The Covenant of Mayors in Sub-Saharan Africa

Training Module 2:
How to Develop your Climate Project to Access Finance

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in Sub-Saharan Africa

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Agenda

1. Defining project development challenges and opportunities
2. Introduction to project structuring
3. Identifying budgets
4. Assessing economic and financial feasibility, including early engagement with funders
5. Securing funding
6. Finalizing financial close
7. Assessing environmental and social impact
8. Estimating and reporting on climate impact
9. Resources for project development
10. Breakout session: Managing the project development process for your Climate Action(s)
11. Team presentations
12. Wrap up

1. Defining project development challenges and opportunities

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Defining project development challenges and opportunities

Key challenges include:

- **High development costs that require significant project development budgets**
  - Development costs typically account for 5 to 10% of total project costs
  - Percentage can be much higher for small projects (under US$ 50 MM) as economies of scale cannot be achieved

Africa's infrastructure finance needs are estimated by the AfDB at between US$ 68–108 billion/year

This requires project development budgets of between US$5.1 and US$8.1 billion/year (assuming average project development spend of 7.5%)

- **Project preparation facilities (PPFs) and international climate facilities are not meeting demand/needs**
  - Only US$ 88 million in project preparation funding disbursed in 2017
  - This represented only 1 - 3% of what was needed (Annual Report of Infrastructure Consortium of Africa)
  - GCF project preparation facility funds are capped at US$1.5 million per country per year

- **Long development periods that are often out of sync with political windows**
  - Usually 2 – 8 years from concept to procurement whilst political window until the next election and leadership change is shorter (~ 4 years)
  - Requirements from international climate facilities and other funders are onerous (technical studies, environmental and social impact assessments, GHG modelling, etc)

Defining project development challenges and opportunities

- **Requirement for experienced specialized professionals**
  - A combination of project developers, transaction advisors, project finance experts, lawyers, environmental experts and social impact experts are required to develop projects
  - Many of these skills are in short supply in SSA
- **Feasibility studies are often led by technical experts and little consideration is given to financial structuring**
  - Results in non-bankable but technically ambitious projects

Opportunities include

- **LG provides early funding** and procures expertise to advance project to a concept stage where it can mobilize project development support from project developers, project preparation facilities, climate facilities/accredited entities, etc.
- **Lobbying bilateral agencies** support early project development process, advancing projects to the point where they can access support from project preparation facilities or funds. Outside of larger cities, bilateral agencies may want to support programs that will benefit a number of LGs rather than individual LGs.
- **Private sector provides both early funding and expertise** at a project level. Whilst project developers can provide early funding, returns and risks need to meet their criteria over the entire project pipeline with an enabling environment to make the necessary investment (total private sector investment is 53% of worldwide green finance per CPI Report)
  - *Example: South Africa's REIPPP was funded by US19 B in private funding given acceptable returns and risks: clearly communicated amount of MW that would be procured, definitive timeline over which procurement were to take place, standardized power purchase agreements that set out the risk allocation and payment mechanisms, implied guarantees, etc. These factors allowed the private sector to assess the opportunity and to make the necessary investment in project development.*
  - *Example: GIZ provided technical support to the Governments of Kenya and Senegal to develop a GCF application for a clean cooking stove program. The application unlocked of EUR 38.4 MM of grant funding from the GCF.*

2. Introduction to project structuring

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Introduction to project structuring – “on-balance sheet vs. off-balance sheet”

- **Project structuring is an evolving process** that will continue throughout the project development phase
- **Early assessment**: requires the LG project owner and his/her advisors to consider the project in the context of the LG’s regulatory and financial constraints/opportunities, including
  - Whether the LG can raise affordable debt for the project
  - The LG’s credit status
  - What structures and mechanisms the LG is allowed to implement
  - Whether the project is likely to generate enough revenue to repay debt
  - Whether grant funding can be accessed for the project
  - Whether the LG has the necessary skills to develop and operate the project
- This early assessment will indicate whether an “**on balance sheet”** or **“off balance sheet”** funding approach may be most appropriate.
- An **“on balance sheet”** approach means that the LG will raise debt for the project that will be reflected either on its own balance sheet or that of the National Government. This is often referred to as a publicly funded approach.
- An **“off balance sheet**” approach sees another entity (e.g., special purpose vehicle, utility) raising debt to fund the project resulting in the debt being on the balance sheet of that entity and not the LG’s. This is typically the case in a PPP.

