



HEIDELBERGCEMENT

2018

1. Contestant profile

▪ Contestant name:	Mahmoud Ali
▪ Contestant occupation:	PhD student
▪ University / Organization	Organization
▪ Number of people in your team:	6

2. Project overview

Title:	Producing a Short Documentary film about biodiversity of Helwan Limestone Quarry
Contest: (Research/Community)	Community
Quarry name:	Helwan Cement company HCC, Cairo ,Egypt

Abstract

A short documentary film about the quarry of Heidelberg Cement Group at Helwan area, Cairo, Egypt was produced, showing the nature of the work inside the Quarry and its effect upon the biodiversity and the efforts of Group authorities to maintain and develop the biodiversity in the quarry area. The film is documenting the species of plants, insects, fish, migratory and resident birds as well as mammals and reptiles animals living in the region, which contribute to biodiversity.

The idea behind the project is reflecting the true image of work in quarries in general and showing biodiversity in the area. The most important target audience for this idea is the youth from the junior level up until the academic education (12-25 years old). This target audience can be the key to develop and maintain the biodiversity in spite of the severe and harsh environment of the quarry area.

Introduction

In the desert areas, the development of the vegetal species is determined, mostly, by the presence of the humidity, not only when the same is in the form of rain, but also when it is in a latent form, trapped within the crystal grid of the soil. It is very interesting to observe the evolution, over time, of the flora and fauna present in these areas of study, due to anthropogenic causes like the presence of the water determined by the activities carried out by the man.

The advent of mining works and the building of the urban neighborhoods adjacent to the quarry areas have resulted in the interruption of the water table and the construction of aqueducts and water drains that led to the formation of puddles of water that can reach important sizes in time of rain, causing the complete submersion of entire areas. In some puddle, you find a constant presence of water throughout the year, supplying a minimum water level that allows the survival of many plant species. The development of this vegetation has created new ecological niches that wildlife species can colonize easily. In these ponds, where the water is present all year round, several colonies of birds (herons and moorhens) have established a permanent home. It is also interesting to note that within the minimum water level, you can find the flowering of some species of algae.

On the other hand, the short documentary film is considered one of the main means to convey social messages to the students and people. This kind of educational tool is usually used to raise the community awareness, motivate viewers to think over any subject critically and to have their own opinion on any kind of situation. In the present film, photos and videos were presented to provide a factual report on biodiversity in quarries and the efforts of Cement Group authorities to maintain and develop the biodiversity in the quarry areas. A fact which will promote producing and documenting real educational aspects including facts and figures about biodiversity in these quarries.

Most scenes of the film were carried out in limestone quarry in HCC Company as well as in the clay limestone in Torah. The nature of these areas is arid, unlive desert, but the quarrying process has activated the ground water to create small water bodies transforming the barren land to a fertile one. The life began to appear; plants, aquatic animals, small rodents and mammals as well as migrant birds began to aggregate around this new live environment.

The team members sharing in producing this film are (two Camera persons, two for montage and editing and three scientific consultants) plus the Quarry administrators, safety and communication officers who facilitated access to different locations in quarry during recording.

The main idea behind the project is to reflect the true image of work in quarries in general and show the biodiversity in the area. The most important target audience for this idea is the youth from the primary education until the academic education (12-25 years old). This target audience can be the key to develop and maintain the biodiversity and raise the awareness of all age groups of the society. The Company can use this documentary film to raise public awareness of its employee and encourage them to take a role and responsibility for conserving biodiversity and the environment of the work. Moreover, this film can help and will be a great support if they want to use it as a document for biodiversity in the quarry and get funds for rehabilitation and protect biodiversity in the quarry.

Actions and activities

The plan relied basically on field visits to draw a complete image of the nature of work in the quarries and their effect on creating environment that is suitable for biodiversity. It was important to recognize different types of environmental life:

- A. Available water resources
- B. Plant cover
- C. Living creatures such as (fish, insects, birds and other animals) and how they adapt to this environment and the surrounding conditions

The quarry has been visited more than thirty times and cameras have been used to monitor the different forms of life.

