

INFOODS Report

Activities in 2014 to 2015



Report on INFOODS' activities in 2014-2015 for IUNS

Summary:

INFOODS was not able to achieve as much at the global level in 2014-2015 as we did in 2012-2013 due to significantly reduced funding by FAO for activities on food composition which are delivered through INFOODS. On the other hand, some regional data centres were very active and the network as such was strengthened.

In 2014-2015, global efforts were focused on strengthening the regional data centres; contacting universities to incorporate FAO/INFOODS e-Learning Course on Food Composition Data into their curricula; preparing grant proposals; assisting countries and regional data centres; organizing one-day-training courses; drafting guidelines to enhance the recognition of the importance of nutrition and biodiversity for agriculture through the Commission on Genetic Resources for Food and Agriculture (CGRFA) and other FAO documents; and including nutrition and food composition components into FAO projects and programmes.

In the regional data centres, there were some changes in coordinators and in several regional data centres, vice coordinators were elected to increase the reach and number of activities of INFOODS. This model worked well in AFROFOODS and is being extended to other regions. Many countries generated new data, have or are publishing new food composition tables or databases (FCT/FCDB), and have regional projects on-going. Some regional data centres are preparing grants to obtain more funding while others are already part of regional projects being funded by other organizations (e.g. PAHO, EU)

I. Global INFOODS activities in this period included the following:

Standard setting and guidelines

- Initiated work on the FAO/INFOODS evaluation framework and criteria on the quality of published food composition tables and databases (to be published in 2016)
- Published several FAO/INFOODS Guidelines and Databases in French
- Several FAO/INFOODS Guidelines and Databases were translated into Spanish at FAO, LATINFOODS revised them and their publication is foreseen in 2015
- Sampling Guidelines were peer reviewed and will be published soon (Pamela Pehrsson took over the leadership of this project from Joanne Holden). It illustrates sampling examples from Latin America
- Practical Complementary Feeding Guide for Sub-Saharan Africa (to be published in late 2015). It includes a food composition table and foods and recipes suitable for this age group together with other practical information.

Publications

- Many scientific articles were published by INFOODS members
- The FOOD CHEMISTRY supplement with the articles of the 10th International Food Data Conference (IFDC) was published in autumn 2015 (co-financed by IUNS, FAO, FINUT, University of Granada)

Capacity development

- Many universities incorporated the *FAO/INFOODS e-Learning Course on Food Composition Data* into their curricula – see published list. Many others showed interest
- No funds assured yet for the translation into French and Spanish
- The list of previous courses and participants is as well as new courses are published at the INFOODS website <http://www.fao.org/infoods/infoods/training/en/> . Since 1992, the Division of Human Nutrition of Wageningen University & Graduate School VLAG (Advanced Studies in Food Technology, Agrobiotechnology, Nutrition and Health Sciences) is organizing every second year the *International Postgraduate Course on the Production and Use of Food Composition Data in Nutrition* in Wageningen, the Netherlands. Participants from these courses are included in this listing as well as of other international FoodComp courses of longer duration.
- FAO/INFOODS organized several training courses
 - held short courses in 2014: Ghana (post-conference event to ANEC IV conference – one day), Turkey (one day) Sri Lanka (2 days) and in 2015: Tanzania (post-conference event to FANUS

conference – half day), India (planned pre-conference event to 11th IFDC conference – one day) and in Dominican Republic (planned post-conference event to SLAN conference – half day)

Databases and tables

- No publication of new FAO/INFOODS databases or updates due to lack of funds in 2014
- collecting and compiling compositional data for future releases of FAO/INFOODS databases (pork, cassava, rice, fish, indigenous foods)
- Updates of the following FAO/INFOODS databases are being prepared for publication by the end of 2015:
 - FAO/INFOODS Food Composition Database for Biodiversity
 - FAO/INFOODS Analytical Food Composition Database
 - Global Fish and Shellfish Database
 - FAO/INFOODS/TGI Global Supplement Database
- The West African Food Composition Table is being updated by FAO Rome in collaboration with AFROFOODS (Benin, Burkina Faso, Cameroon, Ghana, Mali, Nigeria, Senegal, and South Africa). This activity is being carried out within the Gates Foundation funded INDDEX project, led by the Tufts University, where FAO is a partner. The new version to be published in December 2017 will include many more foods, recipes and biodiversity as well as more analytical data from the region.
- A FAO/INFOODS Global Pulses Food Composition Database is being developed as a major outcome of FAO's activities within the framework of the International Year of Pulses (2016). It will be published in early 2016

