

Project -

Unique process that consist set of co-ordinated & controlled activities with start & finish date, undertaken to achieve an objective to specific requirements including constraints of time, cost & resource.

Project characteristics -

- ① Unique
- ② Definite objectives to achieve
- ③ Definite time for completion
- ④ Requires set of resources
- ⑤ Involves risk & uncertainty
- ⑥ Cross-functional teams & interdisciplinary approach

• Project performance dimensions -

→ 3 major dimensions that define project performance - scope, time & resource/cost



- They are interrelated & interactive
- Any change in one dimensions would affect other.
- Forth dimension, stakeholder satisfaction (part of scope)
- $\text{performance} = f(\text{scope}, \text{cost}, \text{time})$
- Also called as "Quality Δ^e " in management literature

• Project life cycle -

- ① Conceptualization phase -
 - Identification of product / service, feasibility studies, appraisal & approval
 - All possible ways considered to achieve goal

② Planning phase-

- Planned based on appraisal & approval
- Detail plan of activity, budget & resources developed & integrated with quality.
- Identification of activities -
 - ① Time frame for execution
 - ② Estimation & budgeting
 - ③ Staffing
- Output - Detailed project report (DPR)

③ Execution phase

- Plan put into action
- Activity is monitored, controlled & co-ordinated
- Imp activities -
 - i) Communicating with stakeholders
 - ii) Managing cost & time
 - iii) Quality control
 - iv) Reviewing process
 - v) Managing changes.

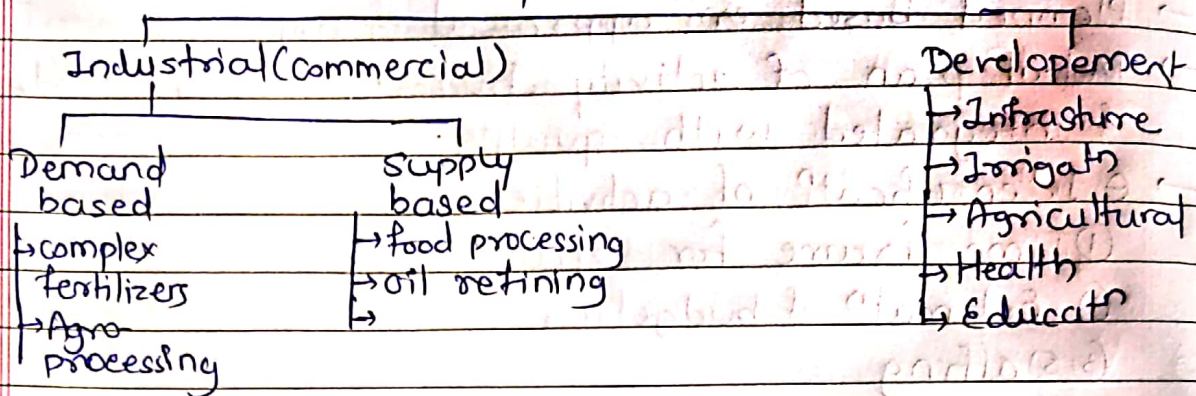
④ Termination phase-

- When agreed deliverables are installed.
- Life cycle path -

1) S shaped - slow at terminal & start, fast in implementation phase. eg - Watershed management

2) J shaped - slow at start, then fast
eg - Implementing an energy plantation.

Project classification



• Project management -

- Management that helps in handling projects
- 3 key features - project manager, project team, project management system.

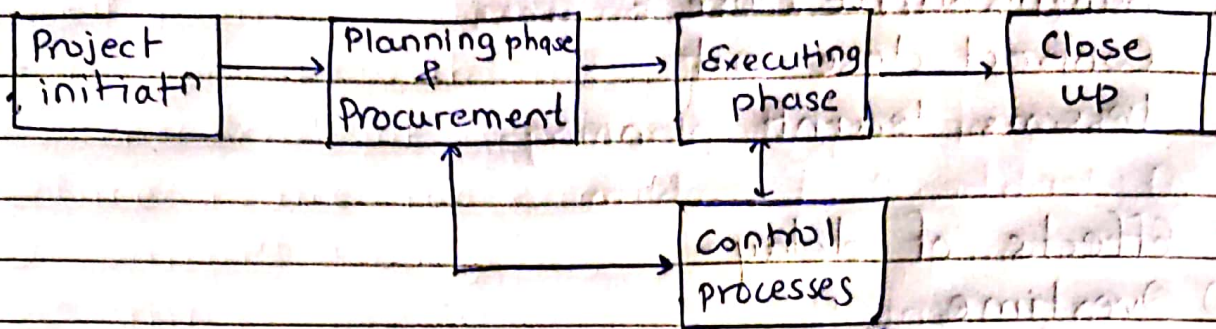
• Need of project management system -

- ① Realistic project planning -
- ② Clear focus & objectives (importance of PM)
- ③ Strategic alignment &
- ④ Managed process
- ⑤ Quality control
- ⑥ Reduced cost

• Constructⁿ project management knowledge area -

- Project management
- | | | |
|---------------|-----------|---------------|
| ① Integration | ④ Quality | ⑦ Procurement |
| ② Cost | ⑤ Time | ⑧ |
| ③ Scope | ⑥ Risk | |

- Project management life cycle -



① Initiation phase -

Need analysis, Feasibility, Investment appraisal, Project scope formulation

② Project planning phase -

Project activity identificatⁿ, duratⁿ estimatⁿ, activities sequencing, project time analysis, schedule development

③ Project executing phase

~~Constructⁿ~~ -

- i) Project site organizatⁿ
- ii) Resource mobilization
- iii) Scope, quality control
- iv) Info. distributions
- v) Contract administrations
- vi) Safety management

Performance controlling -

Overall scope change control

Resources, schedule, cost, quality, risk response control

Performance reporting

④ Project closing phase -

Administrative close

Contract close-out

Lessons learnt

• Effects of delay -

① Overtime

② Overcost

③ Disputes

④ Lawsuits

⑤ Abandonment

⑥ Litigation

⑦ Negotiation

• Project feasibility analysis -

Feasibility studies - It aims to uncover strengths & weakness of existing business or proposed venture, oppo, resources required to carry through, prospects for success.