Introduction to project structuring – "on-balance sheet vs. off-balance sheet"

- It is worth noting however that some countries' PPP legislation may require an LG to investigate the feasibility of a project under both approaches, this is known as a "*public sector comparator model (PSC)*"
- During the options assessment phase, LGs may want to consider both on-balance sheet and off-balance sheet approaches if an early assessment is not conclusive or if legislation requires that both approaches are investigated
- If an on-balance sheet approach is deemed most appropriate, the next steps would be to **identify suitable structures for implementation** (managed within LG or establishment of separate legal entity such as a municipal utility)
- If an off-balance sheet approach is deemed most appropriate, the next steps would be to **identify suitable structures for implementation**, including:
  - The ownership structure (i.e., 100% privately owned, LG as minority shareholder, etc.)
  - Potential sites and ownership of the sites
  - Likely funding sources (DFI loans, climate facility loans and grants etc.)
  - The project development requirements of likely funders (e.g. technical studies, GHG emission modelling, etc.)
  - The costs associated with meeting funders' requirements
  - Risks that the public sector can bear (e.g., minimum levels of feedstock in a waste project)
  - What risks will need to be transferred to the private sector
  - Risk mitigation measures to incorporate into the structure to reduce the risk to the private sector
  - Potential legal structures (e.g., SOE/utility, PPP, long term lease, concession, service level agreement, etc.)

Examples of likely project structures for Climate Actions targeting private sector funding

Potential on-balance sheet and off-balance sheet structures are summarised below for the 7 Climate Actions that are most likely to unlock significant finance from the private sector. The remaining 3 Actions are more suited to public funding models.

Climate Action	On-Balance Sheet	Off-Balance Sheet
Building efficiency	SLA combined with turnkey contract	Energy performance contract with ESCO or Super ESCO, PPP delivered via a SPV
Solar projects (including rooftop PV)	SLA combined with turnkey contract	Energy performance contract with ESCO or Super ESCO, PPP delivered via a SPV [Lease with ESCO or Super ESCO]
Public lighting efficiencies+ expansion	SLA combined with turnkey contract	Energy performance contract with ESCO or Super ESCO, PPP delivered via a SPV [Lease with ESCO or Super ESCO]
Solar mini-grids to generate and distribute	SLA combined with EPC contract	PPP delivered via a SPV [NGO owned]
Wastewater treatment & reuse	SLA combined with EPC contract	PPP delivered via a SPV (excludes NGO decentralized models)
Waste-to-energy	SLA combined with EPC contract	PPP delivered via a SPV
Integrated Waste Management	SLA combined with EPC contract	PPP delivered via a SPV, feedstock supply agreement with corporate (excludes NGO decentralized models)

Climate Actions requiring public funding are likely to make use of shorter-term contracts with the private sector for the supply and planting of trees, supply of cooking stoves, and disaster risk management solutions

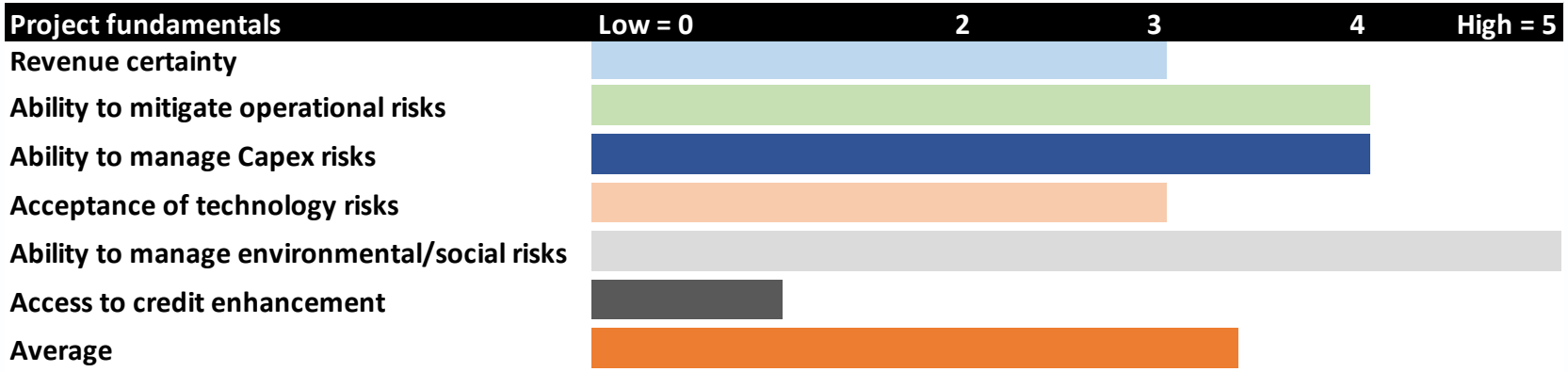
Likely funding sources and contract types

Blended finance is likely to be a key source of funding across all four models whilst the private sector model chosen will determine the contract type

