

*Program: MSc in Project Planning and Management*

*Course: Project Identification, Planning and Scheduling (PIPS)*

*Course Code: PPM 532*

*Credit Hours: 3*

*Why PIPS as a course?*

# Why PIPS as a course?

- There are a number of project agenda in our country (Poverty alleviation and food security, Health, sustainable development, Entrepreneurship development(MSEs)...
- There are a number of opportunities at National, Continental and International levels (one can apply for funding)
- There is a knowledge gap to tackle the problems by utilizing the opportunities
- Hence, both the program and course are relevant and timely

# *CHAPTER ONE*

## *PROJECT IDENTIFICATION*

# Chapter outline

- Definitions
- Needs Assessment
- Stakeholder Analysis
- Problem Analysis
- Objectives Analysis
- Strategy Analysis
- Project Cycle Management

# Definitions

- What is project/program?
- What is project planning?
- What is the project planning process?
- What is project management?

# Definitions

- ❖ Following are some definitions of project:
- A **project** is a set of activities:
  - with clearly defined objectives,
  - following a plan,
  - requiring time,
  - financial resources, and
  - (a team of) project participants.

# Definitions

- A project is a **sequence of unique, complex, and connected activities** having one goal or purpose and that must be completed by a **specific time**, with the given **budget**, and according to specification.
- A project is a set of planned **activities** within a **given time** and **resources**, to produce **results** in order to achieve a prior set project **objective(s)**.

# Definitions

- A project is a unique set of coordinated activities, with definite starting and finishing points, undertaken by an individual or organization to meet specific objectives within defined schedule, cost and performance parameters.
- A project can be research, business or developmental type.

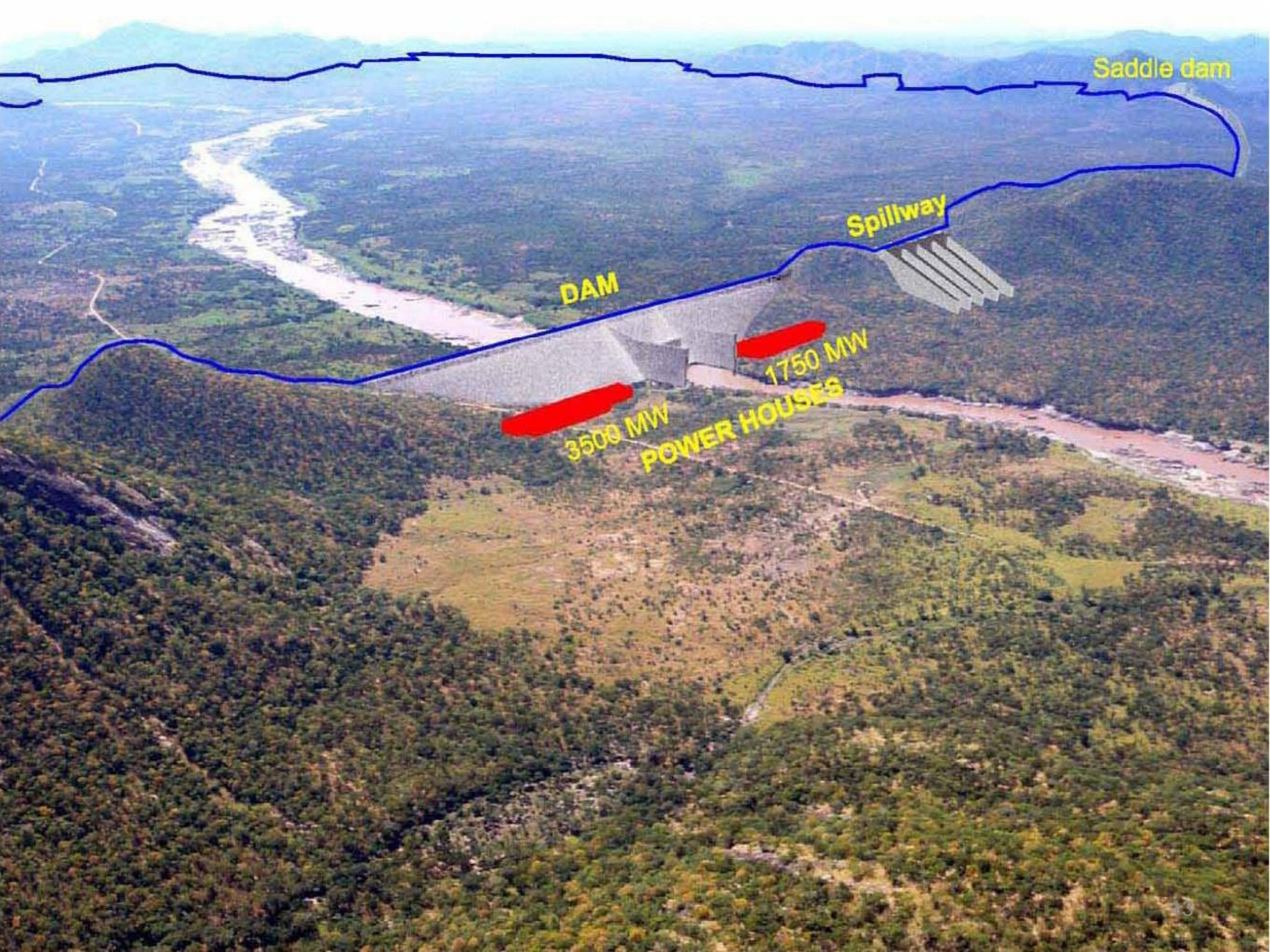
# Definitions

- **Development project** is a series of activities aimed at bringing about clearly specified objectives within a defined time period and with a defined budget.
- Development projects are a way of clearly defining and managing investments and change processes.

# Examples of Mega development projects in Ethiopia

- Hydroelectric dam construction project  
E.g. **Grand Ethiopian Renaissance Dam (GERD)**
- Addis Ababa light train road construction project
- Food security projects
- An emergency relief projects
- A health service reform and expansion project, implemented by MOH
- A road and bridge building project etc.





Saddle dam

Spillway

DAM

3500 MW

1750 MW

POWER HOUSES

# Project Planning, Scheduling and Control

- Project Planning, Scheduling, and Control is the art of preparing a plan that meets the completion date, scheduling the individual tasks to support the plan and reporting the progress against the schedule.

# Project Planning, Scheduling and Control

- A project planning **defines** the project activities and end products that will be performed; and describes **how** the activities will be accomplished.
- Thus the purpose of project planning is to define each major task, estimate the time and resources required a framework for management review and control.

# Project Planning Activities and Goals

The project planning activities and goals include defining:

- The specific work to be performed and goals that define and bind the project estimates to be documented for planning, tracking and controlling of the project
- Commitments that are planned, documented and agreed by the affected groups
- Project alternatives, assumptions, and constraints

# Project vs Programme

- *Often programme and project are used interchangeably, but a program is a larger concept than a project.*
- Programme refers to a group of related projects to ensure the best use of resources in delivering the projects to the specified time, cost and quality/performance criteria.

# Project vs Programme

- The major difference b/n the two is not so much in the objective stated, but lies more in the **scope, the details and accuracy**.
- A programme is more **comprehensive because it can embrace a large sector of the economy** and contributing in a more sensible way to increase national output, & have an important impact to the society.

# Project vs Programme

## Project

- A project is defined as a specific component of a broad programme
- A project is designed with a high degree of precision & details of objectives, features, calculation of returns & implementation plan

## Programme

- It is composed of a number of specific projects
- A program by contrast is general, lacks details and precision & aims at a broader goal often related to a sectoral policy of a country or departmental policy of an organization
- Calculation of returns are hardly possible

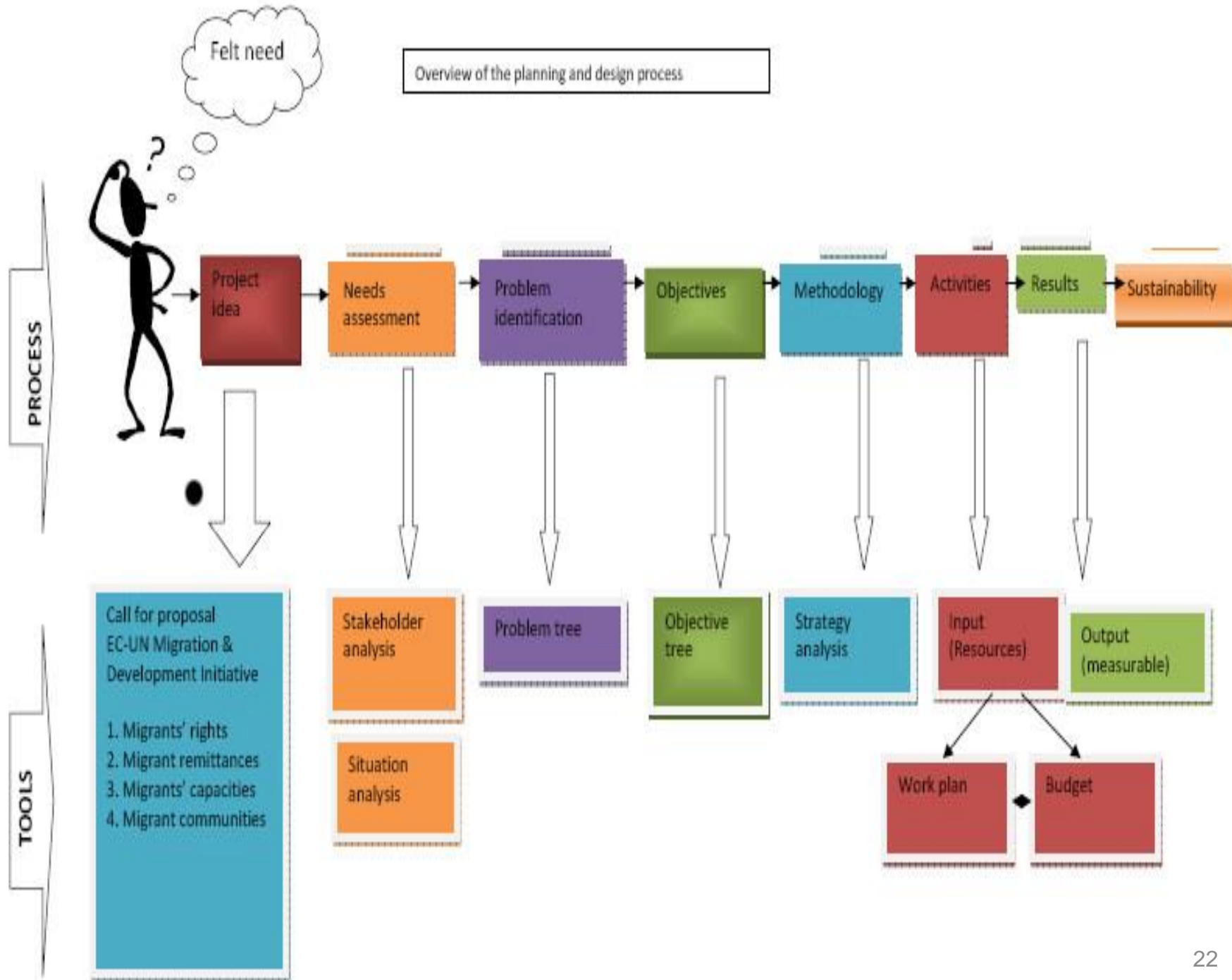
# Project Planning Process

- Identify all deliverables associated with the project
- Define the relationship b/n tasks
- Define the organization used to execute the project
- Define the process used for ensuring quality
- Define the process used for specifying & controlling requirements.

