



AFTER

African food tradition revisited by research

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Objectives

The project has four general objectives for the traditional products from Africa:

- To gain comprehensive scientific knowledge on the existing know-how on technologies, processes and products.
- To propose improved traditional processes by reengineering the unit operations, with the aim of improving the safety and nutritional quality while maintaining or improving the organoleptic characteristics of traditional products.
- To reach objective consumer acceptability criteria for the traditional products and to ensure that the products can effectively access the EU markets in view of regulatory and ethical issues while also protecting the intellectual property rights of the people in Africa.
- To present the results as ready-to-use information for food companies including SMEs in the form of guidelines on quality management, food law and regulation and consumer protection and to transfer the results to the stakeholders in Africa and in the EU.

CONSUMER TESTS

European consumer tests regarding traditional **bissap** and **baobab** drinks were performed. The ESB team from Porto, Portugal, carried out sensory and consumer tests in Portugal for **four drinks made from red hibiscus flowers** and **three drinks made from *Adansonia digitata* L.** The **bissaps** drinks were also tested by English and French consumers at the beginning of 2013.

Additionally, using the same approach, traditional **Akpan** and **Gowé** were tested by the CIRAD team, Montpellier, France and **Kenkey** by NRI, Chatham, UK.

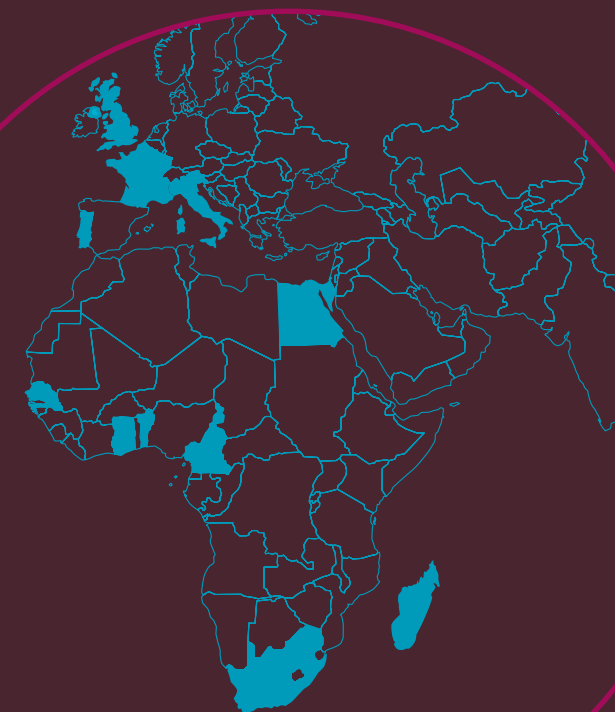


4 EUROPEAN COUNTRIES

France (Actia, Adiv, Ania, Cirad, CVG, Inra, Racines)
Italy (Spes)
Portugal (ESB)
United Kingdom (NRI)

7 AFRICAN COUNTRIES

Benin (UAC)
Cameroon (Ensai)
Egypt (FAAU, NRC)
Ghana (FRI)
Madagascar (UT)
Senegal (Ucad, Aafex)
South Africa (CSIR)



« The AFTER project aims to bring together Europe and Africa around one objective: **to improve traditional African products.** »

By generating and sharing knowledge on food technology, the AFTER project intends, for each product group, to improve, to develop or to create a product or a technology of interest to both European and African food companies.

The AFTER project contributes directly to improving the competitiveness of these products and technologies, and it facilitates their implementation and uptake by food companies and their marketing on African and European markets.

Ten traditional products from three main categories of products are studied:

FERMENTED CEREAL-BASED PRODUCTS: Akpan, Gowe, Kenkey, Kishk Sa'eedi;

FERMENTED AND SALTED FISH AND MEAT: Lanhouin, Kitoza, Kong;

TRADITIONAL PLANT BASED EXTRACTS FOR FUNCTIONAL FOODS: Bissap, Buy, Jaabi.

Beyond these direct results, the lessons learned and the methodologies for the assessment of traditional products and processes will be shared with other countries from both continents, and also with other groups of countries (Asia, India, South America) in order to disseminate the results among the research community involved in food research in developing countries.

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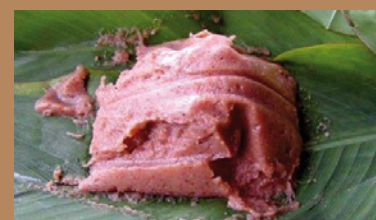
After project products

FERMENTED CEREAL-BASED PRODUCTS

KENKEY is a popular traditional fermented food made from maize and is a staple for most of the peoples in the coastal regions of Ghana. It is a sour tasting cooked stiff porridge of elastic consistency made from fermented wholemeal maize dough shaped into balls or cylindrical forms, and wrapped in maize husks or plantain leaves.

AKPAN is a yoghurt-like product prepared from a partially cooked fermented maize gruel, named ogi. It is usually mixed with condensed milk, ice and sugar by street vendors just before consumption. It is the most commonly consumed beverage in Benin.

