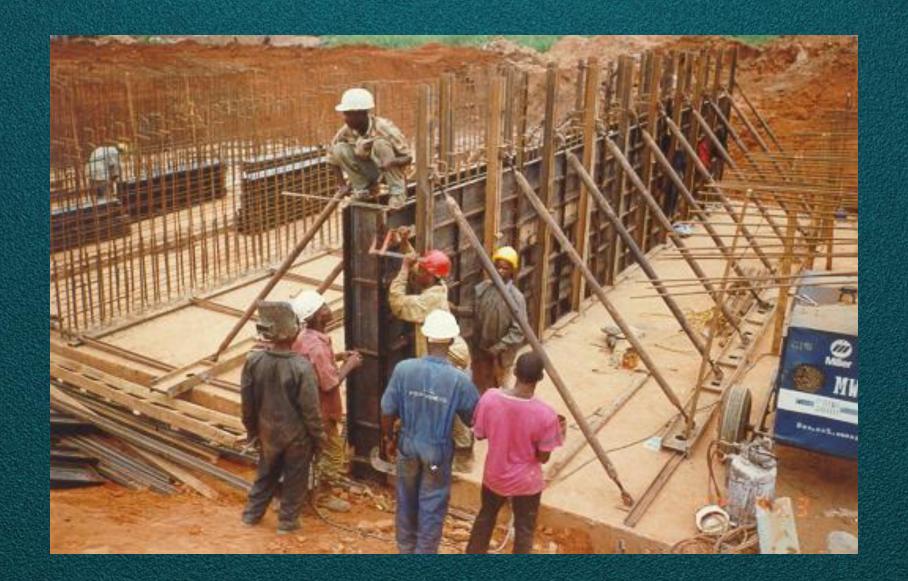
THE NIGERIAN INSTITUTE OF BUILDING (NIOB)

BUILDING PRODUCTION AND STRUCTURAL STABILITY

Engr Kunle Adebajo 16 July 2020



Introduction

- Building Collapses
- Poor Construction Quality
- Abysmal Safety records
- Lack of Professionalism
- Professional in-fighting
- Economic Woes
- Poorly Trained Artisans
- etc, etc

Collaboration is essential

COMMON MISTAKES ON CONSTRUCTION SITES

- Impromptu addition of water/additives
- Poor mix design or inappropriate use
- Missing elements / Incorrect placement
- Wrong location of construction joints
- Poor Introduction of holes/penetrations
- Changes without permission of the Designer
- Inadequate Falsework/Formwork

- Inadequate Vibration of concrete
- Inadequate curing
- Conflicts between contractor and Designer
- Inadequate knowledge of concrete sampling procedures for strength test.
- Omission of trimmer bars around openings.
- Inadequate Laps and anchorage of reinforcement at critical stress locations Bending and re-bending of reinforcement Punching shear reinforcement omitted

- Inadequate bracing
- Over use of formwork
- Scaffolding inadequacies
- Poor formwork
- Scaffolding not supported on firm surface Loading of structure prematurely
- Non consideration of construction sequence
- etc,etc

Conclusions



ARUP

Q & A Session