Project no: 015101

Project acronym: *IndigenoVeg*

Project title: Networking to Promote Sustainable Production and Marketing of Indigenous Vegetables through Urban and Peri-Urban Agriculture in Sub-Saharan Africa

Instrument: Coordination Action
Thematic Priority: Sixth Framework Programme Priority FP6-2003-INCO-DEC-2.A.3.2. Bio-diverse, bio-safe and value-added crops

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Final Report

Period covered: from 01/01/06 to 30/06/08

Date of preparation: 11/08/08

Start date of project: 01/01/06

Duration: 30 months

Project coordinator name: Dr. Einir Young
Project coordinator organisation name: Bangor University

Revision 1

Networking to Promote Sustainable Production and Marketing of Indigenous Vegetables through Urban and Peri-Urban Agriculture in Sub-Saharan Africa (*IndigenoVeg*)

1. Project execution

Summary description of project objectives

Indigenous vegetables (IV) play an important role in the African diet, economy and environment. However, they have not featured significantly in the research agendas of international or local organisations, which have tended to focus on improved exotic varieties. *IndigenoVeg* aims to create a network of leading EU and African researchers to promote production of IV varieties in urban and peri-urban agriculture (UPA). Its three operational objectives are to:

1) Co-ordinate and link existing research efforts on IVs and UPA by creating a forum where partners can share information on current progress, disseminate best practice, obtain feedback from their peers and refine and strengthen their on-going activities.
2) Develop targeted and relevant collaborative future research proposals.
3) Disseminate the outcomes of the coordination action engaging with a wider audience, comprised of EU and sub-Saharan African scientists and policy makers.

Contractors

Institution	Department	Person in charge
Bangor University	CAZS Natural Resources	Dr. Einir Young
Albert-Ludwigs-Universitat Freiburg	Institut fur Physiche Geographie	Prof. Axel Drescher
Justus Liebig Universitaat Giessen	Institut fur Agrarpolitik und Marktforschung	Prof. Ernst-August Nuppenau
Copenhagen University	Department of Agricultural Sciences	Dr. Andreas de Neergaard
Consejo Superior de Investigaciones Cientificas	Centro de Ciencias MedioAmbientales	Prof. Alberto Fereres Castiel
The World Vegetable Centre	Regional Centre for Africa	Dr. Abdou Tenkouano
National Agricultural Research Organisation	Kawanda Agricultural Research Insititute	Dr. Peter Sseruwagi
Maseno University	Botany and Agriculture Department	Dr. Gideon Mwai
Rhodes University	Department of Environmental Science	Prof. Charlie Shackleton
Agriculture Research Council	Roodeplaat Vegetable and Ornamental Plant Institute	Mr. Willem van Rensburg
Rainman Landcare Foundation	N.A.	Dr. Raymond Auerbach
Institut National des Recherches Agricoles du Benin	Centre de Recherches Agricoles Plantes Perennes	Dr. Francoise Assogba-Komlan
Institut Senegalais de Recherche Agricoles	Centre pour le Developpement de l'Horticulture	Mr. Meissa Diouf
Centre National de Recherche Agronomique	Direction Regionale d'Abidjan	Mrs. Hortense Djidji

Work performed

The forum for coordinating research and exchanging ideas hinged on a series of 14 thematic meetings (Figure 1) organised under three sub-themes: 'Sustainable management practices for IV production', 'Opening niche markets for IV' and 'Development of policy for the promotion of IV in urban and peri-urban areas'.

In 2006, four double meetings took place:

1) 1st thematic meeting 30 May – 02 June (Benin) "Traditional cultural practices" & "Integrated pest and disease management";
2) 2nd thematic meeting 25 – 28 July (Senegal) "Biodiversity of IVs" & "Improving the production of IVs – selecting the best genotypes in combination with the best cultural practices";
3) 3rd thematic meeting 06 – 09 September (Uganda) "Optimal use of resources in urban and peri-urban vegetable production (e.g. waste recycling into agriculture, wastewater management)" & "Planning for IV production in terms of needed space in cities";
4) 4th thematic meeting 31 October – 03 November (Kenya) "Seed management issues" & "IVs and nutrition: from plough to plate".

In 2007, two triple meetings took place:

1) 5th thematic meeting 05-09 March (South Africa) "IVs and livelihoods along the rural-urban continuum", "Rural-urban linkages: to what extent should we be promoting IV production in urban/peri-urban areas or rural areas?" and 'Methodologies for creating awareness on IV issues";
2) 6th thematic meeting 17-21 September (Tanzania) "Market Chains and Consumer Consumption Trends," "Quality Management and "Identifying Niche Markets in Urban and Peri-urban Areas" and "Linking Communities Extension Services, Researchers and Policy Makers for IV Production in UPA".

The exchange of new knowledge emerging from on-going research was the first step towards the development of collaborative research proposals, the second principle objective of the network. To support work on this objective, during 2006 the Sub-Saharan African partners engaged in small-scale surveys to gather crucial missing baseline data on the nature and extent of production of IVs in urban and peri-urban areas and on marketing constraints and opportunities in relation to these varieties. These data were analysed in the course of 2007 and presented and discussed during the "Market chains and consumer consumption trends session during the 6th thematic meeting.

A number of partners drew inspiration from the lessons of the thematic meetings and two research proposals were prepared in the course of 2007, and submitted to the EU FP7 programme and the Volkswagen Foundation. Overall, the outputs of the two years of the network were brought together during an integration meeting held 21-24 November 2007 in Tanzania. The meeting was used both to define the important research and development gaps which need to be addressed as priority issues (Figure 1), and to prepare for the policy dialogue workshop which took place in early 2008.

