Africa Mini-grid Developers Association

Overview, Financing & Policy Recommendation

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Utility Realities in Africa

- Sub-Saharan governments contribute less than 25% of their power sector spending – **the rest is donor subsidies**
- As of 2016, only 2 countries in Africa fully recovering their operational and capital costs
- As of 2016, 19 countries in Africa are able to cover operation costs. Only 4 were also covering half or more of capital costs
- These gaps prevent power sectors from delivering reliable electricity, let alone expand supply adequately

https://www.icafrica.org/fileadmin/documents/IFT_2016/Infrastructure_Financing_Trends_2016.pdf
https://openknowledge.worldbank.org/bitstream/handle/10986/25091/108555.pdf?sequence=10&isAllowed=y

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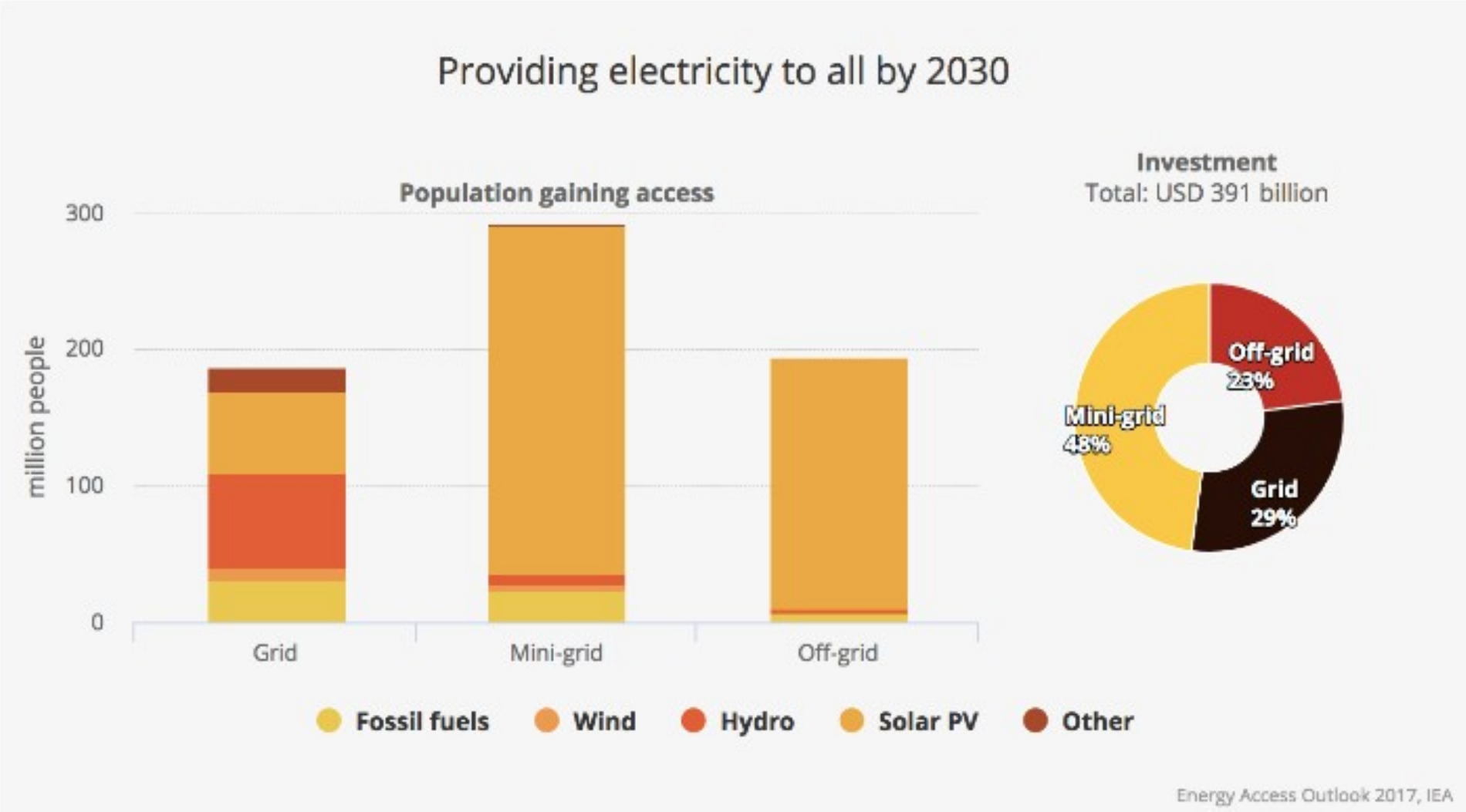
Mini-Grid Pipeline Potential in Africa



