

Barrier Analysis for LEDs and NAMAs

LEDS LAC - INTERCLIMA

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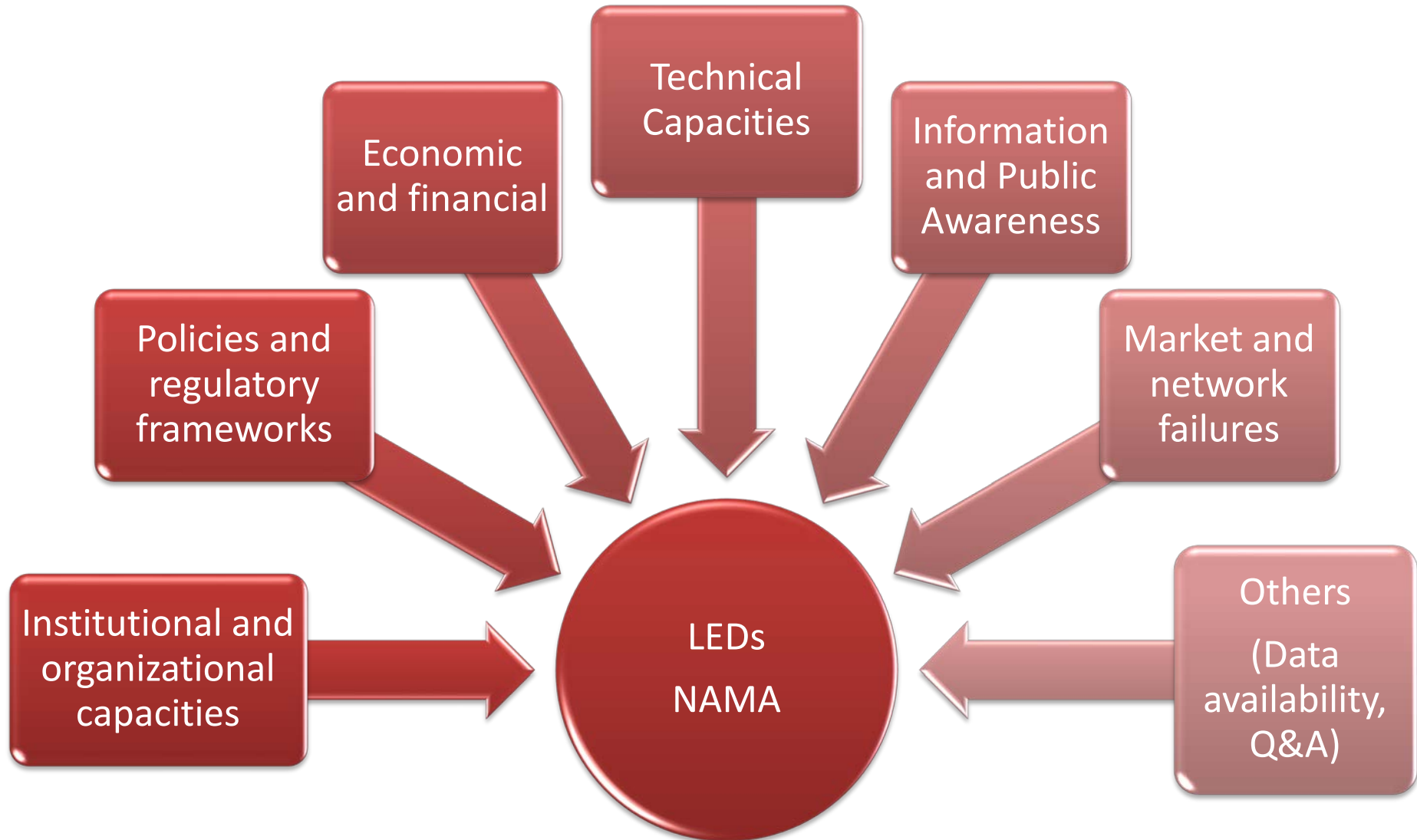
Contents

- 1) Definitions
- 2) Type of Barriers
- 3) Barrier analysis for LEDs/LCDs and for NAMAs
- 4) A 7 Step framework to conduct the barrier analysis

Barrier Analysis – what is it?

- A barrier
 - a circumstance or obstacle that prevents something to happen (communication, access, implementation, diffusion)
 - *a reason why a target is adversely affected, including any failed or missing countermeasures that could or should have prevented the undesired effect(s).*
- Barrier analysis
 - offers a structured way to visualise the events related to system failure
 - can be used reactively to solve problems or proactively to evaluate existing barriers.

