

## **Nutrition Indicator for Biodiversity on Food Composition - Reporting 2010**

### **Introduction:**

FAO in collaboration with Bioversity International is leading the Cross-Cutting Initiative on Biodiversity for Food and Nutrition which has been established to measure, investigate and promote biodiversity and nutrition. Nutritional Indicators for biodiversity are needed to address the diversity of plants, animals and other organisms used for food, covering the genetic resources within species, between species and provided by ecosystems.

The indicator for food composition aims to report the annual progress regarding availability of food compositional data for biodiversity.

This abstract gives information on the reporting of the Nutrition Indicator in 2010.

### **Method:**

#### The indicator:

The indicator is a count of the number of foods with sufficiently detailed description on taxonomic rank below species with at least one value for a nutrient or bioactive component. Exceptions exist for wild and underutilized foods for which information on the species level is satisfactory. For the term `underutilized foods` a reference list of underutilized species (together with the indication of country/region) contributing to the indicator was developed and is available at [http://www.fao.org/infoods/biodiversity/index\\_en.stm](http://www.fao.org/infoods/biodiversity/index_en.stm).

#### Data Sources:

Data for the indicator were mainly obtained through peer-reviewed articles by using the search engines Scopus and Science direct. A few theses as well as peer-reviewed articles were provided by local consultants from West Africa (Benin, Niger, Burkina Faso).

Due to time limitations (3 weeks), a fairly general literature search was carried out with terms including food composition, biodiversity, variety, cultivar, breed in various combinations and with emphasis on data published in 2010. Members of the INFOODS mailing list were contacted via mail, but no data were sent until December 2010. Some people stated that there were no updates since 2009 while others stated that they will provide us with their data in 2011.

### **Results and Discussion:**

Altogether 834 foods were collected for the indicator in 2010. Figure 1 presents the baseline data collected before 2010 and the increase in data availability in 2010, which includes the baseline data updated in 2010 as well as data published in 2010. Most of the data were found in Asia (349), followed by Europe (191), Africa (146), America (140) and Oceania (12).

Out of the 834 foods reported in 2010, 672 foods were published in 2010 and 162 foods were published before 2010 but found in 2010 and are therefore counting as baseline data updated in 2010. (see Figure 2).

The amount of data counting for the baseline data in 2010 is low, compared to the data published in 2010. All continents, except Africa, show a higher amount of data published in 2010 than counting for the baseline. This can be explained by the search method used, since the emphasis was on data published in 2010 and no cross-checking of papers was done, which would lead to a higher amount of data published before 2010.

The controversy result regarding Africa is due to the fact that a more targeted search was conducted in Western Africa and consultants provided us with theses and scientific articles published before 2010.

96% of the data in 2010 derived from Scientific journals and 4% from the category others, (books, posters, theses and reports) mainly from theses (29 foods (88%) reported in theses and 4 foods (12%) reported in books) .

Giving the limited time and intensity of data search that was done for this reporting, the data availability was high and we expect a large number of data when cross-checking the reference lists, as observed in the reporting of 2009 (Stadlmayr et al. 2010).

2010.

