**“Promoting the Commercial and Sustainable Supply of Early Generation Seed of Food Crops”**

**February 25-26 2016, Addis Ababa - Ethiopia**



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## SNAPSHOT OF ATT



- **Cooperative Agreement - USAID**
- **April 15, 2013 – April 14, 2018**
- **\$6m – Grant Component (largest in FTF Ghana programs)**
- **Implementing Partners: IFDC, CDI, ISU, and GAABIC**
- **Project Components: Seed, ISFM, & Research**



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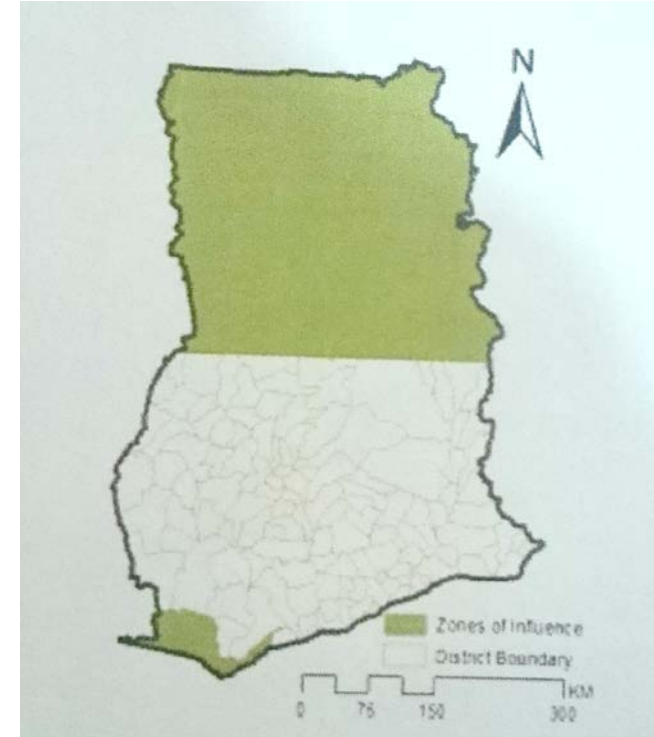




## Development Hypothesis

- *If smallholder adoption of comprehensive, productivity-improving agricultural technology (products, processes and practices) is increased in northern Ghana's maize, soya and rice value chains, **then** household income will improve and poverty and food insecurity will be reduced.*

*Source: USAID RFA- FTF Ghana ATT project*





## ATT Project Objective

*Increase availability and use of agricultural technologies to increase and sustain productivity in Northern Ghana through:*

Interventions to build capacity in seed and ISFM technologies



Interventions to build research capacities & promote labor saving technologies





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## Progress in pictures



3 modern seed laboratories in Northern Ghana



Supporting mechanization and learning centers



Technology development and dissemination





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## ATT STRATEGY -- BY END OF 2018 CROPPING SEASON AND BEYOND



Increase certified seed use – 40% of all seed planted



Double Cropping/  
Dual Income



Conservation Agriculture



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## STRATEGY 1

Increase  
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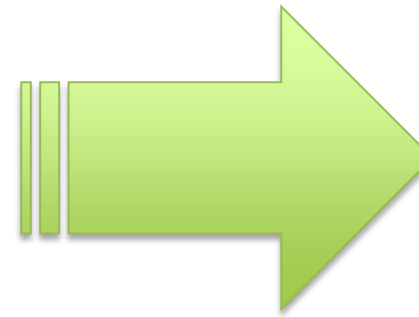


## ATT PROGRAMMING OVER THE LIFE OF THE PROJECT

Total area cropped (acres)	Targeted area under certified seed (acres)	Certified seed requirement (mt)
1,234,516	493,808	10,622.43



- Area Certified seed
- Area Under FSS



# 40%

(Certified Seed cropped area)