Dissemination of the Coordination Action outputs (the third objective) took place primarily through five tools: the website, the end of project policy dialogue workshop, pamphlets for farmers and consumers, the *IndigenoVeg* book and research articles and posters. With the exception of the pamphlets, the dissemination work took place throughout the project.

1) The website (http://www.indigenoveg.org/) was set up in early 2006. A public access section summarised the objectives, partners and activities of the project, it posted announcements of forthcoming open access meetings, it provided links to other relevant organisations, and various documents pertaining to UPA and IVs (including meeting reports). A password-protected section allowed partners to share data and access internal project documents.
2) The end of project policy dialogue workshop took place 23-26 January 2008 at Rhodes University, Grahamstown, South Africa (Figure 1). The workshop aimed to distil key policy lessons from the research to date and prepare draft policy

recommendations for dissemination to international donor, development and aid agencies, governments, NGOs, the private sector. The workshop consisted primarily of invited presentations on the key lessons in relation to IVs and UPA, and working sessions attended by the *IndigenoVeg* group, other researchers in the field of UPA and IVs and researchers specialising in relevant policy issues. The ensuing policy recommendations were presented to a group of invited policy makers from the survey cities in the African partner countries and from various African regional cooperation organisations and networks on the last day of the workshop. Country working groups were set up so that the recommendations could be adapted to each specific country situation, and to facilitate the development of a plan of action following the workshop.

3) The *IndigenoVeg* book will be an up-to-date scientific synthesis of existing knowledge and new information (drawing extensively from, but not restricted to, the *IndigenoVeg* project) bringing together the fields of UPA and IVs on the African continent. Work on this product is on-going and will published by Earthscan in late 2008.
4) The network has produced information material on IVs aimed at a farmer, consumer and extension services audience. The material has focused on *Amaranthus* spp., *Brassica carinata*, *Cleome gynandra*, *Hibiscus sabdariffa*, *Abelmoschus esculentus*, *Cucurbita moschata, Solanum aetiopicum*, *Solanum scabrum*, and *Corchorus olitorius*, and includes cultivation practices advice and nutritious, easy-to-prepare recipes from across Africa. To facilitate future dissemination the material has been made freely available on the *IndigenoVeg* website, for any organisation to download and re-print, translate or modify as required.
5) The research outcomes have been shared through various articles and posters. Two papers reviewing the activities and lessons learned from the Coordination Action were presented at two international conferences by the Coordinators (First International Conference on Indigenous Vegetables and Legumes – Prospects for fighting poverty, hunger and malnutrition, 12-15 December 2006, Hyderabad, India; International Symposium Underutilized Plant Species for food, nutrition, income and sustainable development, 3-7 March 2008, Arusha, Tanzania). The African partners prepared posters summarising the results from the small-scale market supply chain surveys which were presented at the policy dialogue workshop in January, and a number of partners have submitted or are in the process of submitting articles for publication in peer-reviewed journals.

Results achieved

The benefits of the thematic meetings have been two-fold. On the one hand, the regular sharing of knowledge about past and on-going research experiences is allowing partners to address their current research activities strategically and effectively, avoiding duplication of efforts. On the other hand, the multidisciplinary nature of the thematic meetings is permitting partners who might not normally work on a particular issue, to be exposed to new ideas and concepts, and this is resulting in a broader, multidisciplinary understanding of the issues which surround the promotion of IVs in UPA. Overall, the project has been very successful in its objective to co-ordinate and link existing research efforts on IVs and UPA.

The opportunity to structure the scientific programme of each meeting, as well as conduct the logistical planning (building upon the experiences of previous meetings) is contributing towards the capacity-building of the African partners. The surveys have also resulted in capacity-building, particularly for those partners without prior experience in socio-economic research issues. The benefits of the surveys have accrued not only to the African partners, but to the whole consortium, as the development of the survey methodology was carried out as on open discussion in an e-mail forum. Partners coming from different disciplinary backgrounds contributed ideas and approaches, which resulted in a lively and stimulating debate, which called for deeper reflection on disciplinary research premises and concepts.

The whole consortium has benefited by acquiring new knowledge on the market supply chain of IVs in urban and peri-urban areas, and these results integrated with ideas shared during the thematic meetings have resulted in a sound platform for the development of holistic proposals characterised by the goal of enhancing food security for the urban poor, under the current and future EU framework programmes. Unfortunately, although various subgroups

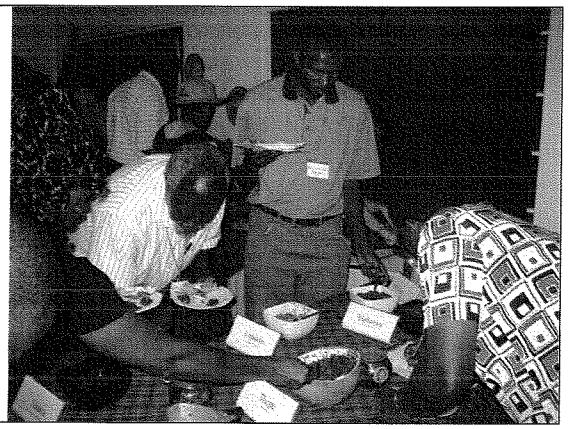
have made various attempts at securing funding for further collaborative work, none of these have been successful. The bid for a follow-on project which was submitted under FP7 by eight of the consortium partners achieved all the threshold scores, but ultimately did not receive an offer of funding.

