BUSINESS AND BIODIVERSITY IN QUARRY MANAGEMENT

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Biodiversity is not always so “visible”
Business and biodiversity

• Is it really related to our business?
• How can an industrial sector handle biodiversity?
  o A collaborative approach
  o A progressive and adapted approach
  o Experts’ advice
• Is it only a matter of doing “less harm”?
Business and biodiversity

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24 member companies around the world

Operating in more than 100 countries; accounting for about one-third of global cement production
The first steps of CSI
CSI Work Program

**Agenda for Action (2002)**
- Measure, report, verify (+ reduce)
  - CO₂ and Energy Management
  - Use of fuels and raw materials
  - Air emissions
  - Safety
  - Land use
  - Communications

**CSI Future review (2010)**
- Sustainable use of concrete

**CSI Progress Report (2012)**
- Summarizes achievements and maps CSI vision and activities for future
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The first steps of CSI on biodiversity
Quarry Rehabilitation guidelines

- Clear set of recommendations for the development and implementation of a quarry rehabilitation plan
- Support the process of quarry rehabilitation across member companies, and by doing so, improve the standard of rehabilitation projects for existing and new sites.
- Ensure that CSI members have a common understanding of the CSI KPIs on quarry rehabilitation, and that reporting against these KPIs is consistent across members.
Structure of the Guidelines

• The document is structured into two main parts
  o External factors of particular relevance to establish and / or revise a rehabilitation project.
  o Guidance for each stage of rehabilitation planning, from defining the context for the rehabilitation plan to post-rehabilitation monitoring.

• Whereas the guidance provided is generally applicable, more detailed information on specific tools and techniques is illustrated through case studies from CSI member companies.
Potential involved stakeholders

Influences on the rehabilitation plan
Rehabilitation planning

• It should begin as early as possible in the quarry life cycle and be reviewed and updated on an ongoing basis.
  o Rehabilitation needs to be considered and integrated at all stages of the project life cycle.
  o As such, planning for rehabilitation should ideally commence prior to operation as part of the Environmental and Social Impact Assessment (ESIA).

• However, in many cases, rehabilitation planning may not be initiated until the quarry is already established, sometimes for a considerable period of time.
Rehabilitation Steps

• Defining the context
  o tailored to the specific project and to the environmental, economic, social and legal context
• Setting objectives of the plan
• Developing the plan
  o what is to be done, who is responsible, the resources required, and the timeline for delivery.
• Implement
• Management and monitoring
• Financial resources
Case studies

• Various case studies to illustrate the different steps are provided by CSI companies

Valorization of biodiversity in Portugal

In 2007, a partnership with University of Évora was started to characterize and evaluate the occupation level of fauna at the Outão plant in Portugal. The study began with the survey of vertebrate and invertebrate terrestrial fauna in 10 landscape units, defined on the basis of soil type, succession state and restoration age.

This baseline data was used to define an action plan for fauna recovery and colonization that included six groups of actions: environmental awareness, prevention, feral animal control, vegetation management, shelter, and water availability improvement. The strategy devised relies on an active and adaptive management through fauna and action effectiveness monitoring schemes.
A progressive and adapted approach
Complementary documents

• Rehabilitation plans
  o Primary objectives are to leave the site safe and stable for future land use which may relate to non-biodiversity values,

• BMPs by definition
  o give priority to biodiversity-led targets, with other forms of land use being subsidiary considerations (i.e. not jeopardizing biodiversity conservation)

• A BMP and a rehabilitation plan are complementary and should dovetail with each other because the same biodiversity components will require particular focus.
Biodiversity Management Plans

• Objective: provide practical guidance to all companies
  o Presenting the key issues,
  o Explaining the connection between operations and healthy ecosystems,
  o Outlining some management approaches, and
  o Linking to reference documents, data, tools and guidance so that companies can progressively implement biodiversity into site-level management.

• Minimise impacts and, where possible, enhance biodiversity
BMP various stages

Stage 1: Investigate existing background data & context

Stage 2: Field investigations (habitat types, target species)
Establish a biodiversity baseline

Stage 3: Undertake stakeholder engagement

Stage 4: a. Determine priority species and habitats, ecosystems, based on field investigations & stakeholder consultation
b. Define biodiversity targets and related actions
c. Create monitoring programmes to assess progress and management effectiveness

Stage 5: Produce a BMP document for the site, approved by management

Stage 6: Review, adapt actions, communicate and report
BMP Flow Diagram

This figure is a simplified representation of the key steps to be taken prior to developing a BMP:

- Is up-to-date inventory available?
  - If yes ...
  - Conduct screening for biodiversity importance (e.g., IBAT)
  - Carry out inventory at site
  - Assess the biodiversity importance and impacts
  - Determine level of biodiversity management (input) required

Seek local/expert advice to confirm screening results

- Minimum input
  - Develop standard rehabilitation plan
- Medium input
  - Integrate biodiversity targets into rehabilitation plan
- High input
  - Develop BMP and align with rehabilitation plan
A progressive and adapted approach
ESIA context

• Environmental and Social Impact Assessment (ESIA)
  o process that starts at the conceptual design stage of a project and continues throughout project construction, operation and decommissioning.

• ESIA's address a project’s environmental and social costs and benefits, including an appraisal of the economic implications of the proposed project.
  o The ESIA should consider the project as designed, in addition to potential alternative options (including that of no action).
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Net Impact Assessment methodology

• NIA is an increasingly-established practice. It covers
  o calculation, target-setting and communication of environmental, social and/or economic effects over time.

• It enables measurement of both positive & negative impacts, thus facilitate achieving net neutral/no net loss and even net positive impact, through:
  o proper habitat rehabilitation/restoration and biodiversity; and
  o management at operating or closed quarries.

• It’s a useful vehicle to communicate to a wider community.
Now launching:
Methodology for the Net Impact Assessment of Biodiversity in the Cement Sector

Aiming to:
• Help companies to assess full impacts consistently using a standardized approach.
• Facilitate integration with other biodiversity tools & development of appropriate action plan.

It’s a practical tool to help internal decision-making & external disclosure.

Find out more at:
www.wbcSDcement.org/NIA
cement@wbcSD.org
Summary

Quarry Rehabilitation Guidelines

Reduce negative impact – Rehabilitate

BMP

Net Impact Assessment methodology

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Thank you

CSI is a member-led program of the World Business Council for Sustainable Development