Scaled Deployment of MG's Across Africa (Main-Grid Parity)

IMPACT

Project Level Concessional Debt

Fast Approval Process in all AMDA Countries & Framework for Profitable MG's

Transparency on Performance and Challenges - Improved Decision Making Process

OUTCOMES

Scaled up MG Deployment

Adaptation of Policy Priorities

Sector Information

OUTPUTS

FUNDING

RBF Financing

Private Sector Equity

Development financiers

POLICY

- Policy Makers
- Donor community
- Other Stakeholders

DATA

Revenue

Power

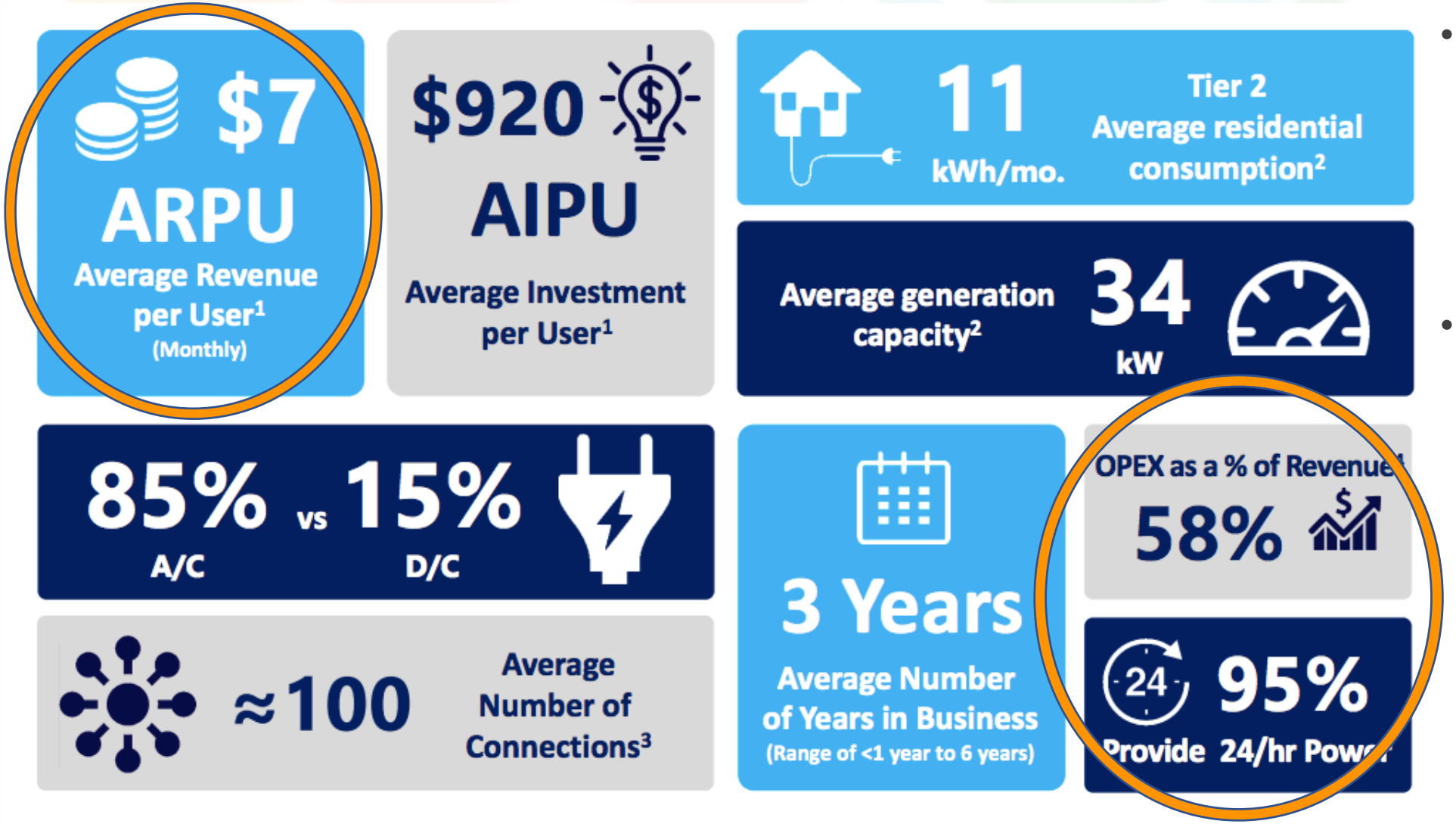
Connections

Cost

AMDA

INPUTS

Summer 2018 IFC Global Mini-Grid Data



[1] *Includes the sole Hydro DESCO in the sample ($7 ARPU and $920 AIPU)*
[2] *Excludes the sole Hydro DESCO in the sample, which is an outlier for average residential consumption and generation capacity*
[3] *Excludes 2 Outliers (one hydro DESCO & one PV with higher connections)*
[4] *Only 13 respondents*

- Average revenue per user is only $84 – this is why utilities have avoided rural areas to date.
- Promoting local socio-economic growth requires more OPEX, and higher quality service than utilities provide.

IFC International Finance Corporation WORLD BANK GROUP

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Project-level public support for mini-grids in rural TZ and KE (2011-PRESENT)

Donor Support	ACP	EEP	UNCDF	Undisclosed	Equity	TOTAL CAPEX
Amount Provided to date	$ 350,000	$925,000	$124,000.00	$40,000	$7,760,000	$9,200,000

This represents only ***14% of total project-level funding*** for mini-grids in two of the most well understood and donor supported markets in Africa

*Total CAPEX costs are for Solar PV & Bio Gas only
** Includes Project data for Engie, PowerGen, Ensol, SteamaCo, RVE.Sol, Jumeme, Rafiki Power (excludes Powerhive)