GOWÉ is a homogenously cooked fermented paste prepared from a blend of malted and non-malted sorghum, millet or maize. It is consumed as a beverage after dilution in water and addition of ice, sugar and sometimes milk. It is the preferred beverage of children, pregnant women, sick and old people in Benin.



KISHK SA'EEDI is a traditional wheat-based fermented product that has been produced and eaten in homes of Upper-Egyptians since the time of the ancient Egyptians. Kishk Sa'eedi is commonly home-made and prepared by mixing Laban Zeer (buttermilk separated from freshly drawn milk and left to sour in an earthenware container: the "zeer") with coarsely ground parboiled wheat. The milk is fermented alone, then mixed and fermented again with the coarsely ground mature whole wheat that had been previously parboiled and sun dried.

FERMENTED AND SALTED FISH AND MEAT

LANHOUIN is a salted/dried mixture of different spontaneously fermented fish. It is widely used as a condiment in West Africa, particularly in Benin, Togo, and Ghana.

KITOZA is a type of salted/dried/smoked beef or pork meat. It is a traditional product of Madagascar. Today, it is smoked in order to improve organoleptic and shelf-stability properties.

KONG (catfish, Arius heudelotii) is traditionally smoked in Senegal for local and export markets. Such smoked fish is nolt deliberately fermented; however, a spontaneous fermentation step often takes place in the traditional drying process.

TRADITIONAL PLANTS-BASED PRODUCTS

THE BAOBAB (*Adansonia digitata* L.) is a tree that grows in the wild in all semi-arid and dry sub-humid areas throughout Africa and Madagascar. The fruit of the baobab, called 'buy' in Senegal, is widely consumed in various forms.

ZIZIPHUS MAURITIANA is the fruit of the jujube tree, widespread in the wild state in the Soudano-Sahelian savannas of Africa, particularly in Cameroon. The fruit is collected dry after falling from the trees and is used locally for food purposes. It is consumed as a snack food or processed into flour for the preparation of pancakes (Yaabande), or also associated with pastries or drinks. The dry and processed fruit has a pleasant biscuit-like taste and a plain aromatic flavour.

Dry calyx of **HIBISCUS SABDARIFFA**, known as bissap, is used in Senegal and other Western African countries for the preparation of beverages and other products with high anthocyanin content.



CIRAD (Agricultural Research
for Development, France)
Dominique Pallet (coordinator)
dominique.pallet@cirad.fr
Christian Mestres
christian.mestres@cirad.fr

AAFEX (Association Afrique
Agro Export, Senegal)
Babacar Ndir
bndir@aaafex.com

ACTIA (The French Network
of Food Technology Institutes, France)
Christophe Cotillon
c.cotillon@actia-asso.eu

ACTIA - ADIV (France)
Valérie Scislowski
valerie.scislowski@adiv.fr

ACTIA - CVG (France)
Philippe David
david@cvgpn.com

ANIA (France)
Françoise Gorga
fgorga@ania.net

CSIR (Council for Scientific
and Industrial Research, South Africa)
Nomusa Dlamini
nrldlamini@csir.co.za

ENSAI (National School
of Agro-Industrial Sciences, Cameroon)
Robert Ndjouenkeu
rndjouenkeu@yahoo.fr

ESB (Escola Superior de Biotecnologia,
Universidade Católica Portuguesa, Portugal)
Maria Manuela Estevez Pintado
mpintado@porto.ucp.pt

ESP/UCAD (École supérieure polytechnique,
Cheikh Anta Diop University of Dakar, Senegal)
Mady Cisse
madycisse@ucad.sn

FAAU (Faculty of Agriculture,
Alexandria University, Egypt)
Sameh Awad
sameh111eg@yahoo.com

FEDERALIMENTARE (Italy)
Maurizio Notarfonso
spes-adm@federalimentare.it

FIAB (Spain)
Federico MORAIS
f.morais@fiab.es

FIPA (Portugal)
Pedro Queiroz
pedro.queiroz@fipa.pt

FRI (Food Research Institute, Ghana)
Wisdom Amoa
wis.amoa@gmail.com

INRA (National Institute
for Agricultural Research, France)
Régine Talon
talon@clermont.inra.fr

NRC (National Research Centre, Egypt)
Zahra Ahmed
zahra3010@hotmail.com

NRI (Natural Resources Institute, UK)
Keith Tomlins
k.i.tomlins@gre.ac.uk

RACINES (France)
Philippe Gauthier
philippe.gauthier@racines-sa.com

SPES (Spread European Safety, Italy)
Daniele Rossi
direzione@federalimentare.it

UAC (Faculty of Agronomy,
University of Abomey Calavi, Bénin)
Joseph Hounhouigan
hounjos@yahoo.fr

UT (Faculty of sciences, Fundamental
and applied biochemistry Department,
Antananarivo University, Madagascar)
Danielle Rakoto
dad.rakoto@yahoo.fr

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