Ethiopia holds a unique position in the world as *Coffea arabica* L. has its primary centre of diversity in the southwestern highlands of that country [1, 2]. Relatively little is known about the situation of coffee genetic resources collected and conserved *ex situ* in Ethiopia, despite a brief overview drawn up about ten years ago [3]. In 2005, we started building up an electronic database of coffee genetic resources at the Jimma Agricultural Research Centre (JARC). A summary of the information generated by that database is presented here.

**Material and methods**

We used Microsoft® Access 2002 for constructing a relational database and DIVA-GIS Version 5.2.0.3 software [4] for mapping of the collection and conservation sites. We have chosen Harerge, a coffee zone in the East of the country, to illustrate this.

**Collection of Harerge coffee landraces**

In the eastern part of Ethiopia, coffee is found in the East Harerge, West Harerge, and Arsi zones at an elevation of between 1,600 and 2,000 metres. Local coffee landraces are well adapted to these drought-prone areas where they are grown in association with other crops in open sunlight or under a few shade trees (Fig. 2). Farmers have developed many names –17 were recorded by Bayetta [5]—to distinguish between coffee landraces according to their morphological characteristics.

Harerge coffee fetches premium prices in the world market. This sun-dried coffee has an overall cup taste profile displaying a typical mocha flavour with chocolate notes, in a medium-dense body and a mild, soft acidity with light fruitiness. Coffees from the East Harerge zone achieve an additional premium, especially for the more distinctive golden yellow coloured long-berry beans (Fig. 3).

**Current status of coffee germplasm conserved *ex situ* by JARC**

- 48 collection surveys undertaken throughout Ethiopia since 1966
- 5,109 accessions collected in 101 woredas (districts)
- 63% of woredas with more than 500 hectares of coffee represented in the collections
- 4,731 distinct accessions conserved by JARC in field genebanks at the Jimma-Melko centre and at 9 sub-centres or testing stations located in the main coffee growing areas (Fig. 1).

**Conclusion**

By using passport data and GIS technology, collection gaps are quickly recognized. This analysis will be further refined by overlaying thematic base maps (climate, soils) combined with agricultural censuses, satellite imagery, and field work data to identify areas under imminent threat of genetic erosion. Maps can also be adapted for marketing, with clearer identification of origins and taste profiles to increase buyer awareness.

**Acknowledgements**

We thank Coffee Improvement Project IV in Ethiopia and the European Development Fund for financial support.

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**References**