



**NUTRITION**  
THIRD WORLD

# Annual Report 2006

summary

Brussels, June 2007



## Part I Overview

### Support for research

In 2006, the Association sponsored 13 research projects in 12 countries, which is more than previous years<sup>1</sup>. The multiplier effect of NTW supported activities is apparent. Many projects were co-financed or have received seed funding. Scientific support has been provided to an online African scientific magazine and for two research projects in the Cameroon which are co-financed by the International Foundation for Science. Work subsidised by NTW has led to a Ph.D. thesis at Ghent University and was the object of various presentations at the Belgian Royal Academy of Overseas Sciences in 2006.

In terms of enquiries, NTW continued to receive interesting enquiries despite of a less intensive “downstream” promotion. In 2006, 20 enquiries from 13 countries were received, which is similar to 2005. At year end, three proposals were under examination.

As in previous years, the Scientific Committee’s input has proved invaluable. In the course of the year, Mr. André Huyghebaert’s tenure was renewed and the Board appointed Mr. Bernard Brabin from the Liverpool School of Tropical Medicine. A second member of the Scientific Committee, Ms. Ruth Oniang’o from Kenya was elected a Correspondent Member of the Royal Academy of Overseas Sciences, where she joined Mr. Francis Delpuech.

### Financing the Association

In 2006, the financial position was satisfactory. For the near future however, it is an absolute priority to embark on a vast fund-raising campaign that will focus on NTW’s financial viability. Little fund-raising activity took place this year, due to the priority given to organisational questions, to the preparation of changes in management and to activities focusing on awareness-building. Responsive to these needs, The Board and the Steering Committee took the decision to devote an entire board meeting to the subject of financing at the beginning of 2007 and to launch a vigorous fund-raising campaign in 2007.

To reach the above, improved communication is needed, focusing on what is achieved and highlighting the results and impact of NTW’s actions. NTW’s comparative advantages such as its broad range of partnerships and co-financing need to be put on centre stage.

### Management / Administration

The Boards’ concerns with regard to managerial continuity were addressed by the establishment of professionally qualified and financed secretariat, hosted by the Nutrition and Child Health Unit of the Institute of Tropical Medicine in Antwerp

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<sup>1</sup> A summary of those projects is included in Part III of this report

Belgium. The secretariat came into force on 1 January 2006. It is staffed by a nutritionist and a secretary paid on a part-time basis and placed under the supervision of Mr. Kolsteren, head of the Unit. In 2006, two progress evaluations were carried out. Amongst others, the secretariat computerises data onto the server and takes care of correspondence with the researchers. It also prepares minutes of Board and Steering Committee meetings and distributes routine documents such as letters of agreement, conditions for the granting of subsidies, notes on endowment and co-financing, maintenance of the website and tax relief certificates to donors. All important data concerning the NTW's administration and research projects are currently centralised on a server.

The Annual General Meeting of Members took place on 27 April 2006 and the Board of Directors met three times. The Advisory Board did not hold formal meetings in 2006 but individual interviews with several of its members enabled them to be kept informed and to provide advice on various precise subjects.

On 17 February 2006, the Board decided to create an informal Steering Committee comprising the Managing Director, the members of the secretariat and two volunteer Board members. The Committee focused on organisational, information and communication questions and the preparation and follow-up of board meetings as well as the status of research projects recently approved or submitted.

### **Promotion and communication**

In 2006, substantial efforts were made to facilitate future fund raising, increasing credibility, reputation and information of the public in general. An article on NTW was published in Echosud, the periodical of the Interuniversity Council for Development<sup>2</sup>. A section was published in the "Aid/Solidarity" supplement to the daily newspaper La Libre Belgique, dated 20 December 2006. The issue was printed in 67,000 copies, of which 5,000 were sent to all notaries in Belgium. A special section under the Donorinfo website was used as a reference by the Association for Ethical funding (AERF, Association pour l'Ethique dans la Récolte de Fonds) and La Libre Belgique. NTW was invited to take part in the 10<sup>th</sup> anniversary celebration of AERF which testified to both the relevance and the seriousness of this group and its Code of Ethics, which a not-for-profit organisation must comply with in order to benefit from the AERF quality label. NTW already satisfies the AERF criteria and has therefore filed an application that is now under consideration. AERF is very strict and up to now approximately 120 out of the 1,700 not-for-profit associations whose donors benefit from tax relief have been authorised to avail themselves of the AERF quality label.

