

Atlas of natural and agronomic resources of Niger and Benin

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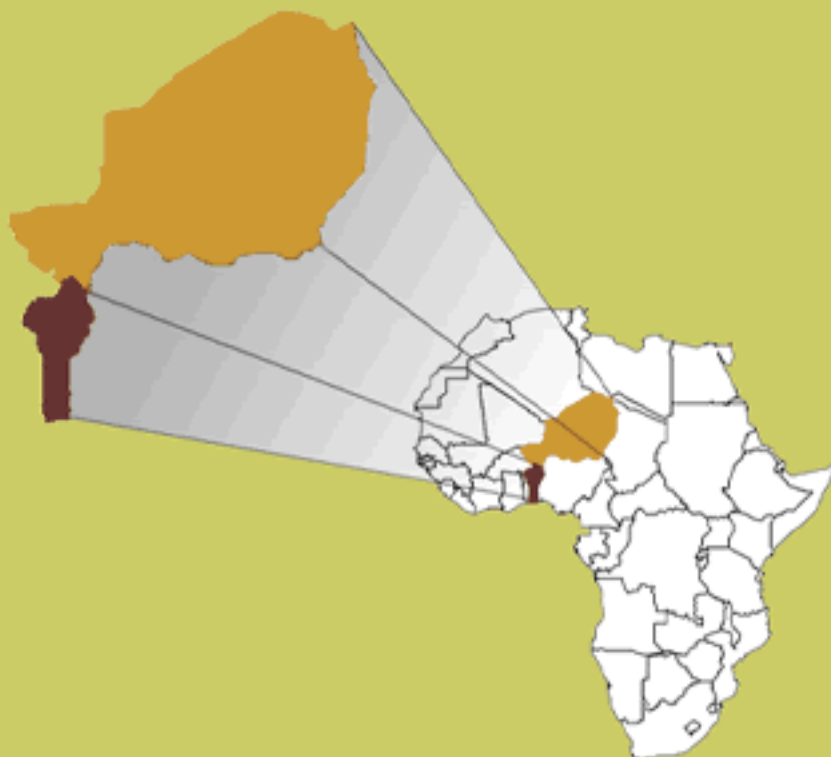
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Scientific approach

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The "Atlas of Natural and Agronomic Resources of Niger and Benin" represents a new approach in the presentation of scientific results. It responds to the fact, that today scientific results have to be distributed rather quickly and in a form that allows other researchers to build up upon. At first, the atlas was developed as a tool for collection and presentation of spatial data within the Special Research Programme 308 "Adapted Farming in West Africa" of the University of Hohenheim, funded by the Deutsche Forschungsgemeinschaft.

But presentation of temporally fixed data is unsatisfactory in a quickly developing environment. Therefore, the scientific main objective was to create a dynamic atlas which can include the newest developments. In order to serve for this purpose it must be strictly organised with regard to standards and formats and it must be open to research results from partner organisations or other interested researchers.

These requirements can best be met by using the internet as a publishing medium. Therefore, the atlas is designed as a website. Beside an introductory part it is basically organised in projects with two components: a) a map and b) its comment. All maps rely on standards developed by the atlas team with regard to spheroid, projection etc.. Base maps of Niger and Benin or parts of the countries are supplied to scientists working on projects on demand. Also the [structure](#) of the comment is determined. It is organised like a short scientific communication with additional features. These include active links to scientific websites with relation to the map subject and more important the link to the data sources of the presented map.

During the work on the atlas it was figured out, that a general database compiling data of all projects is not satisfying. It would become too complex and too difficult to use. Therefore, it was decided to include all necessary

data of one project in one zip file which can be downloaded via ftp. The necessary links are established in the map comments. With this solution any interested person has access to the data in a form which can be easily processed if the necessary computer programs are available. I.e. the maps are stored as ArcView shape files. For those who do not have access to the ArcView or ArcInfo program packages it is possible to see the maps in full resolution including small changes and printouts by using the ArcExplorer which can be downloaded for free (<http://www.esri.com/software/arcexplorer/index.html>).

In order to update maps e.g. on staple food prices only the attribute table has to be changed, which can easily be done with a spread sheet. In future it will be possible to introduce an on-line-updating via a browser. But the development of this technique is still in an initial stage.

How can researchers incorporate their scientific results?

Researchers can contact the atlas team with an abstract via email. An editorial committee decides about the publication. Base maps and other necessary information are delivered through the atlas team or can be downloaded via ftp. Contributions have to follow the standards and formats of the atlas. Final contributions will be revised. Incorporation into the atlas is done by the atlas team.

Time horizon

The atlas as a document of results of the "Special Research Programme 308" will be worked out and published until the end of 1999. From the year 2000 onwards external results can be included. After the establishment of the atlas it is planned to hand over scientific and technical knowledge to local partner organisations, since updating can best be done at the site of research action.

Structure of map comments

Atlas of natural and agronomic resources of Niger and Benin

Map comment

Title

Keywords

Author(s)/Affiliation

1 Aims of the research (including brief introduction)

Aims/intentions of the work (concerning map preparation) examples:

- to provide an overview of a certain area
- to show the spatial distribution of a certain subject
- to provide a scenario for a specific scientific or applied question
- to provide base or thematic maps for extension purposes
etc...

2 Approach

Please do not include long descriptions of scientific methods.

Describe tools and the process of the map production (how to reach the goals defined under point 1), e.g.

- literature review
- compilation of own data (data source: where are the data from ?)
- other processes of data collection and manipulation
- What is new - what is old ?
- Which data are used (own data, other sources) ?
- How will the final content of the map(s) be produced (e.g. algorithms, generalisation procedure to get the spatial results) ?

3 Results and Interpretation

Describe and explain the results of the work and the resulting maps.

Give an interpretation of the results found.

Discuss problems and limitations of the maps and results

(e.g. problems with accuracy, completeness of data, methods used, etc..).

4 Conclusions

What is the benefit of the maps produced ?

What are applications for the map ?

What are the final effects or limitations with regard to the maps content e.g. future applications and usefulness, comparability ?

What are possible (future) additions to make the map more useful (combination, addition of other data or maps) ?

5 References

Limited to references cited in the text

6 Further Readings

List of references leading to a broader understanding of the subject (e.g. 10 references)

7 Related Websites

Internet resources

8 Annotation (optional)

Additional tables, figures and/or text relevant for the subject.

This optional part will neither be complete nor comprehensive, but provide space for additional interesting information

9 Data Links

Where are the data stored ?

Links to the database

In the database: Where are the data from (Metadata: source, date of collection/ production, accuracy) ?

Webpage Atlas: <http://www.uni-hohenheim.de/~atlas308/>