### **WORKSHOP ON PROJECT DESIGN**

Sustainable Technologies Studio 2023 – Aalto University



Veera Pensala

Development Consulting Agency ZULU

Liisankatu 11 A 8. Helsinki 00170. +358 50 383 9282. veera@zulu.fi

www.zulu.fi

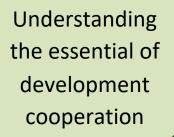
## Presentation of homework

**TASK**: Start searching for facts, articles, news, blogs, TED Talks, documentaries, reference projects etc. with connection to your case.

**PRESENTATION**: Share three most interesting matters, facts or phenomena that you found in your research.



## Course objectives



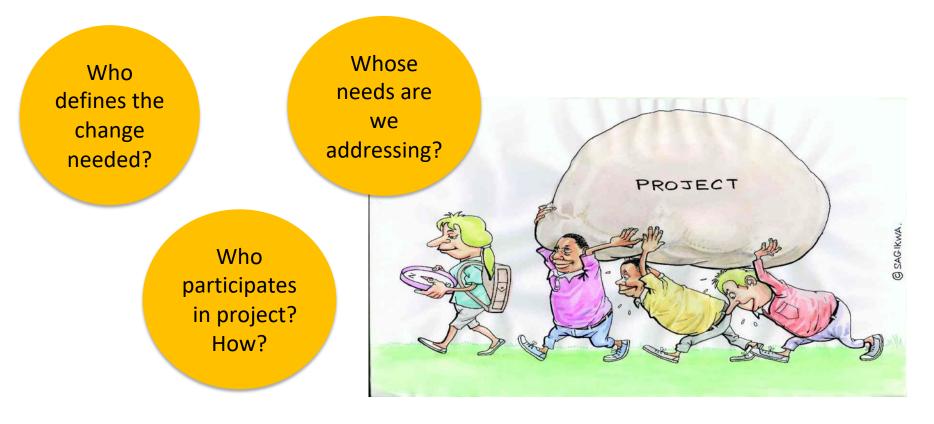
Understanding the project cycle and design

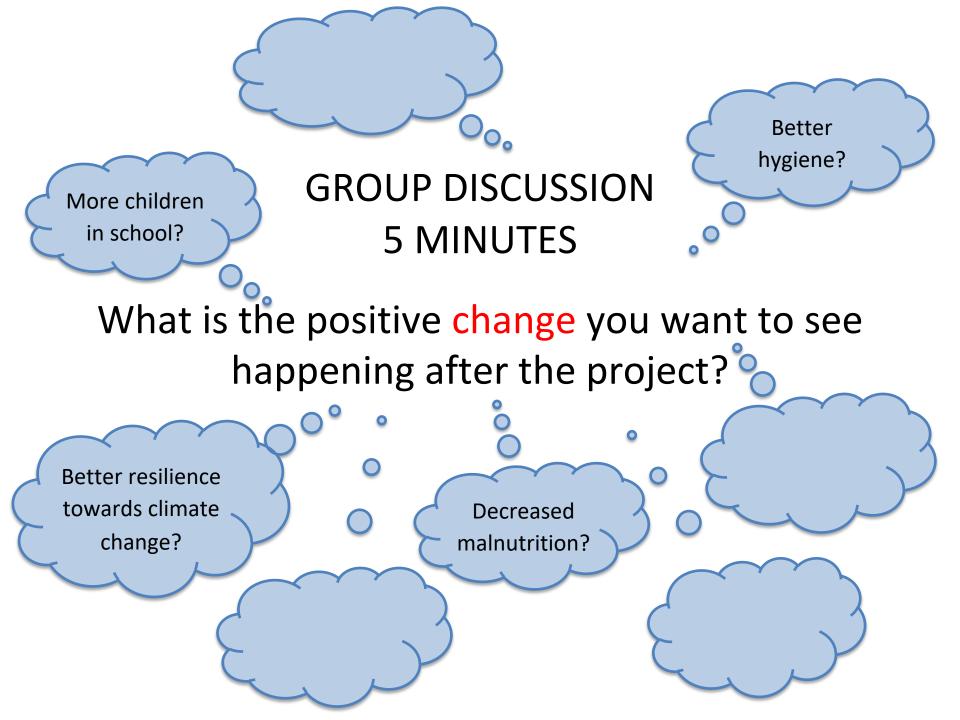
Formulation of project objectives and understanding the project logic

#### STARTING PROJECT DESIGN

Purpose of the project is to make change, that has positive effects in people's lives...

Questions to ask before project planning:

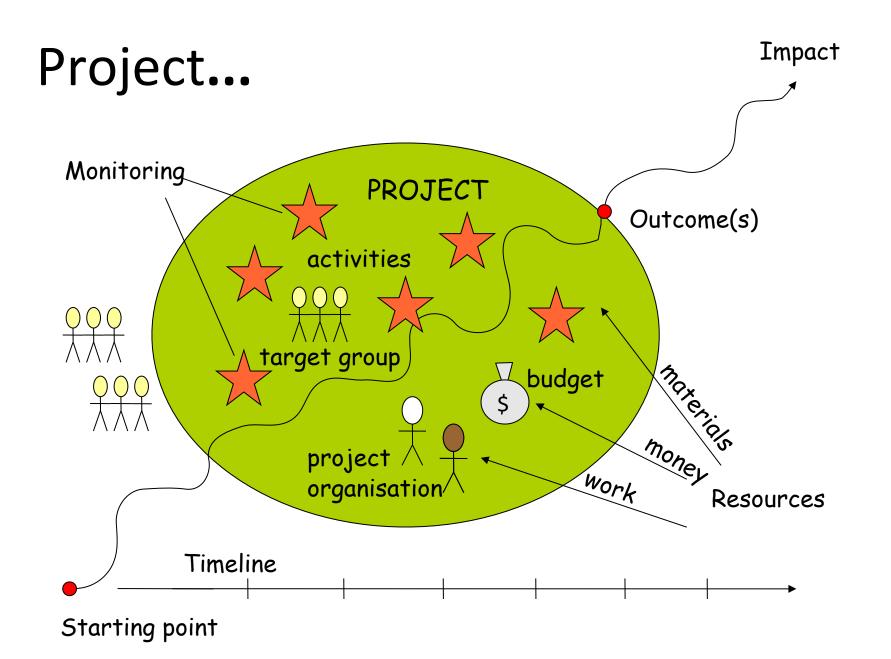




## Project consists of...

- 1. Project organisation
- 2. Resources
  - human resources
  - material resources
  - financial resources
- 3. Defined objectives
  - Impact, outcomes, outputs, activities
- 4. Beneficiaries
- 5. Timetable







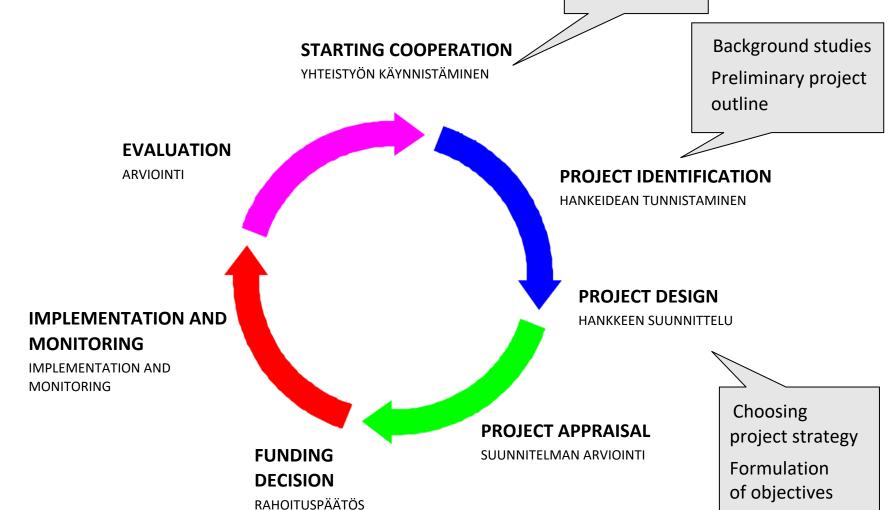
Partner(s)