Biodiversity (<http://www.fao.org/infoods/infoods/food-biodiversity/en/>)

- No progress reports on the two Nutritional Indicators for Biodiversity on food composition and on food consumption were published in 2014 and 2015 due to lack of funds
- The Commission on Genetic Resources for Food and Agriculture (CGRFA) endorsed in 2015 the *Voluntary Guidelines for Mainstreaming Biodiversity into Policies, Programmes and National and Regional Plans of Action on Nutrition*. The guidelines are useful for countries wishing to pledge to include biodiversity into programmes and policies, especially in agriculture
- Gave several presentations at international meetings and conferences to mobilize professionals to mainstream biodiversity in nutrition and agriculture

Communication

- The INFOODS website is regularly updated with new information http://www.fao.org/infoods/index_en.stm
- The INFOODS listserv remains an important communication tool within the food composition community. It is actively used by members to ask questions but also by FAO to inform the community about new publications and events. The number of subscribers went up from 600 in 2013 to about 1000 members in September 2015.

International Food Data Conference (IFDC)

INFOODS coordinators and many scientists are part of the International Scientific Committee of the 11th IFDC which is organized by the National Institute of Nutrition, Hyderabad, India, where the SAARCFODS coordinator is located (T. Longvah). Several pre- and post-conference events have been organized.

INFOODS as IUNS Task Force

INFOODS is a Task Force of IUNS and as such provides regular reports to IUNS. The co-chairs of this IUNS Task Force are normally the global INFOODS coordinator (for 15 years Barbara Burlingame and since 2011 Ruth Charrondiere) and another person. For years, Suzanne Murphy served as co-chair and stepped down in 2015 after which Henrietta Ene-Obong took over this position.

II. Activities at the Regional INFOODS Data Centres included the following

AFROFOODS

Coordination

After the passing away of Prof. Isaac Olu Akinyele in March 2013, Henrietta Ene-Obong (Nigerian, Anglophone) and Ismael Thiam (Senegalese, Francophone) were elected AFROFOODS Coordinator and Vice-Coordinator, respectively, at a skype meeting of AFROFOODS on 15th July 2014. At the same meeting the following Coordinators/Vice-Coordinators for the sub-regions were confirmed:

- CAFFOODS: Christiant Kouebou (Coordinator); Mercy Achu Bih (Vice-coordinator)
- WAFOODS: George Amponsah Annor (Coordinator); Paulina Addy (Vice-Coordinator)
- ECSAFOODS: Zohra Lukmanji (Coordinator); Nazeeia Sayed (Vice-Coordinator)
- NAFOODS: To be filled
- AFROFOODS ADVISOR: Hettie Schönfeldt

AFROFOODS meetings and Capacity building

Several AFROFOODS meetings have been held via skype and in Ghana (ANEC IV) and Arusha (FANUS). Challenges and priorities were identified and efforts are underway to tackle them and reprioritize. The main challenges are the need for capacity building in the area of food composition generation and compilation; adequate ownership of food composition activities at the country level; need for standard/certified laboratories for food analyses; need for updating existing databases and developing other country-level and sub-regional databases; continuing to contribute to the control of the double burden of malnutrition, food insecurity; strengthening the resilience capacities of our communities using our local food systems; and the need for visibility.

In pursuance of the above priorities, FAO/INFOODS/AFROFOODS has successfully organized two 1-day Food Composition training workshops: the first was during the July 2014 ANEC IV Conference in Accra, Ghana and the second during the May 2015 3RD FANUS Conference in Arusha, Tanzania. Each of the trainings attracted over 50 participants. AFROFOODS meetings were also held during the conferences, aimed at getting more stakeholders participate actively in food composition activities. The FAO Regional Office for Africa sponsored the participation of the INFOODS coordinator and the training workshop at ANEC IV, as well as the participation of the AFROFOODS members in the FANUS conference.