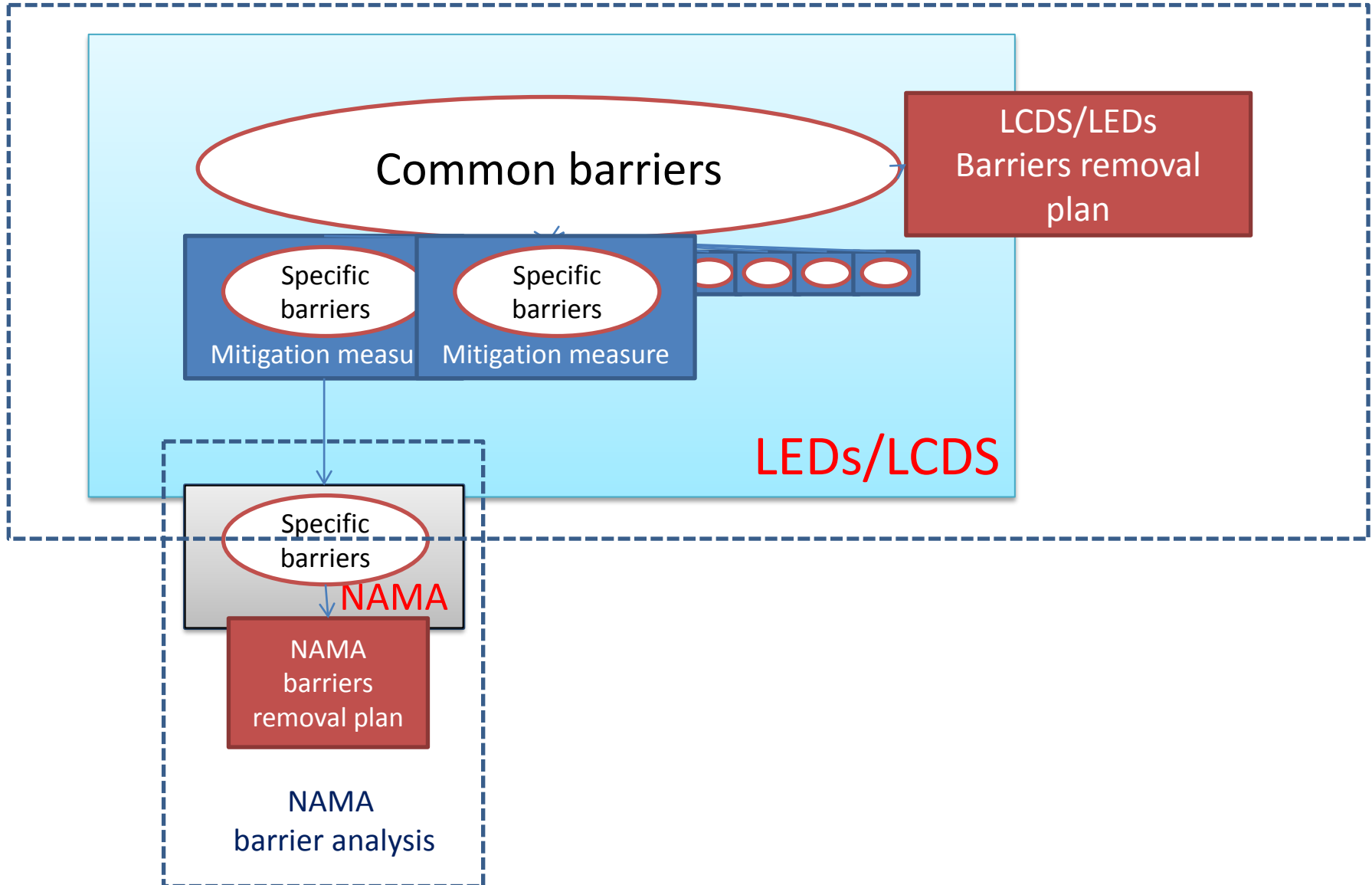
Type of Barriers



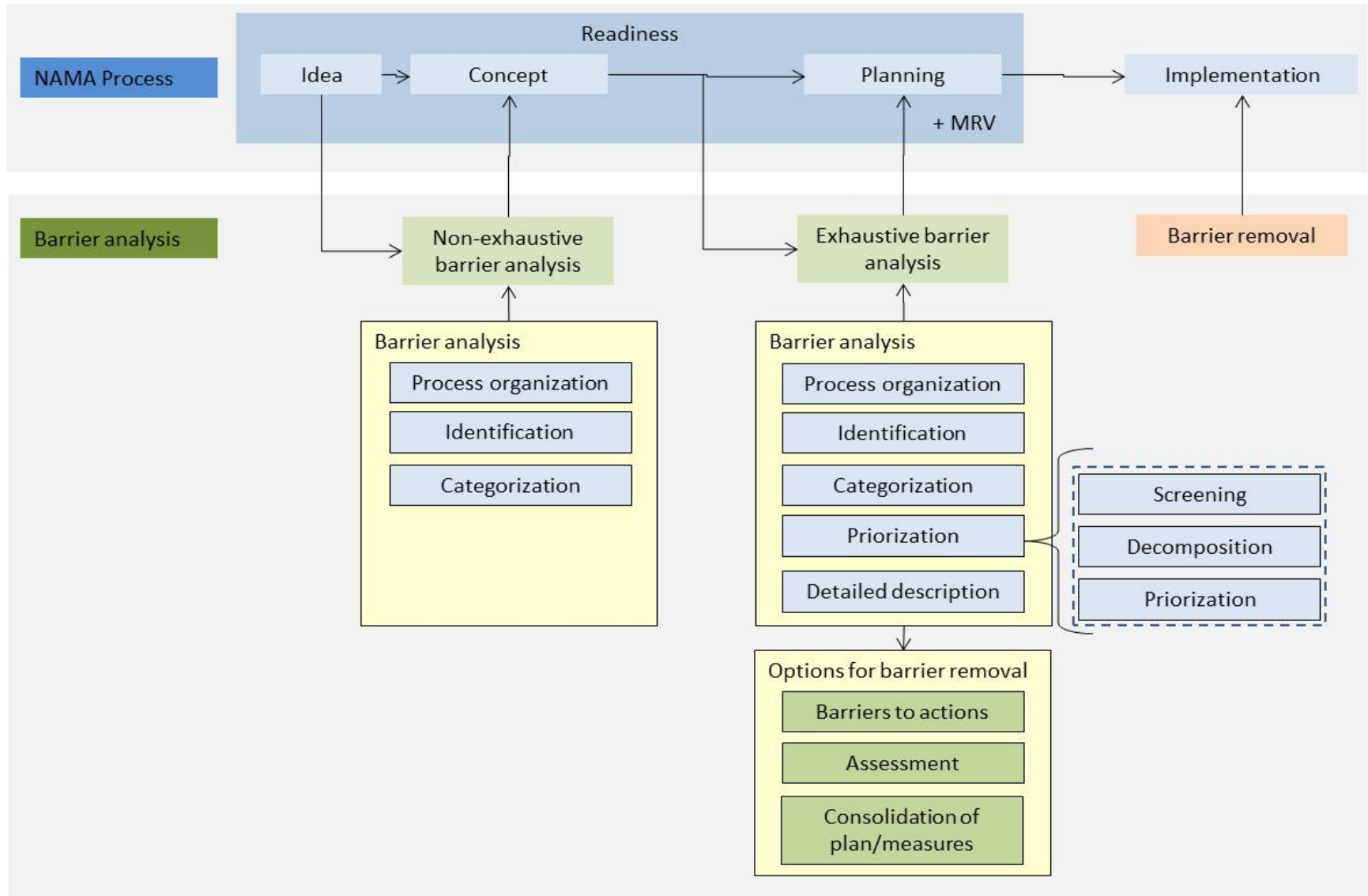
From LEDs/LCDS to NAMAs



LEDs Barrier Analysis



Conceptual framework of barrier analysis and its relation to the NAMA process



A 7 Step Framework for Barrier analysis

Step 1 – Organize the process



Step 2 - Identify and classify the barriers



Step 3- Barriers Priorization



Step 4 – Detailed description of each critical barrier



Step 5 - Translate the barriers into actions



Step 6 - Assessment of actions



Step 7 – Development of Plan of barriers removal

Step 1 – Organize the process

- The participation of all relevant stakeholders should be promoted and the process should be effectively and exhaustively documented for future references.
- At the end of this step, a clear and explicit plan should have been developed, containing at least:
 - 1) NAMA idea or NAMA objective under analysis
 - 2) Objective
 - 3) Methodology
 - 4) Timeline of activities
 - 5) Stakeholders involved
 - 6) Responsible actors
 - 7) Resources available
 - 8) Expected outcomes.

Step 2 - Conducting barriers analysis

- The 4 major approaches

- Individual interviews: This may be supplemented by site visits, expert and stakeholders interview . However, this is a time consuming approach
- Literature survey: Start with an extensive literature review of academic and practitioners publications, case studies of similar LEDs/NAMAs or sectorial programmes or projects.
- Using focused group: a central approach to barrier analysis is facilitated workshop with the specific measure/technology workgroups. This helps in fast identification of barriers
- Market mapping: Recommended in cases of promotion of consumer goods and capital goods.

Who is doing what?

