



The role of mobile non-road machinery electrification in off-grid areas: Some reflections

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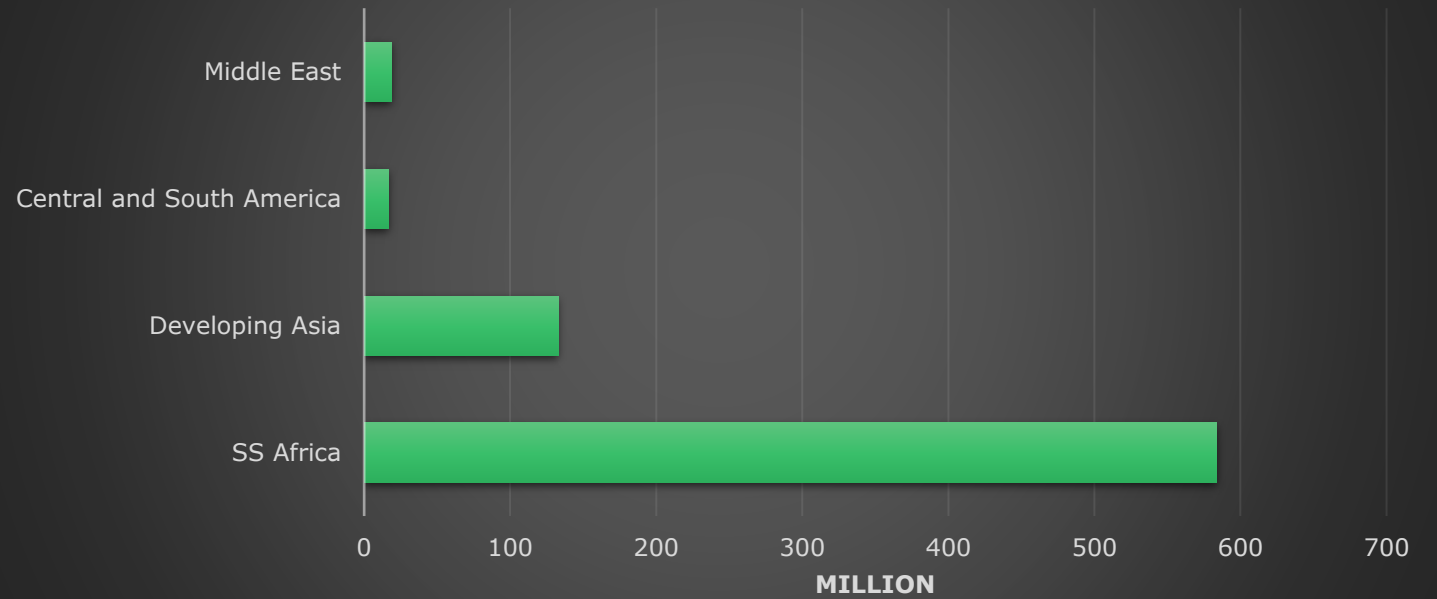
In this presentation

- Off-grid context in developing nations
- Off-grid electrification and potential symbiosis of NRMM electrification
- Reflections on NRMM transition

