

## ZF0207 On-line mapping of *Acacia* distributions (April 2005 – December 2005)

### 1. Background / development problem to be solved

Population pressure and drought are causing deforestation and land degradation throughout the semi-arid parts of the African continent. Trees are needed in agricultural systems to provide fuel wood, fodder and shelter, to rehabilitate degraded land and particularly to increase the productivity of non-arable land. Once traditionally preferred trees in climax plant communities have disappeared, they cannot be re-established under the harsh conditions. Exotic species have rarely proved successful in this situation and the solution is increasingly being sought among the natural pioneers, particularly the acacias. There is a need for the farmer, the scientist and the extension workers who work on this problem to be provided with accurate information on acacias that will aid them in their efforts to exploit the potential of *Acacia* species.

### 2. Objective(s) / purpose

Create an online mapping tool for BRAHMS online (BOL) that will enable users to automatically produce distribution maps of African *Acacia* species.

### 3. Output(s)

- a. An online mapping tool integrated into BOL.

An on-line mapping facility has been fully integrated into BOL (<http://herbaria.plants.ox.ac.uk/bol/>) and the new facilities fully documented on the appropriate webpage. This facility is now available to all the databases that use BOL, provided that coordinate data has been incorporated into the data records.

Maps can be made for entire taxonomic ranks, individual species or individual specimens. Furthermore, mapping can be restricted to individual countries.

- b. Dynamic distribution maps of *Acacia* available online.

Dynamic maps are available at <http://herbaria.plants.ox.ac.uk/bol/?Oxford>. It is necessary for a researcher to do a search on the genus *Acacia* or a specific *Acacia* species and then to tag those entries that need to be mapped. Using the Mapping button an online map is created.

### 4. Sustainability

The mapping facility is available to any database that is logged into BOL.

The *Acacia* database will be updated and once the output from R7275 is available these will be integrated into the database.