Consultant

- Preparation of workshop
 - Existing studies
 - Economic analysis
- Consolidating results
 - Assessing measures
 - Grouping measures for several technologies



Workshop

- Barrier analysis
 - Brainstorm
 - Market mapping
 - Root cause analysis
 - Arranging the barriers
- Identifying measures
 - Identifying measures
 - Grouping measures
 - Initial prioritising of measures



Step 2 - Conducting barriers analysis

Process

- **Workshop preparation for each NAMA idea which was identified (on sectoral level)**
 - Study recent policy papers, feasibility analyses, case studies etc.
 - Prepare financial analysis of mitigation measures when missing
 - Expert and stakeholder interviews, direct or through questionnaires (optional)
- **Workshop by specific NAMA working groups**
 - Brainstorming
 - Facilitated market mapping
 - Compare with check list of generic barriers (Annex A of Guidebook)
- **Output**
 - Financial analysis per measure identified within a NAMA
 - Gross list of barriers identified per measure

Step 3 - Priorization of barriers

- I. Screening
- II. Decomposition
- III. Causal analysis

Step 3 - Priorization of barriers - Screening

Consensus

- Workshop participants argue for and against a priority
- First step
 - Identify essential barriers
 - Delete the non-essential
- Next step
 - Prioritize essential barriers

Voting

- Workshop participants give a vote from 1-5 for all barriers listed randomly
- Result list is ranked according to sum of score.
- The barriers with less scores can be deleted.

Other screening categories:

Importance: Killer (non starter), crucial, important, less important, insignificant

Actors: National government, local authorities, private sector (power utilities, other private companies), donors

Step 3 - Priorization of barriers - Decomposition

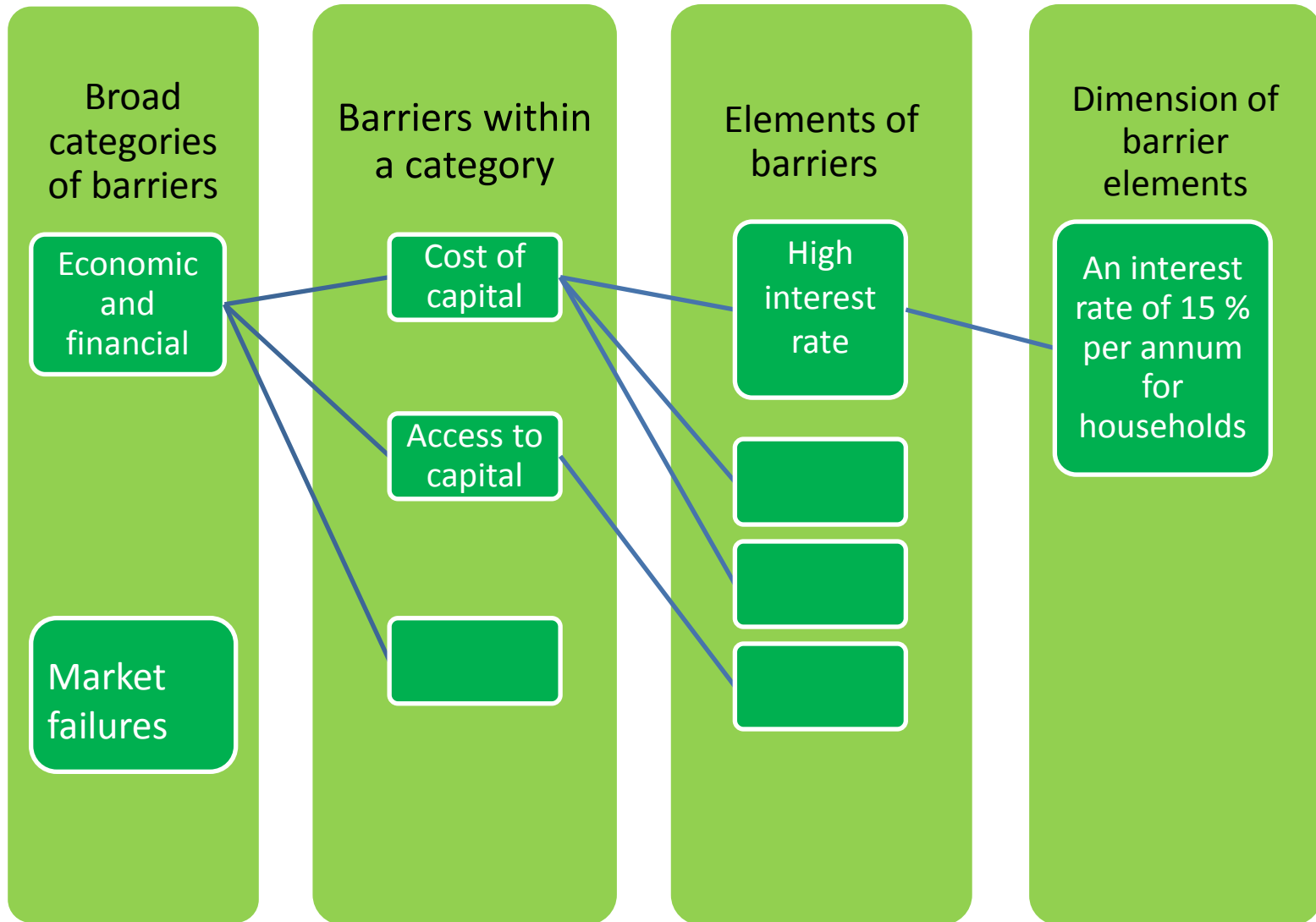
Four level decomposition

- Broad categories or barriers
 - E.g. economic and financial
- Barriers within a category
 - E.g. High cost of capital
- Elements of a barrier
 - E.g. high interest rate
- Dimension of barrier elements
 - E.g. interest rate of 15% p.a. for households