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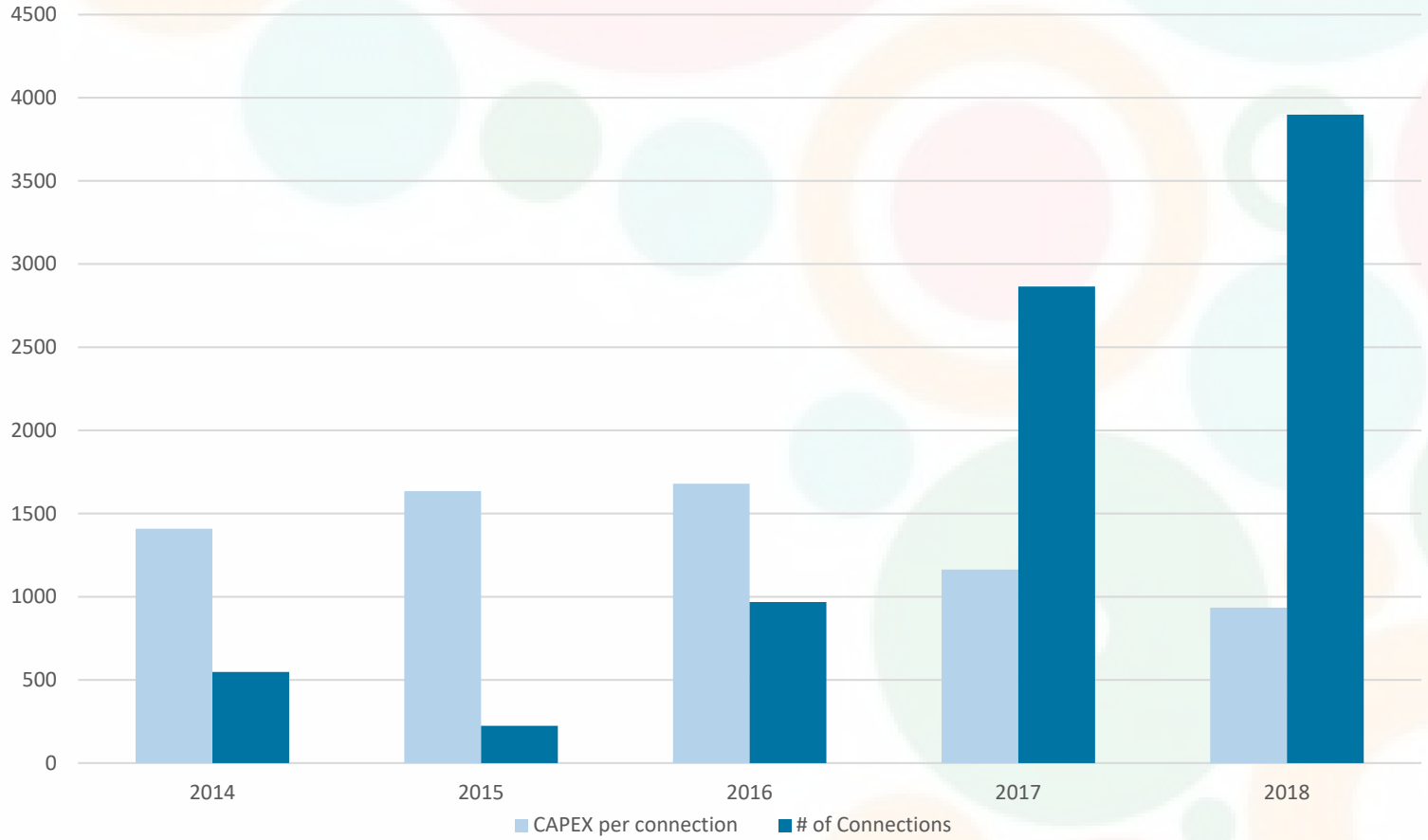
Minigrid costs are reducing as the sector scales



- Significant cost reduction as # of connections increase
- 2017 – Cost per Connection $1163
- **2018 – Cost per Connection $934**
- **2020 – Estimated Cost per connection – $600-$700**