Private sector model	Public funded with SLA	Corporate funded	PPP	100% Private
Likely contract type	-Service level agreement between the LG and private sector	-Energy performance contract between the LG and corporate entity	-BOT agreement between the LG and SPV	-Feedstock agreement between the LG and private sector
Funding sources for CAPEX	-National grants -LG's own sources of funds -Blended finance Commercial debt	-Commercial debt and equity raised off corporate entity's balance sheet -National grants -Blended finance	-Project finance debt -National grants -Blended finance	-Commercial debt and equity raised off own balance sheet -Blended finance

Project structuring tool

- A project's **risks** and **revenue certainty** largely determine what funding sources/mechanisms it can access
- Below typology was developed to help LGs understand, early in the project development process, what funding sources/mechanisms may be most appropriate for their projects by answering several revenue and risk questions
- The average rating is indicative only and the mitigation of risks or introduction of credit enhancement measures can improve the average score



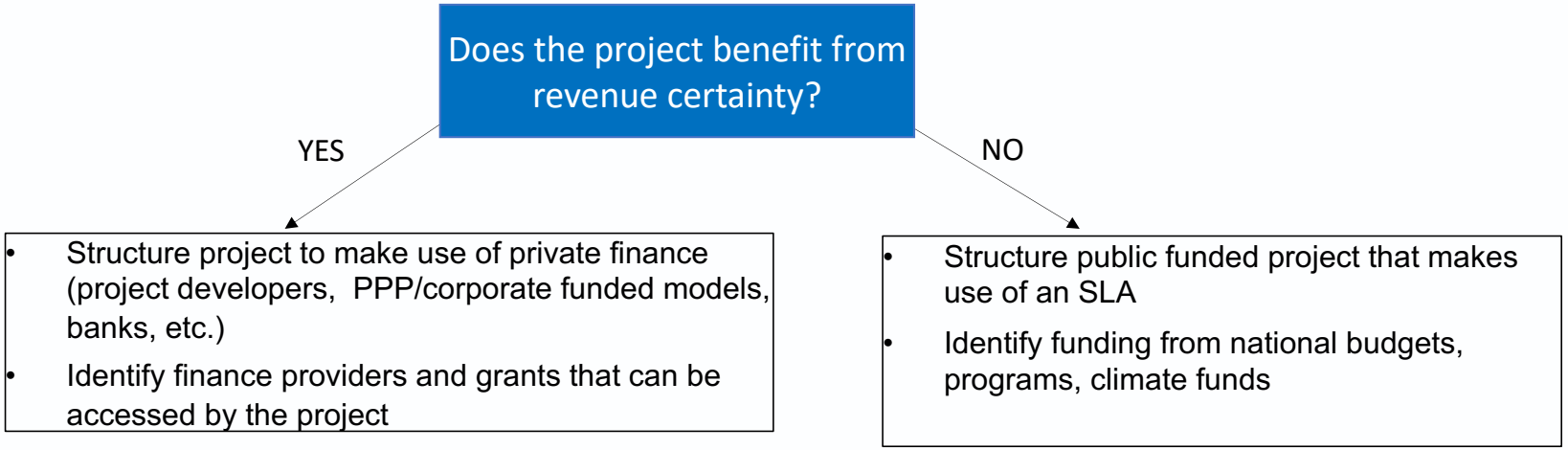
Generic funding mechanisms	Grants (Govt + ODA)	Blended finance, impact investment	PPP + grant /blended finance	PPP, project bonds
Climate funding mechanisms	Grants	Concessionary loans + grants		Green bonds, equity

"on balance sheet" structure

"off balance sheet" structure

How to assess project fundamentals - revenue certainty is the key factor!

- The following **factors** need to be considered in determining **revenue certainty**, namely:
  - Can all the project's costs be recovered through user payments (e.g. tariffs) and/or savings?
  - Are there significant revenue opportunities from the sale of by-products (e.g. compost, biogas, etc.)?
  - Is the LG able to guarantee enough of the project's revenues to cover debt service and any equity payments?
  - Is the project able to manage tariff risk?
  - Are the project's off takers creditworthy and therefore unlikely to default?
  - Are the demand for products and supply of inputs certain?



How to assess project fundamentals – can risks be mitigated?

- A project's risks will need to be unpacked to understand which operational, technical, capex and environmental risks can be mitigated and what the likely impact will be of the risk materializing (post mitigation)

Risk	Consideration
Operational risks	• The likelihood of recovering OPEX via revenue/savings • Ability of LG to guarantee inputs to the private sector (e.g. minimum volume of organic waste for a composting plant) • The predictability of costs and exposure to foreign exchange risk
CAPEX risks	• Whether revenue is sufficient to recover capex investment • Whether construction risk can be transferred cost effectively to the private sector
Acceptance of technology risks by lenders	• Whether lenders will consider the technology to be tried and tested • Whether commercial lenders will consider the assets to be suitable for collateral
Environmental & social risks	• Ability to minimize environmental and social risks and the costs associated

