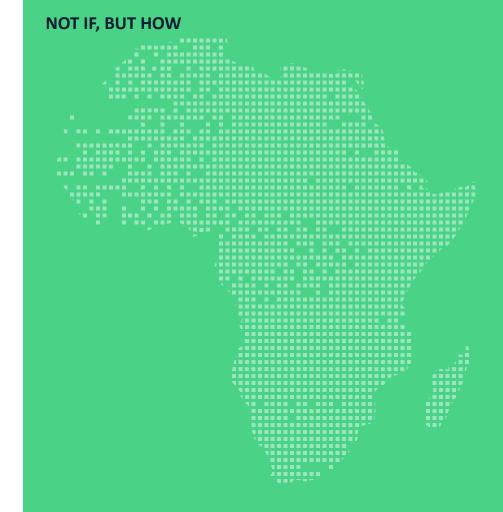
LIMA Programme

Reality Check – Coverage for In-Situ Soil

Falko Schwaetter







Construction of a road

Landscape



Construction of a road

Before commencement of works

- Geological investigations
- Quality of soil
- Design
- Can soil be used as fill material?



Construction of a road

Excavation

- Machinery on site
- Strip of vegetation
- Excavation works
- Stockpile of soil



Construction of a road

Excavation

- Use material as fill or sub-base
- Specifications for fill material depending on application. E.g.
 - CBR (hardness)
 - Plasticity liquid limits
 - OMC (Optimum moisture content)
- Compaction of layers
- Surface course



Construction of a road

It starts raining

Heavy rainfalls

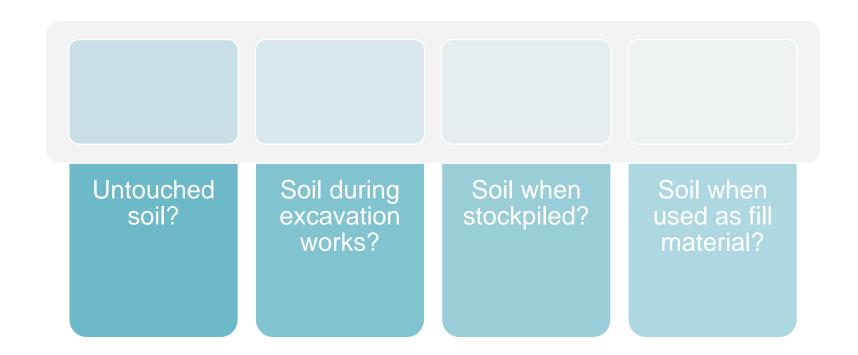
Inundation, rising groundwater levels

Increased water content in soil

In-situ soil not suitable to be incorporated in works anymore

Work phases

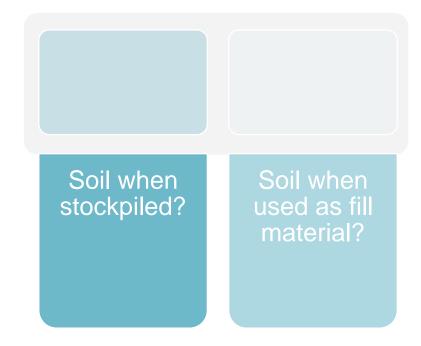




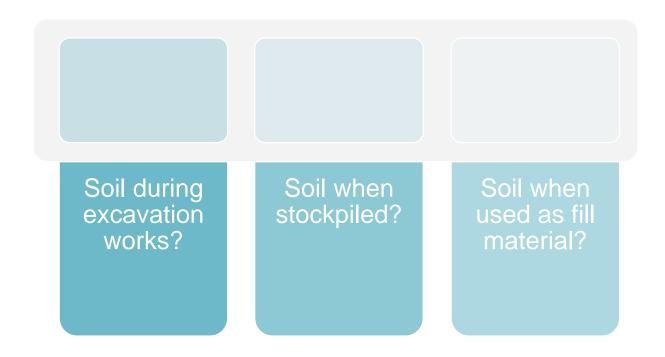


Soil when used as fill material?