Through the preparation work for the policy dialogue workshop, and the workshop itself, partners who would not normally work on policy issues, have had the opportunity to reflect on the policy implications of their research, identifying which policy makers would be most concerned with IV in UPA research, and considering how scientific messages can be transformed to be accessible and of interest to a relevant policy maker.

The event has been an important breakthrough since researchers and policy makers rarely find themselves in the same arena with the chance to hold a two-way conversation about what knowledge policy makers are missing and what information scientists can provide to fill these gaps and meet important development priorities. The workshop showed that where spaces for this interaction are provided, the results can be impressive. In several countries, the dialogue between the *IndigenoVeg* researchers and the policy makers has continued after the workshop, and in-country events to disseminate the key messages about IVs in UPA are being organised.

The coordination action has achieved its objective of disseminating the outcomes of the project engaging with a wider audience, comprised of EU and sub-Saharan African scientists and policy makers to a significant degree. Though project has come to an end, partners will work on certain dissemination activities beyond its lifetime of the project continuing with the mission of bringing 'prestige' for IVs, both within the research and development community (through the *IndigenoVeg* book and national follow-on workshops to the policy dialogue workshop), the farmer and consumer community (distributing the *IndigenoVeg* pamphlets), and the policy-making environment (through the national follow-on workshops to the policy dialogue workshop).

Although in recent years there have been several important programmes on UPA and an increasing number of researchers working with indigenous vegetables, *IndigenoVeg* has been unique its explicit goal to promote the production and consumption of IVs in urban areas. As was seen from the call for posters from external researchers during the policy dialogue workshop, very few researchers are exploring issues pertaining to IVs in urban and peri-urban areas. Partners from the *IndigenoVeg* consortium are thus at the forefront of this field, and collectively the *IndigenoVeg* surveys, although carried out on a small scale, have made a significant contribution to the state-of-the-art. Data collected using the same approach are available from fourteen cities in seven countries, and this provides the scientific community with an extremely interesting overview of the market supply chain of IVs in urban areas, which captures both intra- and cross-country/cross-region variation.



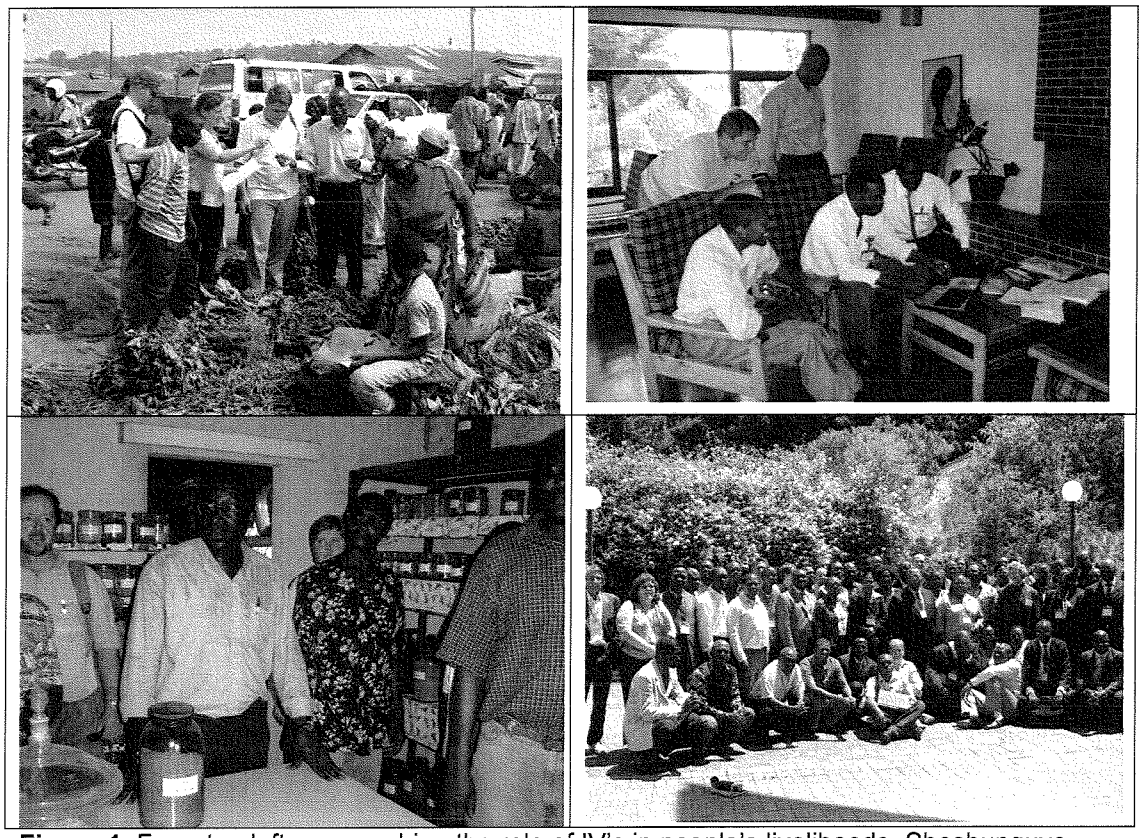


Figure 1: From top left - researching the role of IV's in people's livelihoods, Shoshunguve farming area – 5th thematic meeting, South Africa; cultural food tasting session 5th thematic meeting, South Africa; interviewing IV sellers at a Kampala market, 3rd thematic meeting, Uganda; developing one-page proposals, integration meeting, Tanzania; learning about medicinal properties of IVs at a traditional medicine hospital, 2nd thematic meeting, Senegal; participants at the policy dialogue workshop, Rhodes, South Africa.