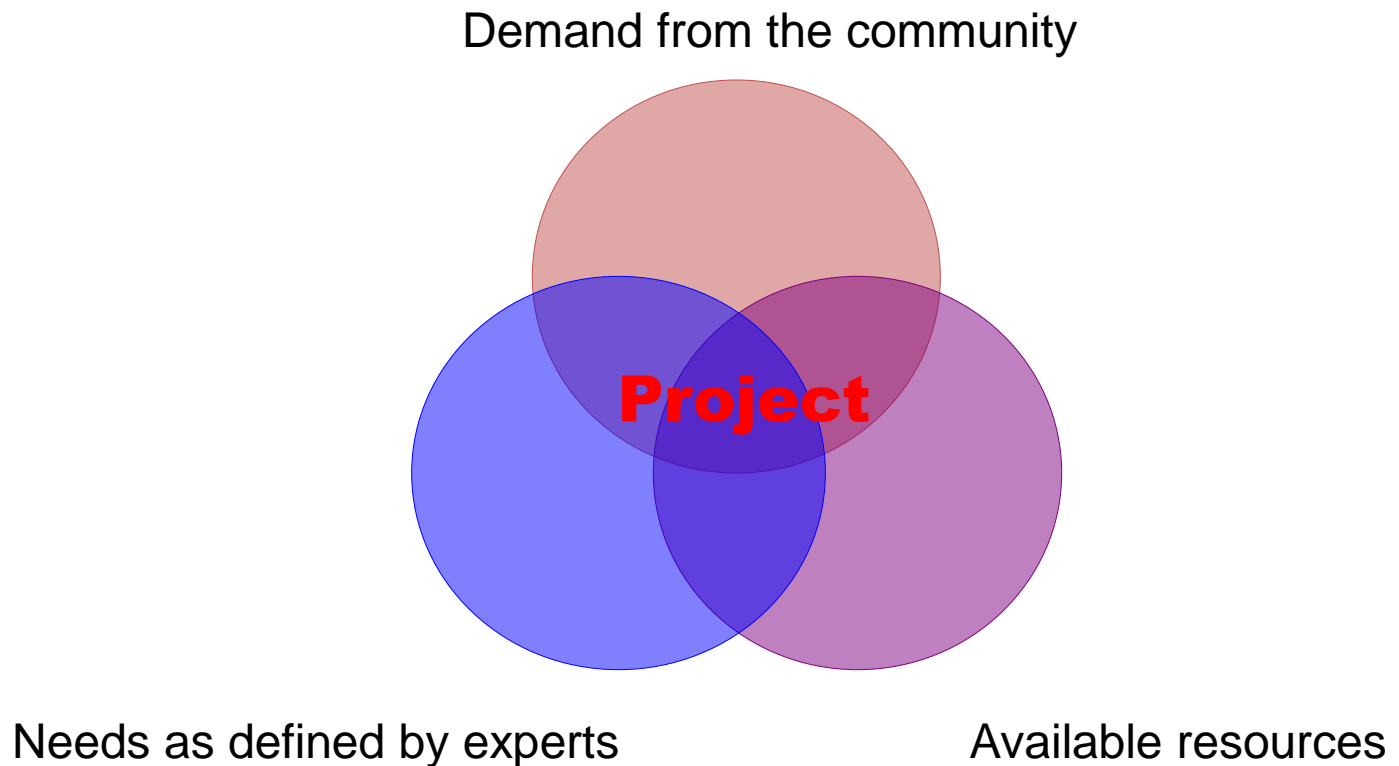
# Project Planning Process

- Repetition of the steps is necessary to establish a comprehensive project plan.
- Several **iterations** of the planning process are performed before a plan is actually completed.
- A project plan is a formal, approved document that is used to manage and control a project.

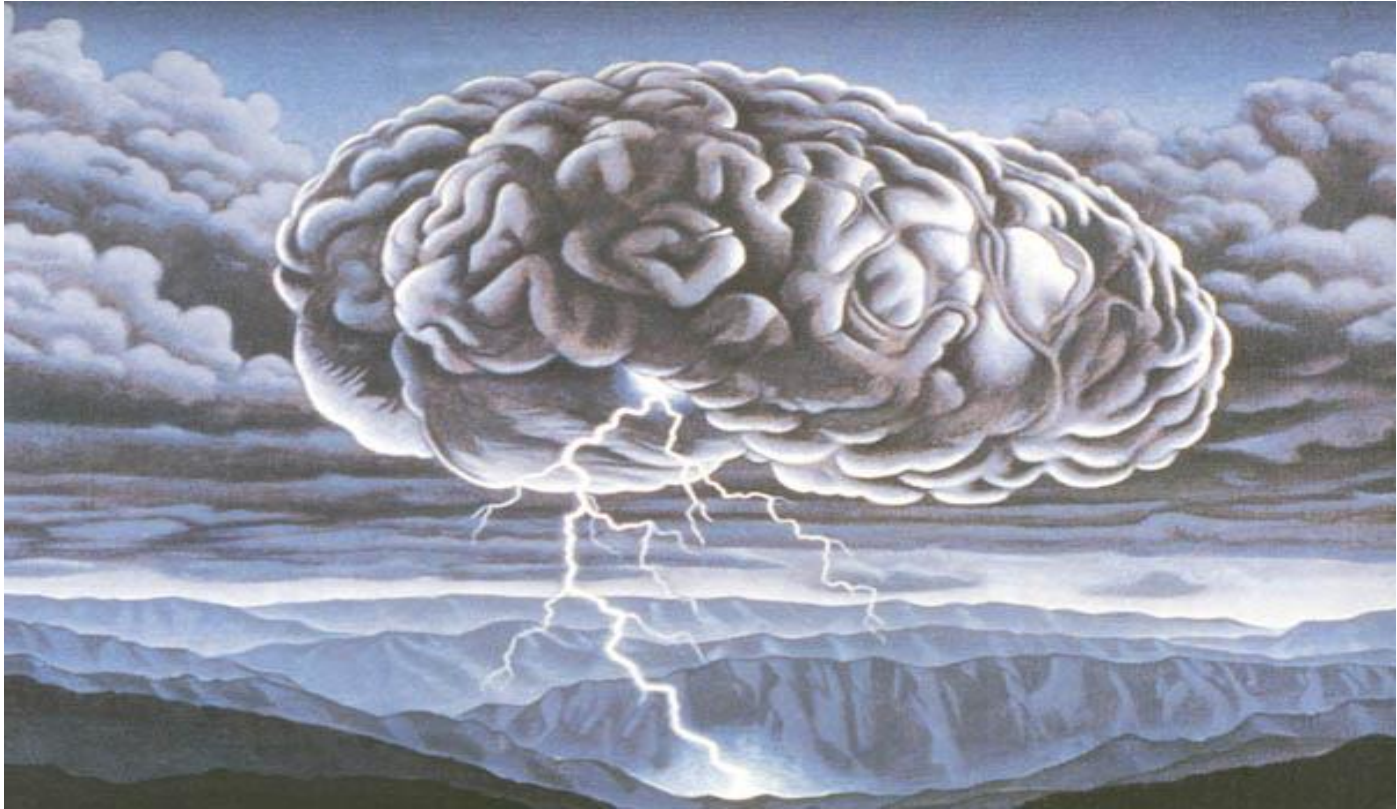
# Overview of the planning and design process



# Identify the project idea/ Problem Identification



# How to generate a project Idea?



## Brainstorming

# Brainstorming

- **Brainstorming** is a group or individual creativity technique by which efforts are made to find a conclusion for a specific problem by gathering a list of ideas spontaneously contributed by its member(s).
- The result of a brainstorming session may give a complete solution to the problem, a list of ideas for an approach to a subsequent solution, or a list of ideas resulting in a plan to find a solution.
- Brainstorming has become a popular group technique to generate ideas for solution of a given problem

# BRAINSTORMING TECHNIQUE

- Brainstorming creates new ideas, solves problems, motivates and develops teams.
- Brainstorming motivates because it involves members of a team in bigger management issues, and it gets a team working together.
- However, brainstorming is not simply a random activity; it needs to be structured and it follows brainstorming rules.
- This is crucial as brainstorming needs to involve the team, which means that everyone must be able to see what's happening.

# Brainstorming Process

- Define and agree the objective
- Brainstorm ideas and suggestions having agreed a time limit
- Categorize/condense/combine/refine
- Assess/analyze effects or results
- Prioritize options/rank list as appropriate
- Agree action and timescale
- Control and monitor follow-up.

# BRAINSTORMING APPROACH

- Brainstorming can be done either **individually or in a group.**
- In group brainstorming, the participants are encouraged, and often expected, to share their ideas with one another as soon as they are generated.
- **Complex problems or brainstorm sessions with a diversity of people may be prepared by a chairman.**
- The chairman is the leader and facilitator of the brainstorm session.