- If the project can access guarantees or other risk mitigation measures, it will make the project more viable to private sector funders and more likely to be implemented using an off-balance sheet approach

Standalone LG project development process

- The diagram below illustrates the typical process followed to develop a LG led project or pool of projects that will make use of private sector funding (note many tasks are concurrent and timing/scope will vary depending on project specifics)
- Projects that form part of nationally led programs will require less project development as it will make use of standardised evaluation processes, contracts, procurement documents, funding, and in some cases risk mitigation instruments

Develop concept	Engage experts to assess options	Engage funders	Demonstrate feasibility	Secure CAPEX funding	Financial Close
• Analyze LG budgets to understand current spend on service • Assess whether existing tariffs are cost reflective • Consider whether tariffs can be increased • Identify any predictable inter-governmental financial transfers • Conduct initial informal market sounding (public, private)	• Use local funding to secure experienced experts • Apply project typology to identify likely funding models • Assess technical solutions under different funding models • Rank options based on affordability and net benefits based on simple financial modelling • Develop a concept note	• Secure approval from LG Head, CFO • Secure LG own sources of funds/grants • Secure national approval, funding • Develop and present a concept note to project developers and/or development partners	• Secure early stage investment • Conduct technical studies • Identify and secure site(s) • Undertake modelling (financial, economic and GHG) • Finalize funding model • Identify M&E criteria • Undertake market assessments • Negotiate terms of supplier contracts	• Secure private sector funding (options: debt, equity) • Secure required public funding and risk mitigation • Include project in LG budget process • Formalize commitments with legal contracts	• Evaluate and award tenders • Conclude EPC, PPP, SLA contracts • Sign agreements with development partners • Finalize risk mitigation contracts • Sign financial close documents with project developer/PPPs and banks

Standalone LG project development – advantages and disadvantages

ADVANTAGES	DISADVANTAGES	OPPORTUNITIES
• LG controls the process • More suitable for very large non modular projects provided that LG has the necessary technical capacity and support	• Project development costs will be high relative to overall project costs due to lack of economies of scale • Significant technical and financial capacity required at a LG level • Requires significant project development budgets at a LG level	• Access standardized designs, contracts and procurement tools that have been developed at a national or regional level • Use experienced transaction advisors throughout the process

If an experienced project manager is not available in the LG to manage the process, the LG should appoint an experienced project developer who will manage the contracting of professionals for needed technical studies and structuring SLAs, PPP agreements, etc.

Benefits of national programs that benefit LGs

- National programs are more likely to (1) achieve ***economies of scale*** as they can spread the cost of experienced transaction and technical advisors across a number of projects and (2) given ***reduced risk and cost, secure private finance***
- A national program is more likely to ***attract funding from climate facilities*** like the NAMA and GCF as the
  - NAMA facility's mandate is to fund country led projects or programs
  - GCF mitigation applications need to be for at least US$ 50 MM of funding which may not be achievable at an individual LG level unless a number of projects are packaged together
  - GCF applications require a no objection letter from national government (via the NDA)
- ***Bilateral agencies are more likely to support and fund the project development process*** as it provides a greater opportunity for scaling up and their counterparts are usually at the sovereign level (and require national approval)
- ***A centre of excellence*** can be established at a national level that can employ very experience project managers and measurement and verification experts to run the program during the project development phase and to report on climate benefits once operational
- Lenders can benefit from diversification where ***a pooled financing facility*** is structured at a national level that provides funding to a number of LGs

3. Developing the Project Concept

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Project development process – development of project concept

Develop Concept | Engage experts to assess options | Engage funders | Demonstrate feasibility | Secure CAPEX funding | Financial close

Develop concept

- Analyze LG budgets to understand current spend on service
- Assess whether existing tariffs are cost reflective
- Consider whether tariffs can be increased
- Identify any predictable inter-governmental financial transfers
- Conduct initial informal market sounding (public, private)

Key considerations

- The affordability of a Climate Action will need to be demonstrated by a LG's decision to unlock support for the project
- To assess affordability, existing budgets used to deliver the service will need to be unpacked and analyzed as well as any possible intergovernmental financial transfers and other financial support (public, private) through research and informal market testing
- These budgets will include budgets allocated the LG to deliver the service but may also need to consider income earned by the private sector where the private sector is currently providing the same service and being paid directly by households (e.g., removal of solid waste or emptying of septic tanks)
- The LG will also need to quantify the following volumes or base data which will inform the feasibility assessments and contractual arrangements for solid waste, wastewater, energy efficiency and public lighting interventions:
  - The volumes of solid waste/sewerage for which it is responsible
  - The baseline data for electricity use in buildings and public lighting
- Both CAPEX and OPEX budget allocations need to be unpacked to understand what funding the project will be able to access and ideally ring-fence for construction and operation
- For energy efficiency projects, the LG's ability to reallocate budgets from electricity costs to paying for energy performance contracts will be key to structuring a private sector funded solution
- If the project may make use of an off-balance sheet approach, **host a roundtable** for project developers and commercial lenders with selected national government officials and development partners to present the concept of the project, resulting in:
  - *Feedback from potential private sector developers and funders with respect to optimal project structure, risk sharing mechanisms, and need for credit enhancement*