Categories of barriers

- Economic and Financial
- Market failures
- Policy, legal and regulatory
- Network failures
- Institutional and organizational capacity
- Human skills
- Social, Cultural and behavioral
- Information and awareness
- Technical
- Other

Step 3 - Priorization of barriers – Decomposition



Step 3 - Priorization of barriers – Causal Analysis

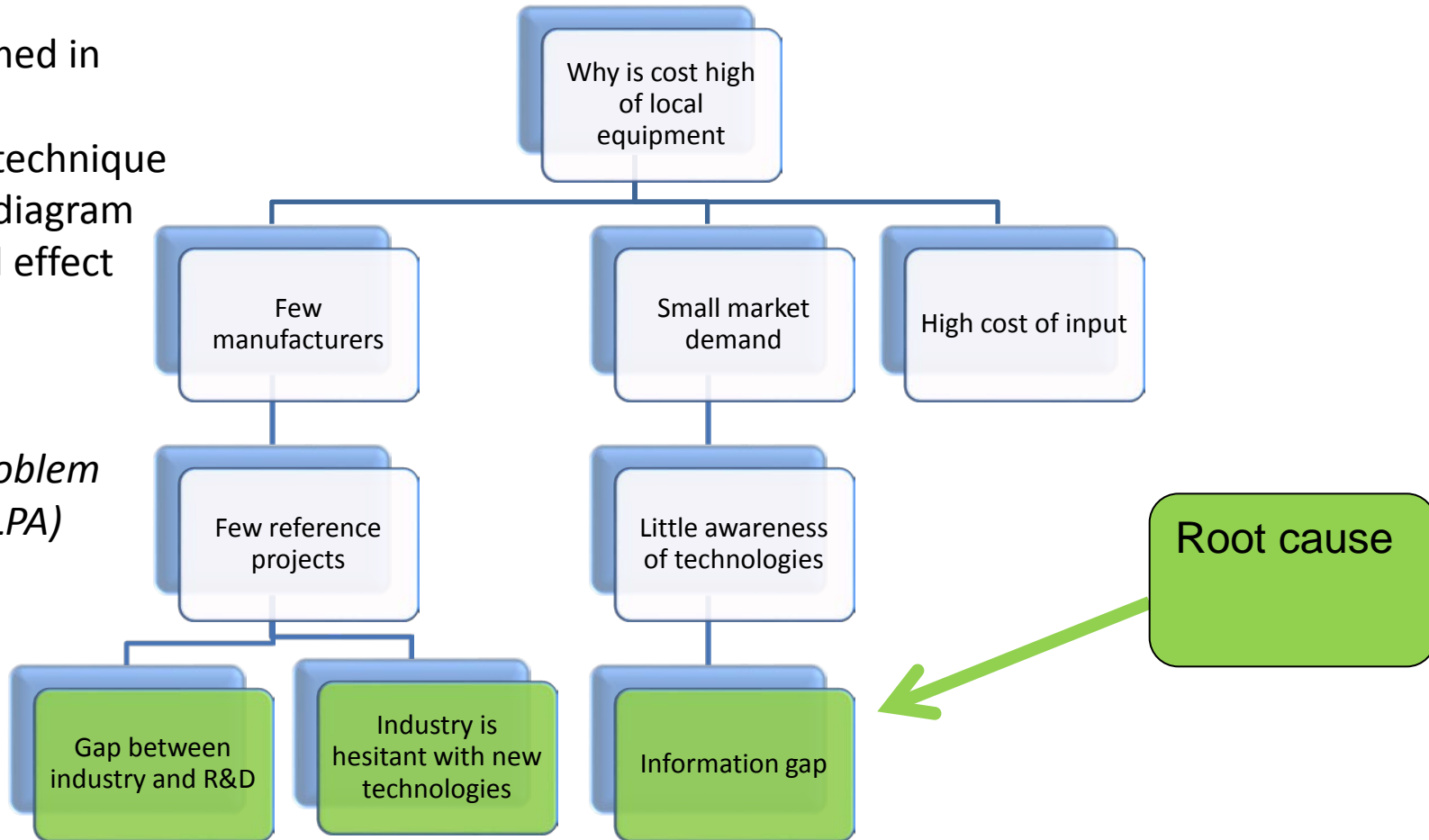
- Why?
 - Problems are often masked. To be efficient it is important to address cause and not just symptoms. (hot-spots)
 - Reaching to root cause of problem will help in reducing the likelihood of reoccurrence of the problem.