# BRAINSTORMING APPROACH

- As ideas come to mind, they are captured and stimulate the development of better ideas.
- Thus a group brainstorm session is best conducted in a moderate-sized room, and participants sit so that they can all look at each-other.
- There are basic rules and principles in brainstorming.
- These are intended to reduce the social inhibitions that occur in groups and therefore stimulate the generation of new ideas.
- The expected result is a dynamic synergy that will dramatically increase the creativity of the group.

# Brainstorming



# Effective Brainstorming

**“Apply seven principles for effective brainstorming”**

# The 7 BS principles

*If the best idea  
is not with the  
3 ideas go  
direct to the  
follow your  
heart principle*



***Let's go  
crazy***



***Review***



***Follow  
your heart***



***Review &  
select 3  
ideas***



***Elaborate  
the 3 ideas***



***Choose  
best***

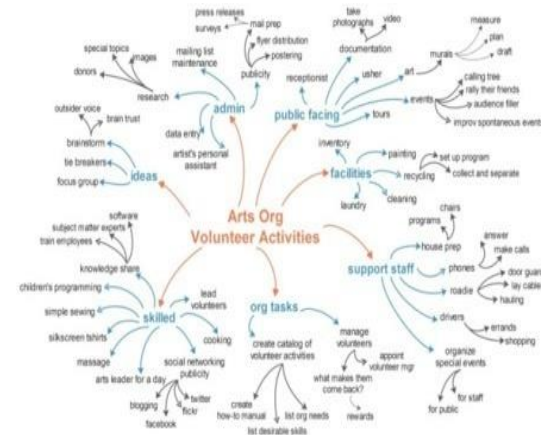


***Rock n Roll***

***Make sure you stick to the time  
during the first 4 principles***

# Let's go crazy

- In this phase **capture all ideas** – even ideas that are **insane**, this is to get all creativity out of your head.
- Don't use digital tools – **ONLY Pen, paper, whiteboards, post it.** etc.
- Use mind maps.
- **Stand up** – don't sit on a chair
- Brain storm only with certain number of people, but **do this phase alone** and write down all your ideas without discussion or looking at the ideas from others.
- Keep the time to max 15 minutes.



# Review

- Review ideas in a **positive way** – don't complain or make fun of somebody's idea, respect **ALL ideas**.
- The following words are NOT allowed in this phase – **No, impossible , too expensive, ugly, not my style, don't like it, are you nuts?**
- Start your feedback with “ **YES**, and.....”
- Purpose for this phase is to share ideas and get inspired for the **next phase of the brainstorm session called Follow your heart**.

# Follow your heart

- Based on the first review you might get inspired for new ideas or rework your first ideas .
- Work again **only** with off-lines tools .
- Work alone and don't discuss with others.
- Use your emotional part of your brain = follow your heart.

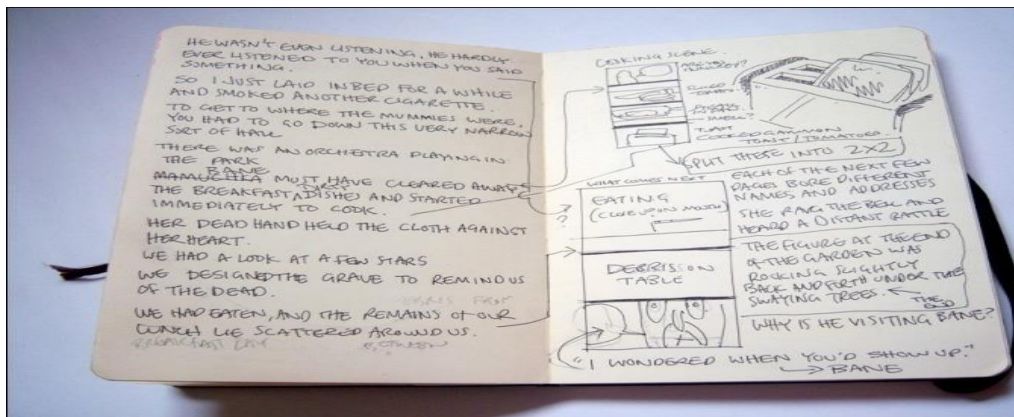


# Review and select of ideas

- **Select 3 ideas** from other people – **NOT your own**. The other people may select three of your ideas.
- Don't kill any idea and keep them in an archive for later use or inspiration – **NEVER kill or delete ideas, even if they are “insane”**.
- Select three ideas from the ideas that are left and score them **1 (best), 2(great), 3 (good)**.
- Count the score and you have a the best three ideas.

# Elaborate the 3 ideas

- Now you are allowed to use digital tools to elaborate the three selected ideas.
- It is not mandatory to use digital tool, you can also continue using your off line tools.

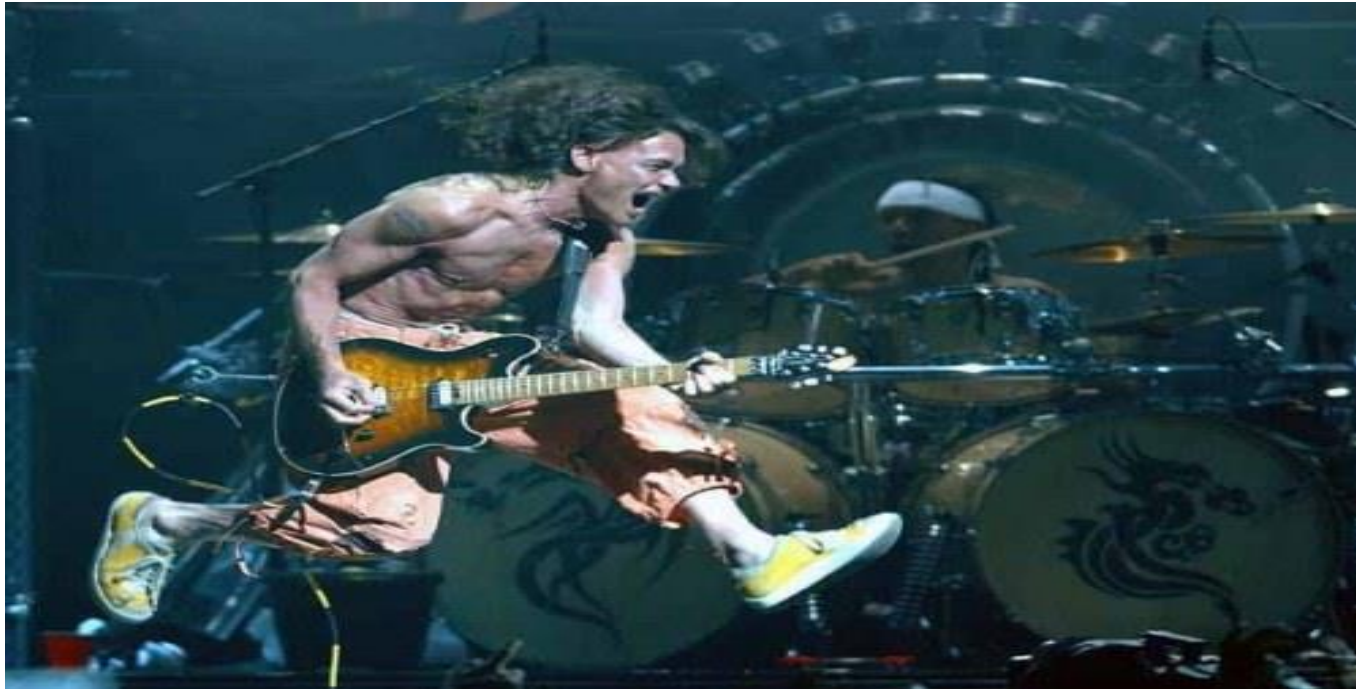


# Choose best idea

- Based on your own defined criteria you select the **best idea**.
- In this phase **DON'T follow your heart but use your rational part of your brain** and make sure the concept is in **line with the agreed criteria**.
- Criteria difference from company to company – like:
  - **Is it in line with strategy.**
  - **What will be the ROI.**
  - **Time / cost for execution.**
- If you still think the idea is not good – go back to phase **“follow your heart”** and follow the process again.



# Rock n Roll



Just **get started** on the **“real”** design and production of the idea.

# Group Activity

- **Form a group of like members (about 5 members)**
- **Set a problem of your community**
  - Determine and specify the problem which needs a solution.
  - Every participant must know the problem.
- **Generate ideas**
  - Generate as many ideas as possible. Keep in mind the basic brainstorm rules and record the good ideas.
- **Select Best Idea**
  - Select the most appropriate idea from the suggested ideas.

# The Problem Tree

- The problem tree is developed by moving problems from the cluster of problems on the wall and by adding new problems that emerge as the tree is developed.
- Problems can be moved up or down the tree as required.
- The tree should end up with the main problem and a series of lower order problems that branch out below the main problem.