4. Assessing economic and financial feasibility, including early engagement with funders

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Project development process – assessing options

Develop concept | **Engage experts to assess options** | Engage funders | Demonstrate feasibility | Secure CAPEX funding | Financial Close

Engage experts to assess options

- Use local funding to secure experienced experts
- Apply project typology to identify likely funding models
- Assess technical solutions under different funding models
- Rank options based on affordability and net benefits based on simple financial modelling
- Develop a concept note

Key considerations

- The project structuring tool can be used to identify indicative funding models for a project by answering 18 revenue and risk questions (see next slide). The outputs will however only serve as guidance and the LG's transaction advisor will be best placed to interpret and refine the outcomes.
- The project owner and his/her advisor then need to develop a simple financial cashflow model that compares the different technical options and funding models
- To do a like for like comparison, the cashflow model needs to use a discounted cashflow approach and express LG costs on a like for like basis
- The outputs of this modelling exercise will be specific to the project and technology, but will indicate which technical option and financial model will be most affordable to the LG
- Below diagram illustrates the process for ranking solutions to an integrated waste project that seeks to divert waste from landfills, enabling the calculation of a cost per tonne of waste diverted to assess the project's affordability

Technical solution/ funding model	Composting facility	Anaerobic digestor
EPC contract + SLA	$/tonne of cost to LG	$/tonne of cost to LG
PPP using blended finance	$/tonne of cost to LG	$/tonne of cost to LG
EPC contract + SLA using blended finance	$/tonne of cost to LG	$/tonne of cost to LG

Budget available ($/tonne)

Rank options by affordability (i.e., difference between cost and available budget)

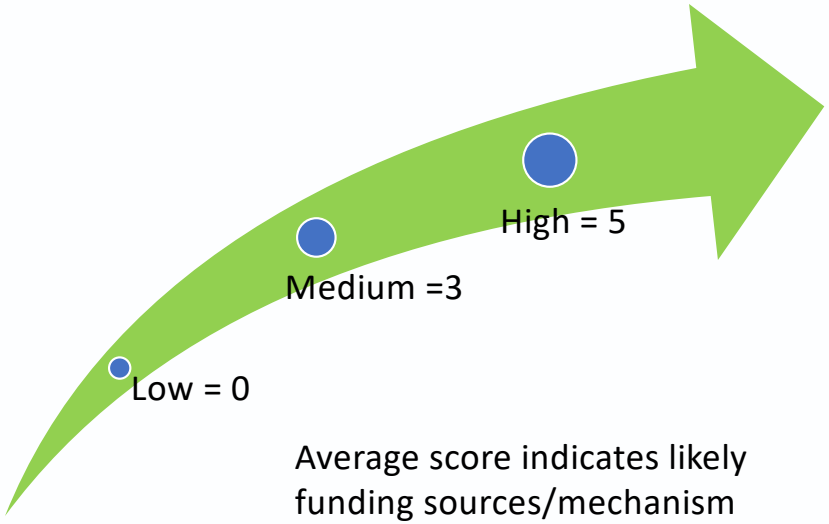
- A concept note needs to developed by the expert(s) using the outcomes of the affordability assessment with other considerations (e.g., technical risk, climate impact, etc.) using a multi-criteria approach

Project development process – structuring tool questions

Develop concept | Engage experts to assess options | Engage funders | Demonstrate feasibility | Secure CAPEX funding | Financial Close

18 questions that need to be answered to complete the structuring tool exercise, attract either a low, medium or high score

1. Ability to recover costs through user payments/savings
2. Opportunities for generating 3rd party revenue
3. Ability of LG to guarantee revenue
4. Ability to manage tariff risk
5. Creditworthiness of off taker(s)
6. Predictability of demand
7. Predictability of supply
8. Ability of LG to guarantee feedstock
9. Predictability of costs (due to FX, etc.)
10. Likelihood of recovering OPEX via revenue/savings
11. Ability to recover CAPEX investment via revenue
12. Ability to transfer construction risk to private sector
13. Acceptance of technology by lenders
14. Suitability as collateral for commercial lenders
15. Ability to minimize environmental impact/costs
16. Ability to minimize social impact/costs
17. Access to credit enhancement
18. Availability of guarantee mechanism