## Seed Usage In Northern Ghana (2014-2015)

REGION	Total Cropped Area in Northern Ghana (acres)	Current Metric Tons of certified seed Usage (MT)	Current Area covered by Certified Seed (acre)	Current Area covered by Certified Seed (%)
MAIZE	606,245	897	99,676	16.44%
RICE	426,719	1,087	27,190	6.3%
SOYBEAN	201,555	186	9,303	4.6%
<b>TOTAL</b>	<b>1,234,520</b>	<b>2,170</b>	<b>136,170</b>	<b>11%</b>

\* Source: GSIU, Wienco, ADVANCE II (ACDI- VOCA)





## 40% projection by 2018 in SADA zone (Acres)

REGION	Total cropped area (acres)	2018 targeted area under certified (acres) (40%)	Certified Seed Required by 2018 (mt)
MAIZE	606,245	242,498	2,182
RICE	426,719	170,687	6,827
SOYBEAN	201,555	80,622	1,612
<b>TOTAL</b>	<b>1,234,519</b>	<b>493,808</b>	<b>10,622</b>





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Flooded from July to October

Strategy 2  
Double  
Cropping-  
Dual  
Income



Dry and burnt from November to June

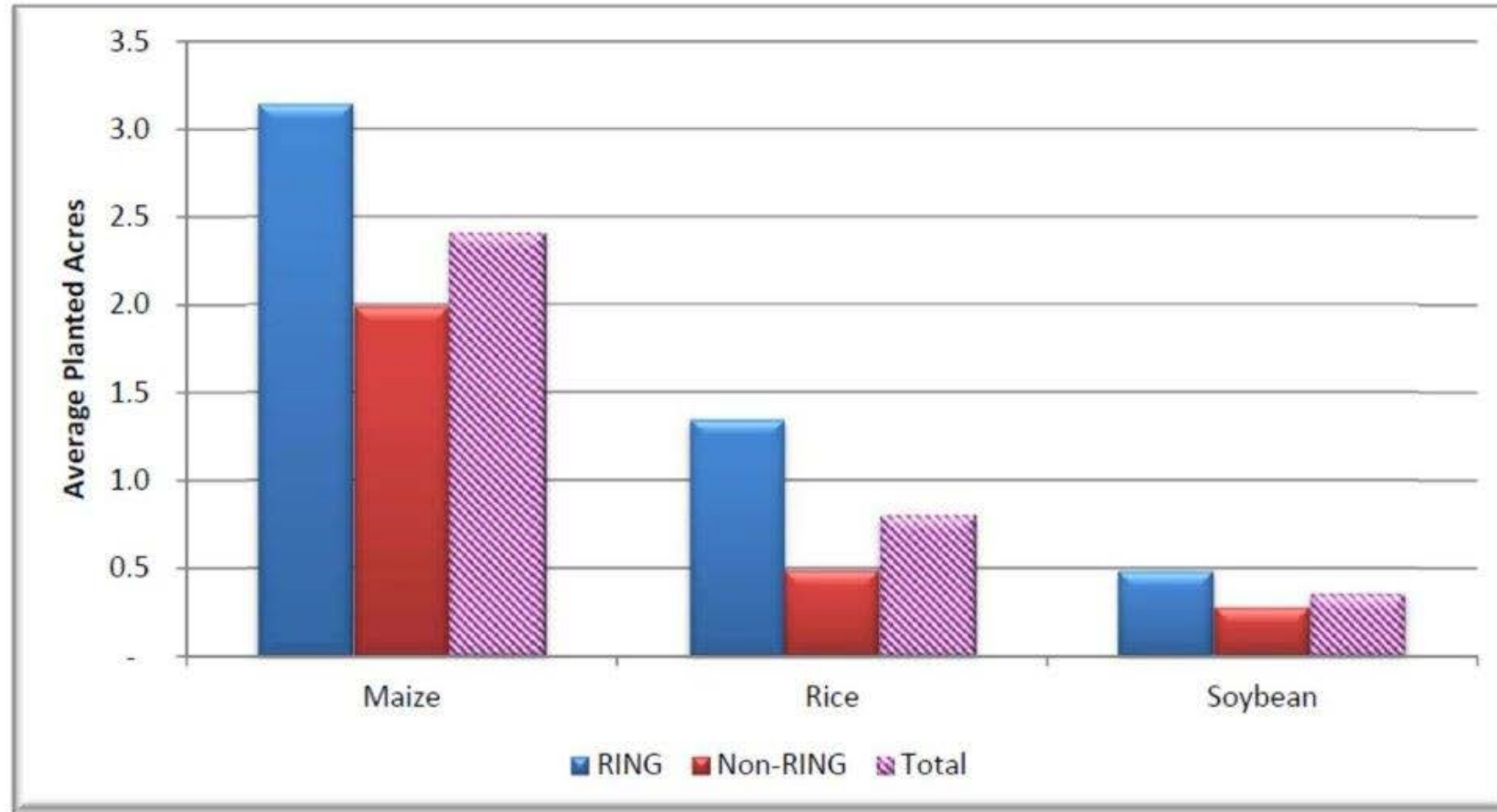


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**Figure 12: Household Average Acreage Allocation to Focus Crops by Strata**





## Cost of production (acre) Maize

ITEM	Baseline	Wang Dataa	Sanzal-Sima	Hybrid (Pan53)
Inputs	27	511	511	899
Land Prep	120	150	150	150
Labor	270	520	520	520
Total Cost of Grain Production per Acre	<b>417</b>	<b>1181</b>	<b>1181</b>	<b>1569</b>
Expected Yield per Acre (no. of 100kg bags per acre)	3	14	15	24
Expected Price per Bag (GHS)	100	100	100	100
Expected Revenue per Acre (GHS)	300	1500	1500	2400
Expected Gross Margin	<b>-117</b>	<b>219</b>	<b>319</b>	<b>831</b>

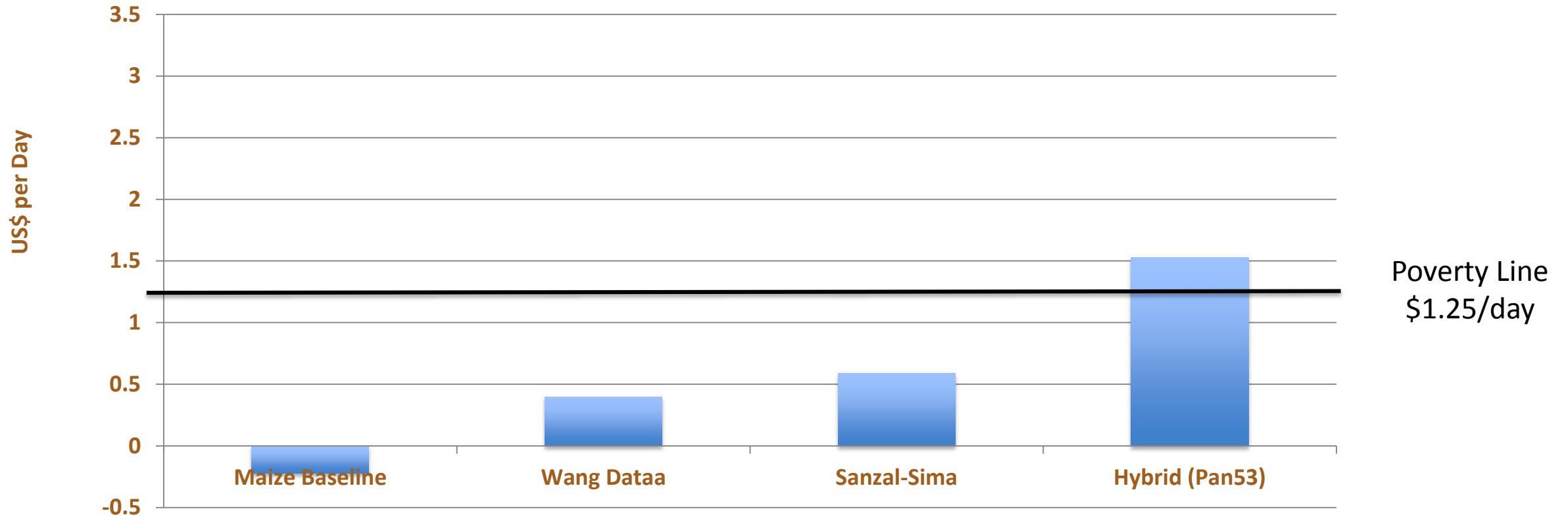




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## Comparing Daily Income Generated From Producing Different Maize Varieties on 1 Hectare (2.47 Acres) Once per Growing Season