# The Problem Tree

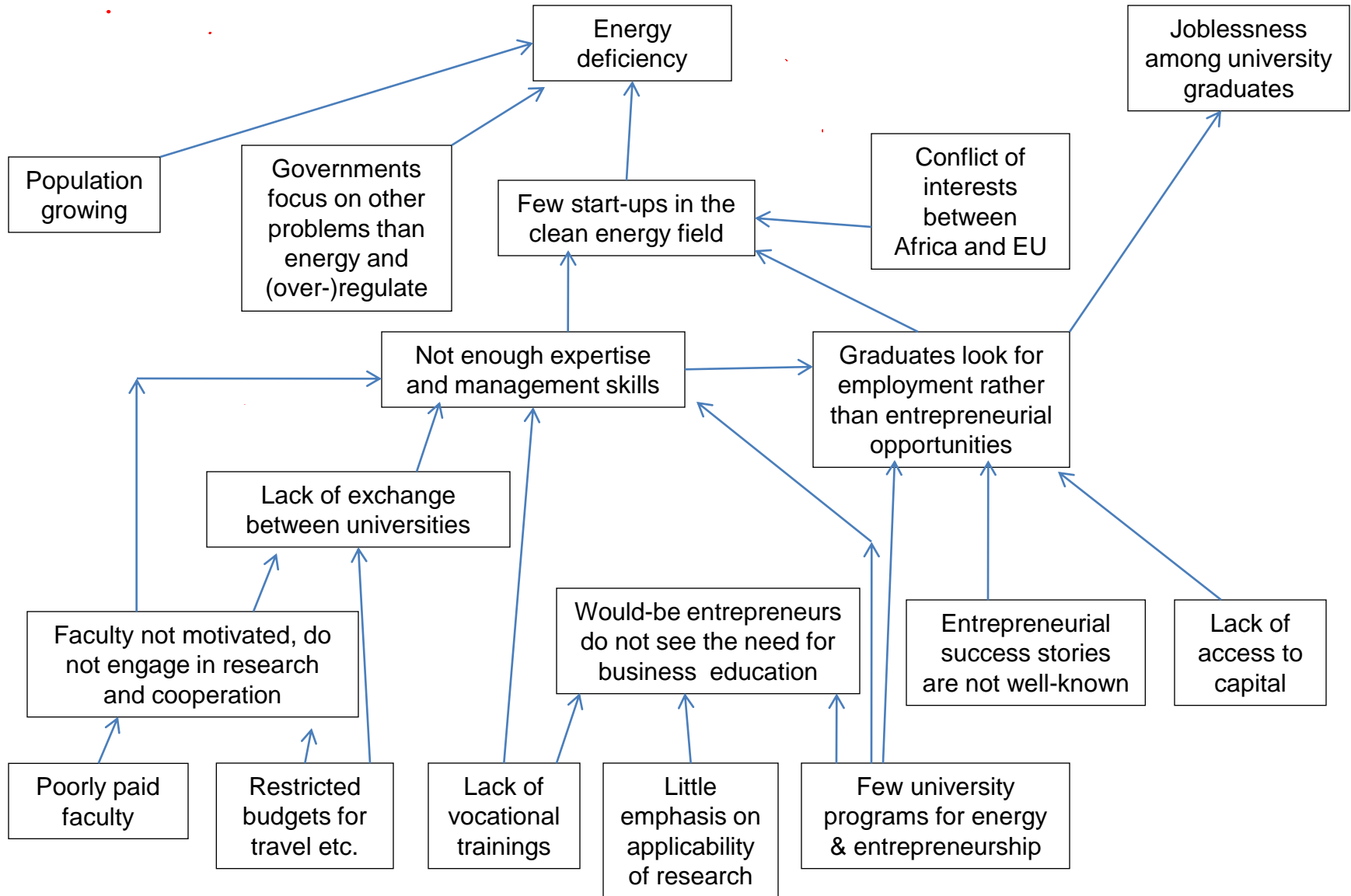
- The **Problem Tree** is a visualization of the causal connections between problems:
  - If a problem is a **cause**, it is placed towards the bottom of the tree,
  - if a problem is an **effect**, it is placed towards the top of the tree,
  - Indicating causal connections by **arrows**.

# The Problem Tree

## Example

- As an example, a tree is presented for a project by the name of **AENEAS – African Educational Network for Energy Access Solutions**.
- The project idea was to establish a network of universities which would encourage its students to become entrepreneurs in the field of clean energy solutions, and equip them with the required technological and entrepreneurial skills and knowledge.

# Problem Tree



# The Problem Tree/Stakeholder Analysis

- The next step or stage of the process is **identifying who** these problems actually impact on the most, and
- What the **roles and interests of different stakeholders** might be in addressing the problems and reaching solutions.
- **Stakeholder analysis is thus an essential element of problem analysis.**
- **Stakeholder Analysis needs to be done jointly(apply MBO technique)**

# Stakeholder analysis

## ❖ Stakeholders ???

### ❖ Stakeholders are:

- ❖ individuals or groups with a direct, significant and specific stake or interest in a given territory or set of natural resources and, thus, in a proposed project.
- ❖ People affected by the impact of an activity
- ❖ People who can influence the impact of an activity

# Stakeholder analysis

- Participation or stakeholder analysis seeks to identify the major interest groups (all those affected by or involved in) the project.
- Stakeholder groups are made up of people who share a common interest, such as an NGO, government and the community.
- Categorizing the stakeholders into different groups is an important task in project planning (as project implementers, direct beneficiaries, funders, local government, etc...)

# Stakeholder analysis

- Why stakeholder analysis?
  - To identify stakeholders' interests in, importance to, and influence over the operation
  - To identify local institutions and processes upon which to build
  - To provide a foundation and strategy for participation
  - **provides a useful starting point for problem analysis**
  - It involves the identification of all stakeholder groups likely to be affected (either positively or negatively) by the proposed intervention.

# Project Goals and Objectives

- Goals and objectives describe what we want to achieve to solve the problem or take advantage of the opportunity
  - Keep them simple
  - Focus on the important items
  - Collectively, they define the scope
  - They must be measurable for success
  - Clearly written

# Project Goals and Objectives



## **Project Goal**

A Goal is a long-term aim and it may not be achievable during the life of the project



## **Project Objective**

An objective is a short-term aim and it has to be achieved during the project period.

# Goals and Objectives

- *Use the SMART Test*

**S** – Specific

**M** – Measurable

**A** – Attainable

**R** – Relevant

**T** – Time-Based

# The Objective Tree

- The objective should be prepared after the problem tree has been completed.
- The problem tree is transformed into an objectives tree by re-stating the problems as objectives.
- The objectives are the positive mirror image of the problem tree.

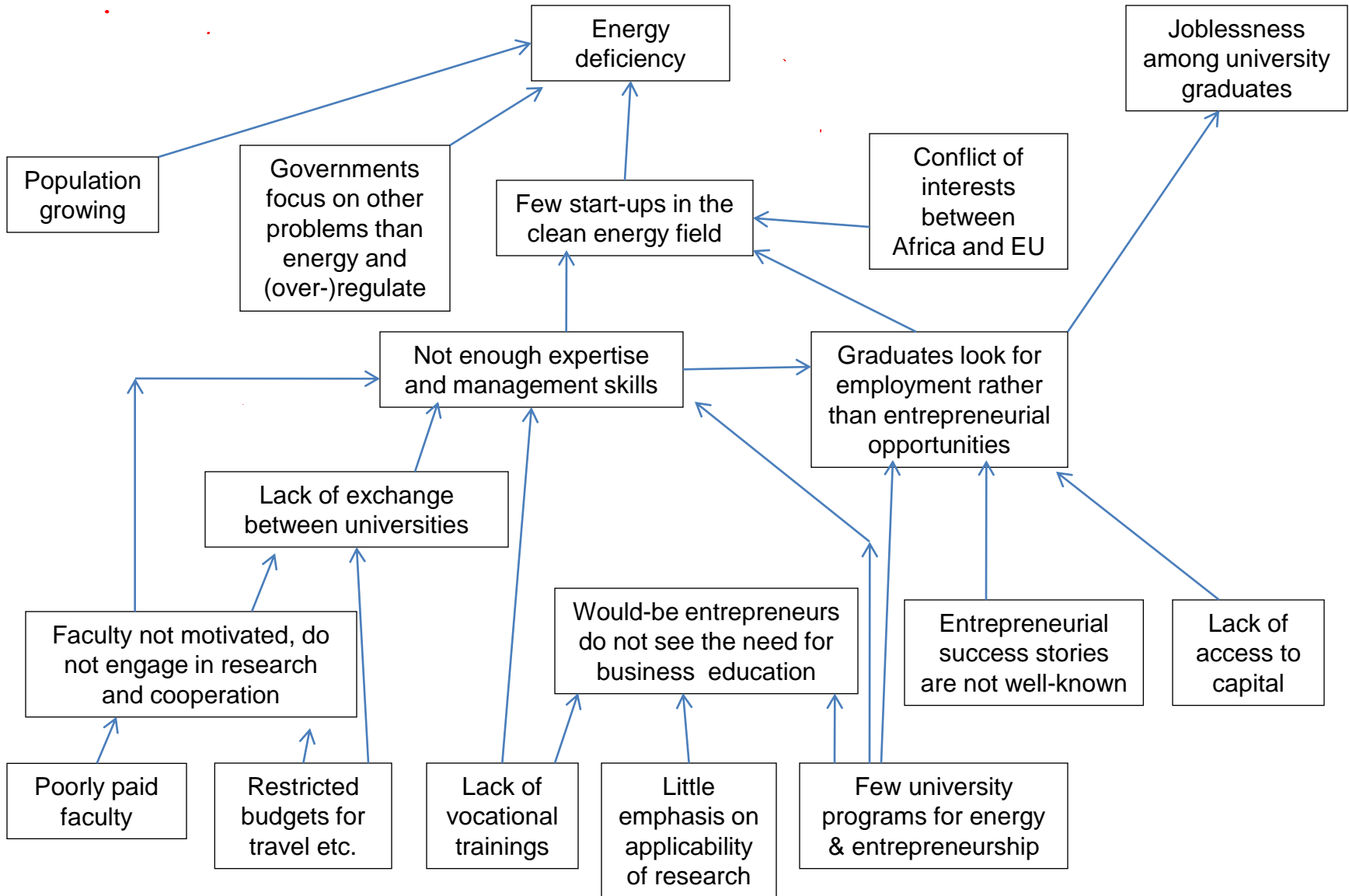
# The Objective Tree

- It is usually necessary to reorder the position of the objectives as you develop the tree.
- The objectives tree can also be considered as 'ends – means diagram'.
- The top of the tree is the end that is desired and the lower levels are the means to achieving the end.