Communication/visibility

The Arusha meeting resulted in the “AFROFOODS Arusha Declaration” which can be accessed on from the INFOODS website:

http://www.fao.org/fileadmin/templates/food_composition/documents/regional/Arusha_declaration_final_web.pdf.

In order to enhance effective communication and increase our visibility, AFROFOODS now has an email address as follows: Email: afrofoodsinfoods@gmail.com. Our website is currently being developed; the proposed web address is: <http://afrofoods.org>

Fund raising/Proposal writing/Ongoing activities for Food Composition Database

AFROFOODS is currently and actively seeking for funding and collaboration with organizations, institutions and agencies in order to achieve its objectives. An action plan has been developed and a proposal has been submitted to the FAO Regional Office in Ghana for support for some of the planned activities in the next 3 years

A project entitled: “Promotion de l’agrobiodiversité et des valeurs alimentaires locales en faveur d’une nutrition saine en Afrique de l’Ouest » was submitted to ECOWAS Commission (Call for proposal from the Regional Agency for Agriculture and Food).

Efforts are also under way to produce/update other sub-regional and country-specific databases in Cameroun, Ghana, Nigeria, Malawi, Kenya and Ethiopia. In Nigeria, some food composition work is ongoing with some support from NESTLE Nig Plc.; WAFOODS is collaborating with World Food Programme of the United Nation and Ajinomoto Inc of Japan to analyze some food samples in three Northern Regions of Ghana;

Malawi has some support from USAID and Tufts University to generate and compile their food composition data; FAO Kenya supports the updating of the Kenyan food composition table.

ASEANFOODS

The ASEANFOODS website (<http://www.inmu.mahidol.ac.th/aseanfoods/>) is updated regularly. The ASEAN food composition tables as PDF and the ASEAN Manual of nutrient analysis are available at the website.

As many countries are busy in preparing new national food composition tables or databases, no regional meeting took place. ASEANFOODS/INMU organized a training course (2013) on “Food Composition Analysis and Food composition Database Development for Myanmar members. Two training courses on proficiency testing and statistical evaluation according to ISO 17043 and 13528 were organised by USDA for ASEAN members (2014) and by APLAC (2015) in Taiwan. Nine training courses on proficiency testing (PT) and food reference material preparation were organised to Accreditation bodies and PT providers in Thailand. Two PT schemes on analysis of mandatory nutrients for nutrition labelling, using milk powder (PT-11) and instant cereal beverage (PT-12) as test materials, were also organised for laboratories in Thailand.

Several countries participated since 2012 in the SMILING project funded by the European Commission in the 7th Framework Programme for Research and Technological Development (GA 2896 16). The work package on “updating of food composition tables on selected food and (micro)nutrients for SE Asia” led by the Division of Human Nutrition, Wageningen University, resulted in well-documented and evaluated food composition tables (FCT): Laos (140 foods), Cambodia (90 foods), Indonesia (174 foods), Thailand (142 foods) and Vietnam (164 foods), which include energy, proximate compositions, Ca, Fe, Zn, Vitamin C, thiamine, riboflavin, niacin, vitamin B6, folate, vitamin B12, vitamin A, and vitamin D.

Malaysia is currently centralizing the coordination, compilation and documentation of the nutrient lab analysis by the participating institution through a web-based system for Data Generators, Data Compilers and Data Users (<http://myfcd.moh.gov.my>) after having harmonized the protocol for sampling and methods of laboratory analysis of Malaysian FCD among the 14 participating institutions in 2011. Malaysia has increased the number and scope of nutrients to be analysed from 19 nutrients in the 1997 Malaysian FCT to 40 nutrients in the current Malaysian FCT (29 out of 40 nutrients are mandatory nutrients for analysis). The updated FCT is expected in late 2015 or early 2016. **Myanmar** has analysed 50 commonly consumed foods for proximate composition and 20 for zinc and iron. The FCT is expected to be published in 2015. The **Philippines** has analysed 15 foods. It published one food composition handbook in 2015 on vegetables. A supplement with analytical and borrowed data of 110 food items is still to be published. Components are more according to international standards, e.g. crude fibre was replaced by dietary fibre, and total carbohydrates by available carbohydrates. A new on-line version is envisaged for 2016 with a distinction between borrowed/calculated/estimated and analytical data. **Thailand** published a new FCT with 1700 foods and 27 nutrients plus energy in September 2015 of which the on-line version will follow by the end of 2015 at the INMU website: <http://www.inmu.mahidol.ac.th/>. **Vietnam** is analysing 40-60 foods which are to be included in the new FCT expected to be published in 2015 with 626 foods.

