

EDM – inclusive & integrated energy planning

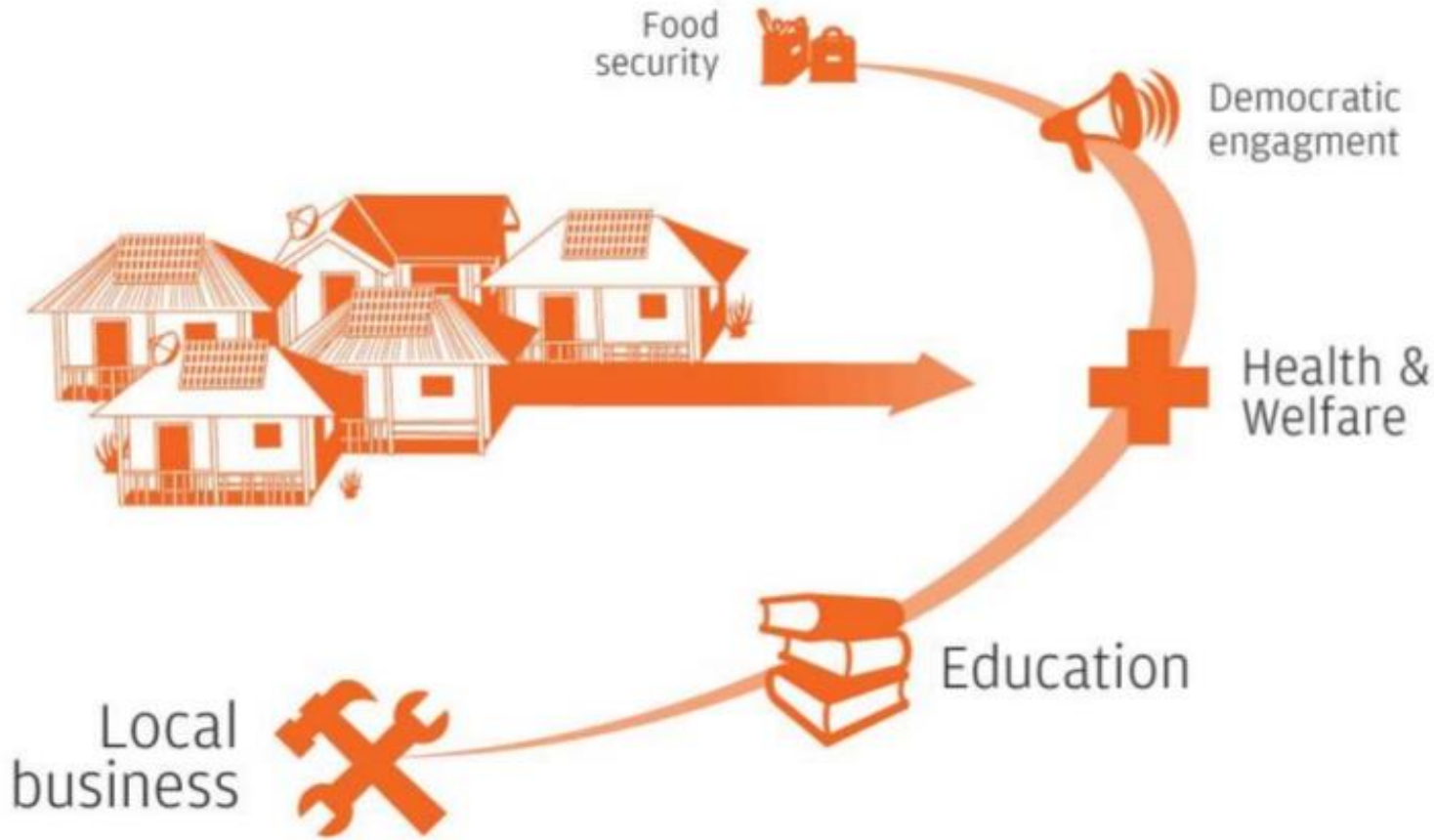


Planning pro-poor energy services
for maximum impact:

The Energy Delivery Model Toolkit

- The Energy Delivery Model (EDM) Toolkit is a six-step problem-solving process developed by CAFOD and IIED
- It was developed and tested at community level in Indonesia, and has also been used in Kenya, Myanmar & Nigeria to review/develop business models & development projects