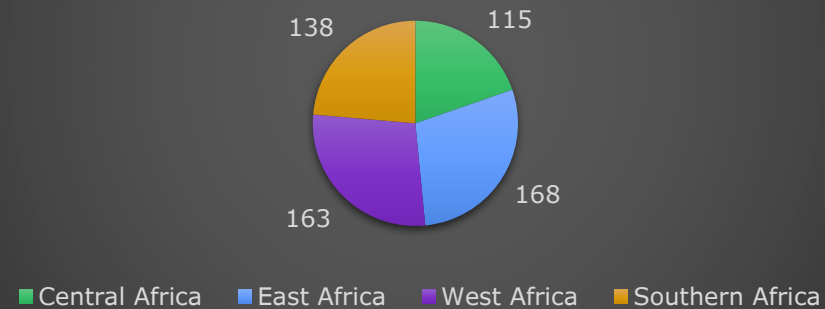


Off-grid context

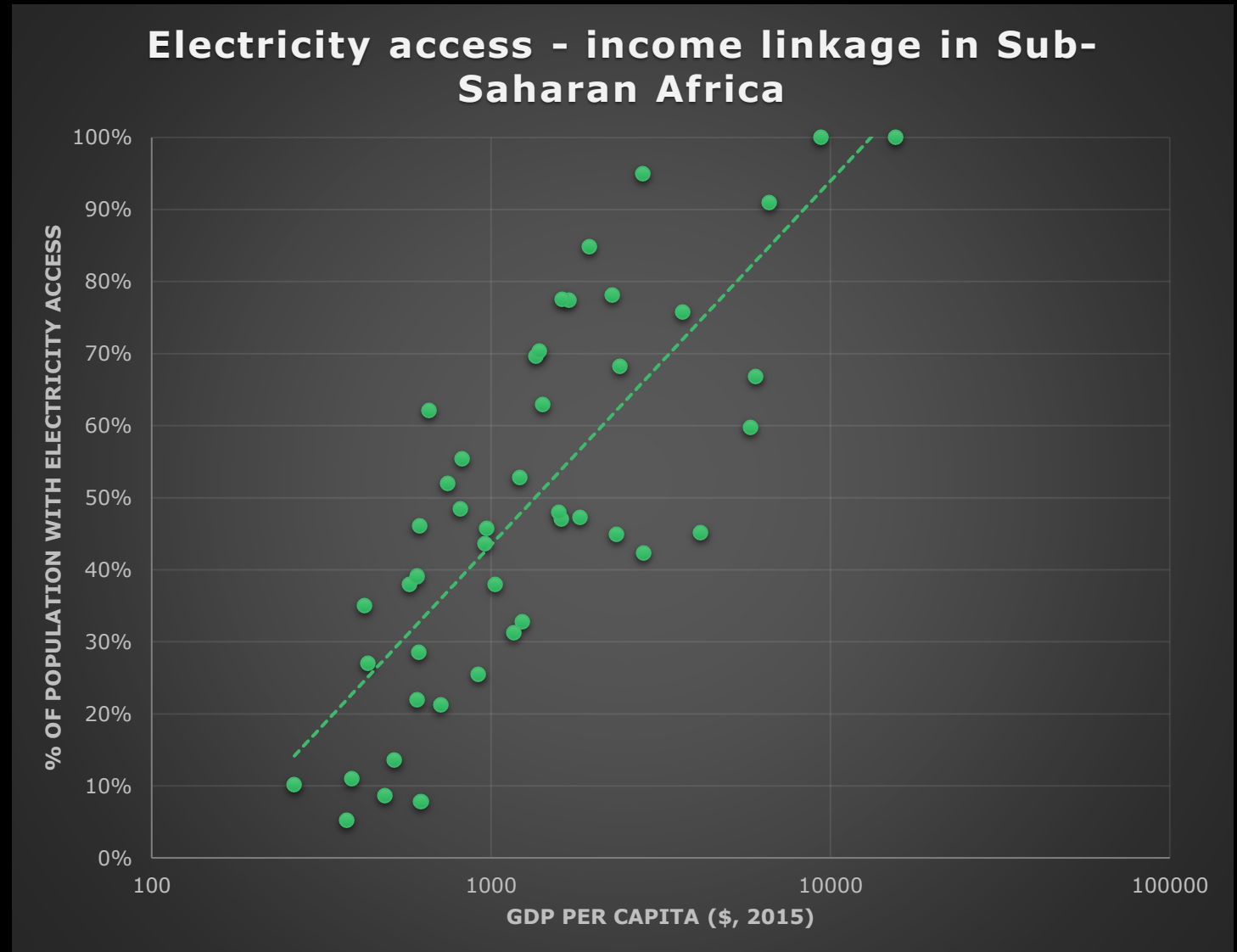
Lack of electricity access in 2020



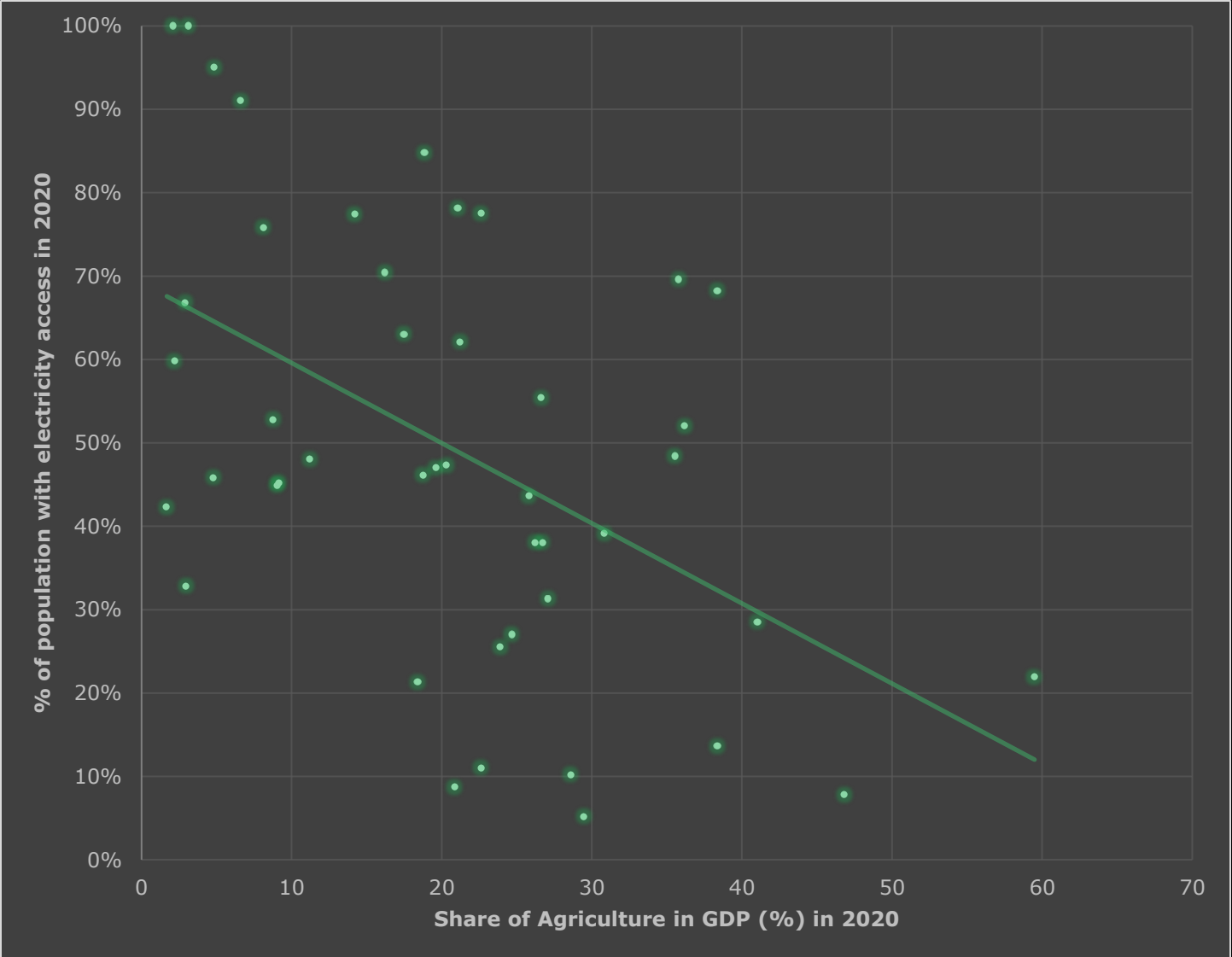
SS Africa: lack of electricity access in 2020 (Million)



- **Electricity access positively associated with income in SSA**
 - **eliminating poverty is essential**