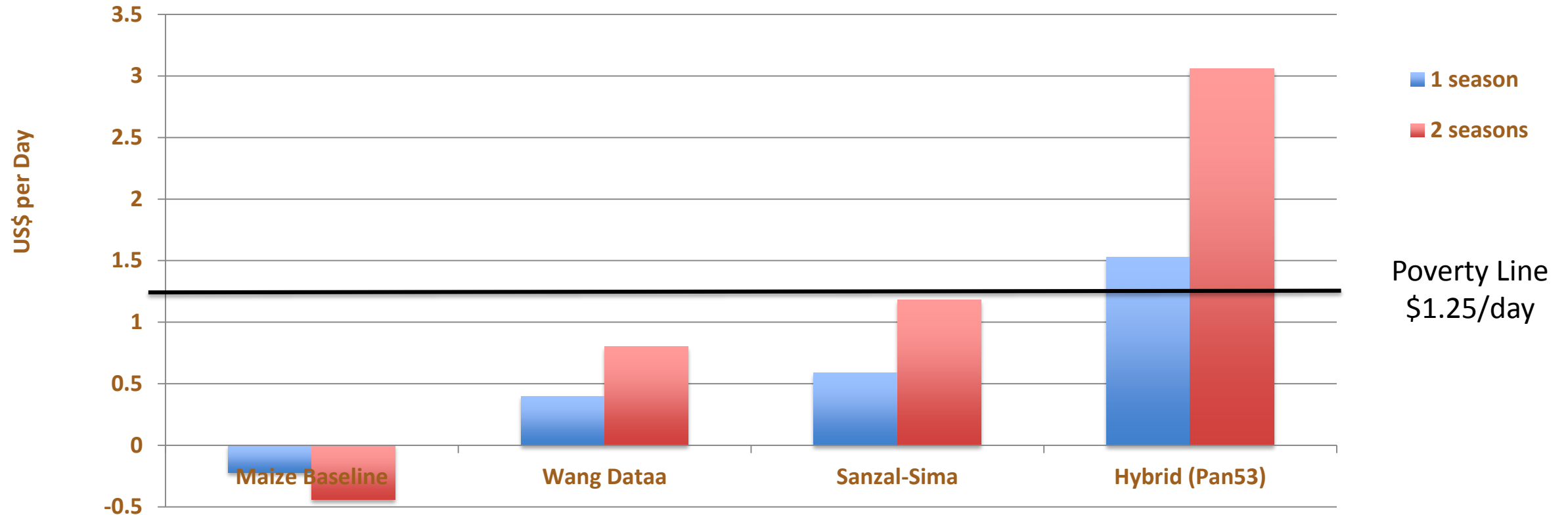


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## Comparing Daily Income Generated From Producing Different Maize Varieties on 1 Hectare (2.47 Acres) Once and Twice per Growing Season





## Cost of production (acre) Pepper

ITEM	Rainy season Fresh scotch bonnet	Dry season Fresh scotch bonnet	Dry season Chili (Dried)
Inputs	600	600	600
Land Prep	150	150	150
Labor	520	800	1,600
Total Cost of Grain Production per Acre	<b>1,270</b>	<b>1,550</b>	<b>2,350</b>
Expected Yield per Acre (no. of 100kg bags per acre)	60	50	25
Expected Price per Bag (GHS)	25	100	300
Expected Revenue per Acre (GHS)	1,500	5,000	7,500
Expected Gross Margin	<b>230</b>	<b>3,450</b>	<b>5,150</b>