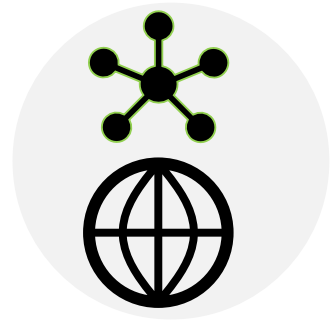
Access to modern energy is an enabler of poverty reduction & development



Energy Planning is not fit for purpose



Billions of people living in 'last mile' lack modern energy



Energy poverty is multi-dimensional - local contexts & needs vary



Energy planning is top-down, 'one-size-fits-all' & starts with technology



Little attention is paid to wider development needs & socio-cultural factors

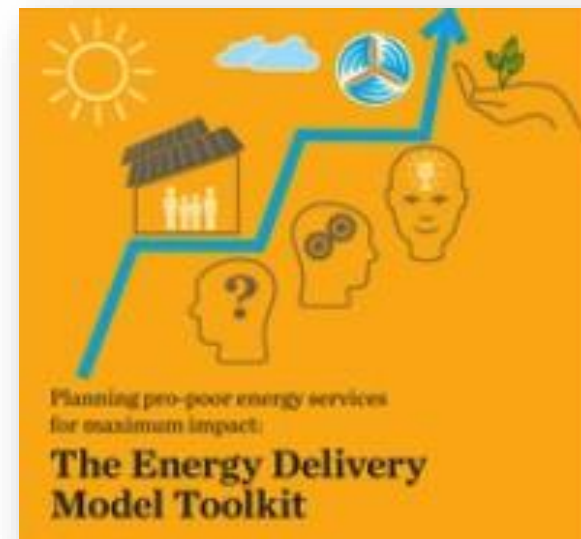


Lack of financial, social & environmental sustainability in service design

Theory of Change

More inclusive (needs-based) and integrated planning approaches can:

- Maximise the development impacts of energy interventions
- Ensure financial, environmental and social sustainability of the service
- Support early identification of energy linkages in other sectors & synergies between energy solutions
- Create buy-in from stakeholders including from county executive, private sector & civil society
- Ensure solutions are appropriate & cost effective for specific target groups and their contexts
- Promote scalability through aggregation of solutions
- Move rapidly from planning to implementation by identifying and engaging co-financiers and service providers throughout (from CEP to investment-ready solutions)



The challenges for effective sub-national energy planning

- National energy access targets are essential but do not automatically translate into local uptake
- Planning approaches are often siloed within sectors – if energy services are ‘planned in’ from the start as an integral component of wider sectoral plans/investments, this could maximize impact & effective resource allocation. Development planning itself needs to be robust.
- To identify which energy solutions will be most effective (including least cost) for meeting development objectives, there is a need to think through:
 - What (and whose) specific needs are these solutions helping to address?
 - What is the context in which the service will operate?
 - What are the supporting services and linkages to other sectors, including productive sectors?
 - Can an energy solution meet more than one development need (synergies)?

