

# Ensuring Efficiency and Accountability in Construction Industry

Presented by  
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# Presentation

- The presentation is not based on any case study or research,
- It is based on author's own experience and observations,
- The observations may not have evidential proof,
- Layout of presentation prepared under four broad areas :
  1. Definitions
  2. Factors Affecting Efficiency and Accountability in Construction Industry,
  3. Discussion on few of the selected factors
  4. Recommendations

# 1. Definitions

**1. Construction Industry :**

**2. Efficiency :**

**3. Accountability :**

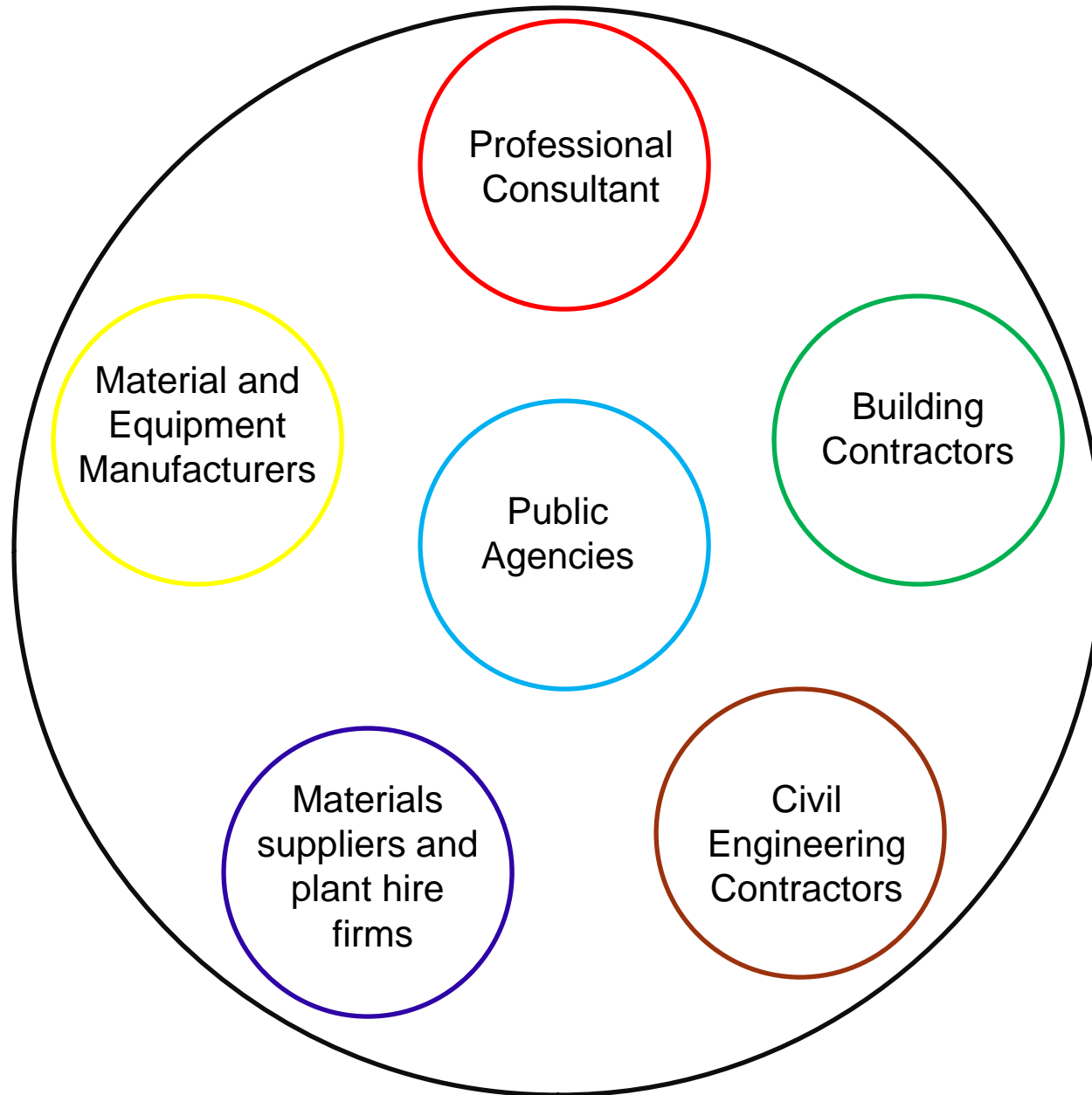
# 1. Definition

## 1. Construction Industry :

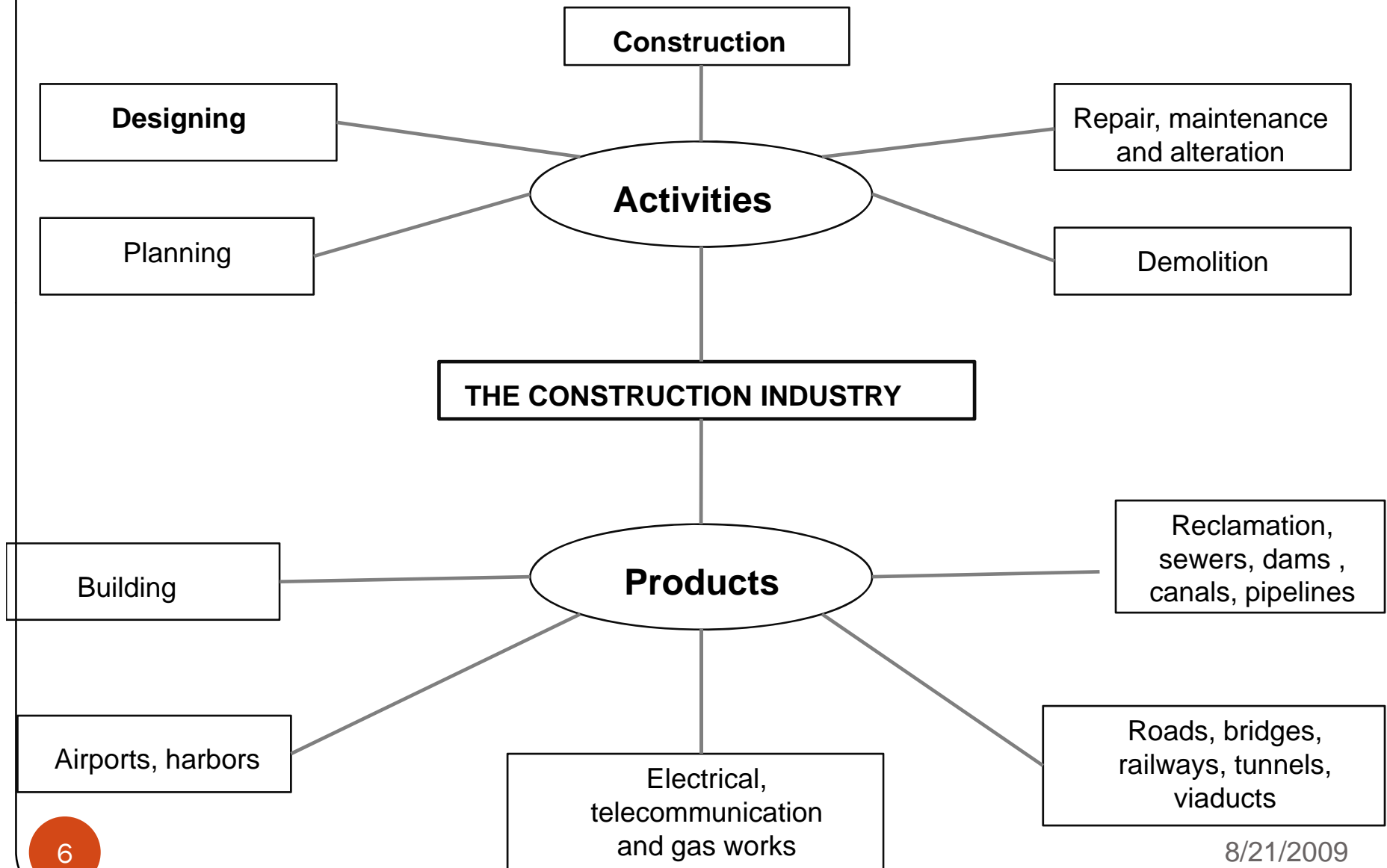
*“Refers to all types of activities associated with the erection and repair of immobile structures and facilities (civil, electrical, mechanical engineering works) either as public, general or specialized contractor”.*

*George Ofori*

# The Construction Industry



# The Construction Industry



# 1. Definition, contd..

## 2. Efficiency:

*“Efficiency is concerned with the quality of doing something well with no waste of time, money or energy”.*