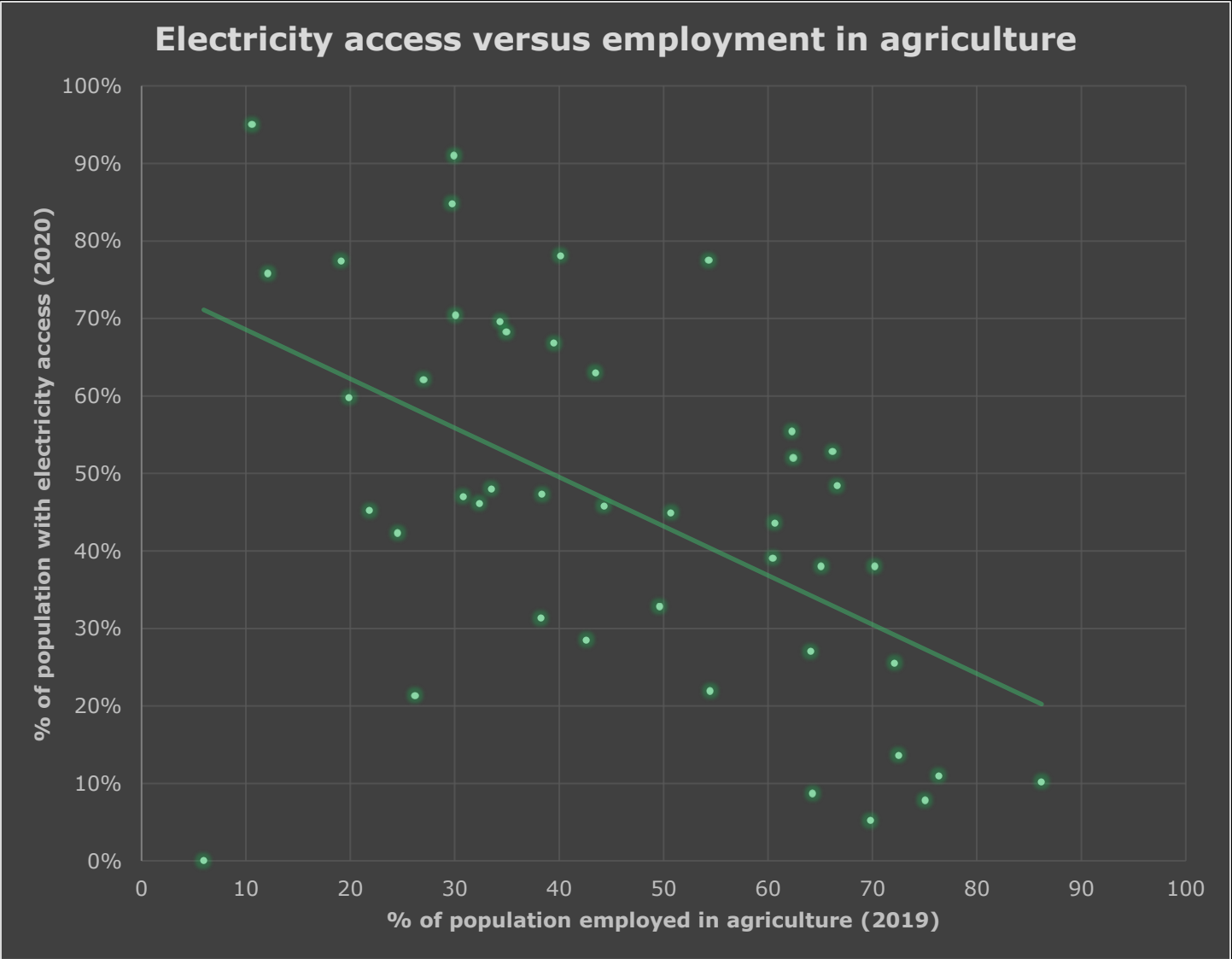


**Electricity
access
inversely
associated with
agricultural
income in SSA**



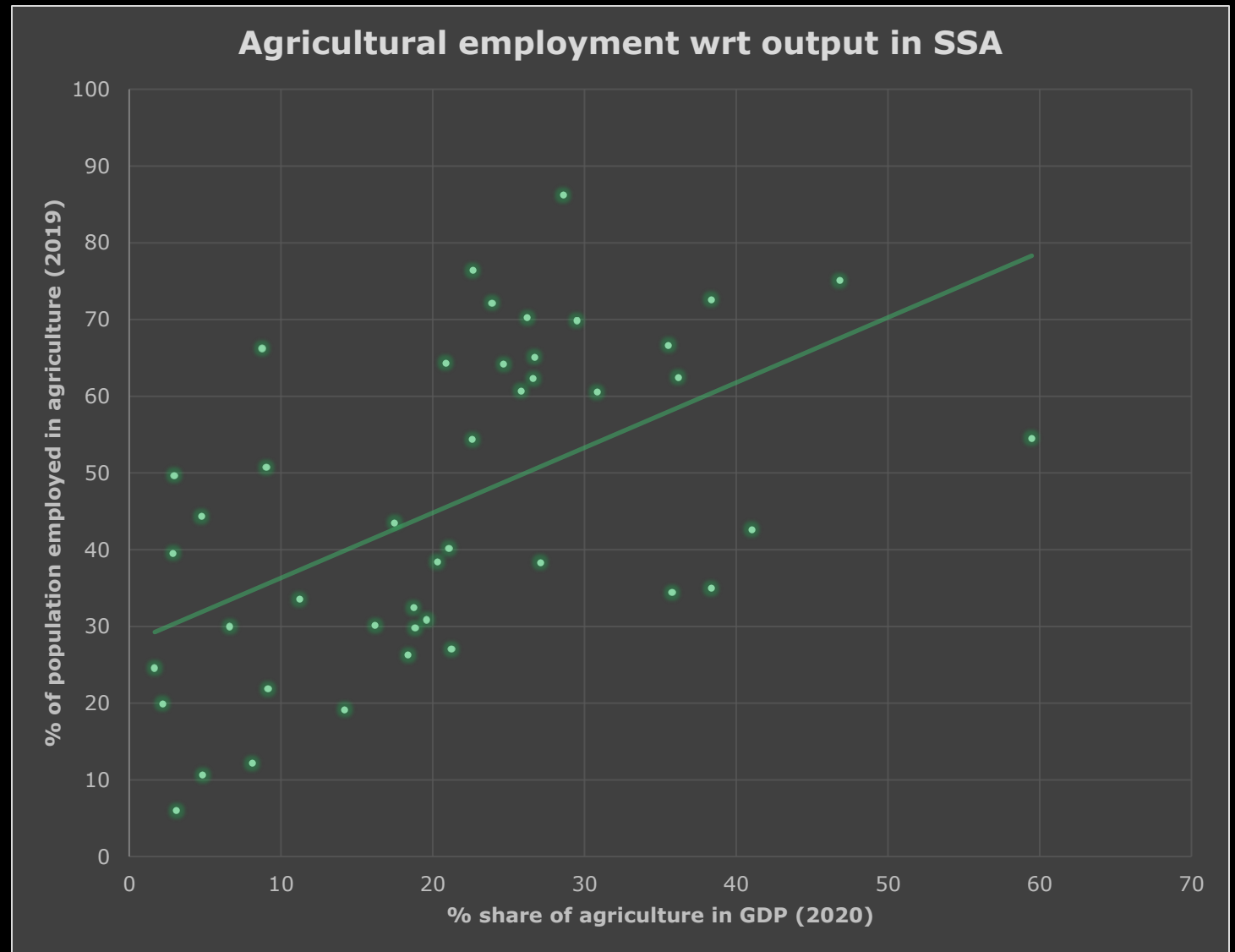