Discussion:

During recording this film, some pros and few cons were faced, but they did not affect the final target, but it worth to mention to be taken into consideration in future work. These can summarize in:

First: Pros:

- 1- Full cooperation of quarry staff, providing all the available facilities.
- 2- Easy communications between all parties involved in the competition management.

Second: Cons

- 1- No bombing scenes were filmed for security reasons beyond our control.
- 2- It was not easy to get financial support; before and during the project to include more professional recording techniques.

We can outline the added value of the project for biodiversity, the society and the quarry / company on these points:

- 1- There is a great diversity of all forms of life has been shown inside the quarry.
- 2- Biodiversity maintenance inside quarry is acceptable and can be developed and improved.

- 3- This film can be used to raise awareness for community and often motivate viewers to think over any subject critically and encourage them to help in maintenance the biodiversity in their own surrounding habitats.
- 4- The Company can also use this film to raise public awareness of its employee and encourage them to take a role and responsibility for conserving biodiversity and the environment of the work and may help them to get funds for rehabilitation and protect biodiversity in the quarry.

Final conclusion:

It was very interesting to observe the evolution, over time, of the flora and fauna present in these arid areas of study, due to anthropogenic causes like the presence of the water determined by the activities carried out by the man. This has created new ecological niches that wildlife species have colonized easily. Documenting of these events in short film and recording of different species in these arid areas is confirming reviving of life in this dead environment. Scientifically, it is very important to document this event, and socially, it will be an asset in raising awareness among the young segments of the society about the biodiversity and environment in these industry and mining areas.

<p>Project tags (select all appropriate):</p> <p>This will be used to classify your project in the project archive (that is also available online)</p>	
<p>Project focus:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Beyond quarry borders <input checked="" type="checkbox"/> Biodiversity management <input type="checkbox"/> Cooperation programmes <input type="checkbox"/> Connecting with local communities <input checked="" type="checkbox"/> Education and Raising awareness <input type="checkbox"/> Invasive species <input type="checkbox"/> Landscape management <input type="checkbox"/> Pollination <input type="checkbox"/> Rehabilitation & habitat research <input type="checkbox"/> Scientific research <input type="checkbox"/> Soil management <input type="checkbox"/> Species research <input type="checkbox"/> Student class project <input checked="" type="checkbox"/> Urban ecology <input type="checkbox"/> Water management <p>Flora:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Trees & shrubs <input type="checkbox"/> Ferns <input checked="" type="checkbox"/> Flowering plants <input type="checkbox"/> Fungi <input type="checkbox"/> Mosses and liverworts <p>Fauna:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Amphibians <input checked="" type="checkbox"/> Birds 	<p>Habitat:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Artificial / cultivated land <input type="checkbox"/> Cave <input type="checkbox"/> Coastal <input type="checkbox"/> Grassland <input type="checkbox"/> Human settlement <input checked="" type="checkbox"/> Open areas of rocky grounds <input checked="" type="checkbox"/> Recreational areas <input type="checkbox"/> Sandy and rocky habitat <input type="checkbox"/> Screes <input type="checkbox"/> Shrub & groves <input type="checkbox"/> Soil <input type="checkbox"/> Wander biotopes <input checked="" type="checkbox"/> Water bodies (flowing, standing) <input type="checkbox"/> Wetland <input type="checkbox"/> Woodland <p>Stakeholders:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Authorities <input checked="" type="checkbox"/> Local community <input checked="" type="checkbox"/> NGOs <input checked="" type="checkbox"/> Schools <input checked="" type="checkbox"/> Universities

<ul style="list-style-type: none"><input checked="" type="checkbox"/> Insects<input checked="" type="checkbox"/> Fish<input checked="" type="checkbox"/> Mammals<input checked="" type="checkbox"/> Reptiles<input checked="" type="checkbox"/> Other invertebrates<input checked="" type="checkbox"/> Other insects<input checked="" type="checkbox"/> Other species	
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