Root cause analysis

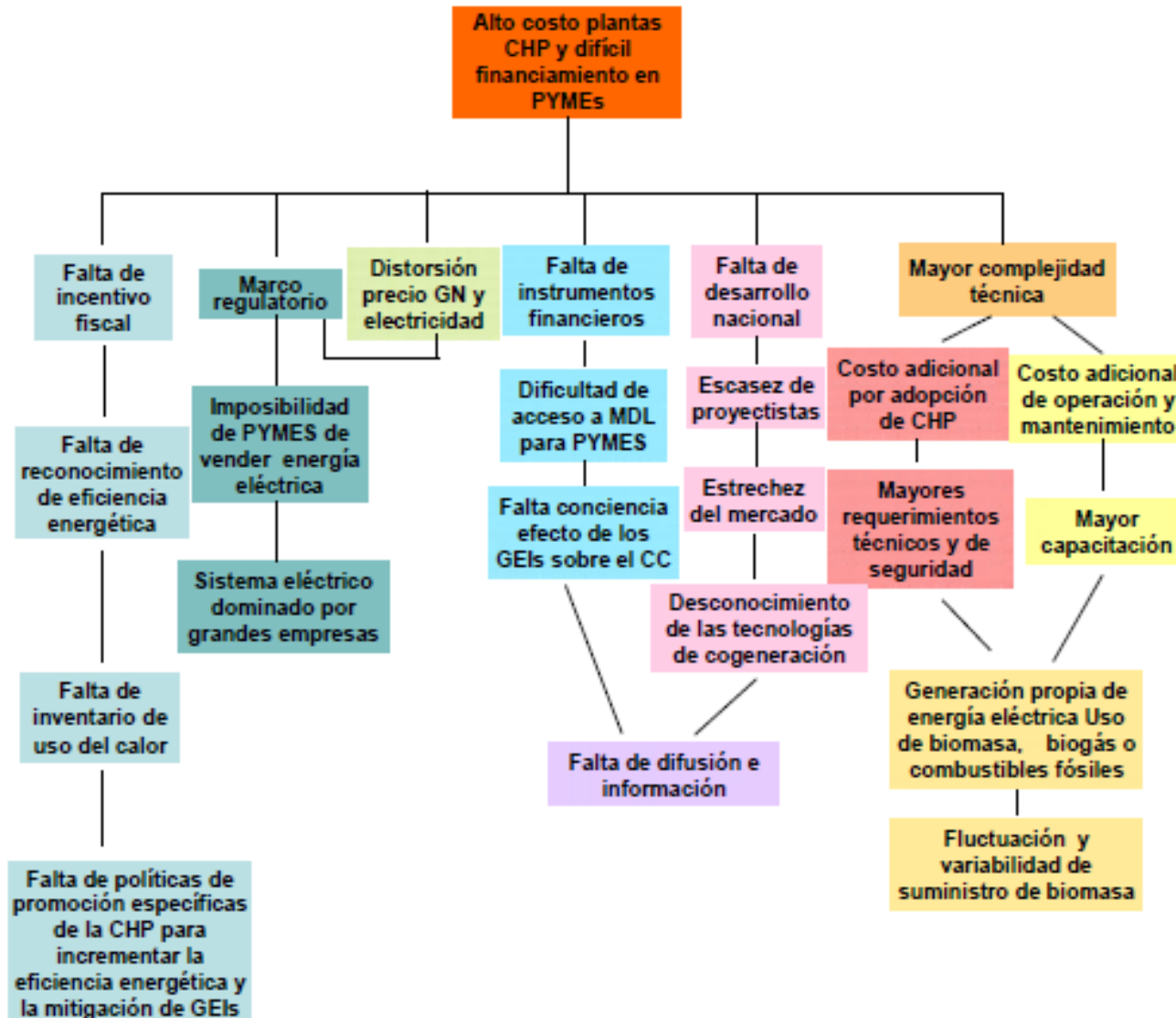
...a method of focusing on the 'root cause' of a problem.

RCA also termed in literature as

- Fishbone technique
- Fishbone diagram
- Cause and effect diagram
- Five why's
- *Logical Problem Analysis (LPA)*