Resources

Preliminary project ideas

Writing project

document

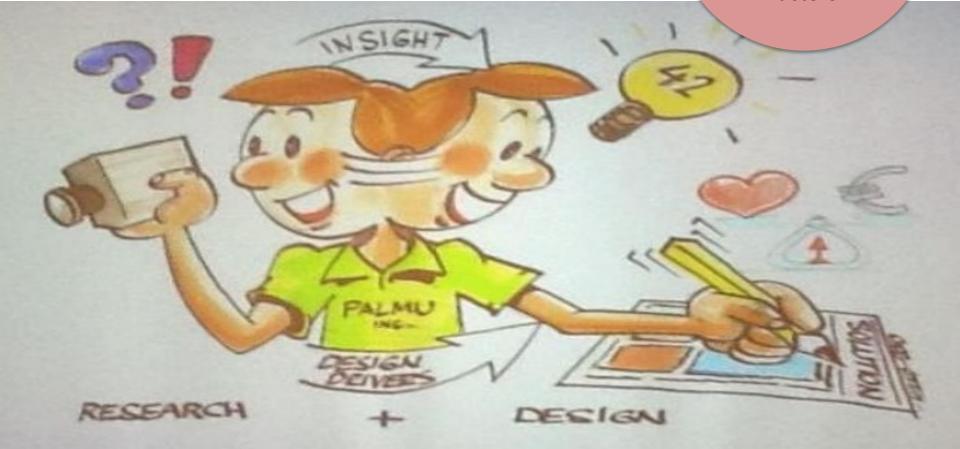


## Operating environment

Cooperation is successful only when the operating environment is taken into consideration.

- 1 doing the right things
- 2 in the right way
- 3 with the right groups

Political, social, legislative, economic, cultural, natural, environmental factors



# Stakeholder analysis

- Defines the interests and needs of different people and groups in relation to the planned project
- Stakeholders include all individuals, groups, organisations and institutions that:
  - take part in the project
  - are affected either positively or negatively by the project
  - have or could have any positive or negative effect on the project

AUTHORITIES?

DONORs?

COMPANIES?

NGOS?

PROJECTS?

BENEFICIARIES?



#### STAKEHOLDER ANALYSIS IN SHORT

#### **Step 1: Recognise all involved parties**

- Take note of all groups, organisations, institutions and individuals
- Use post it notes: one stakeholder per note

#### **Step 2: Define groups**

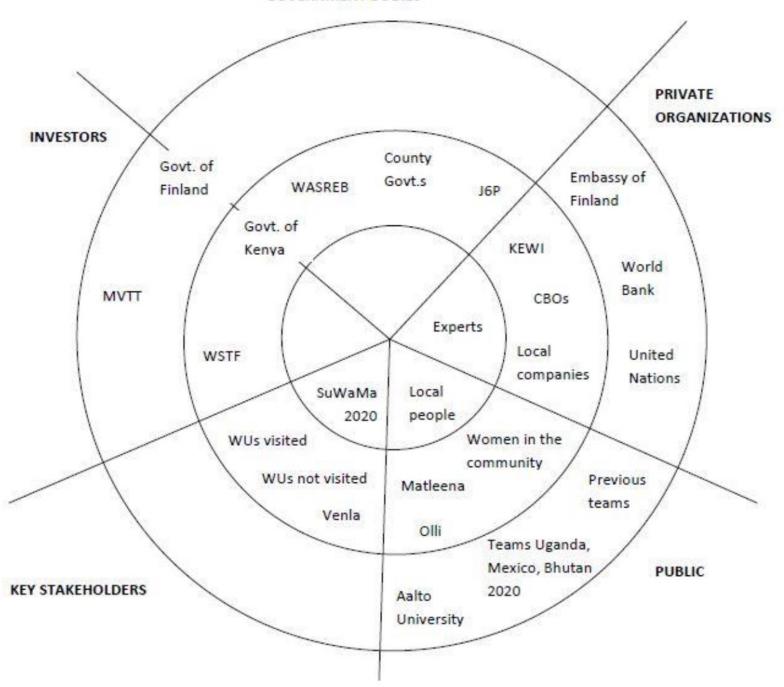
• Particular features (social, cultural, political, and religious background including their position and organizational structure)

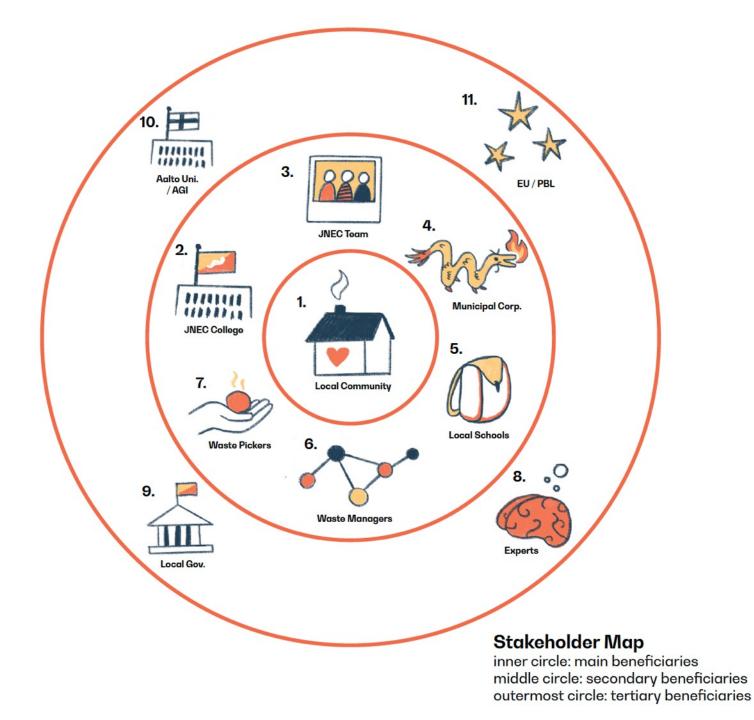
#### **Step 3: Prioritise!**

- Choose the most important ones: those which will be affected by the project most and those which cannot be ignored
- Place the most important ones in the middle of VENN diagram. Place less important ones further away from the center

**Decision:** Which group's rights, interests and needs are prioritised? In other words, who are the participants in the project and how?

