



FIDIC AFRICA 2021
Infrastructure Conference

How Consulting Engineers can deal with disruptions caused by climate change

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**27TH ANNUAL FIDIC AFRICA
INFRASTRUCTURE CONFERENCE**



Content

1. Africa Climate Change Challenges
2. Appropriate Consulting Engineers approach
3. Collaboration with stakeholders
4. Morocco case



1. Africa Climate Change Challenges

- Africa position
- High vulnerability
- Some CC effects (according to UNFCCC)



2. Appropriate Consulting Engineers approach

- 1. Long term analysis**
- 2. More synergy between specialists**
- 3. Regional CC DM**
- 4. Target resilient design**
- 5. Climate finance**
- 6. Involve regional programs**



3. Collaboration with other stakeholders

- 1. Level of knowledge of decision-makers**
- 2. Synergy with Urbanists/Planners/Architects**
- 3. Infrastructures TOR design studies**
- 4. Measurement networks**



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4. Morocco case

➤ Specific consequences

- Scarcity of water resources
 - ✓ *Water runoff decreased from 15 to 20% last 30 years*
 - ✓ *1960 : 2500 → 2019 : 680 m³/hab/year (<1000)*
- Extreme events : increase of frequency and intensity
 - ✓ *Floods and droughts*
 - ✓ *Infrastructures damage*
 - ✓ *Silting of dam reservoirs*

➤ Action Plan

- Saving water
 - ✓ *Drinking water (200M³/year): efficiency improvement*
 - ✓ *Irrigation (2,3 B³/year): localized irrigation in 920.000 ha*
- Waste water treatment and reuse (150 plants)
- Desalination for drinking water and irrigation





Thank you for your attention

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