Oxford 2005

*“Efficiency is concerned with ability to get things done correctly. An efficient manager is one who achieves higher output (results, productivity, performance) relative to the inputs (labour, material money, machines and time) needed to achieve them”.*

Meggison

# 1. Definition, contd..

## 3. **Accountability:**

*“Accountability is concerned with responsibility for someone’s decisions or actions and expected to explain them when he/she is asked”.*

*Oxford, 2005*

*“Accountability refers to the obligation that is created to a subordinate to fulfill his/her responsibility and is judged by the extent to which h/she has fulfilled the responsibility”.*

*Meggison*

# 1. Definition, contd..

Eg. :

*Being accountable implies that one's superior can confer either punishment or reward, depending on how well a subordinate has exercised the responsibility.*

*Notice that, authority flows downward, whereas accountability and responsibility flow upward.*

## 2. Factors Affecting Efficiency and Accountability in Construction Industry

1. Changes in project scope and requirements,
2. Design errors & omissions (limited time...),
3. Ambiguous definitions and clauses in Tender Documents,
4. Inaccurate quantities in BoQ & Specifications of items
5. Lack of Project Management, Monitoring, and Supervisory skills,
6. Lack of technology,

## 2. Factors Affecting Efficiency and Accountability in Constn Industry, contd..

7. Lack of occupational safety standards,
8. Unrealistic rules in the selection of materials and its availability,
9. Adversial relationship among the project participants / competitors,
10. Inadequate skilled staff and workmanship,
11. Inadequately defined roles and responsibilities including enforcement,
12. Sub-contracting of works,

## 2. Factors Affecting Efficiency and Accountability in Constn Industry, contd..

13. Lack of experience and professional pride,
14. Lack of professional ethics and commitment on the part of project officials (engineers, site supervisors) and also the contractors.
15. Changing roles in the project,
16. Lack of mechanization in the project execution,
17. Unfamiliarity with local conditions and the site,
18. Unrealistic Project duration, etc..

### 3. Discussion on one of the selected Factors

E.g: Changes in the project scope and requirements

- Un-agreed project scope and requirements,
- changes taking place every time a senior official visits the site,
- one way traffic in decision making (relevant people not involved),
- last minute changes,

### 3. Discussion on one of the selected Factors

E.g: Design errors & omissions

- Architectural, Structural, Electrical, Water Supply and Sanitary, Mechanical.
- Incorrect drawings / detailing
- Details missing
- Component missing
- Design not as per site condition etc.

*\* Opinion shared by Ugyen Dorji, on Building Choices & Solutions, in Bhutan Times, Sun, March 8<sup>th</sup>.*

# Ugyen's Opinion on the Designs

- Designs mostly repetitive,
- Concern for the health, safety, or affordability of people not taken into consideration,
- Using same materials and same methods of construction,
- Having to spend lot of money on lighting, heating, air conditioning,
- Indoor climate (thermal environment, such as indoor air quality, temperature, and humidity levels) not taken care,
- New approach to designing & construction “Green Building” could be relevant in our case as well,

## 4. Recommendations

1. Employ competent, efficient and experienced engineers and supervisors at site.
2. Change construction practice from manual to mechanization where possible,
3. Use appropriate software for verifying running account bills,
4. Use ICT for procurement of goods and services (Eg. video conferencing, purchase of bid doc. / sub).
5. Recognize and reward successful projects (officials, contractors..)

## 4. Recommendations, contd..

6. Develop skilled and competent workforce,
7. Use pre-cast / prefabricated materials where possible (grc cornices, partition walls),
8. Encourage use of locally available materials (within & nearest places),
9. Continuously update the managerial and supervisory skills of the site engineers / supervisors,
10. Outsource certain components of works (design & work executions),
11. Make officials accountable for their responsibilities,

## 4. Recommendations, contd..

12. Reduce bureaucratic procedures where possible,
13. Encourage integrated project design mechanism,
14. Set up Project Monitoring Teams at the Dzongkhags and Sectoral levels for routine inspections by the technical team at various stages,
15. Blend traditional features with technology.

## Quote

*“A potential will, spirit of working together backed by enthusiasm of “can do” spirit can only assure the success of our mission”.*

*Anon*

**Thank You**

&

**Tashi Delek**