#### **GOVERNMENT BODIES**





Aalto university is one of the four universities in the greater metropolitan area of Helsinki. It was formed in 2010 through a merger of Helsinki University of Technology, the Helsinki School of Economics and the University of Art and Design Helsinki. It provides a range of masters and bachelor's programmes in the fields of art, technology and business. The mission of Aalto is to shape the future by solving complex societal challenges by incorporating a strong emphasis on multidisciplinarity. (Aalto University)

The SGT Studio course is offered as part of Aalto University's Creative sustainability and Water and Environmental engineering master's programmes. It is a co-learning studio that provides students the opportunity to gain practical experience of working in projects that contribute to the sustainability and well-being of local communities. The learning is carried out in real life projects in cooperation with local stakeholders. The course takes advantage of Aalto university's multidisciplinary community bringing together students from business, engineering and arts studies in real life projects. (Creative Sustainability)

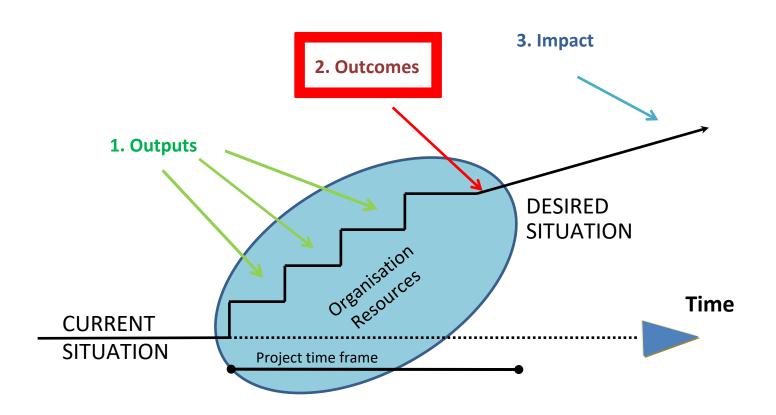
Water Sector Trust Fund (WSTF) is Kenyan state corporation created to allocate funds to water, sanitation and water resource management projects for the poor and underserved rural and urban communities. The government of Kenya funds projects through WSTF but it also acts as a platform for development partners (like states and other private funds) to finance water projects in Kenya. (WSTF, 2016)

Kenya Water Institute (KEWI) offers training, research and consultancy for the water and related sectors. KEWI was established in 2001 and its purpose is to increase the capacity of human resources in the water sector of Kenya. By providing training, research and consultancy services KEWI plays an important part in maintaining and developing standards for the Kenyan water sector. KEWI also provides diploma and certificate level education in five water sector relevant programs. The institute is government funded but also generates its own income through consultancy services to cover expenditure. (KEWI)

## Project objectives

OBJECTIVES	INDICATORS	SOURCES OF VERIFICATION	ASSUMPTIONS	
Impact → Why do we wa	ant to do this proje	ct in the first place, w	hat long term changes	are aimed at?
Outcomes  → What short an	d medium term ch	anges do we wish to	achieve with the proje	ct?
Outputs  → What is produ	ced or delivered by	the project?		
Activities  → What key activ	vities are need to b	e carried out?		

#### Three levels of objectives and results



## **Impact**

- Why do we want to do this project in the first place, what long term changes are aimed at?
- The broad development impact to which the project contributes at a national or sectoral level (provides the link to the policy and/or sector programme context).
- 'The project contributes to......'

Biodiversity loss and

climate emissions have

reduced in the supported localities due to maintenance and increase of land areas under conservation and sustainable use

Adolecent girls enjoy their sexual and reproductive health and rights, in societies where gender equality is realised

Strengthened pluralistic and inclusive multiparty system in programme countries



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND









**OUTPUTS** 

**ACTIVITIES** 

**IMPACT** 

**OUTCOMES** 









### Outcomes

**OUTCOMES** 

**IMPACT** 

**OUTPUTS** 

- Short-term and medium-term changes and effects of outputs
- Changes happened in right-holders and duty-bearers, groups, communities or organisations
- Changes in behaviour, attitudes, skills, knowledge, practices, policies...
- Typically beyond project's control
- 'Increased, improved, strengthened etc...'

Young adults in vulnerable situations have become economically self-reliant



Government and local authorities have placed a higher priority on adolescent SRHR in policy frameworks and budgets



Partner organizations' skills on prevention of sexual exploitation and harassment are strengthened



## Outputs

IMPACT OUTCOMES

**OUTPUTS** 

**ACTIVITIES** 

• The direct/tangible results (goods and services) that the project delivers, and which are largely under project's control.

'Delivered, produced, conducted.......'

a. Southern partner organizations have enhanced skills in project planning and monitoring and evaluation

dialogue between decisionmakers, authorities and other stakeholders are created and supported

b. New contacts and

c. Peer-to-peer support groups for realising girls' SRH rights are established

d. Improved access to essential health services for children and their caregivers

#### **Activities**

IMPACT
OUTCOMES
OUTPUTS
ACTIVITIES

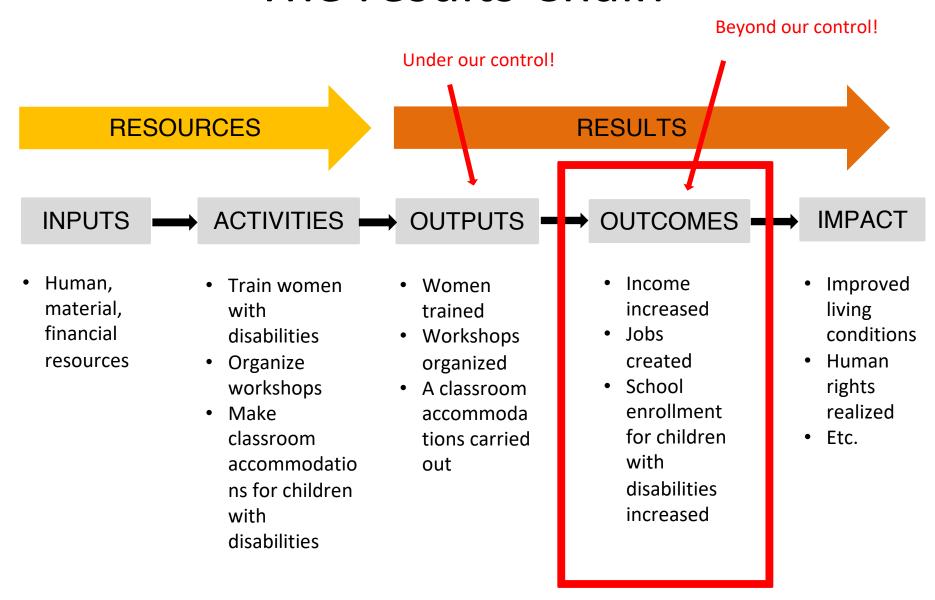
- The tasks that need to be carried out to deliver the planned outputs.
- 'Prepare, design, construct, research, train, carry out...'

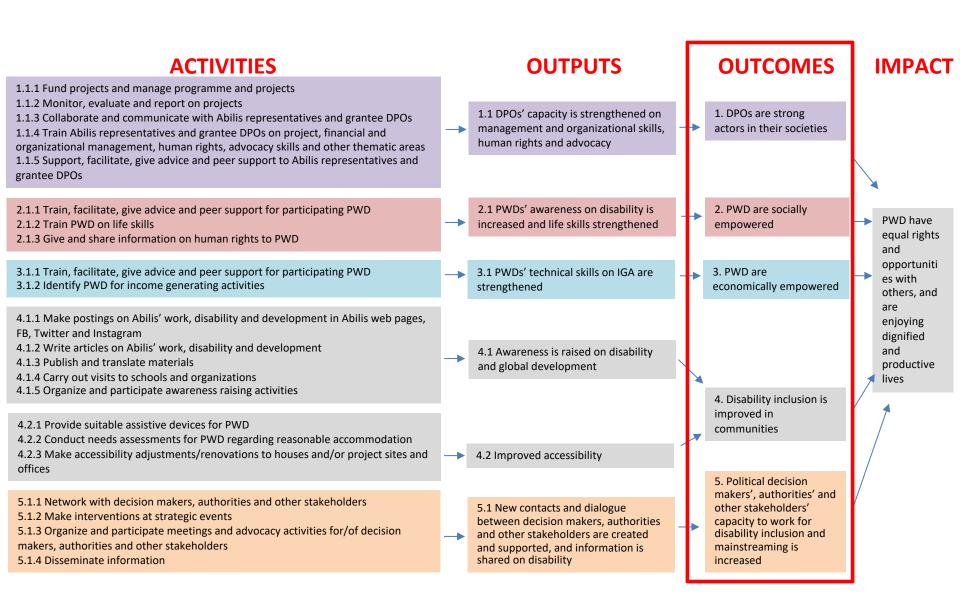
**Example 1.** Develop training schedule. Find practice venue. Hold publicity campaign in (named region) to recruit language teachers by (date).