2. Dissemination and use

Section 1 – Exploitable knowledge and its use

The coordination action has not resulted in any exploitable results.

Section 2 – Dissemination of knowledge

IndigenoVeg will not result in any knowledge that is subject to intellectual property rights. The coordination action will result in a large amount of knowledge that should be disseminated to a wider audience, accruing from the thematic meetings, the baseline surveys and the conference. In general, the consortium has endeavoured to be as open as possible with its findings, and indeed, the Yahoo group has now grown to include members from outside the consortium.

The consortium agreed to allow the African partner countries until June 2008 to produce articles for publication in journals. From 1st July 2008 the market supply chain survey data has been made available to the whole consortium. After two years these data will be made available to the general public.

The consortium also agreed that it would be most beneficial for the farmer pamphlets not to be subject to copyright. The material has been posted on the *IndigenoVeg* website, and any organisation will be able to reproduce the material, or adapt and translate it to their needs. Photos taken during the thematic meetings will be used in the production of these materials, and may therefore be used freely by other organisations in the future.

The dissemination activities and outputs are listed in the overview Table below.

Overview table

Planned/actual dates	Type	Type of audience	Countries addressed	Size of audience	Partner responsible /involved
Month 9, 10, 12, 13, 17, 22	Meeting reports	Research	EU Africa	-	All partners
Month 9, 12 and on-going	Publications	Research	EU Africa	-	All partners
Month 18, 20, 21, 23, 24	Survey reports	Research Policy makers	EU Africa	-	AVRDC and African partners
Month 24	Outcome of integration meeting	Members Research	EU Africa	-	CAZS
Month 25	Policy dialogue workshop	Members, Research, Policy makers	EU Developing countries	150	DES/AVRDC/CAZS
Month 27	Presentation on lessons from the policy dialogue	Research	Developing countries	200	CAZS
Month 28	Policy dialogue report	Policy makers	Africa	50	DES/AVRDC
Month 30	Farmer pamphlets	Farmers	Africa	1000	ARC
Draft to be finished by month 30; but final publication will be after	Book	Research Policy makers	EU Developing countries	-	DES
Post-project month 32	e-Strategies Projects Europe article	Research Industry	EU Africa	-	CAZS

The project website (http://www.indigenoveg.org) has been continually updated throughout the year. There are two sections to this website, a public area and a password protected area. The public section contains a project description, announcement of project events, useful links and documents, and the meeting reports which partners have agreed for public dissemination. The password protected section contains material which partners have wished to share internally.

The policy dialogue workshop report describes the activities which took place during the workshop at Rhodes University in January, and synthesises the outcomes. It is available on the project website.

A folder and ten pamphlets targeted to a farmer/consumer audience have been developed. The activity was led by ARC. The pamphlets offer cultivation and recipe information for nine crops and on seed and seedling management. 1000 pamphlets have been produced, and will be distributed through the *IndigenoVeg* African partners. The pamphlets are not subject to copyright and are freely available on the website for any organization to download, re-print or modify.

Publication of *IndigenoVeg* activities and outcomes will continue after the end of the project. For example, partner DES has submitted an article to *Renewable Agriculture & Food Systems.* Partners CNRA and INRAB have also prepared first drafts of articles.

The chapters for the *IndigenoVeg* book are due to be delivered on the 31st October 2008. The book, which will be published by Earthscan, will be an up-to-date scientific synthesis of existing knowledge and new information (drawing extensively from, but not restricted to, the *IndigenoVeg* project) bringing together the fields of urban and periurban agriculture and indigenous vegetables on the African continent, which has not been done before.

eStrategies Projects published by British Publishers will be developing a special section for August 2008 with a focus on *Bio-diverse, bio-safe and value added crops*. The publishers approached the Coordinator to invite the development of an editorial for the *IndigenoVeg* project.

Section 3 – Publishable results

The coordination action has not resulted in any exploitable results, and therefore this section does not apply.

Project no: 015101

Project acronym: *IndigenoVeg*

Project title: Networking to Promote Sustainable Production and Marketing of Indigenous Vegetables through Urban and Peri-Urban Agriculture in Sub-Saharan Africa

Instrument: Coordination Action
Thematic Priority: Sixth Framework Programme Priority FP6-2003-INCO-DEC-2 A.3.2. Bio-diverse, bio-safe and value-added crops

Periodic Activity Report

Period covered: from 01/01/08 to 30/06/08 Date of preparation: 07/08/08

Start date of project: 01/01/06 Duration: 30 months

Project coordinator name: Dr. Einir Young
Project coordinator organisation name: Bangor University Revision 1

Networking to Promote Sustainable Production and Marketing of Indigenous Vegetables through Urban and Peri-Urban Agriculture in Sub-Saharan Africa (*IndigenoVeg*)

Publishable Executive Summary

Context and objectives

Indigenous vegetables (IV) play an important role in the African diet, economy and environment. However, they have not featured significantly in the research agendas of international or local organisations, which have tended to focus on improved exotic varieties. *IndigenoVeg* aims to create a network of leading EU and African researchers to promote production of IV varieties in urban and peri-urban agriculture (UPA). Its three operational objectives are to:
1) Co-ordinate and link existing research efforts on IVs and UPA by creating a forum where partners can share information on current progress, disseminate best practice, obtain feedback from their peers and refine and strengthen their on-going activities.
2) Develop targeted and relevant collaborative future research proposals.
3) Disseminate the outcomes of the coordination action engaging with a wider audience, comprised of EU and sub-Saharan African scientists and policy makers.