EUROFOODS (presently operating as EuroFIR)

EuroFIR has created and launched Technical Working Groups (WGs), e.g. the FoodComp WG (operating through LinkedIn) and the FoodCASE User Group. A Food and Health Research Infrastructure in Europe is being developed with food composition information firmly embedded in this framework. Three training workshops were held on total diet studies. Two EU-funded projects successfully completed (PlantLIBRA and PLEASURE) and delivery of the new ePlantLIBRA microsite (www.eurofir.org/PLANTLIBRA). Two new EU-funded projects have started or are under contract negotiations (PD-Manager in HEALTH and REFRESH in Food Security-WASTE), which involve members as well as the Association; several proposals for EU-funding are under evaluation. The website was improved making it easier to find information with a live-chat tool, resulting in over 3000 hits per month or 15,000 pages visited every month. The new Dutch ebook (total of five in series) was published, as well as three newsletters. Two international symposia organised and six events attended in Brussels focussing on the food and health sector.

LATINFOODS ACTIVITIES 2012-2015

The Latin American Network of Food Composition has 19 national chapters of which 12 are active.

Websites of LATINFOODS and SAMFOODS Sub Regional Centre

Both are now located in INTA, University of Chile, Santiago, Chile. Discussions are ongoing if to transfer somewhere else.

Documents

LATINFOODS revised the Spanish translation of several FAO/INFOODS guidelines and databases. The Sampling Guidelines, initiated in a FAO project under the leadership of Joanne Holden, includes sampling examples from Latin America. It was peer reviewed and will be published soon.

Software to compile and exchange food composition data

Software was developed by Jujuy University and validated to compile and exchange food composition data developed as activity of FAO project TCP/RLA/3107 for Argentina, Chile and Paraguay. It is a relational database with hierarchical structure. Some improvements have been realized lately. In September 2014 and April 2015, two Seminars on the software were organized by CAPCHICAL and the Ministry of Health (MOH) in Santiago, Chile, to discuss its installation in the MOH. In September 2015, it was decided at a meeting, convened by ILSI International Life Sciences Institute (ILSI) Argentina, to propose to the Ministry of Health to install this software in Argentina. After these experiences the software will be offered to all national chapters of the Network.

Capacity development/Analytical methods

CAPCHICAL (Chilean Branch) organized two international workshops focusing on Dietary Fibre functional and physiological properties and actual methodologies to determine the different natural fractions present in food and the synthetic fibre added to foods. Also the Private sector organized two International Meetings related with Cereals and Dietary Fibre 2014 and 2015 where representatives of CAPCHICAL and ARGENFOODS (Argentine Branch) participated as speakers. A mini round among four laboratories from Institutions belonging to CAPCHICAL ran a collaborative analysis of the different fractions of Dietary Fibre in a bread pre-mixture, and in the baked bread, using the last Method AOAC 2011.02 for determining the different Dietary Fractions, using HPLC for the short chains components. The results indicated that depending on the natural and synthetic dietary fibre present in the pre-mix and the bread, some specific methods for determining the type of fibre must be used. More research must be done in these different methodologies.

Salt monitoring in Latin American

The Pan American Health Organization (PAHO) is supporting LATINFOODS branches to collect data on the salt/sodium content (September- October 2015) of products in the 12 food groups to which the regional targets apply. This will deliver baselines for the products against which progress with the uptake of regional values will be assessed. Participating are Argentina, Brazil, Chile, Costa Rica, Cuba, Ecuador, Guatemala, Panamá, Paraguay and Peru. This is the first effort on monitoring sodium in foods with regional targets. Information on the sodium content of 1.360 processed foods were collected from company websites and nutritional labelling of products in supermarkets for 12 groups: processed meats, cookies, cheeses, soups, butters and margarines, mayonnaises, breads, cakes and muffins, snacks, breakfast cereals, pastas and noodles, condiments.