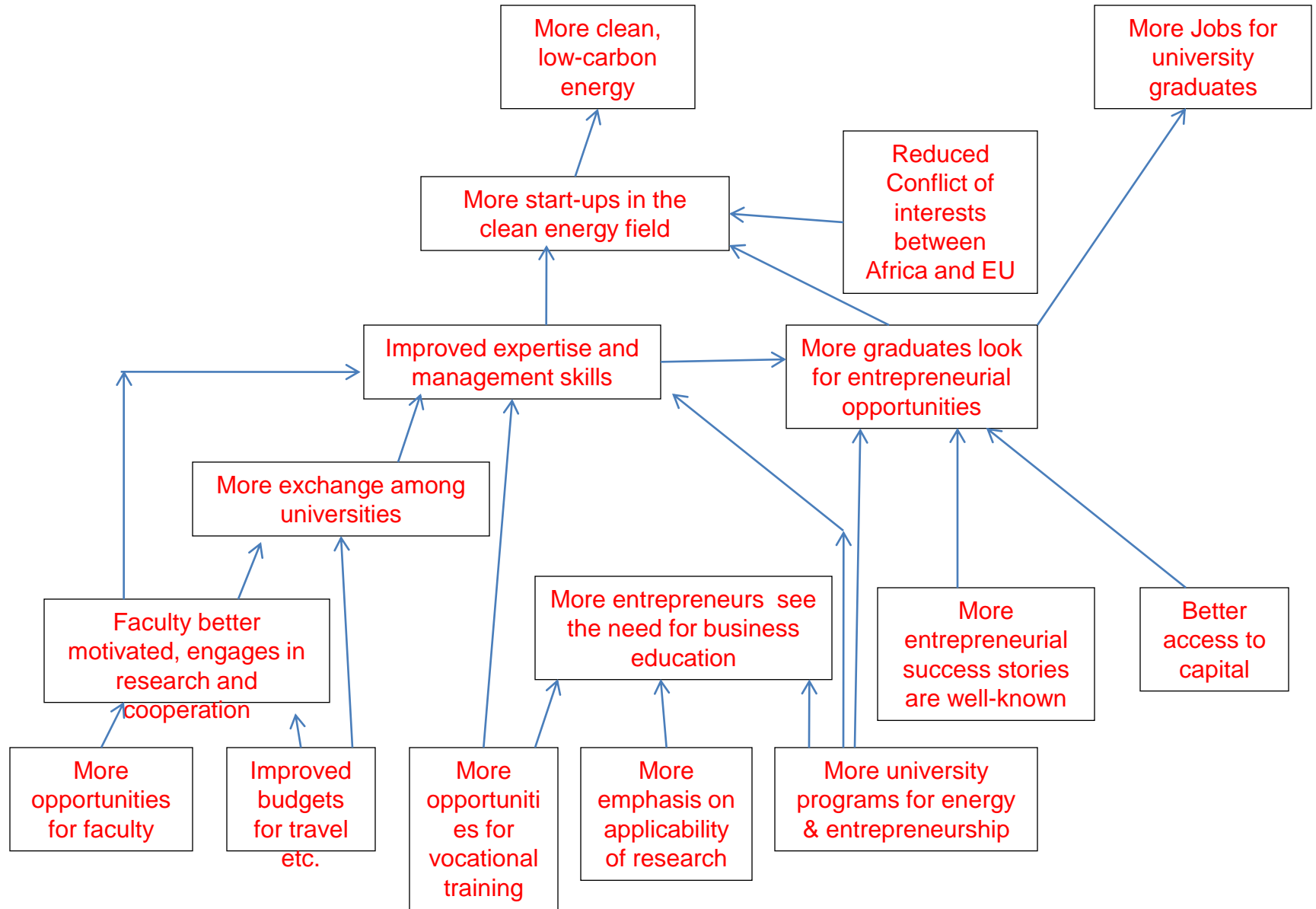
# The Objective Tree

The problem tree is then converted in an objective tree that looks very much like the problem tree, but replaces the problems with objectives – roughly speaking, the situation once the problems have been resolved.

# Problem Tree



# The Objective Tree



# The Objective Tree

- The next step then consists in deciding which objectives will be addressed within the projects, and which ones will stay out.
- Moreover, the **strategies** will be selected by which the project's objectives can be achieved.

# Strategy Analysis

- The strategy analysis involves clustering objectives and examining the feasibility of different interventions.
- The main objective becomes the project purpose and the lower order objectives become the expected outputs or results and activities.
- The project purpose and overall objectives are finalized once the strategy has been selected.

# Activity Plan

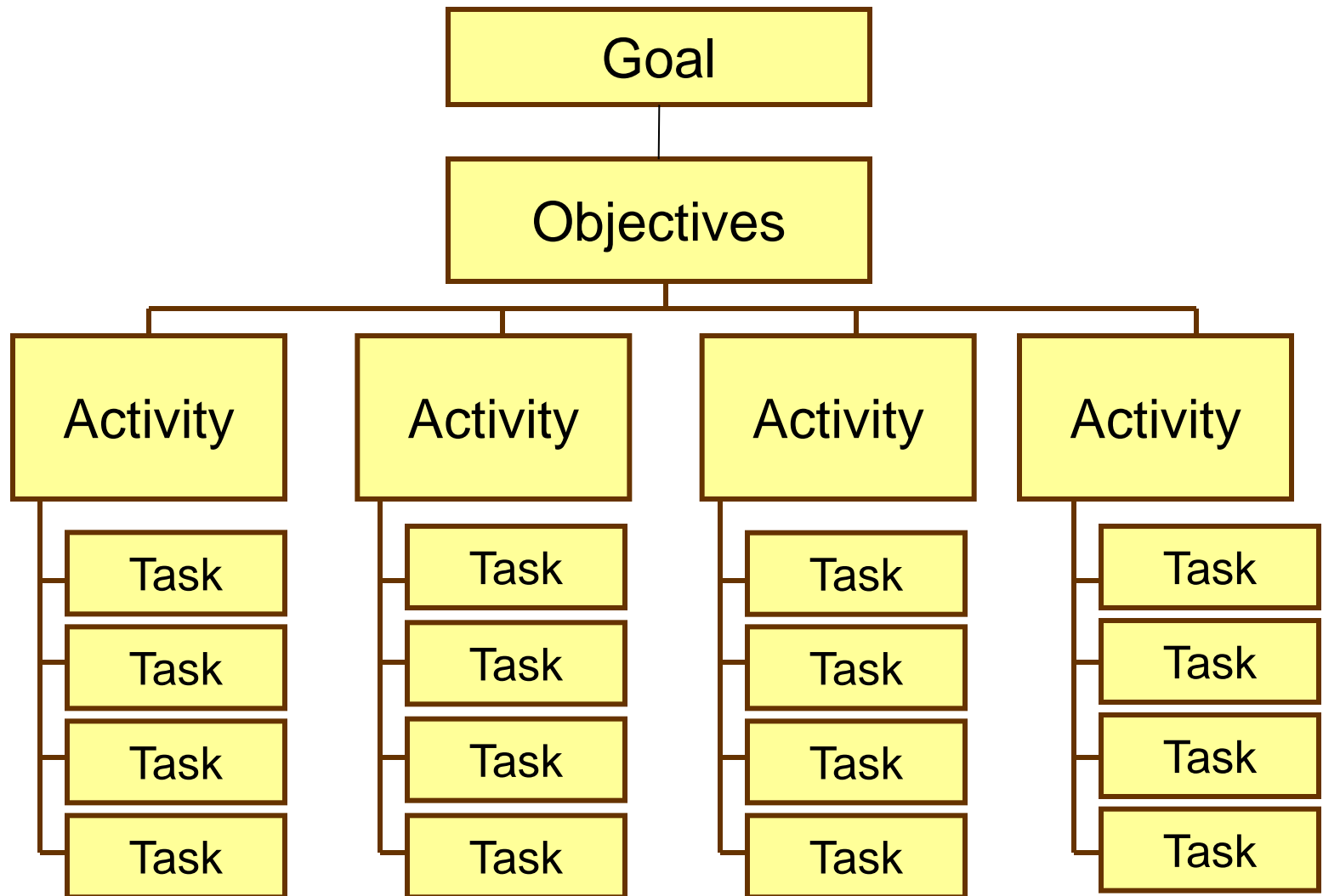
❖ In this stage we need to:

- Define the activities and tasks needed to achieve our goals
- Organize & prioritize activities and tasks
- Identify which tasks depend on others
- Assign team members to activities
- Define dates to begin and finish

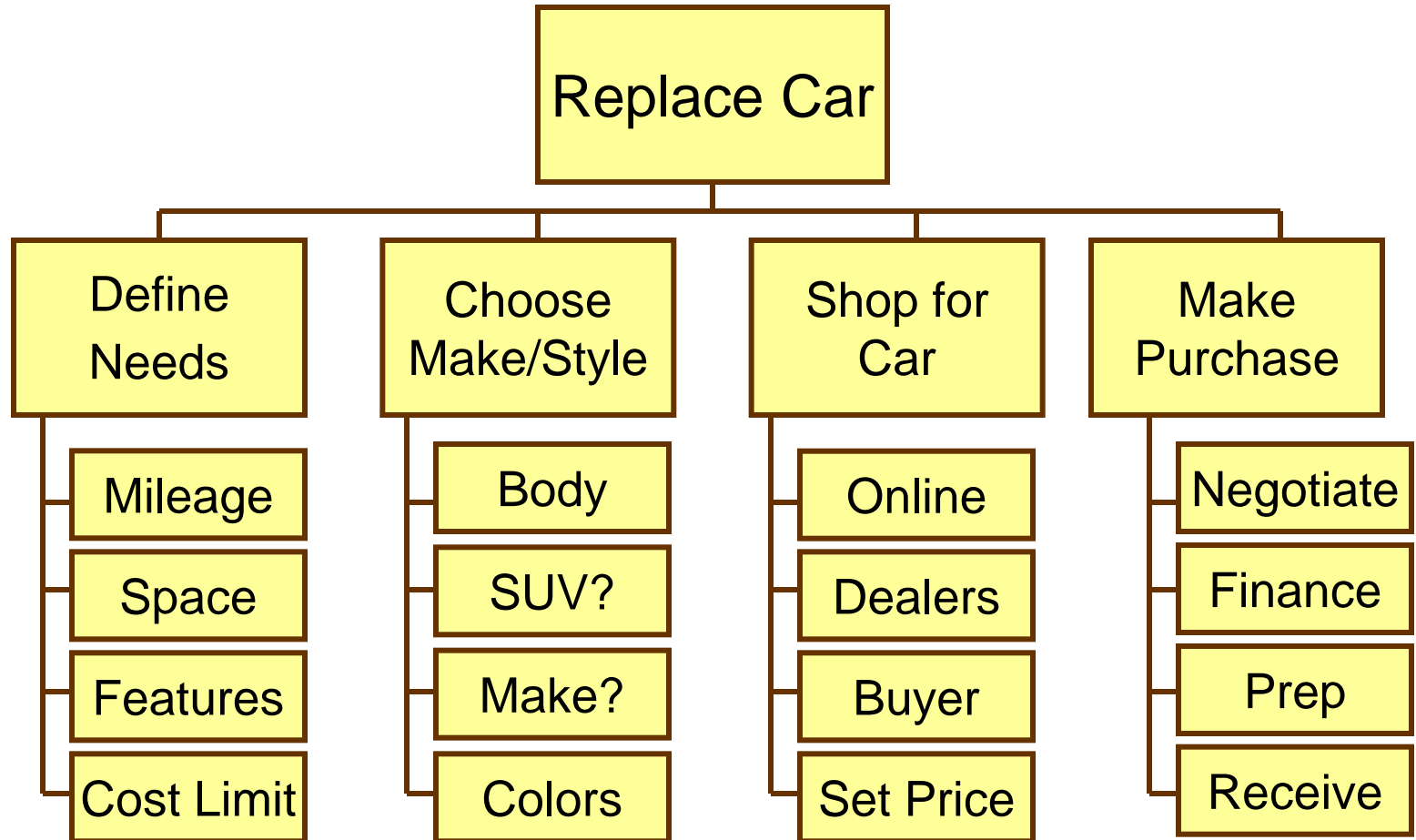
# Description of project activities

- This describe what will actually be done to produce the expected results and accomplish the project's objectives.
- There should be a clear and direct linkage between the activities and the outcomes.
- Activity descriptions should be as **specific** as possible:
  - identifying **what** will be done,
  - **who** will do it,
  - **when** it will be done: beginning, duration, completion,
  - **where** it will be done.