The Proceedings of NTW's 20<sup>th</sup> Anniversary Symposium were distributed widely and mainly to Third World researchers. The new logo and website ([www.nutrition-ntw.org](http://www.nutrition-ntw.org)) was adopted by the Board and welcomed by correspondents. The site will be updated with new pages containing summaries of NTW's research projects as well as the 2006 annual report. A new brochure is under preparation for the new fund-raising campaign to take place in 2007. It will be a simple 4 page folder which will merely feature useful essentials and refer the reader to the website for details. In the new brochure examples of applications of the results of research projects will be presented.

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<sup>2</sup> Echosud Vol. 9, pp. 16-17

## Part II : Finance

### General

As in previous years, the Association's accounts have been kept by Mr. Jean-Pierre Lood and the "Subsidiary Companies team" of Bank Degroof. The accounts were audited by Messrs. Jean Fossion and Jean-Philippe Michaux, representing PricewaterhouseCoopers. The format of the annual accounts has been modified (retroactively to 31 December 2005) in order to comply with the new accounting regulations applicable to not for profit associations. A simplified version of the balance sheet and profit and loss account can be found in Annex 2. Tax relief certificates were sent to donors at the beginning of the year.

On 27 April 2006, the Board decided to file its summary accounts with the National Bank of Belgium in order to conform as closely as possible to the practice of commercial companies. At the same meeting, the Board decided to adopt a recommendation by the auditor, viz. to add an annex to the accounts and the budget with a 5 or 6 line summary for each research project.

### Financial report

In 2006, the Association received donations for an aggregate amount of € 206,100, with two donors donating € 100,000 each. This is slightly higher than the € 200,000 target that had been set by the Board. The financial income of € 11,200 was booked at 31 December 2006, a decrease of 11% against 2005. The cost of sundry goods and services, at € 95,000, includes expenses for the secretariat – € 27,000 – as well as the amounts allocated to research projects. Because of the delays incurred, allocations to research only reached € 67,800 as against € 180,000 in 2005. This explains the resulting rise in the year's result which from € 49,900 in 2005 shows an increase to € 119,700 in 2006. This situation will reverse itself in the future as the organisation catches up with its delays.

In parallel, the Association's own funds showed an increase from € 310,600 at the end of 2005 to € 430,300 as of 31 December 2006. They include the "Association's Funds" of € 43,600 (namely those funds that the association owned at the end of 2005 when the new accounting rules imposed on not for profit organisations came into force), and the so-called "earmarked funds". These are made up on the one hand of amounts earmarked for research projects already approved by the Board – € 124,200 – and, on the other, of the endowment fund that stood at € 92,100 at the end of 2006, an increase of € 20,600 over 2005. It should be recalled that the policy followed by NTW consists of allocating 10% of donations received to the endowment fund, a policy that was fully complied with in 2006.

### **Part III: Summaries of research projects supported in 2006**

#### **Street foods, schoolchildren morbidity and school performance in secondary education in the Western Cameroon**

*Final report*

Researchers: Messrs. Robert Ngouoffo and S. Nkwenkeu (DK International).

This study attempts to establish a causal link between the phenomenon of street feeding in schoolchildren and morbidity and school performance. The researchers further intend to work out a conceptual intervention framework for nutritional, health and environmental education. The project went through seven stages: 1/ Meeting with the provincial public health and education authorities; 2/ sampling; 3/ reviewing the interview format with the interviewer, then testing and finalising it; 4/ conducting the interviews with the schoolchildren; 5/ controlling and inputting the interview data; 6/ analysing the data, and 7/ collecting and analysing food samples.