Five common factors (TELOS) -

① Technical & system feasibility -

Whether new system will perform adequately or not. Technological feasibility means whether company has capability in terms of software, hardware & expertise.

② Economic feasibility - (cost analysis)

Procedure is to determine if benefits are more than costs, if yes, proceed.

③ Legal feasibility - Satisfy legal requirements

④ Operational feasibility -

How well proposed system solves problems & how it satisfies requirements

⑤ Schedule feasibility -

It is measure of how reasonable project timetable is

• Pre-feasibility analysis -

① Need & options analysis

② Legal analysis

③ Technical analysis

④ Institutional capability analysis

⑤ Environmental safeguard analysis

⑥ Expected & govt. financial support

Objectives -

① To obtain info about logistic infrastructure on site

② Gain knowledge of potential cost factors

③ To evaluate potential logistic problems

④ To develop basic guidelines for feasibility study preparatⁿ

⑤ To gain an understanding of budget

⑥ To understand possible return on investment for project

• Project break-even point -

Level of production at which costs of production is equal to the revenues of product.

Market price = original cost.

- Project planning -
Gantt chart, report progress

Stages of project planning-

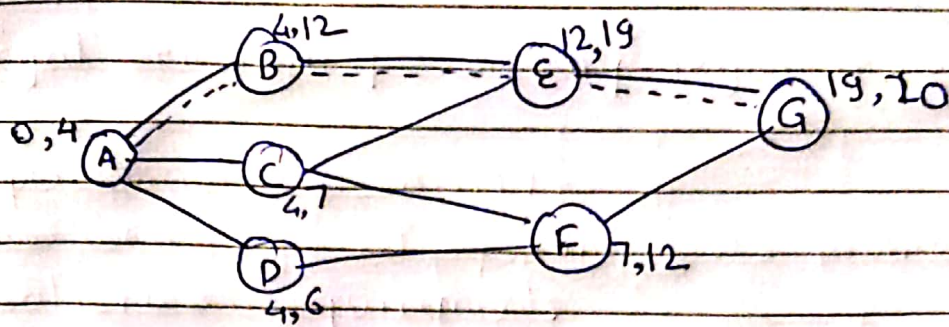
- ① Identification of problem
- ② Planning
- ③ Implementation
- ④ Evaluation & live operations.
- ⑤ Future planning

- Work breakdown structure -

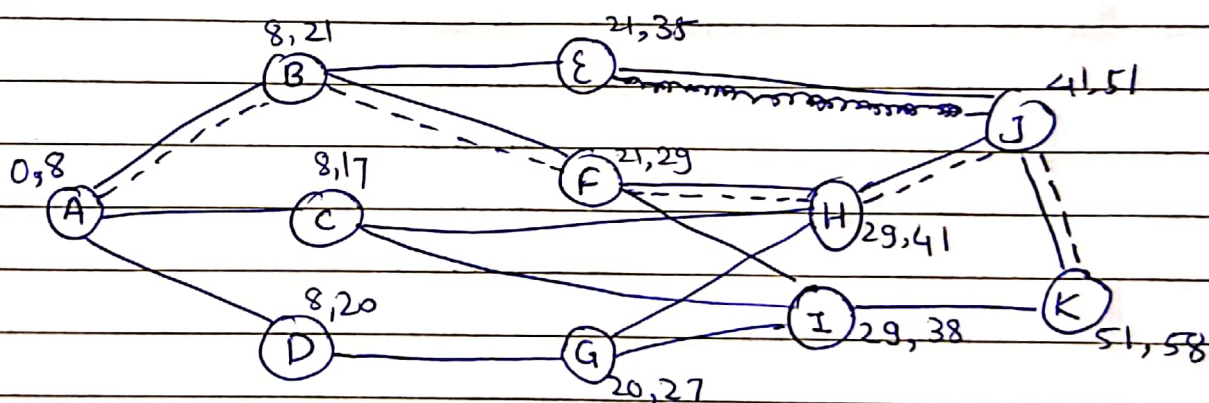
- WBS is tool to define & group a project's discrete work elements in way that helps organize & define total work scope.
- WBS element can be data, product, service or combination.
- It provides framework for cost estimation & control along with providing guidance for schedule dev.
- It is dynamic tool, updated as per need by PM.

Utility-

- ① Communication betⁿ internal & external org. involved in project.
- ② Represent various sequential & parallel activities assigned to diff. groups.
- ③ Reflect strategies during various stages.
- ④ Illustrate how each group contributes to project.



	ES	EF	LS	LF
A	0	4	0	4
B	4	12	4	12
C	4	7	9	12
D	4	6	5	7
E	12	19	12	19
F	7	12	14	19
G	19	20	19	20



	ES	EF	LS	LF
A	0	8	0	8
B	8	21	8	21
C	8	17	20	29
D	8	20	8	20
E	21	35	27	41
F	21	29	21	29
G	20	27	22	29
H	29	41	29	41
I	29	38	42	51
J	41	51	41	51
K	51	58	51	58