Average score indicates likely funding sources/mechanism

Average score calculated

Grants (Govt + ODA)	**Blended finance, impact investment**	**PPP + grant /blended finance**	**PPP, project bonds**
Grants	**Concessionary loans + grants**		**Green bonds, equity**

Project development process – early engagement with funders

Develop concept | Engage experts to assess options | **Engage funders** | Demonstrate feasibility | Secure CAPEX funding | Financial close

Engage funders

-Secure approval of LG Head, CFO
-Secure LG own sources of funds/grants
-Secure national approval, funding
-Explore provision of expertise and funding by project developers and/or development partners

Key considerations

- Once the options assessment phase has been completed and the LG has approved the project, the LG is well placed to engage with both public and private funders
  - Need to secure approval from the LG's senior management to commit funding for further project development (can be on a contingency basis if other funding is mobilized)
- LG commitment and the findings of the options assessment can then be used to **unlock other project development funding** by:
  - Securing support from national government
    - Approval from appropriate national government official and/or agency
    - Possible co-funding from national budget, national program, national development bank, etc.
  - Identifying and exploring with other potential providers of finance and expertise
    - Project developers (investors, providers of equipment and services)
    - Local based development partners (DFIs, bilateral partners) who can then help with other partners through National Development Working Groups (organized for sectors such as energy, waste, etc)
    - International programs (e.g., DFI global programs, global climate funds, etc.)
- To cover **funding gaps**, the LG and its advisor need to identify **blended finance options** to analyse how the project's funding gap could be closed through project structure, grants, concessionary debt, and guarantees/other risk mitigation
- **Funding assumptions** used in the options model (e.g., interest rates, maturities, etc.) need to be verified during engagements with **funders** and **project developers**

Project development process – demonstrate feasibility

Develop concept | Engage experts to assess options | Engage funders | **Demonstrate feasibility** | Secure CAPEX funding | Financial close

Demonstrate feasibility

- Secure early stage investment
- Conduct technical studies
- Identify and secure site(s)
- Undertake modelling (financial, economic and GHG)
- Finalize funding model
- Identify M&E criteria
- Undertake market assessments
- Negotiate terms of supplier contracts

- Feasibility and other studies (the business case) will now need to be developed for the **preferred option**, which would have been identified by the multi-criteria assessment **in the concept note**. The study will need to answer several questions so the project owner needs to ensure that the technical studies address the likely questions of its target audience.
- The **LG's CFO and Executive** will want to know:
  - Whether the project is **affordable**, i.e. whether the costs that the LG will bear will be covered by existing budgets or additional funding that can be secured
  - What the project's impact will be on **user fees/tariffs**
  - How the project aligns with development plans, job creation targets, and political objectives
- **Development partners** will want to know:
  - Degree of political support (local, national) and development benefits (jobs, climate, etc.)
  - Whether the project's benefits will be greater than its costs
  - How social and environmental risks will be mitigated and minimised
  - Whether the business model is sustainable, i.e., whether revenue/grants will cover all operational costs
- The **private sector** will want to ensure that:
  - Revenues will be paid in entirety and in timely manner, expenses are locked-in, suppliers of equipment and services are credible, management is competent with required technical quality, etc.
  - A reputable consultant was appointed to undertake all technical studies (including demand)
  - The project was structured to allocate risk appropriately between the public and private sectors

5. Securing CAPEX funding

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Project development process – securing CAPEX funding

Develop concept | Engage experts to assess options | Engage funders | Demonstrate feasibility | Secure CAPEX funding | Financial close

Secure CAPEX funding

- Secure private sector funding (options: debt, equity)
- Secure required public funding and risk mitigation
- Include project in LG budget process
- Formalize commitments with legal contracts

Key considerations

Once the technical studies have been completed and they demonstrate affordability and net economic and climate benefits, the LG should actively secure CAPEX funding for the project by:

- **Presenting the findings of the technical studies to the LG's executive and senior management** to secure budgets and funding for the project, resulting in:
  - *The project being included in the LG's formal budgeting process and budgets/revenues being ringfenced for the project (if possible)*
  - *Capital expenditure funding being approved for the project (for on-balance sheet approach and possibly for off-balance sheet approach depending on arrangements)*
- **Finalizing commitment of national funding support** that will be used as co-funding, resulting in
  - *Grant allocations or commitments at a national government level*
- Finalizing **proposals to development partners** (local programs, international climate funds, infrastructure funding facilities, etc.) resulting in
  - *A letter of commitment from each funder for funding, technical, and/or provision of risk mitigation support*
- If the project makes use of an off-balance sheet approach, based on above support and funding advance negotiations with project developers, and commercial lenders further defining the *project structure, risk sharing mechanisms and need for risk mitigation and credit enhancement*

6. Finalizing Financial Close

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Project development process – financial close (slide 1 of 2)

Develop concept | Engage experts to assess options | Engage funders | Demonstrate feasibility | Secure CAPEX funding | Financial close

Financial close

- Evaluate and award tenders
- Conclude EPC, PPP, SLA contracts
- Sign agreements with development partners
- Finalize risk mitigation contracts
- Sign financial close documents with project developer/PPPs and banks

The financial close process will depend on the funding model being implemented and the regulatory and legal framework applicable to the LG. The table below summarises indicative processes for each funding model.