The collection of data ended in November 2005. In all, 877 schoolchildren were interviewed with the help of pre-tested tools. Simultaneously, 36 samples of the foods most frequently consumed by the schoolchildren were collected and analysed at the Yaoundé Pasteur Centre. Analysis of the data and generation of the results were completed in 2006.

#### **Underlying causes for nutrition insecurity among black South African farm workers in the North West Province, South Africa – Social Research from the household and gender perspective**

*Progress Report*

Principal Investigator : Dr. Annamarie Kruger, Faculty of Health Sciences, North West University, Potchefstroom, South Africa; in collaboration with the Centre for International Development and Environmental Research (ZEU), Justus Liebig University of Giessen, Germany.

In South Africa, farm workers are one of the poorest population categories in terms of income, education, health, and nutrition security. This study is carried out within the infrastructure of the multidisciplinary “Farm Labour and General Health” programme (FLAGH) aimed at the development and evaluation of intervention programmes for improving the nutritional status and the quality of life of poor farmers.

Four farms in North West Province were selected and data obtained from 60 households on socio-demographics, economic status, nutrition security, social networks, coping strategies and perceptions of farm workers and their families. The qualitative study combined focus groups and direct observation.

Eight young researchers obtained their degrees through their involvement in the project. The presence of young researchers in the farms resulted in greater awareness

among farm owners concerning the situation of their workers, and led to their participation in developmental activities, such as the building of additional classrooms in one farm, the organisation of events and expression of willingness to implement other developments. All activities were implemented as planned, with the exception of those in one farm that was sold after the land reform. A community vegetable garden will be set up in 2007.

### **Impact of micronutrient supplementation and anti-malaria chemotherapy during pregnancy on birth weight**

#### *Progress report*

Principal investigator: Mr Patrick Kabore, in collaboration with the University of Ouagadougou and the School of Public Health of Brussels University - ULB (Prof. Dramaix). Co-financed by NTW and CEMUBAC.

The objective of this project is to study the impact of micronutrient supplementation during pregnancy on low birth weight, on growth, on morbidity and on mortality in children during the first six months of their lives. The study is a randomized double blind clinical experiment carried out in a rural area, including 1,200 women subjected to two different treatments, one providing zinc and vitamin A in addition to the control treatment (sulphadoxine-pyrimethamine + iron + folic acid).

This project did not take off notwithstanding NTW's approval of the financing in 2005. The researchers first contacted a French firm for the supply of the micronutrients. Negotiations for the purchase of the micronutrients and placebo delayed the implementation of the project until now. The project is due to start effectively in 2007 after delivery of the micronutrients. The results of the project could lead to public health interventions aiming at reducing low birth weight in children in Burkina Faso.

### **The Metabolic Syndrome in Bolivian Adolescents Study**

#### *Progress report*

Researcher: Ms. Ana Baya-Botti, Universidad Univalle, Cochabamba, Bolivia in collaboration with ITM (Dr. A. Perez Cueto). Co-financed by Univalle's institutional research funds and NTW.

The metabolic syndrome is defined as the presence of at least three of the following factors: arterial hypertension, dyslipidemia, overweight and abdominal obesity, high levels of fasting glucose, insulin resistance and diabetes. These disorders are at the root of chronic diseases such as cancer or heart diseases, responsible for the majority of deaths in the world. Although these ailments predominantly affect adults, there are important indications that point to the presence of the metabolic syndrome in adolescents. Since adolescence is a period of consolidation of feeding habits and lifestyles, it is a sensitive period to initiate prevention. It would appear necessary to investigate the prevalence of these metabolic disorders in order better to target future interventions.