Contractors

Institution	Department	Person in charge
Bangor University	CAZS Natural Resources	Dr. Einir Young
Albert-Ludwigs-Universitat Freiburg	Institut fur Physiche Geographie	Prof. Axel Drescher
Justus Liebig Universitaat Giessen	Institut fur Agrarpolitik und Marktforschung	Prof. Ernst-August Nuppenau
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Centre National de Recherche Agronomique	Direction Regionale d'Abidjan	Mrs. Hortense Djidji

Work performed

In 2008 the network has focused all its efforts on its third operational objective of disseminating the outcomes of the coordination action to an audience of scientists, policy makers, consumers and farmers. Efforts have been concentrated primarily around three dissemination tools.

- The end of project policy dialogue workshop took place 23-26 January 2008 at Rhodes University, Grahamstown, South Africa. The workshop aimed to distil key policy lessons from the research to date and prepare draft policy recommendations for dissemination to international donor, development and aid agencies, governments, NGOs, the private sector. The workshop consisted primarily of invited presentations on the key lessons in relation to IVs and UPA, and working sessions attended by the *IndigenoVeg* group, other researchers in the field of UPA and IVs and researchers specialising in relevant policy issues. The ensuing policy recommendations were presented to a group of invited policy makers from the survey cities in the African partner countries and from various African regional cooperation organisations and networks on the last day of the workshop. Country working groups were set up so that the recommendations could be adapted to each specific country situation, and to facilitate the development of a plan of action following the workshop.
- The *IndigenoVeg* book will be an up-to-date scientific synthesis of existing knowledge and new information (drawing extensively from, but not restricted to, the *IndigenoVeg* project) bringing together the fields of UPA and IVs on the African continent. It will published by Earthscan.
- The network has produced information material on IVs aimed at a farmer, consumer and extension services audience. The material has focused on *Amaranthus* spp., *Brassica carinata*, *Cleome gynandra*, *Hibiscus sabdariffa*, *Abelmoschus esculentus*, *Cucurbita moschata, Solanum aetiopicum*, *Solanum scabrum*, and *Corchorus olitorius*, and includes cultivation practices advice and nutritious, easy-to-prepare recipes from across Africa. To facilitate future dissemination the material has been made freely available on the *IndigenoVeg* website, for any organisation to download and re-print, translate or modify as required.

All IndigenoVeg meeting reports and other materials are posted on the project website (http://www.indigenoveg.org).

Results achieved

The policy dialogue workshop has enabled partners who would not normally work on policy issues, to have the opportunity to reflect on the policy implications of their research and consider how scientific messages can be transformed to be accessible and of interest to a relevant policy maker.

The event has been an important breakthrough since researchers and policy makers rarely find themselves in the same arena with the chance to hold a two-way conversation about what knowledge policy makers are missing and what information scientists can provide to fill these gaps and meet important development priorities. The workshop showed that where spaces for this interaction are provided, the results can be impressive. In several countries, the dialogue between the *IndigenoVeg* researchers and the policy makers has continued after the workshop, and in-country events to disseminate the key messages about IVs in UPA are being organised.

The *IndigenoVeg* project has come to an end, however, partners will work on certain dissemination activities beyond the lifetime of the project continuing with the mission of bringing 'prestige' for IVs, both within the research and development community (through the IndigenoVeg book and national follow-on workshops to the policy dialogue workshop), the farmer and consumer community (through the IndigenoVeg pamphlets), and the policy-making environment (through the national follow-on workshops to the policy dialogue workshop).

Intentions for use and impact

IndigenoVeg hypothesises that by supporting the cultivation of indigenous vegetable (IV) varieties in preference to exotic import varieties in urban and peri-urban agriculture (UPA) in sub-Saharan Africa significant beneficial impacts will arise: 1) At the societal level, in terms of increased food and livelihood security for the urban poor, especially women who are often responsible for the cultivation of IVs and in terms of diversified income-generation activities through the exploitation of domestic and export niche markets and; 2) At the level of the economy, in terms of increased marketing and commerce possibilities, particularly with overseas' markets; 3) At the environmental level, in terms of more sustainable UPA production practices.

IndigenoVeg is not expected to result in any knowledge that has the potential for industrial or commercial application. However, it will result in valuable research knowledge for the promotion of IVs in UPA. As the consortium is expressly pursuing the goal of promoting and bringing prestige to IVs (counteracting the recent tendency of African urban consumers to view exotic vegetables as 'modern' and, therefore, preferable, dietary options), it naturally is sharing its findings and conclusions in full with other researchers, the farmer, consumer and policy-making community. The means of doing this have been varied, comprising the aforementioned book and policy dialogue workshop, the policy dialogue report, meeting reports, pamphlets targeted to farming and consumer communities, and also a number of scientific publications.

Further information
All information relating to the project activities is posted on the project website (http://www.indigenoveg.org/). Additional queries should be directed to:

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Figure 1 – Participants at the IndigenoVeg policy dialogue workshop, Rhodes University, Grahamstown, South Africa, 23-26 January 2008.

Section 1 - Project objectives and major achievements during reporting period

Overview of general project objectives and relation to state-of-the-art

The overall objective of this Coordination Action (CA) is to draw together a network of leading EU and sub-Saharan African researchers in order to promote the production of indigenous vegetable (IV) varieties in urban and peri-urban areas by coordinating and integrating current research efforts on the role played by IV varieties in food security and livelihoods and research in the field of urban and peri-urban agriculture (UPA).