# Model of an Activity Plan



# Example of an Activity Plan



## *Project Activities and Tasks Should . .*

- Pass the “**SMART**” test
- Have clear start and stop times
- Include estimated time and cost to complete
- Be assignable and manageable

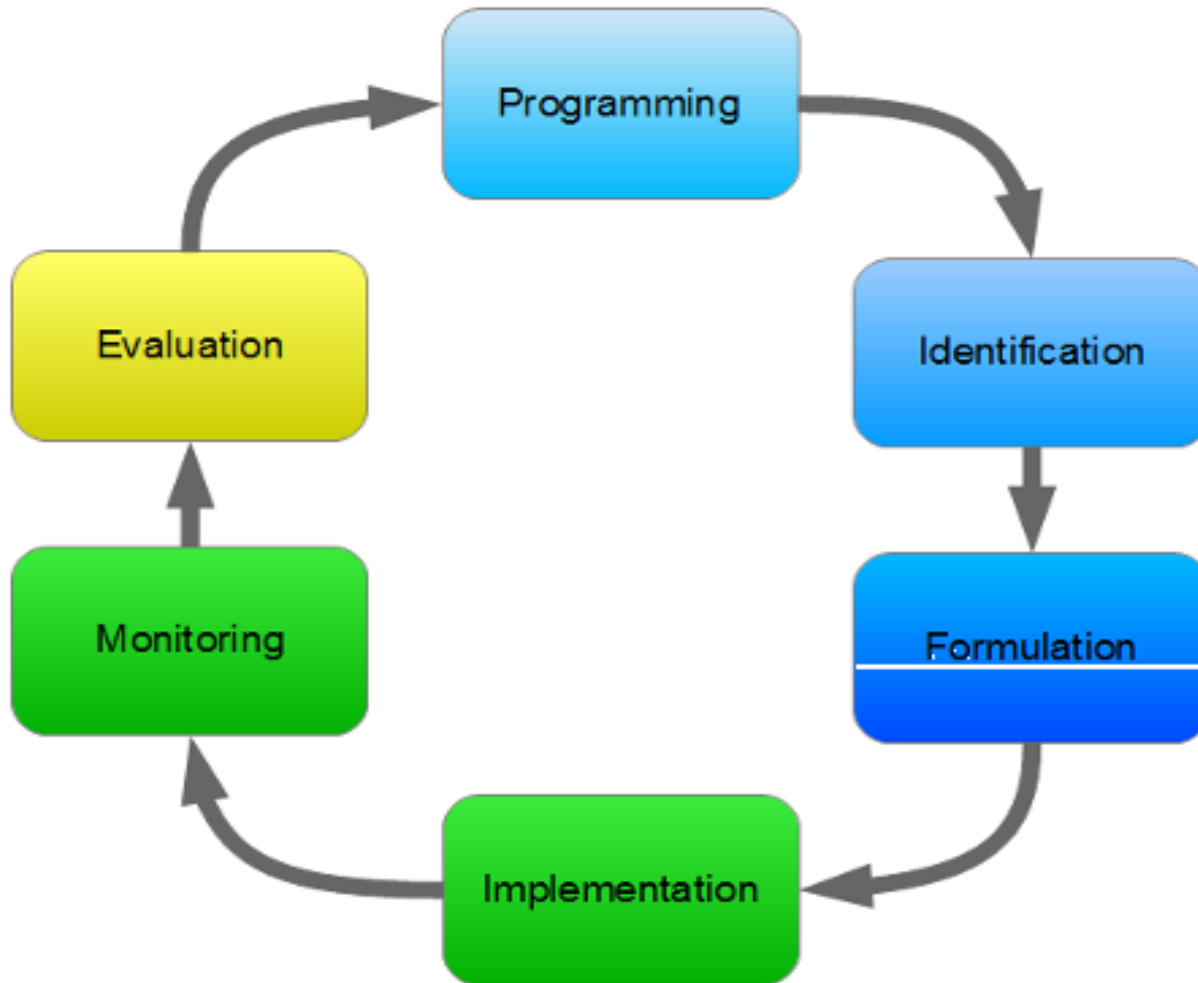
# Project Results and Sustainability

- After the project is concluded, you need to see the results and outcomes.
- Evaluate them how far you met your desired project objectives/Goals.
- Evaluate the impact of the project
- And work on project close outs/ and sustainability.

# Project Work/Assignment

- *Select a project idea/topic from your brainstorming session (better if it is related to development and humanitarian issues)*
- *Identify your stakeholders*  
(Project implementors/collaborators and direct beneficiaries of the project, etc)
- *Develop a problem tree for your project idea*
- *Develop the corresponding objective tree*
- *Carft a strategy for your project*
- *List out the activities/inputs and results/outcomes for your project*

# Project Cycle Management



# The Programming Phase

- ❖ During the **programming** phase, the situation at **national and sectoral level** is analyzed to identify problems, constraints and opportunities which could be addressed.
- ❖ This involves a **review of socio-economic indicators, and of national and donor priorities.**

# Identification Phase

- During the **identification** phase, ideas for projects are identified and screened for further study.
- This involves consultation with the intended beneficiaries of each action, an analysis of the problems they face, and the identification of options to address these problems.

# Formulation Phase

- During the **formulation** phase, relevant project ideas are developed into operational project plans.
- Beneficiaries and other stakeholders participate in the detailed specification of the project idea that is then assessed for its feasibility and sustainability (whether it is likely to generate long-term benefits for the beneficiaries- using MBO technique).

# Financing/Implementation Phase

- During the **financing** phase, project proposals are examined by the funding agency, and a decision is taken on whether to fund the project.
- The funding agency and the project partners agree on the modalities of implementation and formalize these in a legal document which sets out the arrangements by which the project will be funded and implemented.

# Implementation Phase

- During the **implementation** phase, the project is mobilized and executed.
- During implementation, and in consultation with beneficiaries and stakeholders, the project management assesses actual progress against planned progress to determine whether the project is on track towards achieving its objectives.

# Monitoring and Evaluation Phase

- Monitoring and Evaluation is an embedded concept and constitutive part of every project or program design (“must be”).
- During the **evaluation** phase, the funding agency and the project partners assess the project to identify what has been achieved, and to identify lessons that have been learned.
- Evaluation findings are used to improve the design of future projects or programs.

# Monitoring and Evaluation

Monitoring and Evaluation systems can be an effective way to:

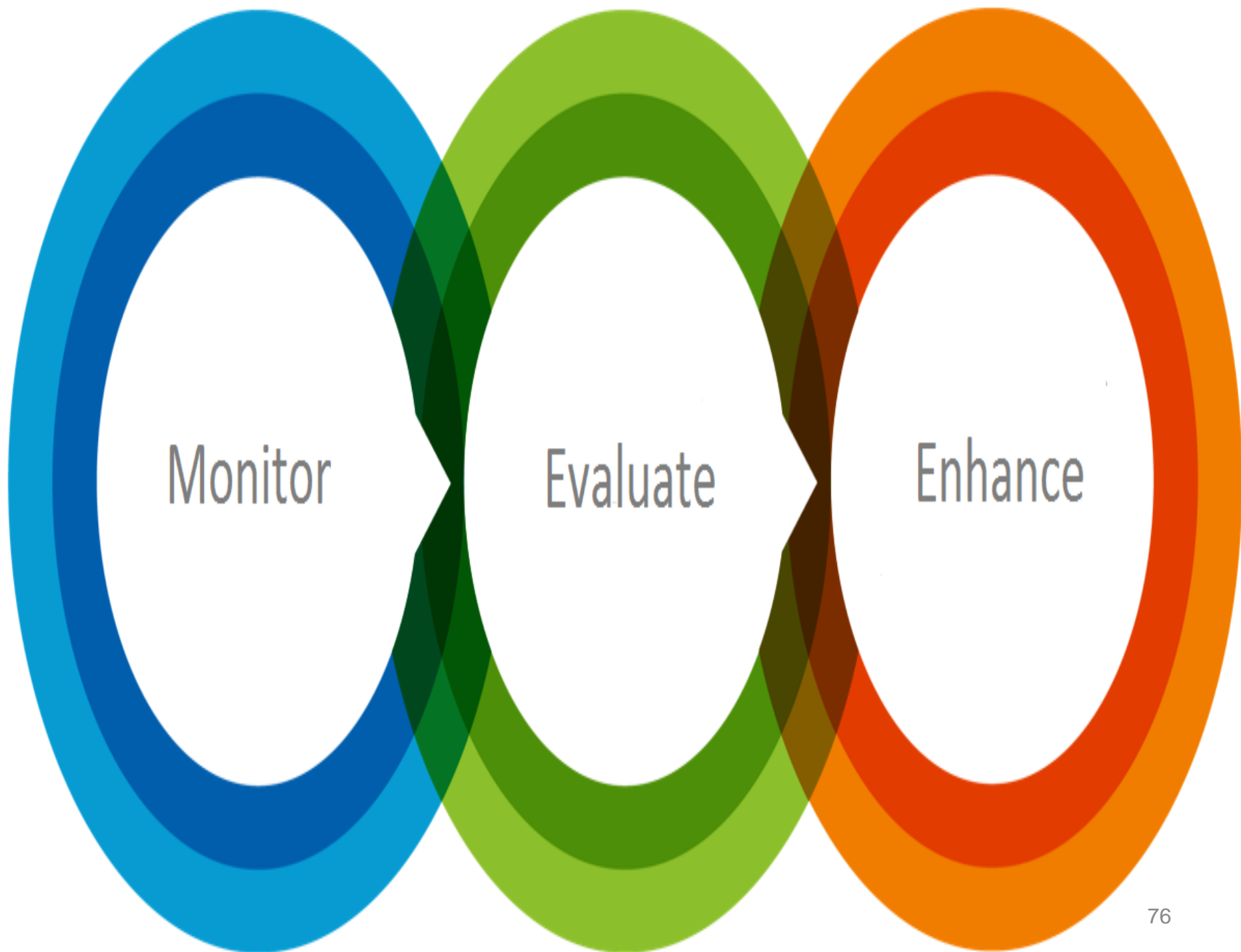
- **Provide constant feedback** on the extent to which the projects are achieving their goals.
- **Identify potential problems** at an early stage and propose possible solutions.
- **Monitor the accessibility of the project** to all sectors of the target population.
- **Monitor the efficiency** with which the different components of the project are being implemented and suggest improvements.

