

Common borders. Common solutions.

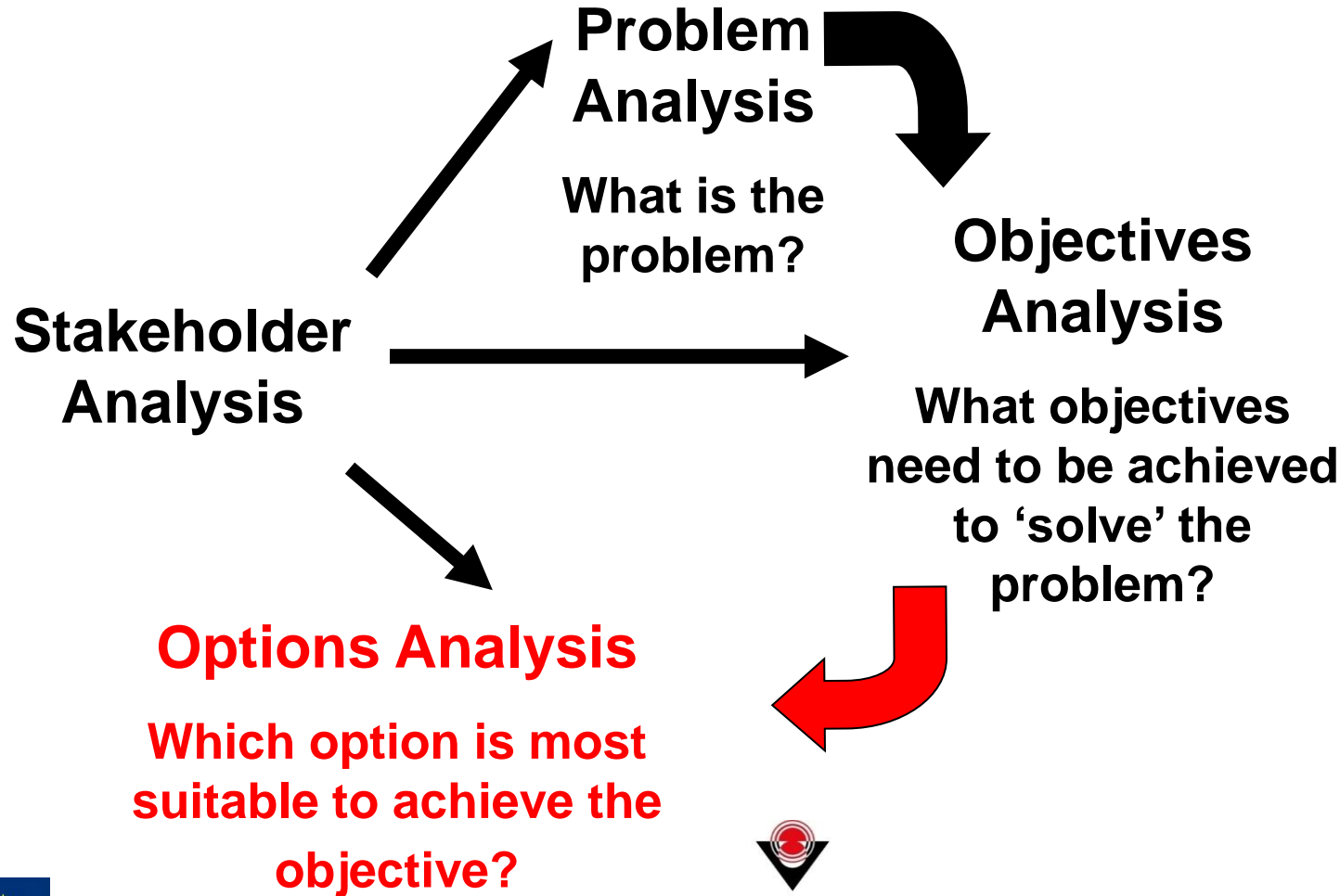
Improving municipal wastewater management in coastal cities

Objective oriented planning

IV. Options analysis

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The Analysis Phase of OOP



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Options analysis

How to achieve the objectives identified?

- Identify alternative options
 - Assess their feasibility
 - Agree upon one project strategy
- ⇒ Discuss alternative options with the stakeholders to come to an agreement.

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Options analysis - criteria

Social	distribution costs/benefits, gender, motivation, local involvement
Health	mortality rates, diseases
Technological	appropriateness, use local resources, market suitability
Economic	economic return, cost effectiveness
Financial	costs, sustainability, foreign exchange needs
Institutional	capacity, capability, technical assistant inputs
Environmental	impacts, environmental costs vs. benefits

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Options analysis - scores

Estimate scores for the selected criteria for the alternative options:

- **High-low**
- **+/-**
- **Extensive/limited**
- **Scale 1-5**

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Options analysis – steps to be taken

1. Identify differing means-ends branches as alternatives.
2. Discuss the implications for affected groups.
3. Assess the feasibility of alternatives.
4. Select one alternative as the project strategy.
5. If no direct agreement, then:
 - introduce alternative criteria, or
 - alter the most promising option by including/subtracting elements from objectives tree.

=> Include stakeholders!

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Case study Lembang - option 1

- Offering alternative, cheaper technology options will make connecting financially attractive for a larger group of consumers.
- If consumers still do not trust the quality of the water provided by PDAM, the chances that they indeed will connect to the network are small. Thus, investments in alternative technologies by PDAM will not be returned.

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Case study Lembang - option 2

- **Connecting to the network will become more attractive for the consumers by offering arrangements which reduce the burden of the connection fee.**
- **The problem remains that if the consumers do not believe that the water is of good quality, they will still not connect regardless the burden of the connection fee.**

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Case study Lembang - option 3

- **Option 3 will increase the willingness of consumers to connect, as they believe to get high quality water and attractive services.**
- **For many of them, however, the price for connecting to the network will be too high, and therefore most consumers will depend on alternative, cheaper sources of drinking water, e.g. water from shallow wells, etc.**

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Case study Lembang - option 4

- **A fourth option, i.e. the combination of options, seems to be more attractive. In this case, either option 1 or 2 is combined with option 3. Although the costs will be higher, this option has the highest probability of success as it addresses both the costs of connecting to the network as well as changing the attitudes of the consumers.**

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Case study Lembang – options analysis

Selection criteria	1 Alternative technology	2 Reduce connection fee	3 Information/ education campaign	4 Option 1 and 3 combined
Willingness to pay	Low	Low	High	High
Ability to pay	High	High	Low	High
Cost	High	High	Low	High
Cost/benefit	High	High	Medium	Low
Social risk	Low	Low	Low	Low
Sustainability	Low	Low	Low	High

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Case study Lembang – options analysis

Selection criteria	1 Alternative technology	2 Reduce connection fee	3 Information/ education campaign	4 Option 1 and 3 combined
Willingness to pay	-	-	+	+
Ability to pay	+	+	-	+
Cost	-	-	+	-
Cost/benefit	-	-	+/-	+
Social risk	+	+	+	+
Sustainability	-	-	-	+
Score	2	2	3.5	5



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Thanks for Listening...