**Example 2.** Carry out training sessions for new teachers covering aims, approach, customs, potential problems holding information sessions, record-keeping, expenses.

**Example 3.** Plan and hold meetings in each village for families with school age children to demonstrate the benefits of literacy etc.

## The results Chain





Visit a landfil in Finland & Interview Experts

Researches on Landfills, Waste Managment, Practices, ... Organise workshops with locals and local authorities

Interviews locals and local authorities

OUTPUTS

Knowledge gaining workshop with locals A co-designed waste management practice with locals Educational
Manual
&
Information
pack

Feasability study on the management of biodegradable waste

OUTCOMES

ncreased skills about waste management among locals Increased
awareness
about waste
management
among locals

IMPACT

Reduction of air and water pollution & Preserved Environment

#### Activities

#### **Outputs**

#### **Outcomes**

#### **Impact**

Organise workshops with the residents in El 20 on the potential of La Casita

Organise workshops on the community's needs

Cook with the women

Conduct interviews (formal & informal)

Desktop study and mapping of existing projects & collaborators Concept drawings for the kitchen/dining space made

Data gathered on cooking traditions

A book of recipes, stories and photographs from the women of El 20 New sources of income created (for the women)

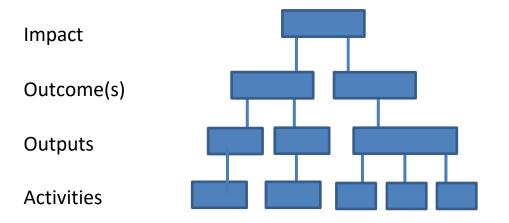
Increased ownership feeling of the existing La Casita building

Understanding of the women's house work among men increased Increased income and i mproved income stability

Cultural sustainability and preservation

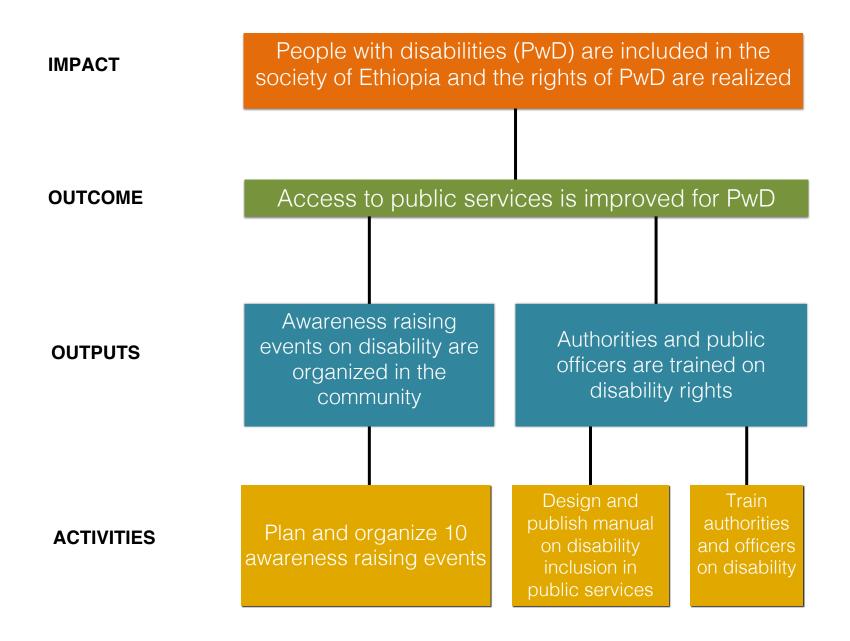
### Exercise

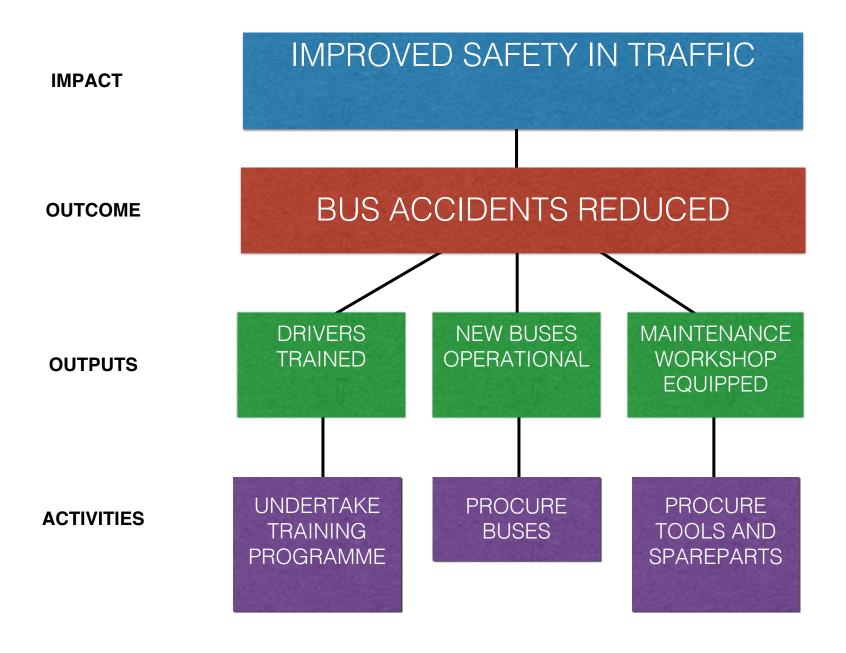
# PUZZLES



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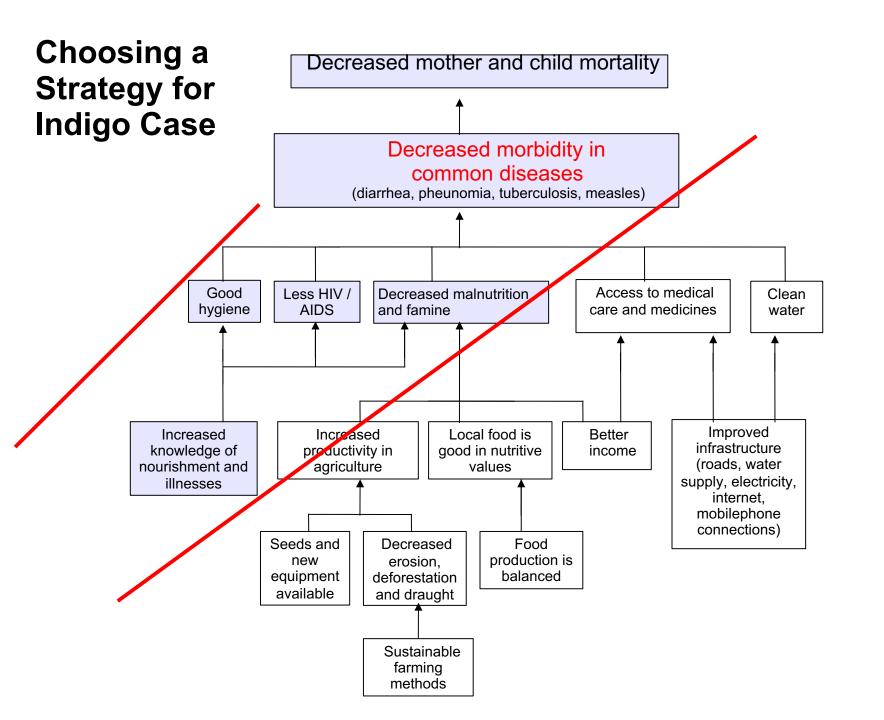
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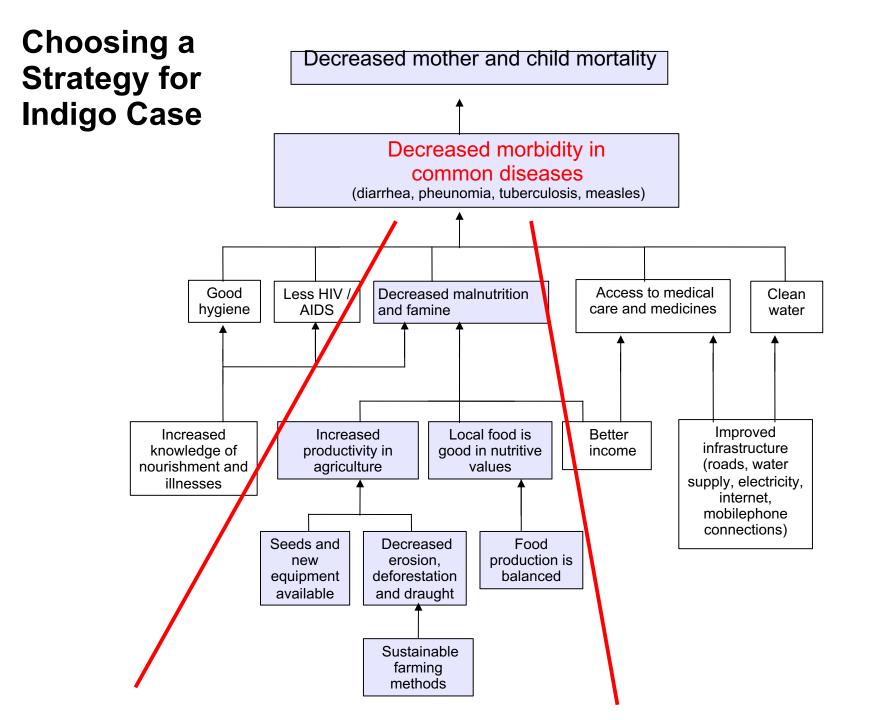