# Monitoring and Evaluation

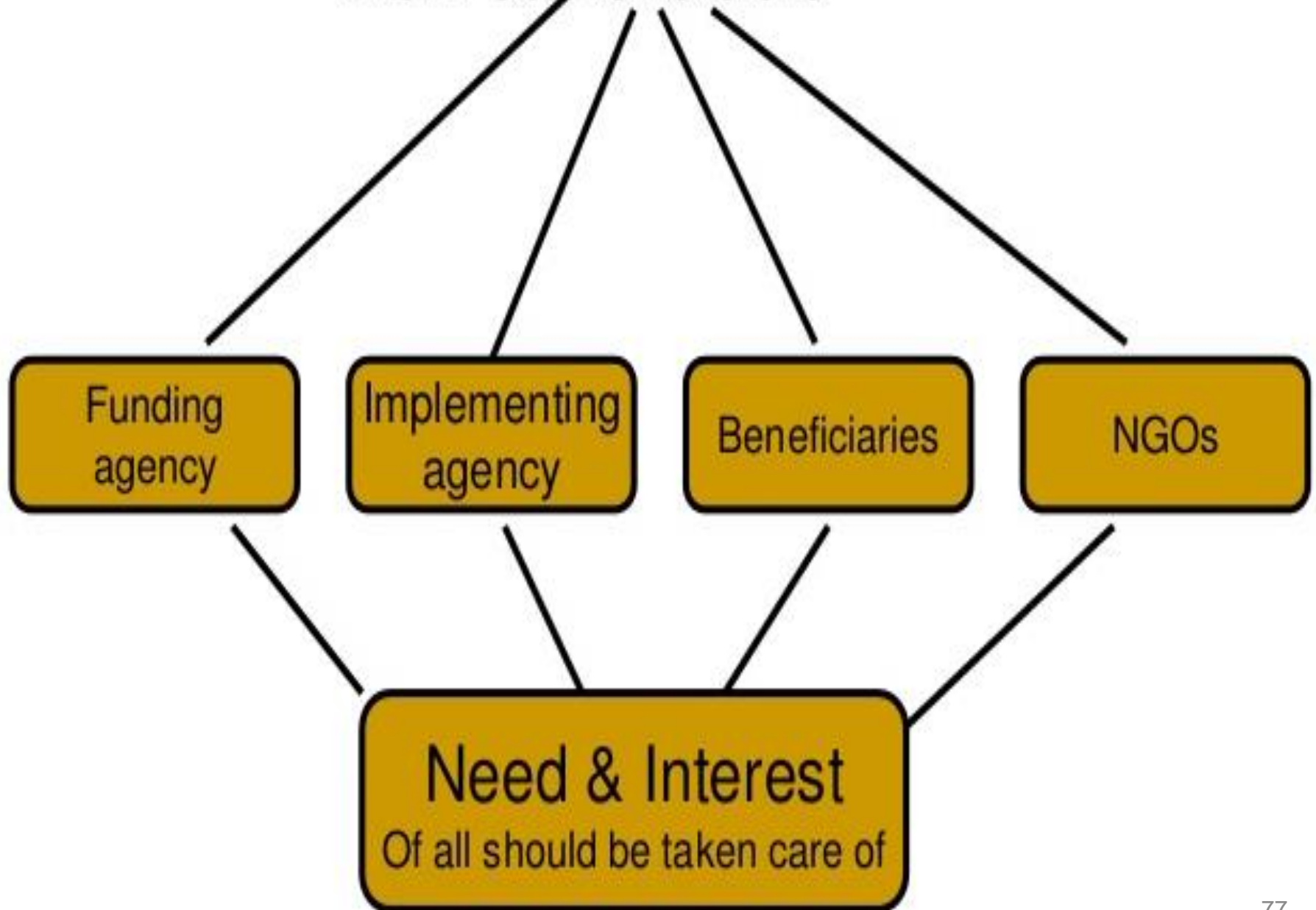
- Evaluate the extent to which the project is able to achieve its general objectives.
- Provide guidelines for the planning of future projects
- Influence sector assistance strategy.
- Improve project design
- Incorporate views of stakeholders brings greater “ownership” of project objectives and encourages the sustainability of project benefits.
- Show need for mid-course corrections

# Monitoring and Evaluation





# M&E Stakeholders



**Steps involved in  
PM&E  
(Clockwise)**

Clarify if the PM&E  
Process needs to be  
Sustained and  
If so how

Identify who  
should and want  
to be involved

Clarify participants  
Expectations of the  
Process, and in what  
Way each person  
Or group wants to  
contribute

Define the priorities  
For M&E

Identify indicators  
That will provide  
The information  
needed

Agree on the methods,  
Responsibilities and  
Timings of information  
collections

Collect the information

Analyse the  
information

Agree on how  
The findings are  
To be used and  
By whom

# Principles of Monitoring and Evaluation

- The three principle categories (phases) of activities taking place during the Monitoring and Evaluation are:
  - Project Monitoring
  - Project Evaluation
  - Project Control
- These activities are intended to occur continuously and continually, taking place through the entire life of the project.

# Monitoring

- **Monitoring:** Provides managers and other stakeholders with **continuous feedback on implementation.**
- It identifies actual or potential successes and problems as early as possible to facilitate timely adjustments to project operation.
- This type of evaluation is performed while a project is being implemented, with the aim of improving the project design and functioning while in action.

# Monitoring

- Monitoring is the systematic and routine collection of information from projects and programs for four main purposes:
  - To learn from experiences to improve practices and activities in the future;
  - To have internal and external accountability of the resources used and the results obtained;
  - To take informed decisions on the future of the initiative;
  - To promote empowerment of beneficiaries of the initiative.

# Monitoring

- Effective monitoring keeps a project on track in terms of performance, time, and cost.
- In order to track the progress:
  - Keep comparing current schedules and budgets against the original plan
  - Never relax control, even when all is going to plan
  - Ask the team for ideas on speeding up the progress
  - If team members are used to working on their own, too frequent monitoring may be counter productive

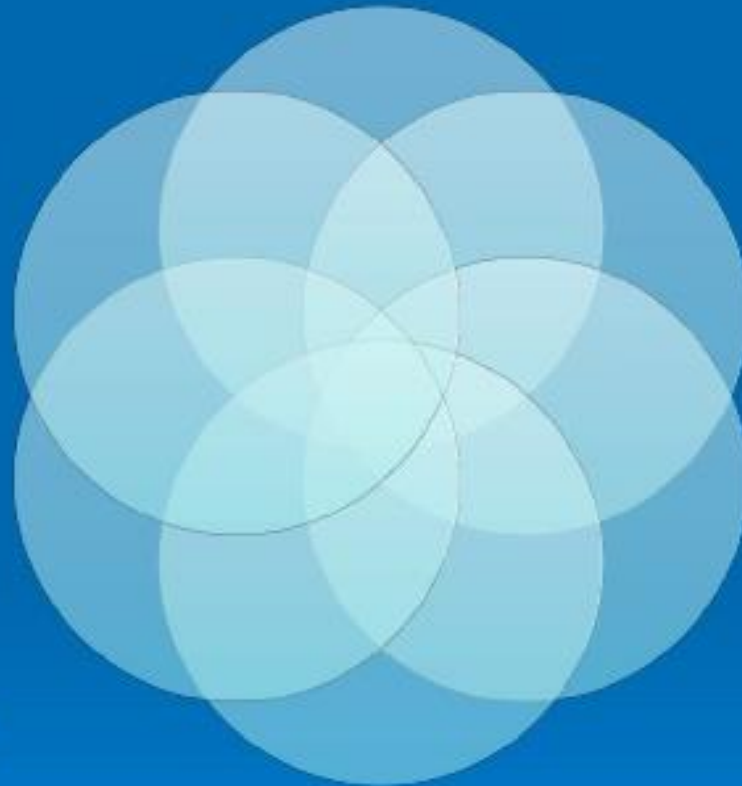
# Monitoring

- Monitoring is a **periodically recurring task already beginning in the planning stage of a project or programme.**
- Monitoring allows results, processes and experiences to be documented and used as a basis to steer decision-making and learning processes.
- Monitoring is checking progress against plans.
- The data acquired through monitoring is used for evaluation.

# Monitoring

Can be formal where periodic reports are produced or informal involving spot – checks.

Involves data collection, analysis & interpretation to make decisions on the progress towards defined targets.