In 2013, a survey on sodium content in soups was organized by LATINFOODS in nine countries in order to determine the overall picture of the situation and sensitize those involved. Data was collected from food labels and web pages of fast foods restaurants by professionals trained in the methodology developed by The George Institute for Global Health (TGI). LATINFOODS professionals were trained during the Congress of the Latin American Nutrition Congress held at Cuba in November 2012. A total of 812 food label information was collected (31-227 soups /country) of 80 different brands, of which nearly half belong to 3 trademarks.

The LATINFOODS network has demonstrated its utility as a platform that supports PAHO's Salt Reduction Initiative in food composition.

Publications and other disseminations:

- Blanco-Metzler A, de Pablo S, Samman N, Salazar de Ariza J, Masson L, de Núñez L, Wenzel de Menezes E. LATINFOODS activities and challenges during the period of 2009-2012. Archivos Latinoamericanos de Nutrición Volumen 64, No 3, Septiembre 2014.
- The Food Monitoring Group. 2013. Progress with a global branded food composition database. Food Chemistry, 140 (3): 451–457
- Blanco-Metzler A (in the name of LATINFOODS). Resultados del estudio realizado en países de América Latina sobre contenido de sodio/sal en sopas. Webinar organized by PAHO during the Salt Awareness Week (March, 2013).
- Montero- Campos M, Blanco-Metzler A, Chan-Chan V. 2015 Sodium in breads and snacks of high consumption in Costa Rica. Basal content and verification of nutritional labeling. Archivos Latinoamericanos de Nutrición (ALAN) 65(1): 36-43.
- Heredia-Blonval K, Blanco-Metzler A, Montero-Campos M, Dunford E. The salt content of products from popular fast-food chains in Costa Rica. Appetite 83: 173-177, 2014.
- Blanco-Metzler A. LATINFOODS database on regional targets of sodium in Latin American foods. 4th Meeting of the Salt Smart Consortium, Caribbean (Antigua and Barbuda). September 17-18, 2015
- N.C. Sammán , M.A. Gimenez, N. Bassett, M.O. Lobo, M.E. Marcoleri. (2015). Validation of a sampling plan to generate food composition data. Food Chemistry. doi:10.1016/j.foodchem.2015.03.083
- Jimenez, ME, Sammán N. (2014). Caracterización química y cuantificación de fructooligosacáridos, compuestos fenólicos y actividad antirradical de tubérculos y raíces andinos cultivados en el noroeste de Argentina”. Archivo Latinoamericanos de Nutrición, Vol 64, pag 131-138.
- Mota C, Santos M, Mauro R, Samman N, Matos AS, Torres D, Castanheira I. (2014). Protein content and amino acids profile of pseudocereals. Food Chemistry 10.1016/j.foodchem.2014.11.043,
- Book Chapter: Disponibilidad de datos de Composición de Alimentos. Situación en América Latina y Argentina. Sammán N., Lobo M, Rossi A, Abeya Gilardón E, (2015) En Metodologías Empleadas en la Evaluación Alimentaria - Una visión Iberoamericana. Editores CESNI-DANONE. Editorial Lenguamadre. In press.

The National Chapters continue generating and compiling information about food composition.

ARGENFOODS and Faculty of Engineering, UNJu, conducted a study to contribute to the conservation of biodiversity of Andean potatoes. 44 Andean potato genotypes were analyzed for their morphological characteristics; proximate composition, mineral content, vitamin C and functional compounds (polyphenols and total carotenoids). They were provided by smallholder (family agriculture) and preserved in the gene bank of INTA Balcarce.