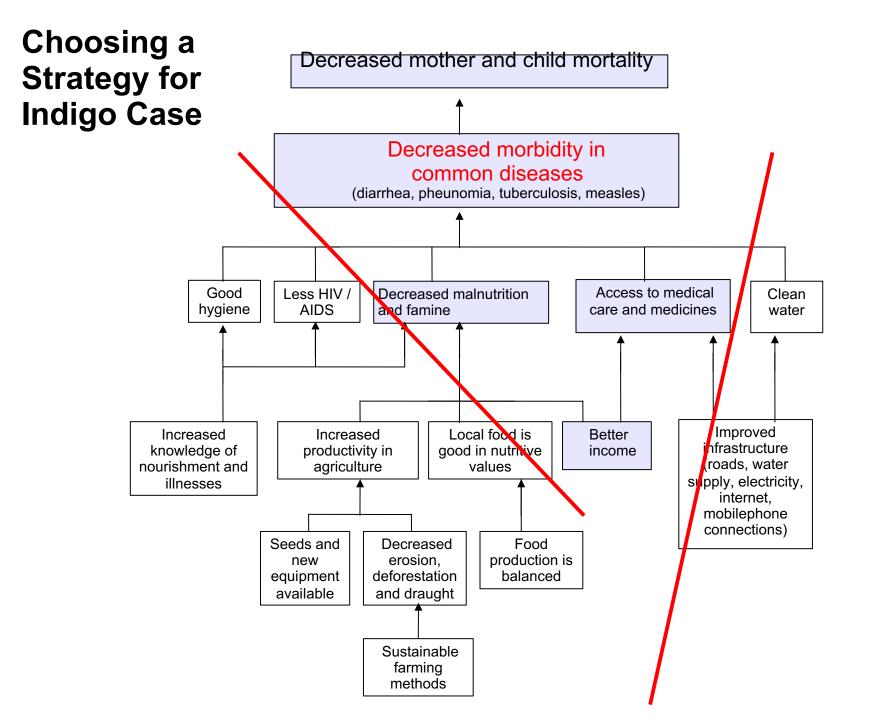


# Strategy analysis









# Key criteria for strategy selection could include e.g.:

- Benefits to target groups (gender, age, vulnerability)
- Expected contribution to key policy objectives
- Complementarity with other projects in the area
- Resources (financial, time, experience, expertise, motivation)
- Cost-Effectiveness (reasonable expenses maximum effectiveness)
- Technical feasibility
- Environmental impact
- Sustainability (institutional, financial, technical, social and cultural)

Sustainability

Environmental impact

Technical feasibility

# GROUP WORK 30 MINUTES

Expected contribution to key policy objectives

Go through the key criteria with each of your project ideas. Give – or + for each criterion.

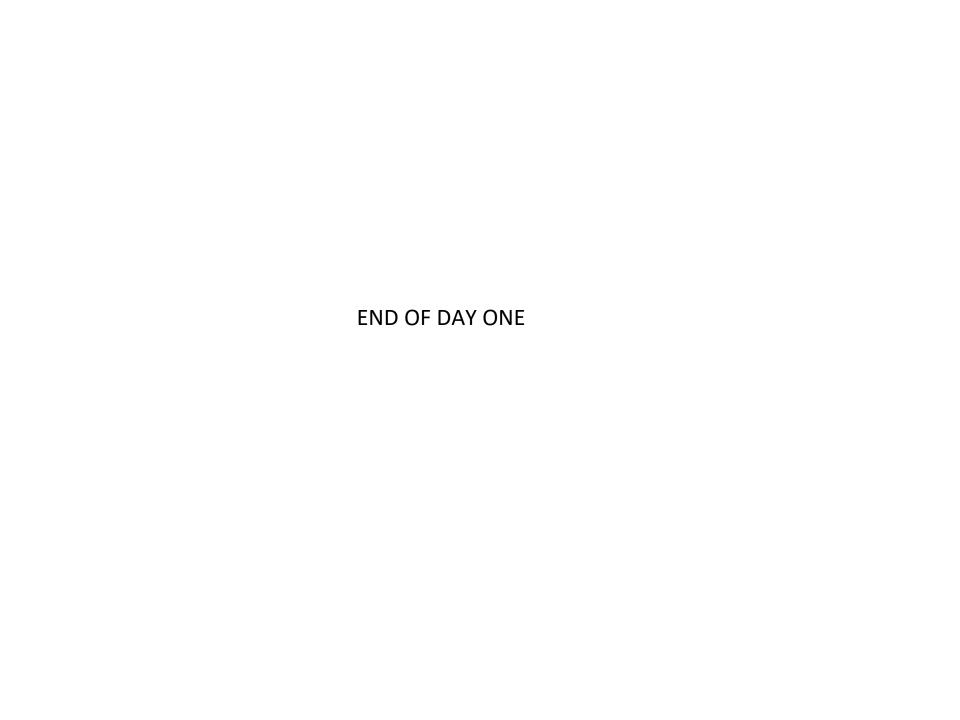
Financial resources, time, experience, expertise, motivation

Benefits to target groups

Cost-Effectiveness Complementarity
with other
projects in the
area

Criteria	IDEA 1	IDEA 2	IDEA 3
Benefits to target groups			
Expected contribution to key policy objectives			
Complementarity with other projects in the area			
Financial resources, time, experience, expertise, motivation			
Cost-Effectiveness			
Technical feasibility			
Sustainability (institutional, financial, technical, social and cultural)			
Environmental impact			
Other			

https://docs.google.com/document/d/1YqIDSXJCD1p1utoLX6L4fsR2pX LWVBkP/edit?usp=sharing&ouid=112465372174201868719&rtpof=tru e&sd=true