The project has four operational goals:

1. To bring together a team of specialists working on IV varieties (predominantly in rural areas) together with specialists on UPA and sustainable vegetable production practices, in order to engage with the issues pertaining to the production of IVs in urban and peri-urban areas.
2. To co-ordinate existing research programmes on vegetable production by creating a forum (comprised primarily of thematic meetings) where partners can share information on current progress, disseminate best practice, obtain feedback from their peers and refine and strengthen their on-going research activities.
3. To develop targeted and relevant collaborative future research proposals;
4. To disseminate the outcomes of the CA, engaging with a wider audience, comprised of EU and sub-Saharan African scientists and policy makers, through a conference, website and publications.

These primary objectives will be supported through the activities relating to two secondary objectives:

I. To collate existing material relating to the production of IVs in sub-Saharan Africa that would be accessible only through the medium of this unique collaboration.[1]

II. To gather crucial missing baseline data on the nature and extent of production of IVs in urban and peri-urban areas and on marketing constraints and opportunities in relation to these varieties, in order to support current UPA research activities, through small-scale surveys.

The recent years have continued to witness increasing recognition of the need to promote the production and consumption of indigenous and underutilised crops, including vegetables. This recognition has resulted in the establishment of initiatives such as the Plant Resources of Tropical Africa (PROTA), Global Facilitation Unit for Underutilized Species (GFU), The International Centre for Underutilised Crops (ICUC) and the Global Horticulture Initiative (GHI). In this year, of interest to *IndigenoVeg* was the International Symposium on "Underutilized plants for food, nutrition, income and sustainable development" held in Arusha, Tanzania, 3-7 March 2008. At the same time research interest and support in the field of urban and peri-urban agriculture is still strong with long-lasting initiatives such as the Consultative Group on International Agricultural Research *Urban Harvest* Programme, the International Research and Development Centre *Urban Poverty and Environment*; Resource Centres on Urban Agriculture and Food Security *Cities Farming for the Future project* (2005-2010).

The *IndigenoVeg* network is unique and novel in its explicit objective to bring together both of these fields. To date most programmes on indigenous vegetables have focused on production issues and have most often been located in rural areas, whereas most programmes investigating urban agriculture issues have tended to overlook the contributions of indigenous crops.

[1] Reviewers will note that this objective has been modified compared to Annex I, as a result of discussions that took place amongst the consortium in the Bamako opening meeting. The changes were approved by the Project Officer (see Management Report 2006)

In reality, as the market supply chain studies (presented at the 6th *IndigenoVeg* meeting) have been showing in East and West Africa certain indigenous vegetable species are widely cultivated and traded in many cities. However, the survey results from Durban and Pretoria lend credence to the idea that in South Africa IVs are strongly perceived as 'poverty' and 'old person' foods.

This evidence re-emphasises on the one hand the potential of indigenous vegetables to be important crops within the urban market system and on the other hand the need to combat the negative image that some of these crops have acquired amongst the young, urban population.

Summary of recommendations from previous reviews

No recommendations were received from the review of the year 2 report.

Summary of objectives for the reporting period, work performed, contractors and main achievements

Summary of objectives
Over the course of the last reporting period, the consortium has continued to engage with the last two operational objectives, with most of the emphasis placed on the fourth one.

Work performed and contractors

Most of the work towards the third operational objective took place in 2007, resulting in a number of collaborative proposals amongst some of the network partners. However, the full concept note of the proposal entitled "Urbanization and its impacts on the use of natural resources in Africa" (mentioned in the year 2 report) was developed in January 2008 and submitted to the Volkswagen Stiftung.

The main emphasis in this reporting period has been on achieving the fourth operational objective of disseminating the outcomes of the Coordination Action. The website has continued to be the main vehicle for disseminating *IndigenoVeg* news and outcomes. It is maintained by partner APT, but the CAZS partner has also been contributing in terms of suggesting contents and layout of this website.

The consortium activities focused on three main dissemination tools: an end of project policy dialogue workshop, the *IndigenoVeg* book and IV pamphlets aimed at farmers/consumers.

The policy dialogue workshop on "The promotion of indigenous vegetables in African urban and periurban spaces: production, consumption, poverty alleviation and policy" was hosted by DES at Rhodes University, South Africa, 23-26 January 2008.

The workshop was attended by participants from 13 *IndigenoVeg* partner institutions (CAZS, APT, DAS, CCMA, AVRDC, KARI/NARO, BPS, DES, ARC, RLF, INRAB, CDH, CNRA), as well as external scientists and policy makers. Partner APMR had to cancel at the last minute because of ill health.

The workshop was chaired by Dr Virchow, formerly of AVRDC. The process steering group comprised representatives from DES, CAZS, INRAB, as well as the facilitators and one nominated policy resource person. All the *IndigenoVeg* African partners contributed posters on the market supply chain surveys to the poster session. Participants from ARC, AVRDC, BPS, CAZS, CDH and INRAB prepared the keynote presentations. There were five external facilitators, and in addition two internal facilitators from CAZS.

The workshop has resulted in a detailed report, which has been published on the project website. Moreover, several of the African partners (e.g. INRAB and CNRA) are organising in-country events to disseminate the workshop outcomes more widely. These are due to take place in the coming months.

Partner DES has also continued to lead activities related to the book, with inputs by CAZS. The book currently consists of a foreword and 10 chapters. CAZS, DAS, BPS, DES, AVRDC, and APT are contributing lead and co-authors and there are also a number of external authors from IPGRI, the University of Abomey-Calavi (Benin) and Mwenge University College of Education (Tanzania). An agreement to publish with Earthscan has been secured, and chapters are due to be delivered on 31st October 2008.

Partner ARC led the development of folders with pamphlets containing cultivation information and nutritious, simple to prepare recipes for a range of crops. Information was drawn from research by ARC, AVRDC and NARO.

