INVENTORY AND MONITORING THE EVOLUTION OF THE QUARRYING EXPLOITATION IN THE REGION TANGIERS - TETUAN (MOROCCO)

GIS TOOL FOR THE MANAGEMENT OF USEFUL GEOMATERIALS

TS06H - Geospatial Data Processing 1, 6867
EL MAFTOUHI TARIK, DELLERO Hatim and EL KHARIM YOUNESS
Inventory and Monitoring the Evolution of the Quarrying Exploitation in the Region Tangiers-Tetouan (Morocco) in Order to Design a Gis Tool for the Management of Useful Geomaterials (6867)
FIG Congress 2014 Engaging the Challenges, Enhancing the Relevance
Kuala Lumpur, Malaysia, 16 – 21 June 2014

INTRODUCTION
STATEMENT OF PROBLEM
AIM AND OBJECTIVES
AREA OF STUDY
METHODOLOGY
DATA CONCEPTION
ANALYSE OF RESULT
INTO A WEB MAPPING
CONCLUSION
The northern region of Morocco has experienced in the last decade an increased economic growth and made much progress developing its infrastructure, public works, urban and industrial areas.

Using a Geographic Information Systems (GIS) with its extensive capabilities to dealing with spatial problems and multilayering, would be necessary to provide a diagnosis and an overview to the current situation.
STATEMENT OF PROBLEM

1 VERY HARD WORK
   HUGE DATA

2 HOW TO ACCESS
   TO INFORMATION

3 VERY SENSITIVE
   FIELD

AIMS AND OBJECTIVES

GIS AND A WEB MAPPING FOR QUARRYING IN THE REGION OF
TANGIERS-TETUAN

OBJECTIVES

- Database design
- Geometric and attribute data acquisition
- Database creation
- Spatial analyses
- Analysis of Results
The region of Tangier-Tetuan is experiencing an intense Extractive activity of geo-materials in construction.
METHODOLOGY

DETERMINATION OF NEED
- GEOLOGICAL MAPS
- TOPOGRAPHIC MAPS
- SOIL MAPS
- ROAD MAPS
- ADMINISTRATIVE MAPS
- POPULATION MAPS
- QUARRYING MAPS

DIGITIZING
- ALL GEOLOGICAL MAPS
- QUARRYING COORDINATES

CREATING SHAPFILE OF MAPS

ANALYZING
- WITH GOOGLE MAP
- SOIL
- WITH GEOLOGIE

DATA CONCEPTION

Geology
ANALYSE OF RESULTS

GEOLOGIE AND QUARRYING

GIS: Designing our future

XXV International Federation of Surveyors Congress, Kuala Lumpur, Malaysia, 16 – 21 June 2014

ANALYST AND RESULTS

GOOGLE MAP AND QUARRYING

GIS: Designing our future

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Evolution of the surface used in Saddina-khmis Anjra between 2003 and 2013

The materials extracted in the region vary between materials derived from crushing of massive rocks, clays, alluvial sand, dune sands or marine sand. The exploitations in the region Tangiers-Tetuan are intended exclusively for the production of the construction materials (aggregate, cement, precast concrete, concrete, bricks, ceramics,... etc.)
Web Mapping Conception

SOFTWARES

Data Layer
- Geological Map
- PostGIS DB
- Imagery Satellitaire
- RS/GIS data
- Forest Inventory
- Other Non-Spatial data

Application Layer
- WMS
- WFS
- JAVA
- SCRIPT
- PHP
- GEO SERVER
- POSTGIS/POSTGIS

Presentation Layer
- Public User View
- Custom FC User View
- Custom FC ADMIN View

Conception of Web Mapping
Conclusion

- There is a large variation of quarries production, and comes from the inequitable needs from different sites.

- The design of this database throughout the region of Tetouan, will help us to draw up the sectorial plan of materials on the region entire.

Thank you

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