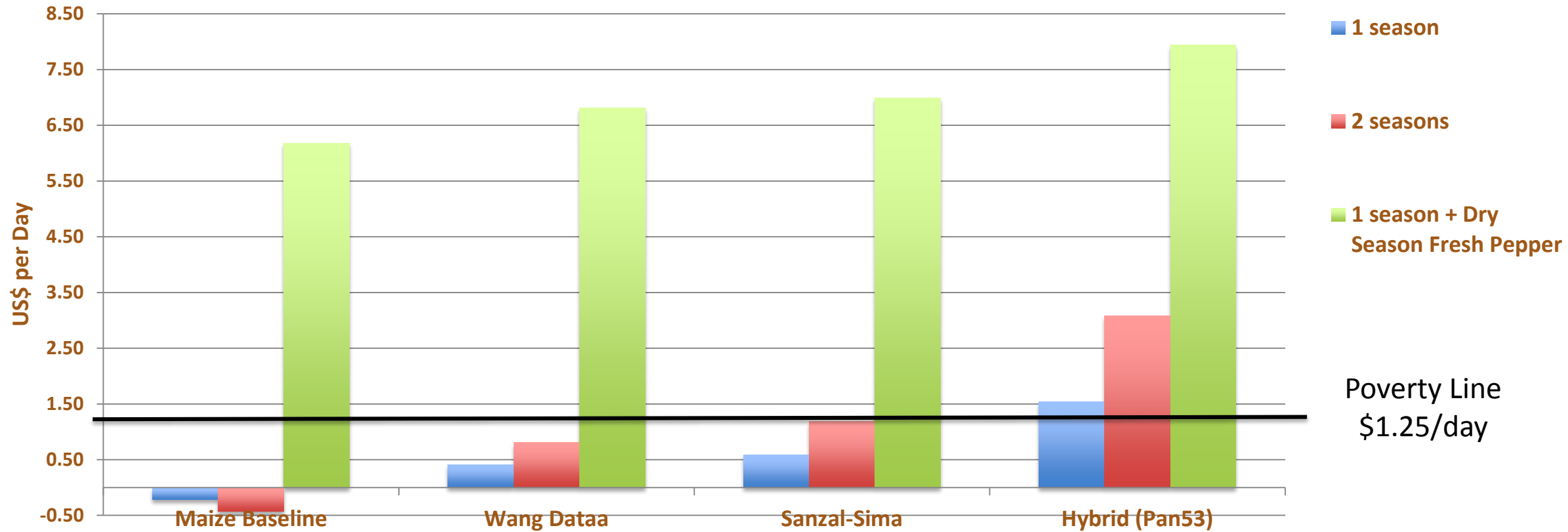




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### Comparing Daily Income Generated From Different Maize Varieties on 1 Hectare (2.47 Acres) per Year by Cropping Once, Twice or Once with Pepper as a Second (Dry Season) Crop