Main achievements
In 2009, the *IndigenoVeg* network has had the following main achievements:

1. The policy dialogue workshop at Rhodes University, attended by 78 participants, resulting in a report (for public dissemination).
2. Pamphlets with cultivation and recipe information for nine crops and one pamphlet on seed and seedling management. A folder for the pamphlets.
3. It has secured an agreement to publish the *IndigenoVeg* book with Earthscan.

Most important problems occurring and corrective actions undertaken

The final policy dialogue workshop hosted by DES was well planned, but experienced unexpected problems associated with accommodation, transport and translation. These were all dealt with as they arose. The problems led to complaints by some of the scientist participants, though overall the scientific component of the event was deemed satisfactory.

A problem beyond the control of the consortium has been the strong drought in South Africa which compromised the field trip during the policy dialogue workshop in January. Regrettably, there was not a great deal of agricultural activity to see. Moreover, at the second site, the local community representative failed to arrive to meet the delegates because of a funeral, despite assurances from them only two days prior to the actual trip.

DES reported that progress on the book has, at all times, been sluggish and at times non-existent. This was reported in previous annual reports. Several lead authors constantly neglected agreed deadlines, which is now being repeated with respect to chapter revisions. The project Coordinator has taken an active role in trying to expedite delivery.

Section 2 – Workpackage progress of the period

Work package 1

Objectives and starting point
1.1 To facilitate team integration at the outset of the CA;
1.2 To ensure that detailed work plans for each WP are discussed, agreed and drawn up at the opening meeting;
1.3 To ensure that the team are communicating effectively throughout the lifetime of the CA;
1.4 To integrate the findings of WPs 2, 3, 4, 5 and 6;
1.5 To develop a list of researchable constraints and identify topics for future collaborative proposals.

The work on WP1 had already commenced in 2006, and was finalised at the end of the 2007 reporting period.

Progress towards objectives
Not applicable.

Deviations from the project work programme
None.

Work package 2

Objectives and starting point
2.1 To ensure that each contributor is organising the activities and preparing the required scientific reports according to schedule;
2.2 To allow contributors to comment on the activities and review the project results on a regular basis;
2.3 To give contributors a forum where they can assess the outcomes of the project in order to shape and direct their current research efforts;
2.4 To allow the consortium to monitor progress towards the CA objectives;
2.5 To put in place a mechanism of information flow from the contributors to the WP leaders to the Coordinator, so that the project management activities can be modified to achieve deliverables and milestones.

The work on WP2 commenced in 2006 and was finalised partly at the end of the 2007 reporting period and partly at the end of this reporting period.

Progress towards objectives
This work package is the joint responsibility of all work package leaders. CAZS is leading WP 1, 2 and 8. AVRDC-RCA is leading WP 3, INRAB is leading WP 4, DES is leading WP 5, ARC is leading WP 6 and APT is leading WP 7. In this reporting period all five objectives were addressed.

In 2008, one major activity took place, the policy dialogue workshop. DES, CAZS and AVRDC were mainly responsible for the ensuring that all necessary actions were undertaken so that the event took place according to schedule.

- Objective 2.1 has been achieved.

- Objectives 2.2, 2.3 and 2.4 were mostly applicable to 2006 and 2007.

- With regards to objective 2.5 the same system of communication between the Coordinator, the WP leaders and the partners used in previous years, was maintained in 2008.

Deviations from the project work programme
None.

Work package 3

Objectives and starting point
3.1 To access and review research studies available on IV research and development, including 'grey' literature sources made available by all participants on the production constraints and opportunities specific to UPA and marketing opportunities for IVs;
3.2 To collect baseline data on the production and marketing constraints and opportunities for IVs in UPA that will be crucial for the development of relevant and targeted research proposals during Task 1.2;
3.3 To develop a procedure for the standardised collection, inputting and statistical analysis of this information gathered in two cities from each of the seven African partner countries;
3.4 To produce reports at city, country and wider sub-Saharan African level;
3.5 To present the results at the State-of-the-art (SOA) 6 meeting;
3.6 To inform the work developed during Task 1.2;
3.7 To liaise with WP 7 leader for the wider dissemination of the outcome of the surveys.

The work on WP3 commenced at the beginning of the 2006 reporting period and was finalised at the end of the 2007 reporting period.

Progress towards objectives
Not applicable.

Deviations from the project work programme
Not applicable.

Work package 4

Objectives and starting point
4.1 To network partners and strengthen their research on 'Sustainable management practices for IV production' (which responds to part of sub-theme A.3.2.2 in call A.3.2);
4.2 To organise *State-of-the-art* (SOA) meetings that on the one hand will allow partners to present their on-going research to other partners and obtain feedback (thereby allowing them to refine their work), and on the other hand will expose participants to aspects of research that they do not normally work on, providing them with a broader context for their own research;
4.3 To organise *Dissemination of Methodology* (DM) meetings, that are conceived as training meetings where a partner or a group of experienced partners will disseminate a particular methodology to partners who wish to use it in their on-going activities;
4.4 To identify researchable constraints that will support the activities of the meeting described in Task 1.2

The work on WP4 was mostly completed by the end of 2006 and was finalised in 2007.

Progress towards objectives
Not applicable.

Deviations from the project work programme
Not applicable.

Work package 5 & 6

As the meetings from both WPs were grouped and took place during the same thematic meetings, WPs 5 & 6 will be discussed together.

