Nutrition Indicator for Biodiversity: 1. Food Composition

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Background

The development of nutrition indicators for biodiversity is a collaborative international process, led by the Food and Agriculture Organization of the United Nations (FAO), together with Bioversity International and other partners. The task is part of the work of the Initiative on Biodiversity for Food and Nutrition, which was formally established in 2006 by Decision VIII/23 A of the Conference of the Parties to the Convention on Biological Diversity (CBD-CoP).

The initiative was launched on the basis of a recognized linkage between biodiversity, food and nutrition, the need to enhance sustainable use of biodiversity to combat hunger and malnutrition, its contribution to the MDGs (CBD-CoP, Decision VII/32) and the request of the Commission on Genetic Resources for Food and Agriculture (CGRFA, 10th session) to the Intergovernmental Technical Working Group on Plant Genetic Resources for Food and Agriculture to "provide guidance to FAO on how it could best support countries, on request, to generate, compile and disseminate cultivar-specific nutrient composition data, as well as indicate the relative priority of obtaining cultivar-specific dietary consumption data, in order to demonstrate the role of biodiversity in nutrition and food security

The indicator

Definition of the indicator

The indicator is a count of the number of foods with a sufficiently detailed description to identify genus, species, subspecies and variety/cultivar/breed, and with at least one value for a nutrient or other bioactive component. More details on the identification of foods and food components contributing to the indicator are given below.

Foods

Foods included

- Within species: varieties, cultivar or breed of foods
- Wild or underutilized foods also on species level
- Different parts of the foods, e.g. root, leaf, egg, bird, organ meat

Foods not included

- Foods on species level only except for wild and underutilized foods
- generic names, e.g. green leaves
- Variations in food composition due to climate, soil, processing etc

The identification should be done using taxonomic names including genus, species, subspecies, and variety/ cultivar/ breed. In cases where they are not available, local names or genetic identification can be used.

Components

All food components: nutrients and other bio-active compounds.

The minimum requirement for a food to be considered for the indicator is one component. The component(s) can be determined analytically, borrowed or imputed from the same species in another database if in a foods composition database. For other published and unpublished literature, only analytical data for components are acceptable.

Indicator

Report foods with food component data from the published and unpublished literature as defined above on the:
- number of foods at subspecies level and below with 1 component;
- number of foods at subspecies level and below with 2 to 9 components;
- number of foods at subspecies level and below with 10 to 30 components;
- number of foods at subspecies level and below with more than 30 components.

Publications

All published and unpublished data, as long as they are well documented:
- food composition tables and databases
- peer-reviewed articles
- laboratory reports
- reports from research institutes
- conference proceedings
- theses etc

Reporting

Data will be collected at national and regional level and submitted to FAO through:
- INFOODS (International Network of Food Data Systems)
- BASIS database
- FAO
- others

FAO will collate all data and report to GEF and other bodies on a yearly basis until 2015. Baseline data are being collected in 2008.

Conclusion

The expectation is that food composition specialists will generate, compile and disseminate data at the levels of species and subspecies, and diet surveys will report consumption at this level, thus mainstreaming biodiversity into a vast range of nutrition initiatives, and encouraging its sustainable use for food and nutrition security.

It is hoped that the reporting on the progress regarding food composition for biodiversity will help to value and preserve our planet's existing biodiversity within well-managed ecosystems, with their many sources of nutritionally-rich foods.

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