Electricity access inversely associated with employment in agriculture in SSA

Inadequate income generation



Agriculture provides employment in SSA but contributes weakly to GDP

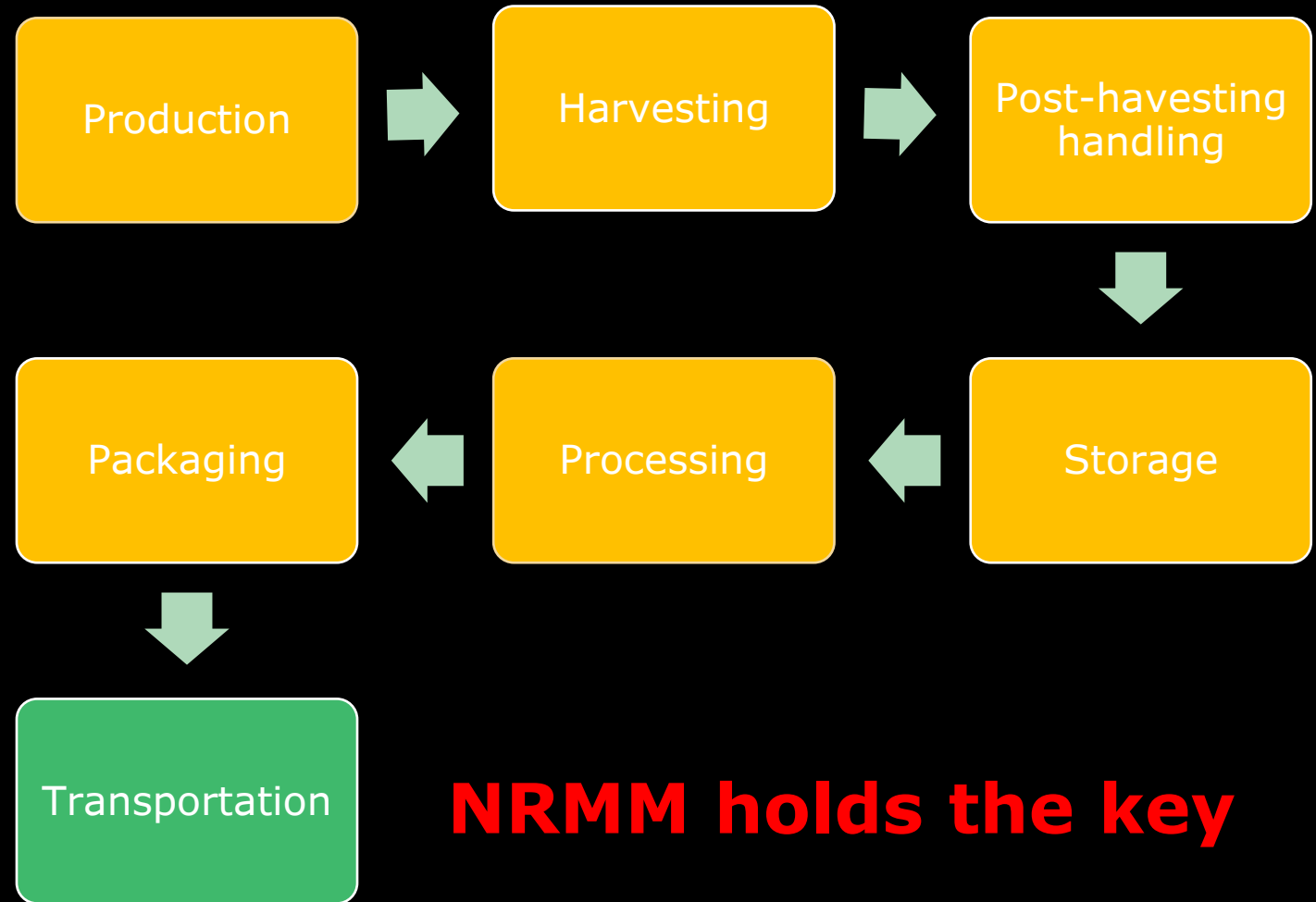
Agriculture is crucial but operating below potential