Funding model	Public funded with SLA	Corporate funded	PPP funded
Likely contract type	• Service level agreement between the LG and private sector • EPC contract between the LG and private sector	• Energy performance contract between the LG and corporate entity	• BOT agreement between the LG and SPV
Likely procurement approach	• LG issues an RFP that requires bidders to propose an annual fee for the delivery of the service • The RFP stipulates services required, contract term, risk sharing mechanisms, penalty mechanisms • LG issues a second RFP to appoint an EPC contractor to construct the project. Contractors are required to provide a fixed price as part of their bid	• To procure an energy performance contract, an LG will need to develop an RFP that provides enough information to corporates to be able to guarantee minimum savings or propose a level of shared savings (e.g. energy use data) • The RFP will need to include information on risk sharing, payment terms and penalty mechanisms • A draft contract is included in the RFP	• LG first issues a request for qualification (RFQ) to shortlist bidders • Shortlisted bidders are invited to respond to a RFP that includes output specifications, risk sharing mechanisms, payment terms, capital grants that can be accessed, and penalty mechanisms • A draft PPP agreement is issued with the RFP • The bid parameters (e.g. unitary payment) are specified in the RFP

Project development process – financial close (slide 2 of 2)

Develop concept → Engage experts to assess options → Engage funders → Demonstrate feasibility → Secure CAPEX funding → Financial close

Funding model	Public funded with SLA	Corporate funded	PPP
Funding sources that could be accessed by the private sector	• Working capital facilities raised via own balance sheet • Subsidies may be provided to private sector contractors	• Debt/equity raised via own balance sheet • Blended finance from IFIs	• Non-recourse finance from using Project finance techniques (SPV, ring-fenced revenues) • Concessionary and grant finance
Likely public sector providers of expertise, funding, risk mitigation, etc	• LC Own Source Revenue • National programs • National development banks • International and bilateral agencies (technical support, concessionary finance, risk mitigation) • Climate funds	• LC Own Source Revenue • National programs • National development banks • International and bilateral agencies (technical support, concessionary finance, risk mitigation) • Climate funds	• LC Own Source Revenue • National programs • National development banks • International and bilateral agencies (technical support, concessionary finance, risk mitigation) • Climate funds

7. Assessing environmental and social impact

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Assessing environmental and social impact

- International finance institutions (IFIs) have **stringent requirements** around how environmental and social (E&S) performance will be managed throughout the life of a project
- Funding applications to IFIs will need to be underpinned by **environmental and social assessments** as well as strategies, that have been costed, to address the risks
- **E&S specialists will need to be appointed** by the LG to ensure that credible assessments are developed for submission to IFIs
- **Stakeholder engagement** is likely to be required as part of the E&S assessments and enough will need to be allocated in the project development timeline to facilitate these engagements
- Each IFI will have **minimum requirements** in respect of E&S assessments which project owners and their advisors need to be cognisant of when developing projects
- For example, the IFC's E&S performance standards state that "*the type, scale, and location of a project will guide the scope and level of effort devoted to the risks and impacts identification.*" It requires that the following subjects are considered during the E&S assessment:
  - Labor and working conditions
  - Resource efficiency and pollution prevention
  - Community health, safety, and security
  - Land acquisition and involuntary resettlement
  - Biodiversity conservation and sustainable management of living natural resources
  - Indigenous peoples
  - Cultural heritage
- IFC's performance standards also state that where the identified E&S risks and impacts cannot be avoided, the project owner will need to identify mitigation and performance measures and establish corresponding actions to meet its performance standards

8. Estimating and reporting on climate impact

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Estimating and reporting on climate impact

- If a project intends to apply for climate finance through an international climate fund, it will need to quantify the likely **GHG emission savings** that the project will achieve over its life (measured in tons of CO2 equivalent)
- Climate funders will use these savings to quantify the ratio of **US$ invested relative to the amount of CO2 saved** to determine whether a project is worth funding
- Project owners will also need to formulate a measurement and verification approach that will be used to report on the GHG emission savings over the project's life
- Calculating GHG emission savings and developing measurement and verifications approach is **complex task** and a **credible advisor will need to be appointed** to meet funders' requirements
- The Clean Development Mechanism (CDM) and the Verified Carbon Standard (VCS) are two internationally recognized standards used to quantify GHG emission savings. The CDM Methodology Booklet (2018 edition) provides a useful one-page overview of each recognized CDM methodology, including those for:
  - Energy efficiency technologies and fuel switching in new and existing buildings (Reference: AM0091)
  - Demand-side activities for efficient outdoor and street lighting technologies (Reference: AMS-II.L.)
  - Renewable energy power generation in isolated grids (Reference: AM0103)
  - Electrification of communities through grid extension or construction of new mini-grids (Reference: AMS-III.BB.)
  - Demand-side energy efficiency activities for installation of low-flow hot water savings devices (Reference: AMS-II.M.)
  - Avoidance of methane emissions through composting (Reference: AMS-III.F.)
  - Mitigation of greenhouse gases emissions with treatment of wastewater in aerobic wastewater treatment plants (Reference: AM0080)
  - Afforestation and reforestation (chapter 4)

