

Seed Production Technology for Africa (SPTA)



Intended Benefits and Impact Pathway

BILL & MELINDA
GATES foundation

ICIMMYT
International Maize and Wheat Improvement Center



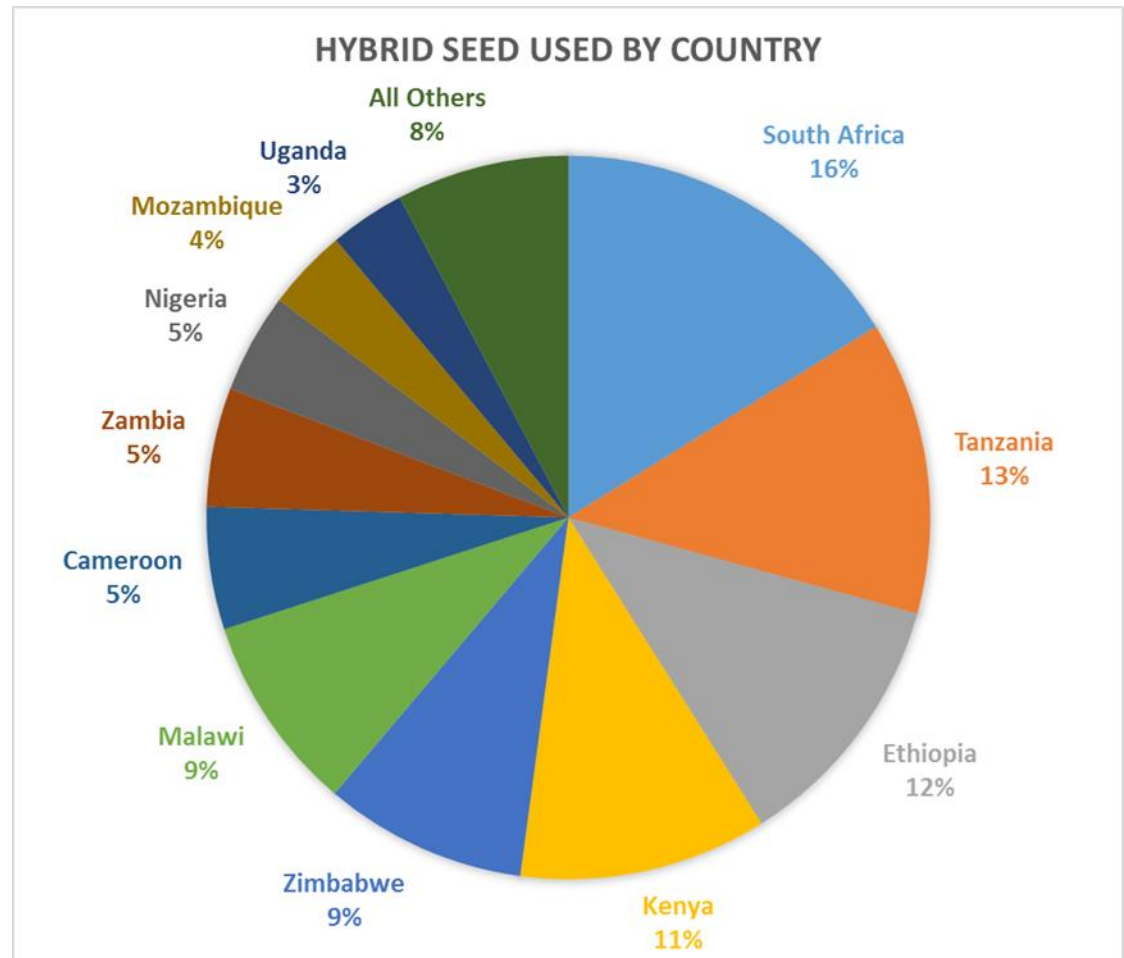
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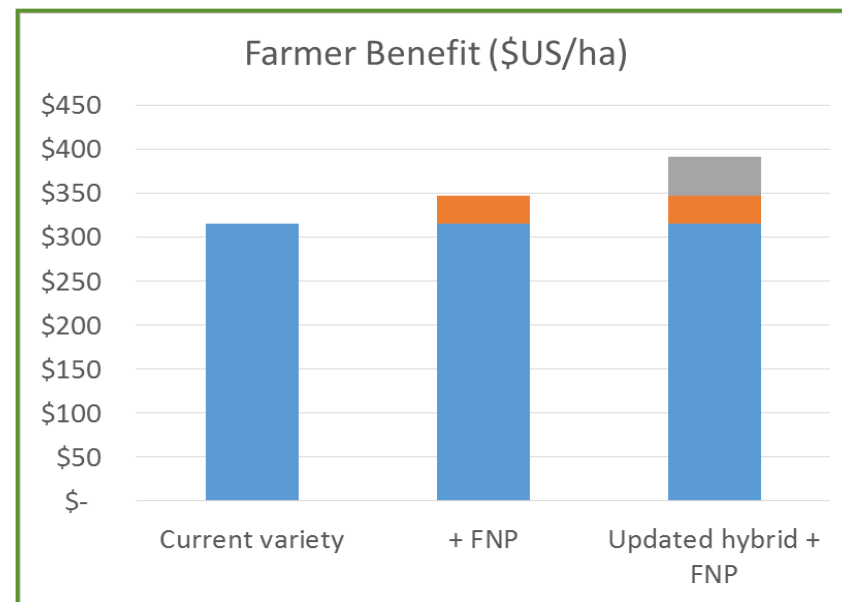
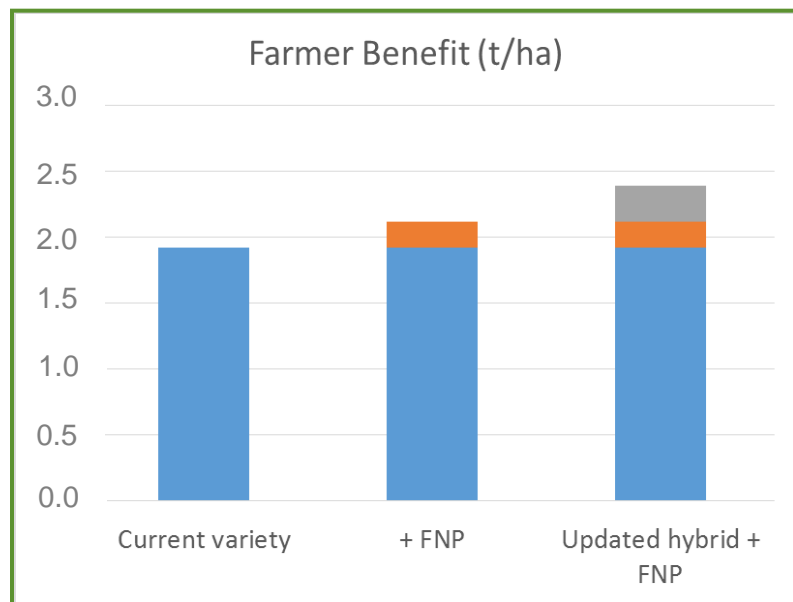
Hybrid seed use in Africa