## Presentations of stakeholder analyses



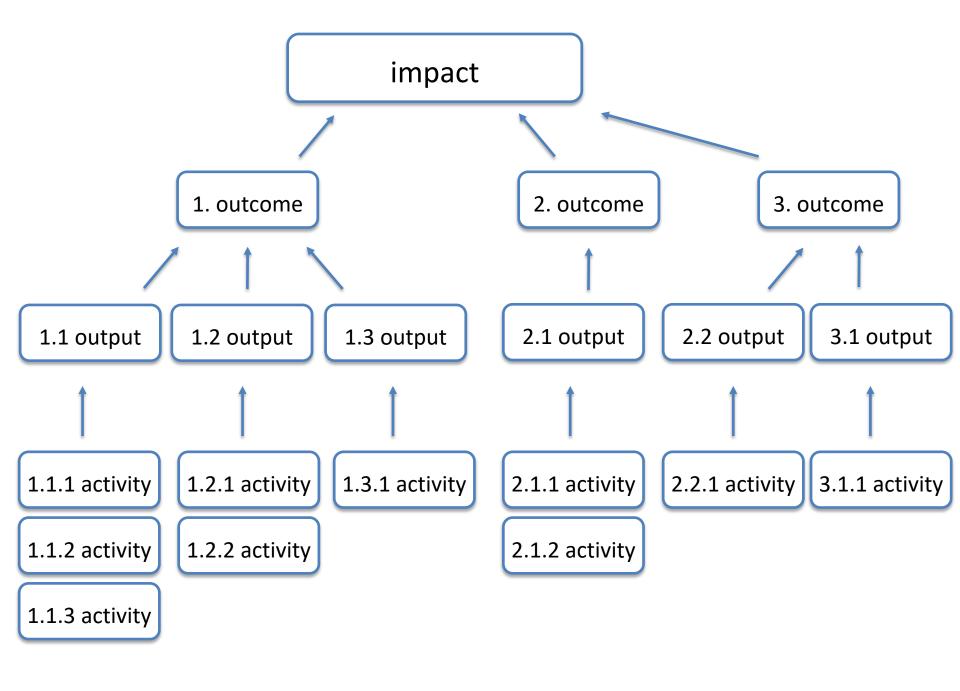
Please share 1-3 points from strategy analyses (what you learnt, what you found out, what you want to share with others...)

Presentations in Miro

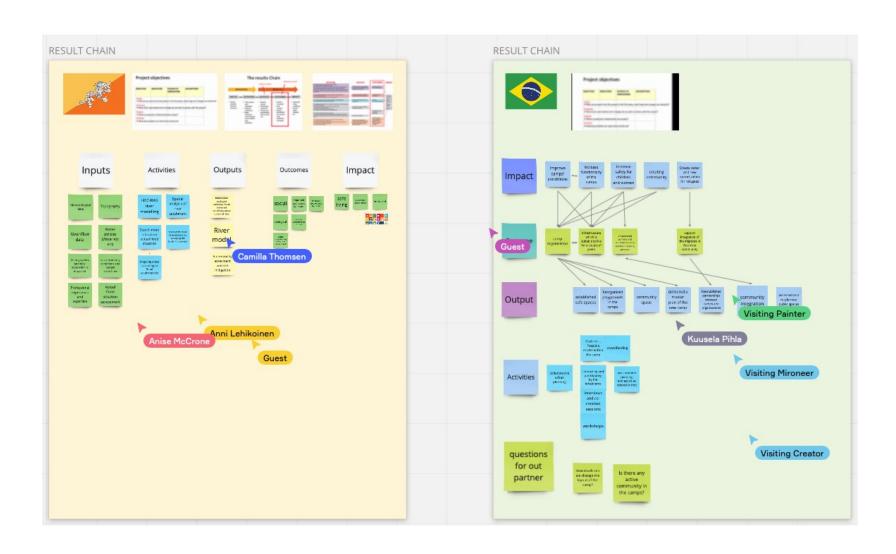


# **Exercise:** Formulating Project Objectives

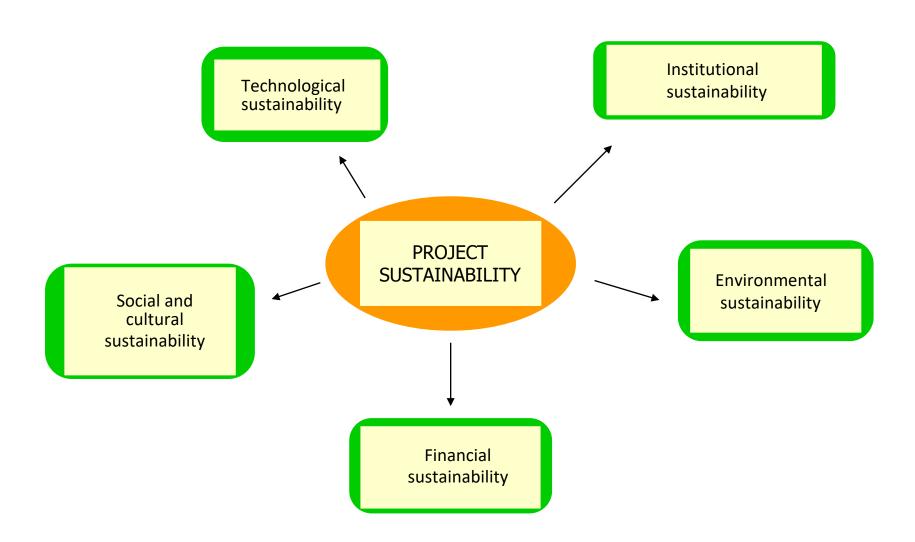
- 1. Define objectives for your project by creating a *results chain*. Start by defining what are the *impact* and *outcomes* for your project.
- 2. Continue defining the activities of your results chain: what you and your partner will do in the project.
- 3. After defining activities decide on the *outputs* of your activities.
- 4. Check that the project logic works: If the activities are carried out, will you get defined outputs? Will they result in wanted changes, bring desired outcomes? How about impact?



#### Let's work in Miro!



# **SUSTAINABILITY**



- Who takes care of the project and its activities after the project? Institutional Ownership and participation? sustainability Capacity building activities in the project? - Does the project address local needs? Social and cultural - Are activities minimising social exclusion sustainability and maximising social equity? Activities promoting gender equality? - What continues with no money? **Financial** sustainability - Who covers expenses after the project? - Are there income generating activities in the project? Local technology available? **Technological** sustainability - Spareparts available? Maintenance? - Climate sustainability: No harm -principle **Environmental** - Climate change adaptation and mitigation sustainability

# Homework

Go through the list of questions on sustainability: how will you take care of these aspects in your project?