Tracking Progress

Continuous & systematic routine checks

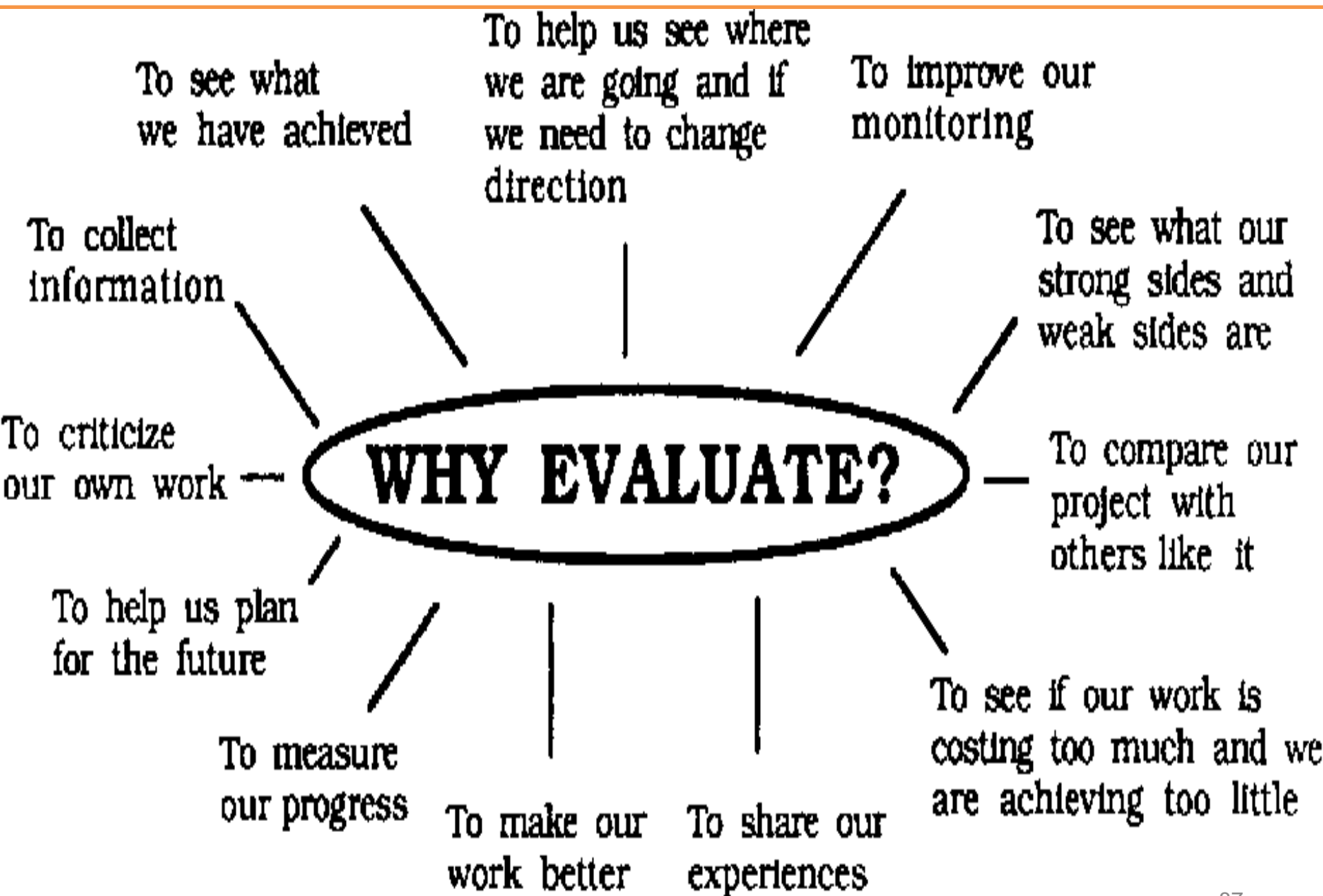
Day-to-day progress review during project implementation.

# Evaluation

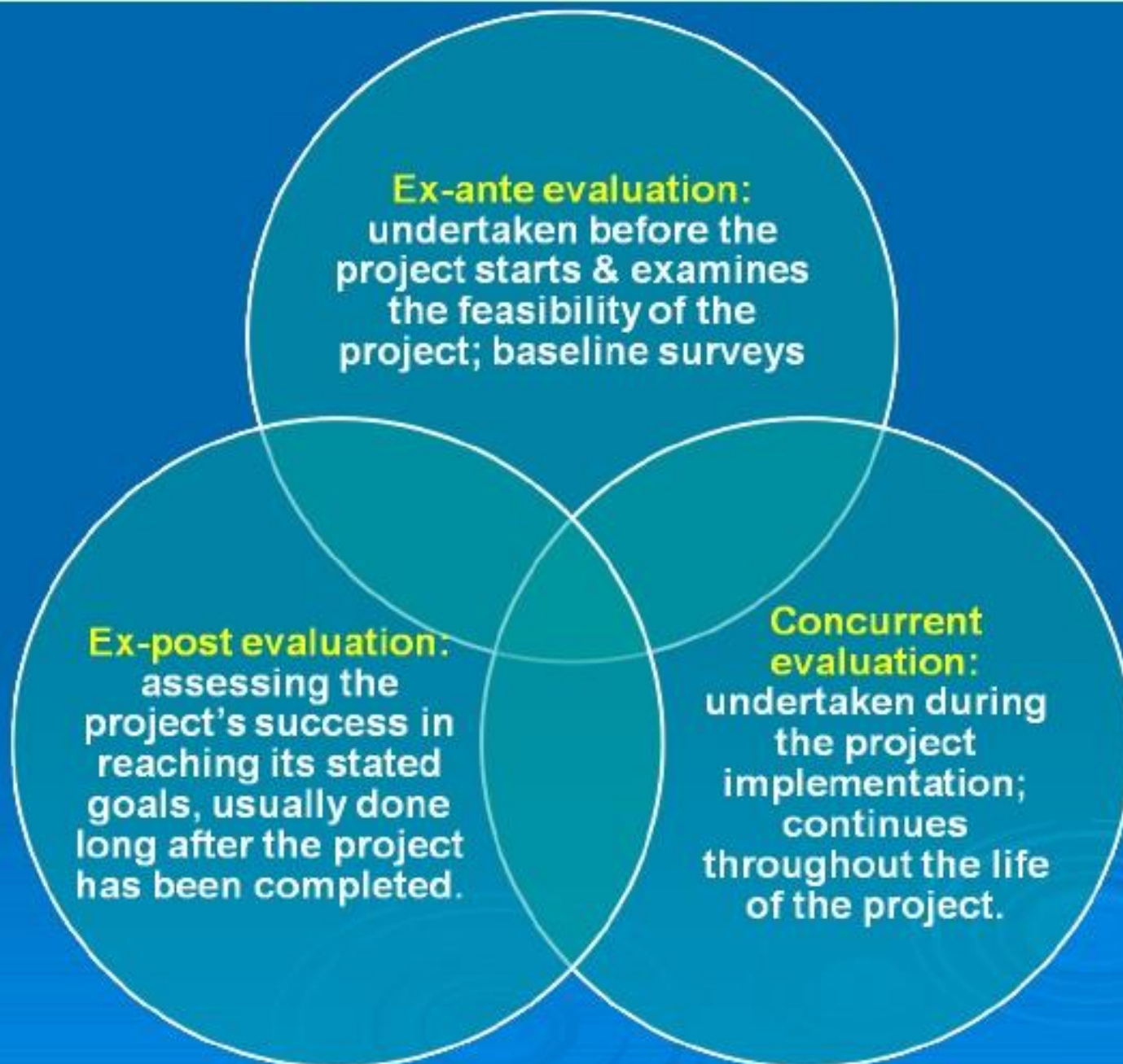
- Evaluation is the periodic assessment of a project's relevance, performance, efficiency, and impact (both expected and unexpected) in relation to stated objectives.
- Project managers undertake interim evaluations during implementation as a first review of progress, a prognosis of a project's likely effects, and as a way to identify necessary adjustments in project design.
- It studies the outcome of a project (changes in income, housing quality, benefits distribution, cost-effectiveness, etc.) with the aim of informing the design of future projects.

# Evaluation

- The evaluation stage is the time when you assess your project and identify and widely disseminate any lessons learnt.
- Project evaluation is understanding the gaps between what was intended and what is actually happening and looking at operational and strategic options to make changes, if necessary.



# Types of Evaluation



# Evaluation focuses

- **Relevance** - did the project solve the problem?
- **Feasibility** - was the project technically effective and efficient? Did it achieve the planned results within budget and on time?
- **Sustainability** - have participants the benefits and are they still being used?
- **Best value** - did the project provide the units at the budgeted cost and how does this compare with similar projects?

# Evaluation focuses

- **Strategy support** - did the project support and improve the strategic priorities of the Equal Program?
- **Management, appraisal and monitoring** - the evaluation should try to assess how correct the appraisal and monitoring was?
- **Mainstreaming adaptability** - evidence should be available through the mainstreaming test to see if the project has the potential for mainstreaming.

# Monitoring Vs Evaluation

Monitoring	Evaluation
<ul style="list-style-type: none"><li>• Keeps track of daily activities</li><li>• Accepts rules, policies and procedures</li><li>• Work towards targets</li><li>• Stresses the conversion of inputs to outputs</li><li>• Concentrates on planned project elements</li><li>• Reports progress</li></ul>	<ul style="list-style-type: none"><li>• Takes a long range view</li><li>• Questions pertinence of policies, rules and procedures</li><li>• Measures progress and asks whether targets are adequate</li><li>• Emphasizes achievement of purpose</li><li>• Assesses planned elements &amp; looks for unplanned changes, searches for causes &amp; challenges assumptions</li><li>• Records lessons learnt</li></ul>

# Project Control

- Even projects that are well designed, comprehensively planned, fully resourced and meticulously executed will face challenges.
- These challenges can take place at any point in the life of the project and the project team must work to continually revisit the design, planning and implementation of the project.
- **Project Control** involves establishing the systems and decision-making process to **manage variances** between the project plans (in terms of scope, cost, schedule, etc.) and the realities of project implementation.

# Project Changes and Modification

- Project plans are **not intended to be static documents** and care must be taken to ensure they are not considered to be static, or excessively difficult to change.
- Project teams need to remember that an implementation plan is a **“means to an end”**, it is not an end in itself! More specifically, the team needs to recognize the pitfalls that exist when project plans are treated as static documents, including:
  - A failure to recognize that the original plans are flawed;
  - A fear of acknowledging to external (and internal) donors that the original plan is no longer workable;
  - An unwillingness to revisit the original documents to develop a new and more appropriate plan; and
  - A lack of clarity with regard to what process needs to be followed to update project documents.

# Project change and Modification

- However, when it comes to managing change requests, the project manager must skilfully balance two considerations.
- On the one hand, the project documents should not be considered to be unchangeable regardless of the changing project reality.
- On the other hand, care should be taken not to make changes heedlessly or without rigor.

THANK YOU!