https://cdm.unfccc.int/methodologies/documentation/meth_booklet.pdf

- The CDM Methodology Booklet also contains standardized baselines for cookstoves, waste, forestry and power sectors in various African countries

9. Resources for project development

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Resources to support project development – Project Preparation Facilities (PPFs)

- A 2018 ODI report identified **more than 50 PPFs with a mandate to work in the enabling environment in Africa,** including:
  - **Scaling Solar** which works with governments and developers to prepare projects, adopt standardized bids and design the transactions required to achieve financial close within two years
  - **Sustainable Energy Fund for Africa (SEFA)** is a multi-donor trust fund which promotes renewable energy and energy efficiency through private sector driven small to medium-sized projects necessary to stimulate the continent's transition to more inclusive and green growth
  - **Africa Legal Support Facility (ALSF)** provides support to governments and utilities to strengthen their legal expertise and negotiating capacity
  - The UK Department for International Development's (DFID) **Green Mini-Grids Africa project.** Funding includes £15 MM for regional capacity development activities and £30 MM each for project development and implementation in Kenya and Tanzania
  - **Private Finance Advisory Network (PFAN)** has been in operation since 2006. PFAN mainly provides business-related support to smaller project developers through its extensive expert network
  - **Climate Investor One (CIO)** combines three connected but separate funds and is led by the Dutch Government via the Netherlands Development Finance Company (FMO) and the South African investment firm Phoenix Infraworks. CIO includes a donor-funded $30 million development fund
  - **Afreximbank's Project Preparation Facility** provides support for all project preparation cycle activities including project definition, studies, advisory services, and project marketing and fundraising
  - The **Public-Private Infrastructure Advisory Facility (PPIAF)** is a multi-donor technical assistance facility that is financed by 11 multilateral and bilateral donors. Working closely with and housed inside the World Bank Group
  - The **EU-Africa Infrastructure Trust Fund (EU-AITF)** is intended to promote increased investment in infrastructure projects in Sub-Saharan Africa

Resources to support project development - Tools

- The following project development platform, **tools and resources can be accessed online:**
  - The International Renewable Energy Agency (IRENA) has developed an online platform, called **Project Navigator,** which provides easily accessible, practical information, tools and guidance to assist in the development of bankable renewable energy projects

    https://navigator.irena.org/index.html
  - The World Bank's PPP in Infrastructure Resource Centre provides sample legal materials to assist project (particularly PPP) planning, design and legal structuring

    https://pppknowledgelab.org/guide/sections/25-ppp-legal-framework
  - The World Bank's Renewable Energy Financial Instrument Tool (REFINE)d helps identify financial instruments that can boost a project's bankability

    https://olc.worldbank.org/content/renewable-energy-financial-instrument-tool-refine
  - USAID's Power Africa Project Preparation Toolbox

    https://www.usaid.gov/powerafrica/toolbox

10. Breakout session: Managing the project development process for your Climate Action(s)

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Breakout session: Managing the project development process for your Climate Action(s)

Each group asked to

1) Assess 1 – 2 Climate Action(s) using the tools set forth here

- The matrix on Climate Actions
- Project Typology – answering the 18 questions

2) Explain what project development steps they will take for their selected Climate Action(s)

- Each person is given the timeline of project development actions and asked to fill out what steps they would consider taking to advance all, identifying challenges and possible solutions

11. Team presentations

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12. Wrap up

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ADDITIONAL GLOBALDF TOOLS & INFORMATION

How to Finance Roadmaps for 10 Climate Actions

See COM SSA GlobalDF Climate Finance (authored by GlobalDF; sponsored by GIZ, EU) on GlobalDF website www.globaldf.org

6 Training Modules for LG (including this one)

See other training modules (authored by GlobalDF; sponsored by GIZ, EU) on GlobalDF website www.globaldf.org

For more information, please contact GlobalDF through the website contact form on www.globaldf.org

If interested in supporting the use of training modules and their improvement, please contact Dr. Barbara Samuels, Executive Director of GlobalDF at barbara@globaldf.org