# **Project consists of...**

### 1. Objectives

- Impact, outcomes, outputs, activities
- 3. Beneficiaries
- 4. Timetable
- 5. Project organisation
- 6. Resources
  - human resources
  - material resources
  - financial resources



### Beneficiaries

- **1. Direct beneficiaries** (usually individuals/institutions who are the direct recipients of cooperation, e.g. local partner organisation, teachers, regional authorities)
  - ★ name of the group (women, men, families, children...)
  - ★ number of the beneficiaries
  - ★ short description of how beneficiaries participate in and benefit from the project
- **2.** Indirect/final beneficiaries (those who benefit from the project in the long term, e.g. children, consumers, wider public)
  - ★ name of the group (women, men, families, children...)
  - ★ number of the beneficiaries
  - ★ short description of how beneficiaries participate in and benefit from the project









# **Project budget**

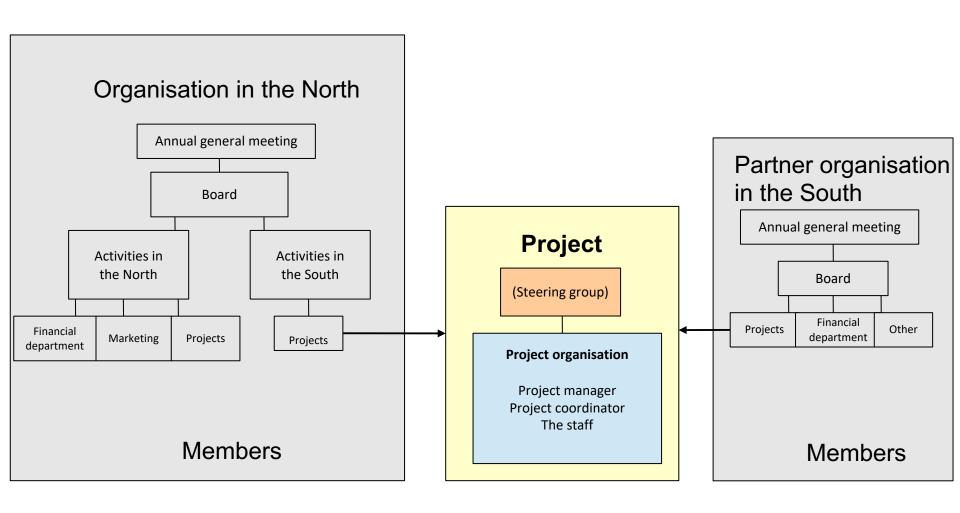
- Project budget is a financial plan and a list of all planned expenses and revenues. Budget is made for each project year.
- The expenses are calculated for each activity.
- All the costs should be itemized and justified in the budget.



Table 7. Approximate costs for the planned project.

Budget		á (€)	6 persons (€)
Travelling	Flights (Helsinki-Athens-Helsinki)	400	2400
	Flights (Athens-Thessaloniki-Athens)	50	300
	Car rent (minibus, 5 days)		435
	Metro (2 * 5 days = 10 days)	9	108
	Metro airport	10	120
Accommodation	Airb&b flat, Athens (14 days)	150	2100
	Airb&b flat, Thessaloniki (2 days)	130	260
Meals	14 days	30	2520
Materials		?	?
Total			8243

# Project organisation



### THE 2019 ALM-TEAM



Blinera is now a Master student of Creative Sustainability at Aalto University. She stacked up an impressive work experience in her home country Kosovo as well as Finland working with environmental data collection, LGBT rights, open data, and designing transparency solutions for the government. The latter got her and her team listed in Forbes3Ounder3O. She does well in high professional settings, among feminists, space nerds, and science fiction fans.



Nabeel is a Masters in Economics student at Hanken University. His interests are in development and video games. He aims to be approachable, friendly and helpful and performs well under pressure.



Curious and passionate designer, her background is in knitwear design, this lead her to be more attentive to craft and manual skills as well as developing a planning and problem solving mindset. For her, direct experience and social interaction are the most valuable forms of learning. Her mantra is "don't lose the thread of your acts".



Noora is a student of Latin American Studies in the University of Helsinki who combines her main field with a special interest in Gender and Development Studies. She is an adventurous spirit, always curious about the human side of things. Functions well in Spanish.

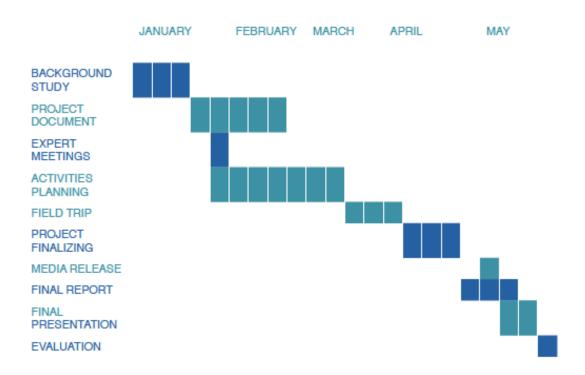


Rosa is a student of landscape architecture who is passionate about environmental and humanitarian issues. She has completed studies in both architecture and landscape architecture in Aalto University and urban planning is one of het biggest interests. Her goal is to provide a better way of living both for the people and the environment.

# **Timetable**

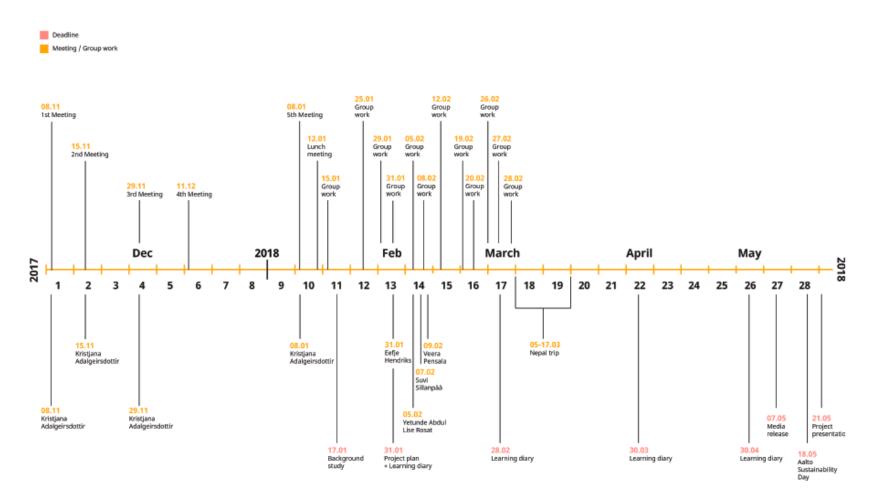
- Activities are defined and scheduled in the timetable in the project plan.
- Scheduling helps to understand the logical sequence, duration and interdependence of the activities.
- Timetable shows the management responsibilities of the activities.
- Timetable should be realistic, transparent and it should be made for the whole duration of the project.