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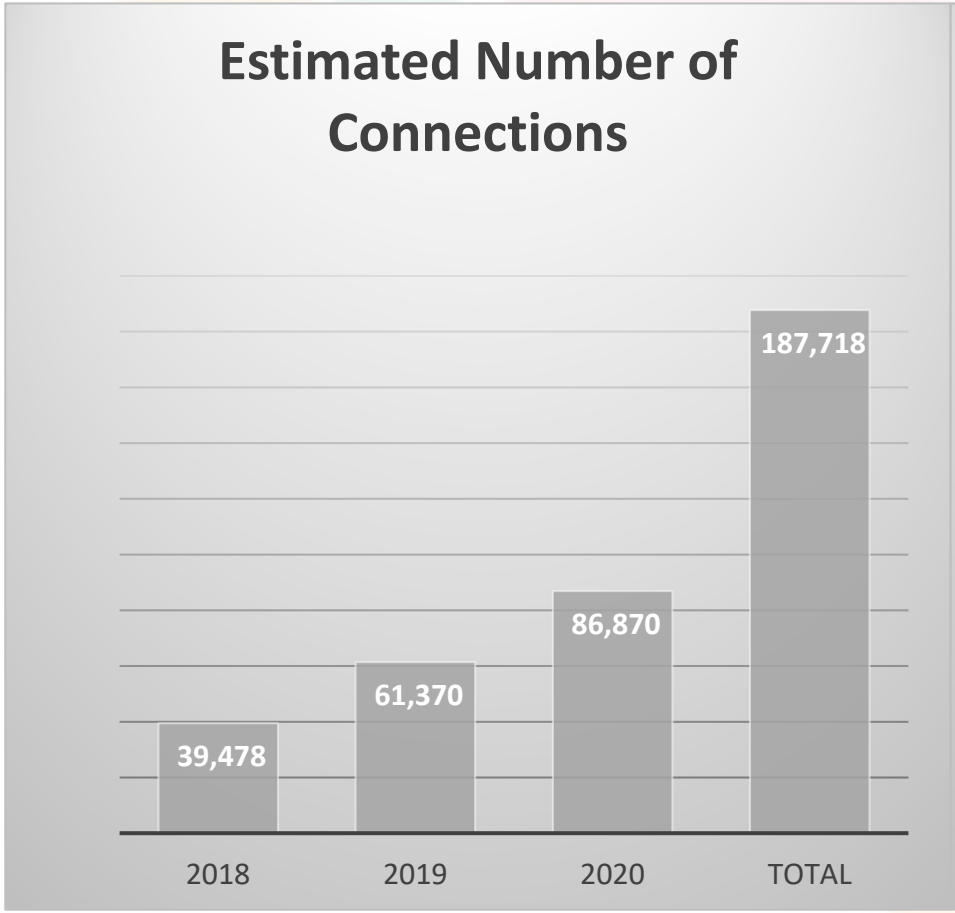
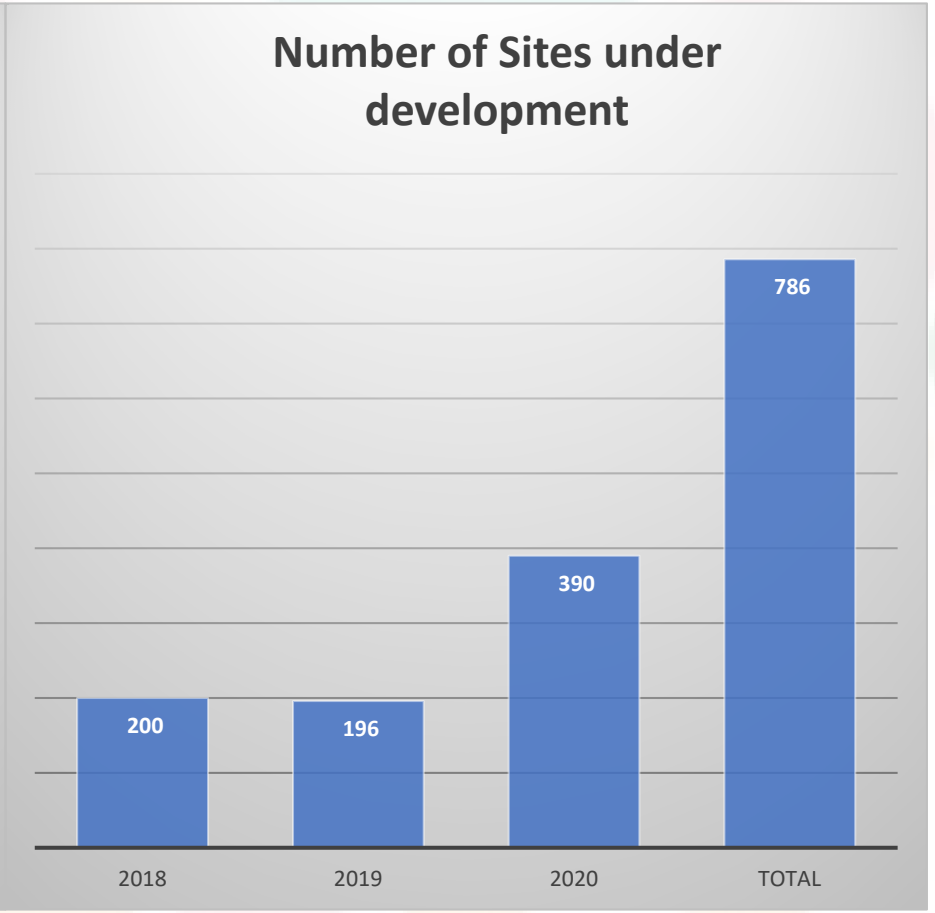
Kenya and Tanzania - AMDA Pipeline





If finance for AMDA's existing pipeline comes through, we are on track to connect **1,000,000 people** by the end of 2020.

REA in Tanzania currently connects **50,000 people per annum (150,000 out to 2020)**.

KENYA & TANZANIA Financing Gap