SSA estimates ~ 2013

- 36.5 M ha maize
- 70 M tons maize grain produced
- Ave Yield = 1.9 t/ha
- 314,000 tons hybrid seed used
- 34% adoption rate of hybrid seed



FNP Benefits to Farmers



Total benefit = 0.192 (FNP) + 0.275 (Updated Hybrid) = 0.467 t/ha

Total benefit = \$31.50 (FNP) + \$45.10 (Updated Hybrid) = \$76.60/ha

FNP hybrid scaling

60,000 t in 10 years

Annual value to farmers:

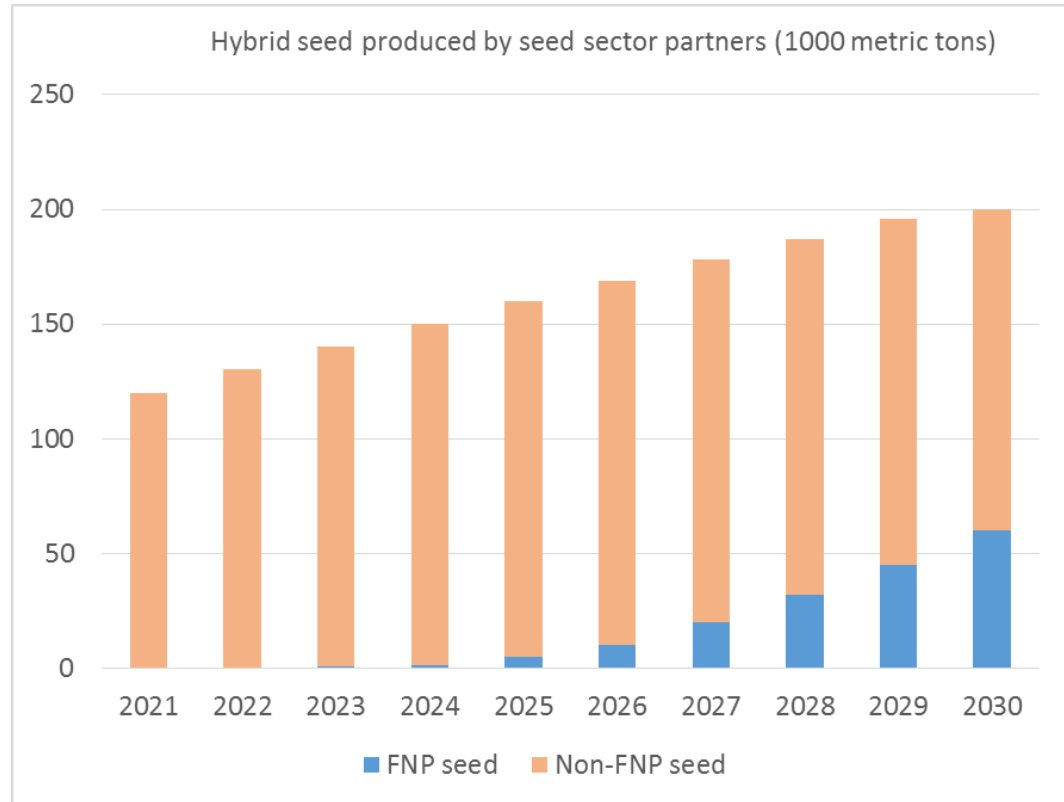
FNP = \$ 76.5M

Total = \$184.8M

Value by Country:

Kenya = \$27.6M

SA-SHF* = \$ 3.1M



*SA-SHF : South Africa Small Holder Farmers. Estimates based on:

Pienaar, Louw, and Lulama N. Traub. 2015. 29th International Conference of Agricultural Economists. Milan, Italy, August 8-13.

Shackleton et al. 2019. Land Use Policy. 82: 686-699. <https://doi.org/10.1016/j.landusepol.2019.01.009>