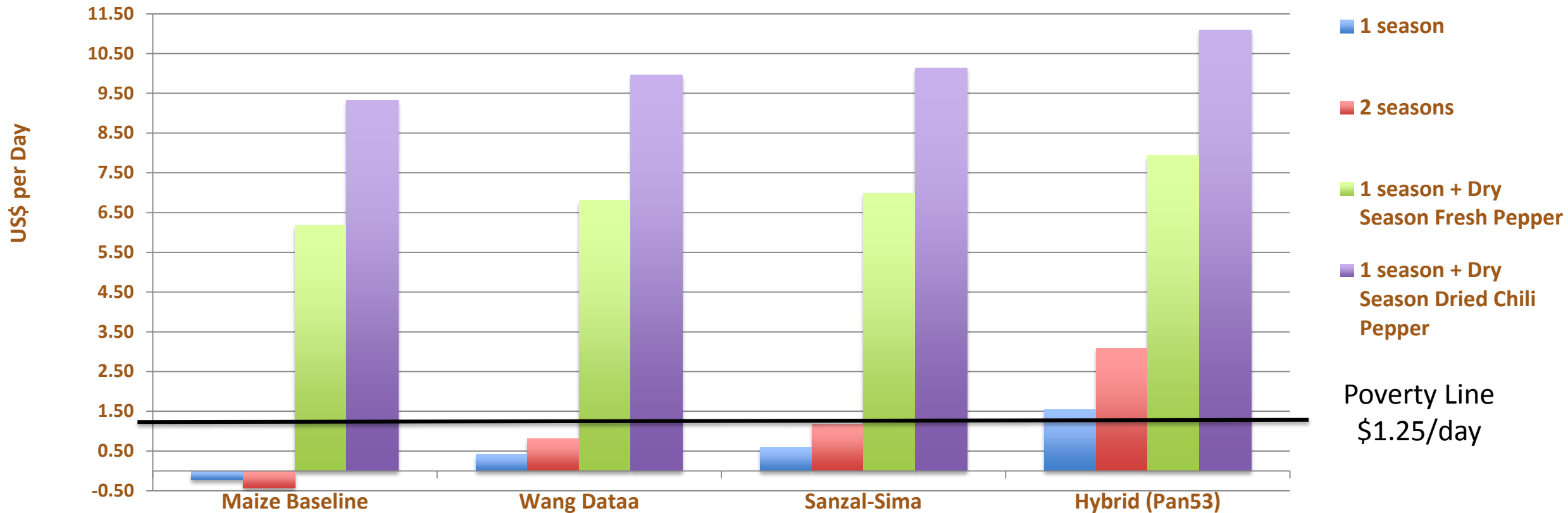


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## Comparing Daily Income Generated From Different Maize Varieties on 1 Hectare (2.47 Acres) per Year by Cropping Once, Twice or Once with Pepper as a Second (Dry Season) Crop





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## BHUNGROO, BURSHA AND PAVE TECHNOLOGIES



**The Bhungroo Unit**

The technology is open source so that it is scalable in other places. Bhungroo does have a non-negotiable principle, however—that the technology should be used by poor people only.

1. The land on which the unit is made has a slight tilt or gradient to ensure drainage through the pit. The cemented area of the pit is usually 1 to 2.5 metres in width and 4.5 to 5 metres in depth.
2. The pipe has a diameter of 10 to 15 centimetres, and goes to a depth of 30 and 100 metres.
3. The subsoil strata must have a coarse sand soil layer within a depth of 100 metres.

**Empowering Women**

Naiweta Services trains women to run the Bhungroo units. Groups of five ultra-poor women farmers jointly own the Bhungroo technology. The program has helped poor women from debt, gain land ownership, and participate in local governance as a result of their expertise and influence in agriculture and water.



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## Strategy 3 Conservation Agriculture



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## Third element of our “Double Cropping/Dual Income” strategy

- Better use of available water
  - Reduces evaporation
  - Cover Crops (CC) roots
- Increasing productivity by restoring soil fertility
  - Erosion fighting
  - Organic matter

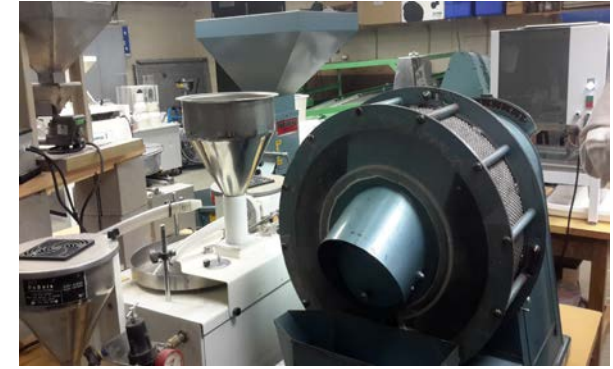


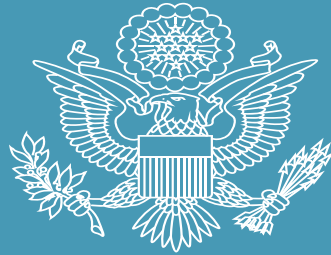


## FUTURE OF GHANA'S SEED INDUSTRY

### The Current Situation

### future Situation with ATT Intervention





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