Relaciones causales entre las barreras - cogeneración



Step 4. Detailed description of each critical barrier

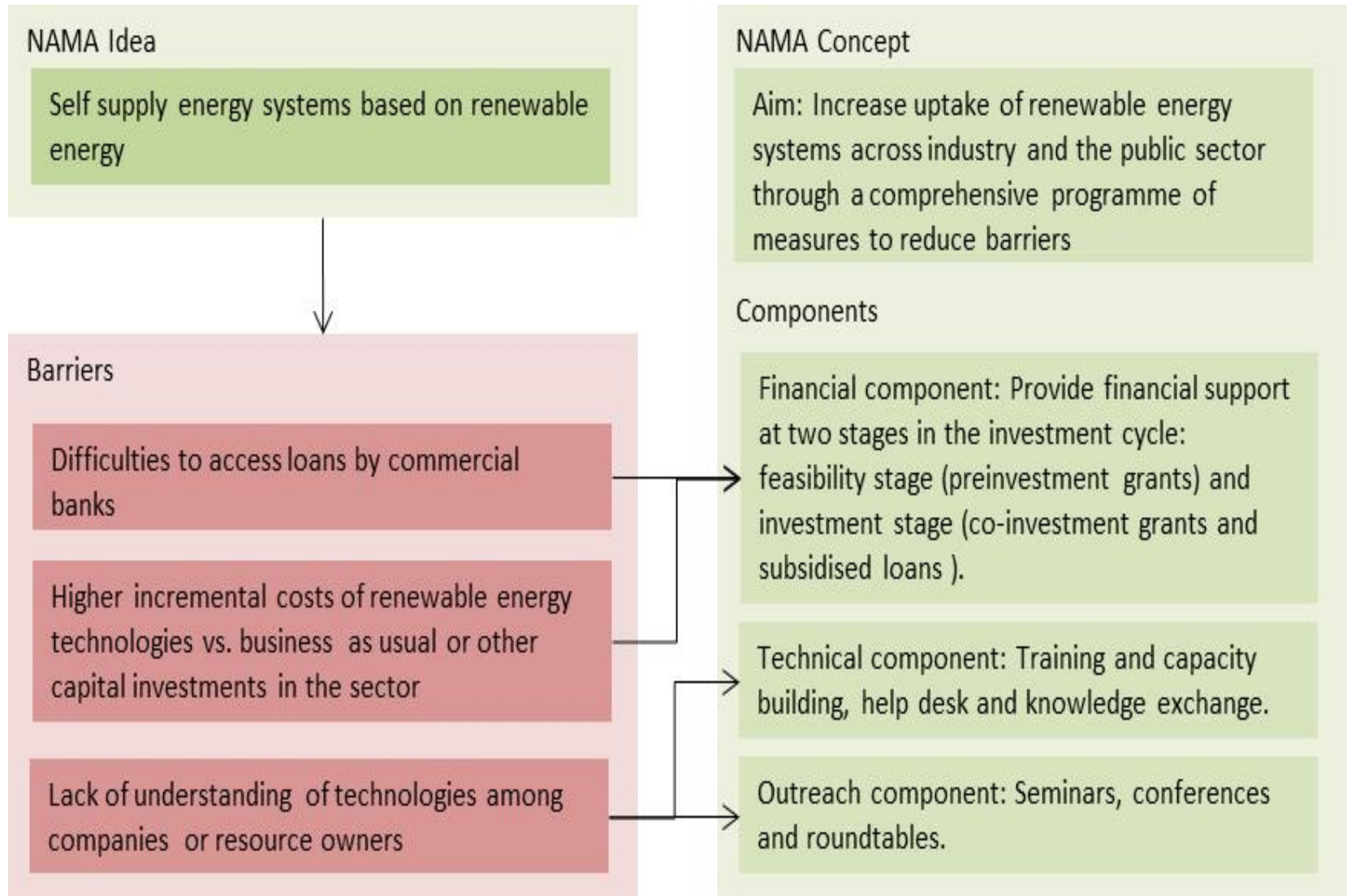
- Each critical barrier selected should have a descriptive record containing detailed information.

Barrier	<i>Brief name assigned to the barrier</i>	Code	Priority
			<i>High/Med/Low</i>
Rationale	<i>Rationale of why the identified barrier</i>		
Characteristics	<i>Technical description</i>		
Causes and links with other barriers	<i>Description of direct causes and links with other identified barriers</i>		
Relevant stakeholders	<i>Stakeholders that are linked to the barrier or to its possible solutions</i>		
Source of the information			
Category:	<i>See list of categories</i>	Relevant phase	<i>(Readiness/Implementation)</i>