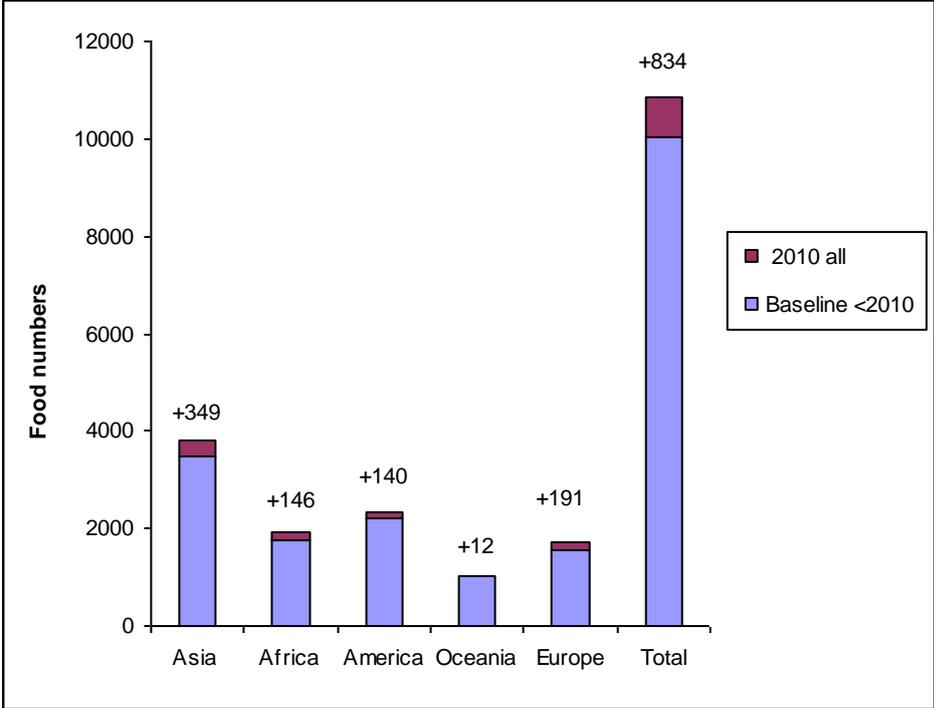


Fig.1: Increase of data availability in 2010.

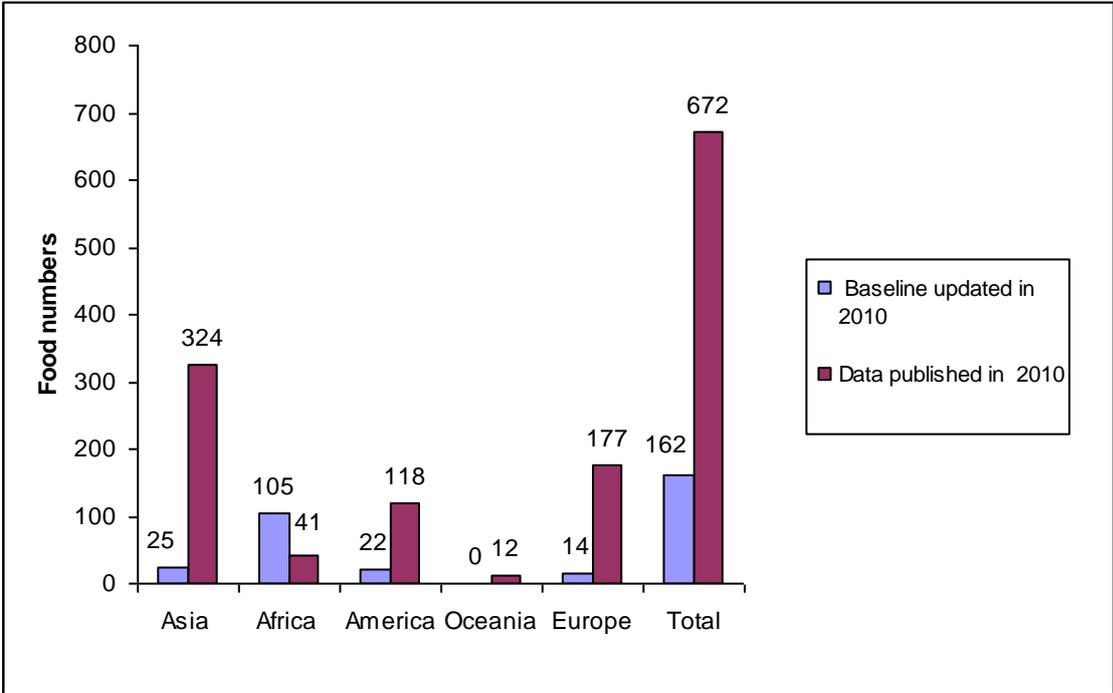


Fig.2 Number of available foods collected in 2010 divided between data published in 2010 and baseline data updated in 2010.

**Conclusion:**

The reporting of 2010 shows that the data availability for compositional data on variety/breed level in the scientific literature is further increasing and we expect even more data when cross-checking the reference lists. We are currently working on targeted searches for fruit trees and fish as well as on minor crops and tubers with emphasis on mountain areas in Ethiopia.

On 15 December 2010 the first version of the INFOODS Food Composition Database for Biodiversity was launched (available at

[http://www.fao.org/infoods/biodiversity/index\\_en.stm](http://www.fao.org/infoods/biodiversity/index_en.stm).)

It is a collection of analytical data from the published and unpublished literature and we will update it regularly to mainstream biodiversity into food composition databases.

**References:**

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Stadlmayr, B., Nilsson, E., Mouille, B. Medhammar, E., Burlingame, B., Charrondiere, U.R. 2010. Nutritional Indicator for Biodiversity on Food Composition- A report on the progress of data availability. Journal of Food Composition and Analysis. doi: 10.1016/j.jfca.2010.09.009