BRASILFOODS: Seven master degree related to BRASILFOODS activities were developed. These projects resulted in: 1. compilation of analytical data for 2520 food entries (including proximate composition, vitamins and minerals); 2. the glycemic index (GI) and glycemic load (GL) for eight whole meal breads of three different categories; 3. implementation and optimization of the AOAC 2011.25 method for dietary fibre analysis; 4. analysis of the complete carbohydrate profile of three regional Brazilian fruits; 5. elaboration of a database containing information on 2319 processed foods with specific components from products labels that are associated to non-communicable diseases. In 2015, data were collected on the sodium content from Brazilian product label for 1385 foods as part of an initiative of the Pan American Health Organization to contribute to the reduction of sodium intake in Latin America. Currently, two PhD projects are being developed to the improvement of the Brazilian Food Composition Database (TBCA): (i) reformulation and update of the TBCA database and website to cover not only foods reported in food consumption surveys, but also data on the wide Brazilian food biodiversity; (ii) development of a computerized system to aid the formulation of appropriate dietary plans, as well as offering personalized dietary counselling using the TBCA database. The food composition data obtained in the period will be included in the LATINFOODS database.

COSTA RICAFOODS conducted several studies: 1. Baseline study and tendencies on the situation of nutrition labelling on processed foods of Costa Rica (CR); 2. Investigation of the sodium content in processed and prepared foods of high consumption in CR; 3. Participation in the international survey on fast foods meals for children organized by World Action on Salt and Health (WASH), 2015. Results available in <http://www.worldactiononsalt.com/less/surveys/2015/Children's%20Meals%20Survey/160652.html>. The data

from the nutrition labels of processed foods and websites of fast food restaurants has demonstrated its utility to select foods for analytical analysis, to design food sampling plans and in general to know the national supply of processed and fast foods.

ECUADORFOODS generated food composition data of 137 foods locally produced and prepared in a Southern city of Ecuador (Cuenca).

PANAMAFOODS conducted a study of lipid profile of most widely consumed fats and oils in the Republic of Panama and a study of macro and micro nutrients in eggs of National production.

MEFOODS & GULFOODS

Ayesha Salem Al Dhaheri was elected as new regional coordinator. She took over from Abdulrahman Musaiger who served for many years as regional coordinator. New analytical data on foods and recipes are being generated in the region and it is hoped that they will feed into a new regional FCT. A vice coordinator is being identified.

NEASIAFOODS

A delegation from Korea visited FAO Rome to obtain advice for the new update of the Korean FCT which is underway.

NORAMFOODS

NORAMFOODS was affected by the death in October 2014 of Joanne Holden, regional coordinator since the inauguration of NORAMFOODS. The election of a new coordinator and vice coordinator is under way. USDA continues to publish yearly releases of its food composition database.

SAARCFOODS

The last SAARCFOODS meeting was held in Colombo from 18-19 October 2010 where representative from Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka came together and discussed the various issues. At that meeting, T. Longvah was elected SAARCFOODS coordinator. It was decided at this meeting to bring out the new country food composition tables. Since then, Bangladesh has released its new food composition tables in 2013, Nepal in 2015, and Pakistan is working on an updated FCT. The 11th International Food data conference will be held at the National Institute of Nutrition, Hyderabad from 3 - 5 November 2015 with the theme "Food Composition and Public Health Nutrition". The new Indian Food Composition tables will be released on this occasion.

OCEANIAFOODS

Most of the food composition activities in OCEANIAFOODS are carried out in Australia and New Zealand, with other Pacific nations appearing to be inactive in this area. In Australia in September 2014, a new nutrient database was released to support the National Aboriginal and Torres Strait Islander Nutrition and Physical Activity Survey, which was the first comprehensive national survey of food consumption and nutrient intake in Australia's indigenous population. In both Australia and New Zealand, at government level, the focus for nutrient analysis has been on high consumption foods to ensure data for these foods is current and robust and both countries have been redeveloping parts of their food composition data systems. In Australia there has also been some focus on determining levels of naturally-occurring vitamin D (cholecalciferol and 25-hydroxy cholecalciferol) in major foods to assist with understanding whether or not there is a population need for vitamin D fortification of foods. In both countries, the food industry continues to support some nutrient analyses and to provide this data for national tables. For example the New Zealand kiwi fruit industry has supported development of new analytical data for kiwifruit, which is now incorporated into the US and Australian food composition tables. The Australian grain and legumes industry has carried out a pilot program on the nutrient composition of new crops and new varieties of older crops.

Judy Cunningham took over the role of the regional OCEANIAFOODS coordinator from Bill Aalbersberg. A vice coordinator is being identified.