The aim of the project is to identify the risk of metabolic syndrome and chronic diseases in Bolivian adolescents and to determine its link to their nutritional state and

socio-demographic characteristics. The project consists of a nutritional survey (food consumption) that will use tools developed in a previous study (PAFI project, co-financed by NTW) and the collection of a blood sample, the registration of socio-demographic data, the measure of weight, height, blood pressure and abdominal girth. The Ethics Committee of Univalle University has given its approval. Univalle University will benefit from this project for its recognition by MERCOSUR. The project will terminate in 2007.

### **The influence of perceptions and marketing practices on the utilisation of traditional foods by rural households in Matungu Division, Western Kenya**

*Final Report*

Principal investigator: Beatrice Ekesa, Maseno University, Kenya

In Kenya, the quality of the diet is decreasing as a consequence of bio-diversity reduction and the progressive abandonment of traditional foods (very rich in foods of vegetable origin), facilitated by the nutritional transition. Despite the fact that more than 2,500 animal species and more than 7,000 plants are registered, only 12 vegetable products and five animal products provide almost 60% of total energy intake. The aim of the study was to assess the influence of perceptions and marketing practices on the utilisation of traditional foods by rural households in Western Kenya's Matungu Division.

The study consisted of a cross-sectional survey. Observational checklists and structured questionnaires were used to collect data. The study found that 23% of the households did not like traditional foods. Only 62% of the households were reached by advertisements or messages promoting the consumption of traditional foods, so there is still scope to reach the remaining 38%. The study found that perceptions towards traditional foods influence their utilisation by 31%, while availability in the local markets does so by 56%. The study also brought up several suggestions: 1) dissemination of the results 2) sensitization of rural communities on the value and advantages of traditional foods 3) promotion of the production of traditional foods and 4) improvement of the retail presentation. The project's activities ended in December 2006.

### **Influence of Aflatoxin and Fumonisin exposure on growth and iron status of Tanzanian infants consuming maize-based complementary foods**

*Progress Report*

Principal investigator: Martin Kimanya, Tanzania Food and Drugs Authority (TFDA) in collaboration with the Sokoine University of Agriculture and Ghent University.

The study started as result of a previous NTW funded research on complementary foods in Tanzania led by Dr. Peter Mamiro. The project launched the hypothesis of contamination by moulds in rural Tanzania as one of factors explaining poor growth and nutritional status of children. The general objective of the study is to explore the influence of two mycotoxins (aflatoxin and fumonisin) exposure on growth and

nutritional status of Tanzanian infants aged 6 to 12 months consuming maize-based complementary foods.

In 2006 the project implemented most of the planned activities. The analytical techniques were introduced in TFDA's laboratory and the personnel of TFDA was trained in nutritional assessment methods. During the year, several samples of maize-based complementary foods were analysed for their fumonisin and aflatoxin contents. Management practices and critical points in the maize handling chain have equally been identified. In addition, a cross sectional study was carried out to collect baseline data on weight, length and haemoglobin status of 265 infants. The study material also served for two MSc students, one at Ghent University and the other at the Open University of Tanzania. In 2007 the project will perform the follow-up measurements of length, weight and haemoglobin level, and exposure will be further estimated using the data on the complementary food intake. This design is essentially a case control study. Preliminary results have been accepted for oral presentation at an IUPAC symposium on mycotoxin contamination. The study will end in 2008.

### **Nutritional quality of street foods and their role in schoolgoing adolescents' diets in Benin**

#### *Progress report*

Principal investigator: Ms. Eunice Nago, University of Abomey-Calavi, Cotonou, Benin.

This study's main objective is to assess the nutritional quality of street foods and their role in schoolgoing adolescents' diets in urban zones of Benin. It is conducted in Cotonou, the country's most populous city. Particular aims are: (1) to evaluate adolescents' food intake on schooldays and the relative contribution of street foods; (2) to set up a data base of the nutritive composition of street foods ingested by those adolescents at school; and (3) to obtain a view on the factors determining street food consumption by these Cotonou adolescents at school. The study started effectively in January 2007. Research funds were sent in July 2006, during the holiday season. Part was used in 2006 for the purchase of the investigation equipment, information sessions and the recruitment of the surveyors. In 2007, the study will include anthropometrical measurements and a survey of food and nutritional intake by adolescents using the 24 hour recall method repeated twice on a sample of 637 pupils. Although the initial protocol foresaw the creation of a database on the composition of street foods, that part was cancelled since such a database already exists at the University. This research forms part of a wider group of studies on street foods (economic, behavioural, hygienic aspects, etc.) with the aim of helping Benin to formulate relevant policies.