Benefits to seed companies

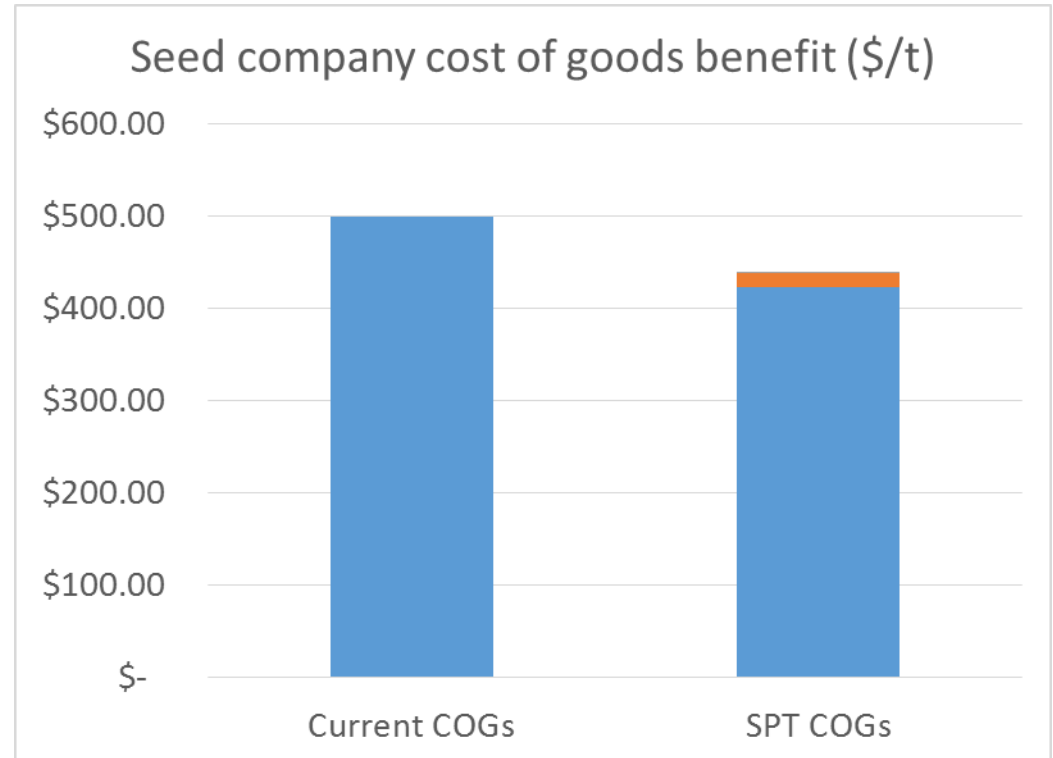
Key incentives for seed companies:

- De-tasseling labor cost savings
- Improved seed purity
- Increased seed yield

Cost savings ~ \$60/t

Annual value to seed sector:

- \$3.6 M



Pathway to impact

- 2020 – 2024
 - Kenya and South Africa
 - Import seed to enable NPT and DUS trials, demonstrations, and seed production research with partners
 - Enable scaling seed production of 5+ hybrids by seed company partners
 - Additional prioritized maize growing countries
 - Stakeholder engagement with national research partners, regulatory agencies, farmer organizations, and seed companies
 - Begin importing pilot quantities of seed

Thank you for your interest!

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