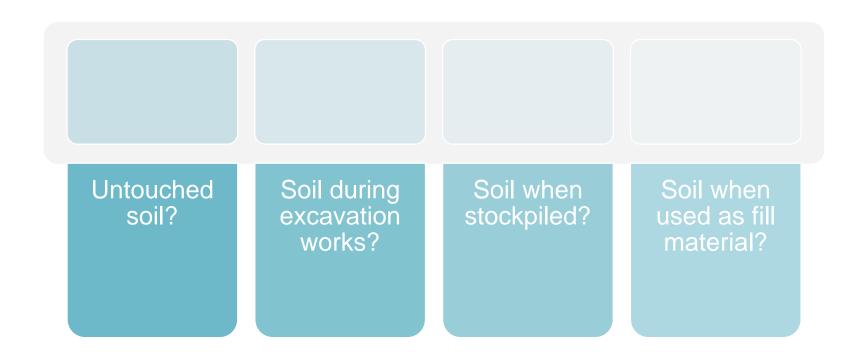












Claim scenario



- In what situation or when is in-situ soil covered?
- When is in-situ soil damaged?
- What is the value of in-situ material? How can in-situ materials be valued?
- Does the sum insured reflects in-situ soil?
- What if soil is only marginally suitable for use in the project?
- Who is responsible for the exposure?



Munich Re CEAR wording:

3.1 Indemnification

3.1.1 The *Insurer* shall indemnify the *Insured* for **any direct and sudden physical loss of or damage** to the *Property Insured* which the *Insured* could not reasonably have foreseen and which occurs at the *Site* during the *Period of Insurance* due to any cause not specifically excluded.

Property Insured

means the **permanent and temporary works and any part thereof** constructed, erected or tested for the performance of the *Insured Contract(s)* **specified in the** *Schedule* including any free issue material which is to be incorporated therein.



Munich Re CEAR wording:

3.2 Sum(s) Insured

3.2.1 The *Sum Insured* specified in the *Schedule* shall not be less than the *New Reinstatement Value* at the completion date of the *Insured Contract(s).....*

New Reinstatement Value

means the **cost** which in the event of the total loss or destruction of the *Property Insured* would be incurred to replace it with new property of the same capacity and quality or to re-construct, re-erect and re-test the *Property Insured*, including all materials, freight customs, duties and dues.



Manuskript Wording:

Insuring clause

The insurer will indemnify the Insured, subject to the limitations, Exclusions and Conditions hereinafter stated, against physical loss or damage:

From any cause to Insured Property occurring during the Period of Insurance stated in the Risk Details



Manuskript Wording:

Contract Works - the whole of the works whether permanent or temporary including all materials . . . incorporated or to be incorporated therein belonging to, the responsibility of, or in the care custody or control of, the Insured for the performance of an Insured Operation

Existing Structures - Property of the Principal for which he or the Primary Insured may be responsible, which is, or is intended to be, incorporated into the Project

Claim scenario What could be indemnifiable?



- Cost of imported fill material, incl.:
 - Procurement costs
 - Additional costs for transportation
- Disposal costs of in-situ material
- Repair and reinstatement costs, incl. dewatering
- Loss minimisation costs
- Delay in start-up
- Additional cost of working
- •

Possible approach



- Good understanding of project scope of works
 - Ground conditions
 - Use of materials from site and imported material
 - Expected values for cut / fill process and materials
 - Suitability of in-situ material
 - Contractual responsibilities / type of contract, e.g. Alliance, JV, lump sum, D&C

Possible approach



- Principal or contractor controlled policies
- Wording
 - Sum insured
 - Definition of
 - Property insured
 - Project / contract works
 - Site
- In-situ soil endorsement

Thank you for your attention!

Falko Schwaetter