1. Identify starting point

2. Be Inclusive

3. Build understanding

4. Design and Test

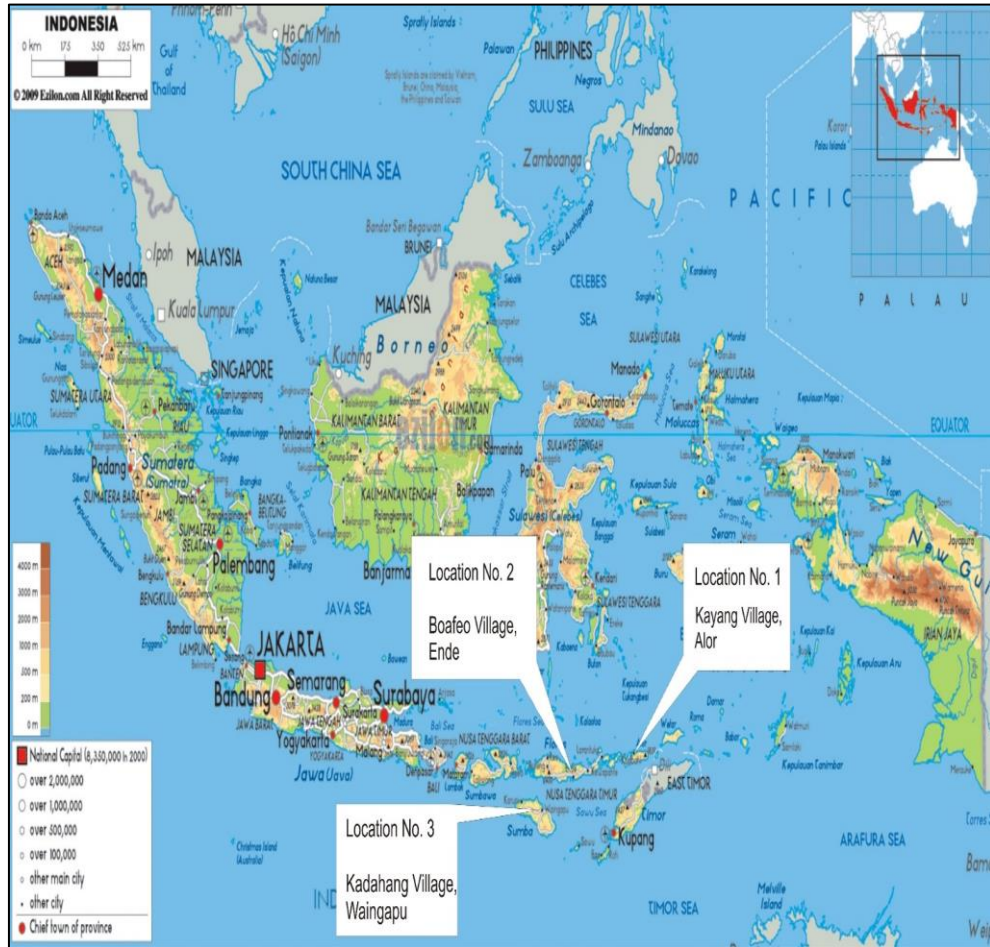
5. Optimize and Review

6. Prepare to implement

EDM Toolkit

- Inclusive - identifies end users' priority needs & energy/non-energy 'gaps'
- Iterative – questions assumptions & co-creates solutions
- Maps key stakeholders & enabling environment
- Pays particular attention to socio-cultural 'make or break' factors
- Designs & tests delivery models, including supporting services, to develop optimal solutions
- Manages risks & seeks synergies to deliver greatest impact
- Scalable – can be used for different sizes of project
- Can be applied to planning other development sector services & projects
- Builds wider agency or community problem-solving capacity





EDM – past, present & future

- ✓ Pilot at community level in Indonesia
- ✓ Review of small and larger-scale projects in Kenya, Myanmar & Nigeria
- ✓ Support for county-level energy planning & community-level service planning in Kenya

Kenya County Energy Planning



Planning energy services for development
ENERGY DELIVERY MODEL (EDM)
inclusive planning approach



Opportunity for inclusive & integrated county energy planning Kenya

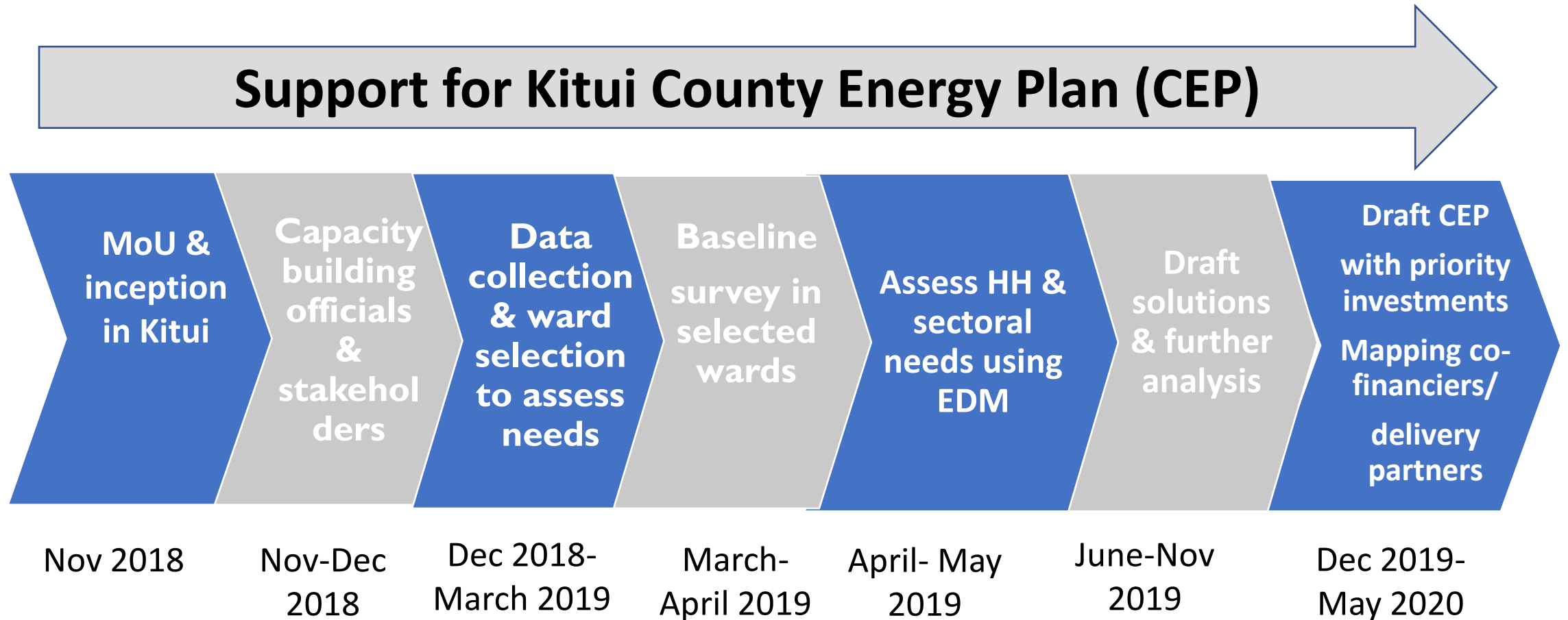
- Kenya has a clear enabling framework (Vision 2030, SEforALL targets, Energy Policy 2018).
- The Constitution assigns the function of “county planning and development including electricity and gas reticulation and energy regulation” to county governments & counties are mandated to produce 5-year County Integrated Development Plans (CIDPs) & Annual Development Plans (ADPs).
- The Energy Act 2019 requires national energy planning. All 47 counties to develop a County Energy Plan (CEP) (reviewed every 3 years) to feed in.
- In November 2018, the county government of Kitui signed an MoU for support for development of their CEP with CAFOD, the International Institute of Environment and Development (IIED), and Caritas Kitui. Experience integrated into new **EuropeAid 3-year programme through MoE to support national & county level capacity building on energy planning. 3 million euros with potential larger envelope.**