SSA Agriculture sector needs mechanisation

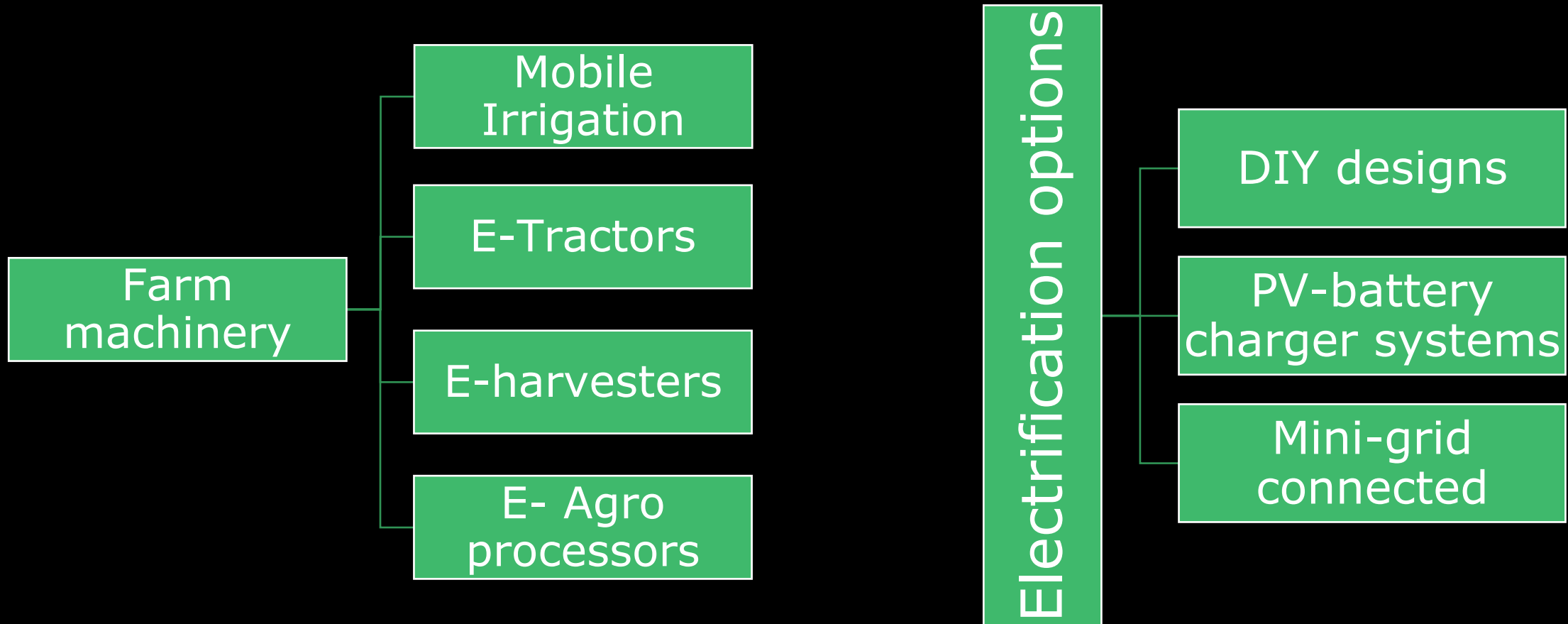
• Weaknesses

- Small holding size
- Low yield (56% of the international average)
- Low-level of mechanisation



NRMM holds the key

Electrification of mobile farm machinery in off-grid areas



Potential symbiosis with off-grid electrification and possible challenges

Sustainability

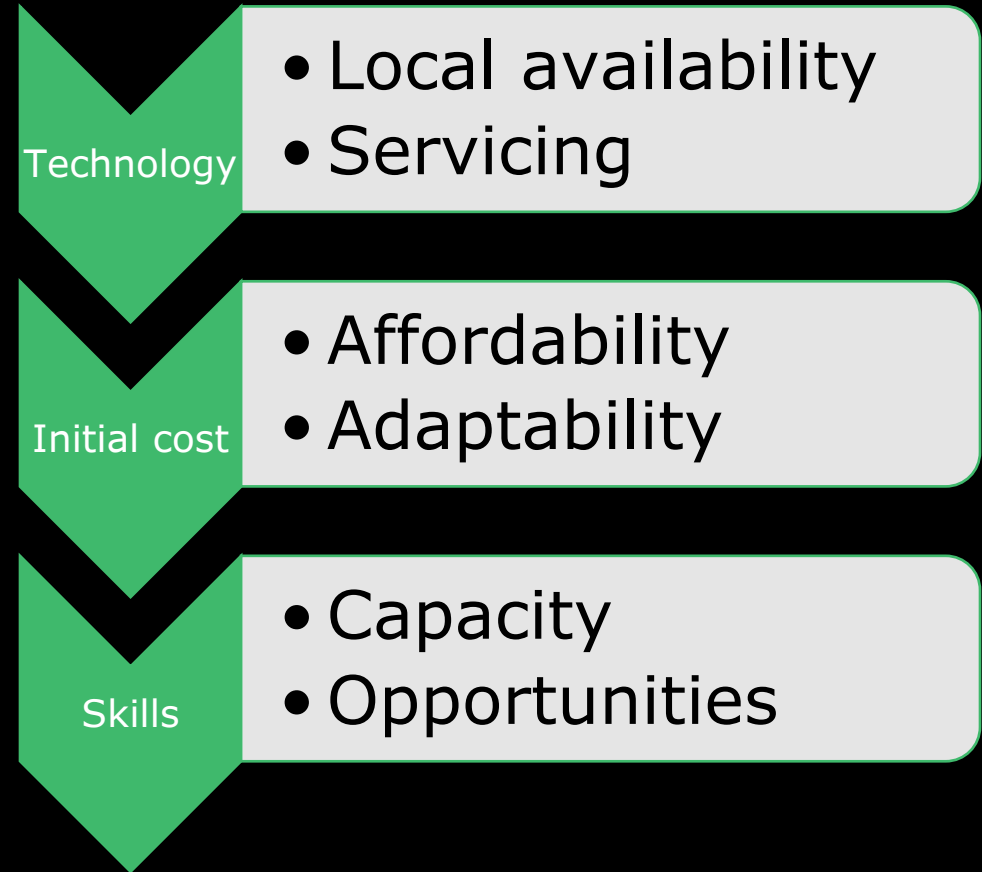
Project viability

Climate co-benefit

Affordability

Cost recovery

Income generation



Challenges

Concluding remarks

- Poor NRMM information availability for off-grid areas in developing nations
- Off-grid areas in Africa need mechanisation of agricultural activities
- Electrification of NRMM for agricultural use has significant potential
- Off-grid electrification and NRMM electrification can benefit from each other

Thank you for attention

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