### **Qualitative and quantitative assessment of nutritional status and lifestyles of Vietnamese adolescents**

#### *Progress Report*

Principal Investigators: Le Thi Hop, Le Nguyen, National Institute of Nutrition (NIN) – Vietnam in collaboration with the Nutrition and Child Health Unit of ITM, Antwerp (M. C. Lachat). Co-financed by NUTRICIA Foundation



One of the researchers (Mrs Le Nguyen) worked for 14 weeks at the Nutrition Unit of the Institute of Tropical Medicine in Antwerp to finalise the details for the field work and discuss technical issues regarding the implementation of the study. Data collection started in schools in September 2006 after the funding from Nutricia Foundation was received. A physical activity questionnaire was validated against accelerometers. In the latter part of the year the food intake was estimated in 1,200 adolescents, 600 rural and 600 urban. For all students physical activity was equally investigated.

Data collection will continue in 2007 for the more qualitative aspects of the research. This will include research on determinants of behaviour using the best suited theoretical behaviour model in function of cultural context and age group. The analysis of the food intake study aims to correlate dietary intake, physical activity, hypertension and anthropometric data. The project foresees the implementation at national level of a nutritional programme for adolescents (the NIN is part of the Ministry of Health). The project will be completed in 2007.

### **Iron food supplements to be administered to young children (Bangladesh)**

#### *Final Report*

Investigators: Dr. Shafiqul A. Sarker, Dr. L. Davidsson, Dr. J.D. Cook, Prof. N. Gyr, Prof. R. Hurrell.

The aim of this study was the assessment of the efficacy of two insoluble iron salts, ferric fumarate and ferric pyrophosphate in non-anaemic children comparing it with the efficacy of a soluble salt, ferrous sulphate, used for fortification of a children's cereal. The research was progressing satisfactorily. The study was very intensive as all the children (235 non-anaemic) were receiving a portion of fortified cereal every day, six days a week. The objective was to compare the three interventions with respect to their efficacy. The results of this study and their application will be reported in 2007

### **AJFAND Internet Online Journal**

Prof. Ruth Oniang'o, PhD, from the Rural Outreach Program in Kenya is editor of the quarterly "AJFAND", the African Journal of Food, Agriculture, Nutrition and Development. This journal publishes the results of research carried out mainly in African countries and by local researchers online and free of charge. It receives a small financial support from the Nestlé Foundation, and NTW provided a lump sum support for publication in 2006.

<b>Nutrition Third World</b>		
<b>Annual Report 2006 summary</b>		
<b>Annex 1: Examples of co-financing</b>		
<b>Co-sponsors</b>	<b>Research themes</b>	<b>Countries</b>
<u>Belgian public organisations</u>		
Directorate General for Development Cooperation (DGCD)	- Anaemia among schoolchildren	Bolivia
Flemish Interuniversity council (VLIR)	- Prevention of intrauterine growth retardation	Burkina Faso
	- Complementary food	Tanzania
Conseil Interuniversitaire de la Communauté Française (CIUF)	- Ambulatory nutrition rehabilitation	RDC
FWO-VL	- Vitamin A and zinc	Brazil
Steve Biko Foundation	- Complementary food	Tanzania
	- Prevention of intrauterine growth retardation	Burkina Faso
BTC	- Mycotoxins in food and child growth	Tanzania
<u>Public organisations, international</u>		
European Union (EU)		
- STD programmes	- Evaluation of nutrition interventions	Philippines, Peru, Bolivia
- INCO programmes	- Growth promotion of children	Congo (Brazzaville)
World Health Organization (WHO)	- “Thyromobil” Evaluation of salt iodisation	West-Africa
UNICEF	- “Thyromobil” Evaluation of salt iodisation	West-Africa
	- Growth promotion of children	Congo (Brazzaville)
International Fund for Agricultural Development (IFAD)	- Comprehensive Planning and evaluation methodology	