Kitui County Kenya



- Kitui County is located about 160km east of the capital, Nairobi, and is the sixth largest county in Kenya. The land area is 30,429.5 km²
- It has just over one million inhabitants. It has a higher percentage than the national average of people living in poverty. 47.5% compared to 36% per cent nationally (39.3 per cent of households, compared to 27.4 per cent nationally).
- The main economic activities include agriculture comprising of food, cash crops and livestock; trade and industries like cotton ginnery, fruit processing plants and maize milling

Timeline



In-depth assessment - 8 sub-counties

8 wards to provide a *representative* sample for Kitui County



Social inclusion

Gender, Youth, Ethnic groups



Geography

- ✓ 8 Constituencies/Sub-counties
- ✓ Urban/ Rural

Socio economic and energy access levels

- ✓ 6 Economic zones
- ✓ Energy access rates and fuel type

Sectors

- ✓ Agriculture (irrigation and processing)
- ✓ Livestock
- ✓ Health
- ✓ Education
- ✓ Water
- ✓ Industry
- ✓ SMEs- high energy, low energy

Priority needs- findings from the ground

Ranking	Need	Wards
1	Improved farmer income from rain-fed crops	7/8
2	Access to clean water in closer proximity for drinking and washing	6/8
3	Better access to health services in remote areas	4/8
4	Improved productivity and income from livestock (poultry, goat keeping, cattle and dairy farming)	3/8
4	Better quality lighting for cooking and working at night (W), general purpose, learning, security	3/8
4	More reliable electricity & supporting services for existing SMEs	3/8
4	Cleaner, cheaper & faster cooking fuels & methods to reduce health impacts, costs, time and drudgery, and allow more time for relaxations	3/8

Challenges with CEP development

- Data – availability & accessibility of data sets; quality of data; data analytics
- Capacity issues – technical (e.g. EA/EE/RE expertise including on enabling policies) & management skills (project management & evaluation; business modelling etc)
- Cross-sectoral coordination & communication
- Resource allocation & mobilization
- Political economy issues

Mapping delivery partners & co-financiers

- Local & national government agencies (e.g. County/provincial governments, other line ministries).
- Donors & Development Finance Institutions – bilateral & multilateral (e.g. EuropeAid DFID, GIZ, SIDA, UN agencies, WBG, GCF etc).
- Foundations & other grant-making bodies (e.g. Mott Foundation, IKEA, Wallace Global Fund, Oak Foundation & others).
- Climate & international development organizations – energy specialized & general
- Social enterprises (e.g. EnerBi, Indonesia) & mini-grid developers