### 6.4 Project Timetable



Implementation

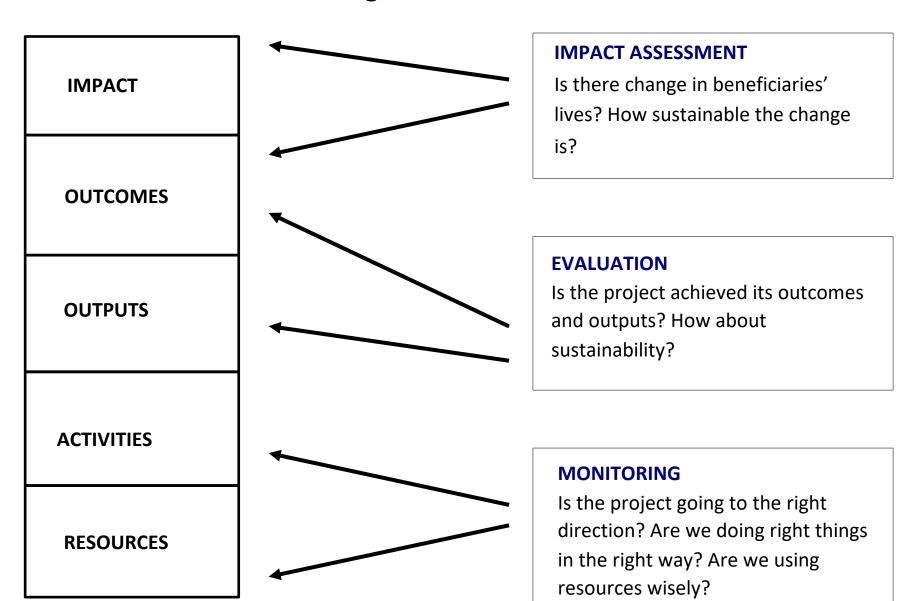
Project Implementation Timeline



# Homework

# Make timetable for your project

### Monitoring and evaluation



### Monitoring and Evaluation Plan

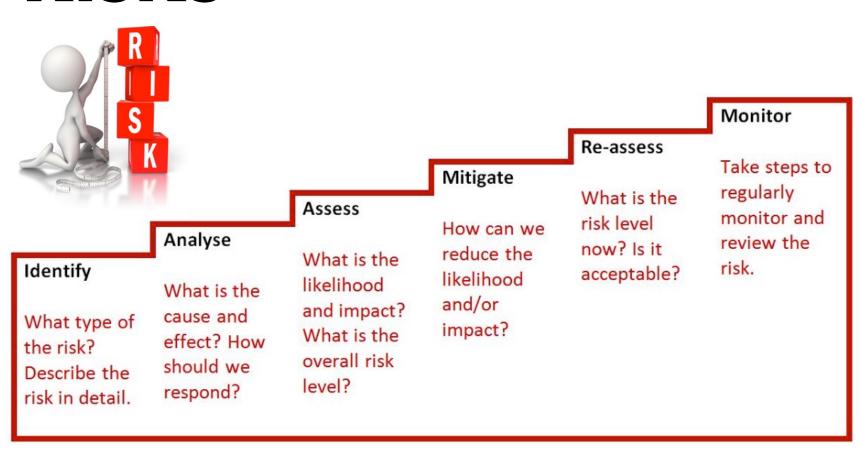
- How do you monitor your project? (When and how)
  - → Weekly meetings with the team?
  - → Montly check-up that timetable holds and bench marks are achieved?
  - → Monthly meetings with mentor?
- How do you evaluate your project? (When, how and with whom)
  - → Meeting where successes, challenges and lessons leart are discussed?
  - → Diary where you reflect your work?

### Risks

- Risk analysis aims to identify external and internal risks of the project.
- Risks in project may hamper or prevent its implementation or have a negative effect on its results, effectiveness and sustainability.
- External risks are uncertainties related to the project environment (e.g. changes in legislation, state subventions and changes in the state of the environment).
- Internal risks arise from the project implementation (e.g. personnel, cooperation between the authorities or participation).



# Risks



	RISK	LIKELIHOOD (1-3)	IMPACT (1-3)	MITIGATION TACTICS
1.				
2.				
3.				
4.				
Etc.				

TABLE 2: MOST SIGNIFICANT INTERNAL RISKS POTENTIALLY AFFECTING PROJECT PERFORMANCE.

Internal Risk	LIKELIHOOD (1-3)	Імраст (1 - 3)	Mitigation
Within our group: drama, tired- ness/illnesses, misunderstandings	3	1	Positive and compassionate attitude, following rules, taking care of ourselves, being prepared
Incorrectly targeted project approach/implementation	2	3	Comprehensive researching, careful planning, being prepared to change approach, scheduling
Stakeholder misunderstandings	3	2	Unambiguous and abundant communication with stakeholders, ensuring we understand them and vice versa, using translators, meetings
Stakeholder disinterest in sanitation/ UDDT toilets/urine as fertilizer	2	3	Strategically targeted marketing, researching convincing arguments, participation encouragement, workshops and meetings, education
Project lacking long-term sustainability	2	2	Appointing responsible stakeholders to continue project, educating about long-term benefits, careful planning

1=very unlikely, 2=moderately likely, 3=very likely. Table content is based on conversations with project team and experts (2018).

TABLE 3: MOST SIGNIFICANT EXTERNAL RISKS POTENTIALLY AFFECTING PROJECT PERFORMANCE.

External Risk	Likelihood (1 - 3)	Iмраст (1 - 3)	Mitigation Tactics
Corruption/authority disinterest to- wards sanitation/UDDT toilets/urine as fertilizer	2	3	Researching convincing arguments, meetings, making things effortless for authorities, showing respect, following-up
Community/individual level rejection of project	1	3	Showing respect, meeting leaders, encouraging participation, transparency, marketing
Sudden large counterproductive polit- ical/social/economical/environmen- tal shifts in Tanzania/Dar es Salaam	1	2	Doing risk analysis, being prepared to change approach, staying informed
Governance issues/legal issues con- cerning urine usage as fertilizer or concerning other aspects of project	3	2	Researching and working around legal framework and local customs, being prepared to change approach

 $<sup>1 = \</sup>text{very unlikely}, 2 = \text{moderately likely}, 3 = \text{very likely}.$  Table content is based on conversations with project team and experts (2018).

	Unlikely to happen	Somewhat likely	Very likely to happen
Insignificant Consequence	- Competitor steals ideas	- FT: dehydration / heat stroke	- FT: sunburns
Moderate Consequence	- FT: Legal issues - no learnings for team Makerere & team Aalto	- FT: Sickness of all team members - FT: getting robbed - Culture shock - Delayed project prog- ress because of slow partnership communica- tion	- Offending some- one on a personal level - Different opinions on sustainability and its importance for the project - Schedule problems
High Consequence	- FT: Violence - Teams doesn't believe in project anymore - Political riots - Natural disaster - partnership with Makerere University breaks apart	- FT: Car accident - Dysfunctional team due to communication, values too separate, bad management - Product doesn't work (steel, plastic, sand) - Someone gets hurt during production - We don't find or cannot create a safe production space - We create a product/ workspace that doesn't find ownership in the local environment - Partnerships with companies & authorities don't work at all - Financial boundaries - The product ends up being not sustainable	-

Table 5: Risk analysis matrix

# Homework

# Make risk analysis for your project

## Dissemination and communication plan

- 1. Identify target audiences and their information needs (FOR WHOM?)
- 2. Identify types of products that meet users' information needs (WHAT?)
- 3. Think about efficient communication and dissemination methods and timing (WHEN AND HOW?)



# **Communication Plan**

TARGET GROUP (To whom?)	CONTENTS (What?)	PRODUCT (What?)	CHANNEL (Where?)	TIME (When?)	RESPONSIBILITY (Who?)
Sponsors and external stakeholders	Final results	Final Report	Through email	May 2023	Jaana Johtaja
Friends, family, colleagues, anyone interested	Field Trip	Stories and pictures from the trip	Blog.fi	March 2023	Ville Viestijä
Students and teachers at Aalto University	Experiences of the course and the trip	Article	Aalto Magazine	May 2023	Kirsi Kirjoittaja

# Project document (project plan)

The concrete outcome of the project planning is *the project* document. It outlines all the major facts of the project.

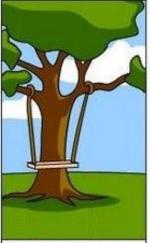
#### Project document defines:

- Operating environment
- Stakeholders and beneficiaries
- Project objectives and activities
- Project organisation
- Timetable
- Budget
- Monitoring and evaluation plan, including indicators
- Communications and reporting plan
- Risk analysis
- Sustainability





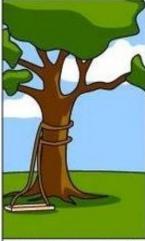
How the customer explained it



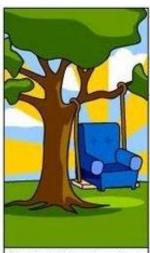
How the Project Leader understood it



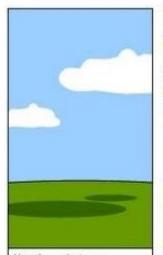
How the Analyst designed it



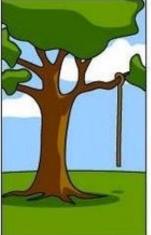
How the Programmer wrote it



How the Business Consultant described it



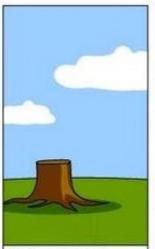
How the project was documented



What operations installed



How the customer was billed



How it was supported



What the customer really needed