



MONITORING

We saw:

Environmental Impact Assessment;

- Impacts;
- Mitigation measures.

Now we will see how to control that our mitigation measures are right:

ENVIRONMENTAL MONITORING







ENVIRONMENTAL MONITORING

We have:

Environmental Monitoring Project

AND

• Environmental monitoring.





ENVIRONMENTAL MONITORING Environmental Monitoring Project (EMP)

The EMP settles the whole of biological, chemical and physical parameter controls, by means of measuring and recording during the time, of the environmental impacted components during construction and operation of the work.





ENVIRONMENTAL MONITORING Environmental Monitoring Project (EMP)

The targets of the Environmental Monitoring are:

To verify the conformity of the impact expectation, during construction and operation of the work, characterized in the Environmental Impact Assessment

- To correlate the three different phases of monitoring (see next slide) to assess the evolution of the environmental conditions
- To assure, during the construction of the work, the whole control of the environmental condition in order to record immediately possible environmental emergency and to plan and carry out opportunely the right corrective actions.
- To verify the effectiveness of the mitigation measures





ENVIRONMENTAL MONITORING

Environmental Monitoring is articulate in:

Monitoring before construction (ante-operam)

- Monitoring <u>during</u> construction (in operam)
- Monitoring <u>after</u> construction (during operation) (postoperam)





ENVIRONMENTAL MONITORING

Monitoring before construction:

We put it into execution, where it is necessary, before the start of the construction sites, in order to record the environmental condition before works and to have a datum point to evaluate and correlate following records during construction.

 The photograph of the environment taken before the start of the works will be the datum starting point to which relate following phases of monitoring





ENVIRONMENTAL MONITORING

Monitoring during construction:

The target is to certificate the evolution of the "anteoperam" environmental situation in order to verify that the environmental trends are coherent with environmental impact assessment expectations.

 The target is to notify possible environmental emergency in order to operate to dodge irreversible and critical events for environmental quality.





ENVIRONMENTAL MONITORING

Monitoring after construction (during operation):

The goal is to verify the prefix targets of the mitigation measures and verify the possible positive environmental effects







ENVIRONMENTAL MONITORING Environmental Monitoring Project (EMP)

Methodology

Analysis of Environmental Impact Assessment

- Further definition of knowledge (about different environmental components)
- Updating of set of rules and bibliographic references
- Choice of environmental components to monitoring
- Choice of environmental parameters to measure and record
- Choice of the areas and points to monitoring
- Choice of surveys methodology
- Definition of the duration and frequency of the measures
- Definition of report form







ENVIRONMENTAL MONITORING Environmental Monitoring Project (EMP)

Choice of the monitoring points

Location plan of the monitoring points for every environmental component

Report form for every monitoring point

<u>Water-bed</u> Vegetation





ENVIRONMENTAL MONITORING Environmental Monitoring Project (EMP)

Definition of report form

We will prepare a "Report" for every environmental component:

Streaming water

Vegetation

Underground water

Fauna

Air

Noise

• <u>Soil</u>

Vibration





TANK YOU FOR YOUR ATTENTION

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