<b>Co-sponsors</b>	<b>Research themes</b>	<b>Countries</b>
<u>Private or mixed sources</u>		
International Foundation for Science (IFS)	- Bio-availability of vitamin A - Traditional weaning products - Mycotoxins in food and child growth - Streetfoods	Cameroon Cameroon Tanzania  Benin
Nestlé Foundation	- Iron salts for anaemia prevention	Bangladesh
Institut de recherche pour le développement (IRD), France	- Growth promotion of children	Congo (Brazzaville)
Kiwanis International	- “Thyromobil” Evaluation of salt iodisation	West-Africa
International Council for Control of Iodine Deficiency Disorders	- “Thyromobil” Evaluation of salt iodisation	West-Africa
Hestia Foundation	- Fortified complementary food	Zambia
German Science Foundation	- Nutrition security of poor farmers	South Africa
Institute of Child Health (UK)	- Fortified complementary food	Zambia
Ellison Foundation	- Fortified complementary food	Zambia
Nutricia Foundation	- Adolescent nutrition and lifestyles	Vietnam
Centre Scientifique et Médical de l'Université Libre de Bruxelles pour ses Activités de Coopération	- Micronutrient and malaria chemoprophylaxis in pregnant women	Burkina Faso
Sight and Life	- Vitamin D in low birth weight	India
<u>External, local sources</u>		
Conselho Nacional de Desenvolvimento Científico e Tecnológico, Brazil	- Vitamin A and zinc	Brazil
Government of Uganda	- Nutrition planning on district level	Uganda
South African Sugar Association	- Nutrition security of poor farmers	South Africa
National Institute of Statistics	- Household budgets and nutrition	Bolivia
DK International	- Street foods and schoolchildren	Cameroon
Department of Biotechnology	- Vitamin D in low birth weight	India

#### **Notes**

- This table gives examples. It does not claim to be exhaustive.
- The financial contributions by associated universities or research institutes on their own funds are not mentioned.
- Only one investigator is mentioned.

**Nutrition Third World**  
**Annual Report 2006 Summary**  
**Annex 2: Summary Annual Accounts**

The annual accounts in their full legal format and the external auditor's report (PricewaterhouseCoopers) may be obtained on request at the following address: [info@nutrition-ntw.org](mailto:info@nutrition-ntw.org).

A summarized version is presented below. The auditor has issued an unqualified opinion.

**Balance sheet as at 31.12.2006**

<u>Assets</u>	<u>(Euros 000)</u>	<u>Liabilities</u>	
Fixed assets	0.0	Association's funds	43.6
		Earmarked funds	
Current assets		Endowment fund	92.1
Debtors (one year maximum)	63.3	Earmarked for projects	124.2
Short term investments	368.0	Result carried forward	<u>170.3</u>
Cash at banks	9.2	Total own funds	430.3
Regularisation accounts	<u>0.2</u>	Debts maturing in less than one year	<u>10.4</u>
<b>Total</b>	<b>440.7</b>	<b>Total</b>	<b>440.7</b>

**Profit and Loss Account for the year ended 31 December 2006**

<u>Debit</u>	<u>(Euros 000)</u>	<u>Credit</u>	
Research subsidies granted	67.8	Donations received	206.1
Overhead expenses	27.2		
Other expenses	1.0	Financial income	11.2
Financial expenses	<u>1.6</u>		
	97.6		
Result of the period	<u>119.7</u>		
<b>Total</b>	<b>217.3</b>	<b>Total</b>	<b>217.3</b>