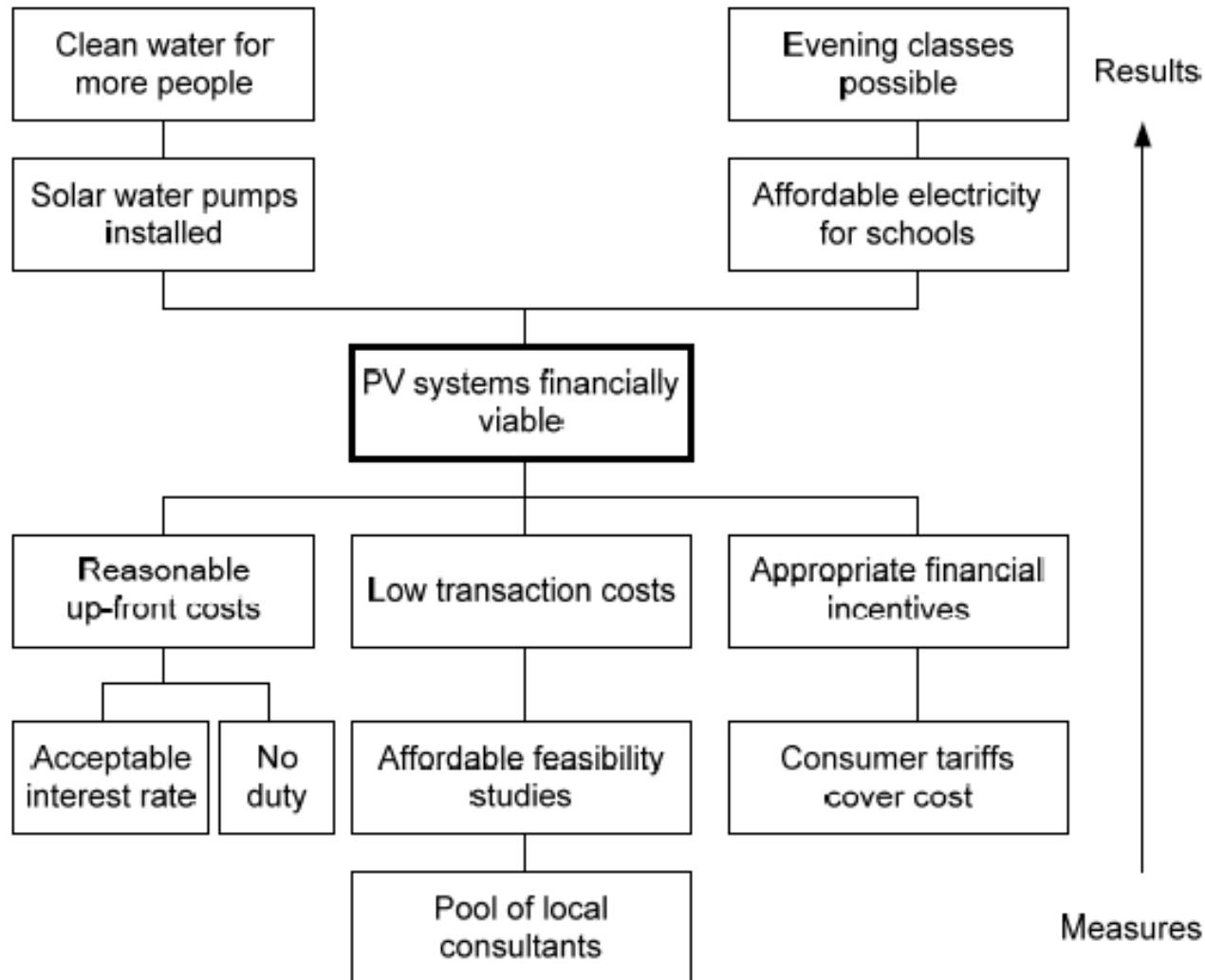
Step 5. Translating barriers into actions

- Barriers that were identified as critical and/or their causal factors should be translated positively into objectives that are oriented in solving the identified problem.
- For each objective, options for its achievement should be identified. These options will eventually be translated to barrier removal actions.

Step 5. Translating barriers into actions



Step 5. Translating barriers into actions



Step 6. Assessment of actions

- Proposed options for barrier removal need to be assessed in order to define their feasibility. Common considerations to be taken into account during this assessment could include:
 - Cost-effectiveness
 - Environmental and social impacts
 - Institutional feasibility and political issues
 - Complexity
 - Government costs

Step 7. Development of a plan

- Actions derived of the barrier analysis should be translated to a plan.
- Depending on how the NAMA has been originally conceived, some actions might be incorporated to the NAMA as direct actions
 - Stabilization fund for renewable energy generation prices
- Support actions while others might be part of the readiness activities
 - Capacity building activities for NAMAs.

Step 7. Development of a plan

- Direct actions:
 - actions that have the direct objective of removing a specific barrier and as such have been presented directly as a mitigation action or NAMA
- Support actions:
 - actions that are not the mitigation action proposed as NAMA but are included as part of the NAMA as actions to support the implementation of the NAMA
- Complementary actions:
 - actions that are not part of a NAMA but externally need to be implemented as a pre-requisite for the NAMA to be implemented.

Step 7. Development of a plan

- Legislation and regulation: legislation, standards and labelling;
- Financial mechanisms: subsidies, tax reduction and exemption, grants and loans,
- Information and awareness raising (demonstration projects);
- Mechanism and institutional arrangements;
- Making and announcing relevant government plans;
- Support to R&D.

Step 7. Development of a plan

For each action, such information needs to be summarized in a table and explained in text:

- Why the measure/action is needed?
- Who?
 - Government agency, private sector etc.
- When?
 - 0-5 years, 5-10 years, or 10-20 years
- How much the measure/action will cost? how can it be funded?
 - Domestic funding, or international funding
- Indicators of success, risks

Any Question?

Thanks

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<http://www.lowcarbondev-support.org/>

<http://tech-action.org/>

www.uneprisoe.org