Objectives and starting point
5.1 To network partners and strengthen their research on 'Opening niche markets for IV production' (which responds to part of sub-theme A.3.2.4 in call A.3.2);
5.2 To organise *State-of-the-art* (SOA) meetings that on the one hand will allow partners to present their on-going research to other partners and obtain feedback (thereby allowing them to refine their work), and on the other hand will expose participants to aspects of research that they do not normally work on, providing them with a broader context for their own research;
5.3 To organise *Dissemination of Methodology* (DM) meetings, that are conceived as training meetings where a partner or a group of experienced partners will disseminate a particular methodology to partners who wish to use it in their on-going activities;
5.4 To organise *Discussion* (Di) meetings, to allow partners to discuss the feasibility of certain strategies, approaches and ideas.
5.5 To identify researchable constraints that will support the activities of the meeting described in Task 1.2

6.1 To network partners and strengthen their research on 'Development of policy for the promotion of IV in urban and peri-urban areas' (which responds to part of sub-theme A.3.2.5 in call A.3.2);
6.2 To organise *State-of-the-art* (SOA) meetings that on the one hand will allow partners to present their on-going research to other partners and obtain feedback (thereby allowing them to refine their work), and on the other hand will expose participants to aspects of research that they do not normally work on, providing them with a broader context for their own research;
6.3 To organise *Dissemination of Methodology* (DM) meetings, that are conceived as training meetings where a partner or a group of experienced partners will disseminate a particular methodology to partners who wish to use it in their on-going activities;
6.4 To organise *Discussion* (Di) meetings, to allow partners to discuss the feasibility of certain strategies, approaches and ideas.
6.5 To identify researchable constraints that will support the activities of the meeting described in Task 1.2

The work on WP 5 and 6 was finalised at the end of the 2007 reporting period.

Progress towards objectives
Not applicable.

Deviations from the project work programme
Not applicable.

Work package 6

WP 6 has been addressed together with WP 5.

Work package 7

Objectives and starting point
7.1 To establish and maintain a website for the internal (amongst partners) and external (to a wider public audience) dissemination of the output of the CA; the website will also be used for advance internal posting of plans for meetings, interim reports, communication of events, etc.
7.2 To organise a conference to allow partners to network more widely as well as to disseminate the output of the CA to a wider audience of scientists and policy makers;
7.3 To disseminate the findings of *IndigenoVeg* through a variety of different channels, including publication in peer-reviewed journals, newsletters, a themed book on the output of the conference, policy briefs, and simple technical support pamphlets and radio programmes for farmers.
7.4 To address challenges of dissemination to a multilingual audience.

Progress towards objectives
In the reporting period, the consortium continued with work towards 7.1, but engaged primarily with objectives 7.2, 7.3, and 7.4.

The project web page was updated by the APT partner with the policy dialogue workshop report and the pamphlets.

- Objective 7.1 was already achieved in 2006 in terms of the establishment and maintenance of a project website. In 2007 and 2008, work towards this objective continued by updating the website on a regular basis.

A policy dialogue workshop entitled "The promotion of indigenous vegetables in African urban and periurban spaces: production, consumption, poverty alleviation and policy" was held at Rhodes University, South Africa, 23-26 January 2008. DES was designated to play a coordinating role for this event.

The workshop generated a lot of interest and was well attended with 78 participants, including 18 policy makers from the seven *IndigenoVeg* African countries; a CTA representative; scientists drawn from 13 *IndigenoVeg* partner institutions (CAZS, APT, DAS, CCMA, AVRDC, KARI/NARO, BPS, DES, ARC, RLF, INRAB, ISRA, CNRA) and from other African institutions (based in Benin, Cameroon, Cote d'Ivoire, Kenya, Lesotho, Nigeria, South Africa, Tanzania); eight policy resource persons (from Benin, Cote d'Ivoire, Kenya, Tanzania, Uganda, UK); and five facilitators.

The final format of the workshop consisted of seven parts:

1) An opening "state-of-the-art" session consisting of keynote presentations and posters on a range of topics (drawing on previous *IndigenoVeg* events and from researchers outside the *IndigenoVeg* network) to define the current situation of research in the area of overlap between indigenous vegetables and urban agriculture, highlighting the gaps and future research needs.

The *IndigenoVeg* partners prepared posters on the supply chain survey and additionally ten external scientists prepared posters on IV research in urban and peri-urban areas. Six presentations were delivered:

- An overview on african indigenous vegetable project by Einir Young (CAZS)
- Consumption and nutritional value of indigenous vegetables in urban and peri-urban areas in Africa by Ineke Vorster (ARC)
- The role of women in African IV supply chains- issues and policy implications by Germain Pichop (AVRDC, co-written with Katinka Weinberger)
- IV production systems in UPA in Africa: an overview by Gideon Mwai (BPS, co-written with Francoise Assogba Komlan, INRAB)
- Commercialization & market access of aivs value chain concepts by Mumbi Kimathi (external guest)
- Success stories on indigenous vegetables: case of roselle (*Hibiscus sabdariffa* l.) at Keur Pathe Kane in peri-urban area of Mboro city, 70 km from Dakar, Senegal.by Meissa Diouf (CDH)

2) A facilitated session to enable the participating scientists to reflect on the key messages from the presentations and their own country experiences and identify the most critical research results and lessons with significant implications for policy on IVs and urban and peri-urban agriculture.

3) A session on understanding the policy making process and promoting research concerns to decision makers

4) A working group session to develop policy recommendations resulting from current indigenous vegetable and urban agriculture research. The outcomes of these working groups were synthesized in an overall policy recommendation presentation.

5) Presentation of the policy recommendations to the invited policy makers in a presentation entitled "African Cities rediscover their roots: African Indigenous Vegetables make a comeback" by the conference chairman Detlef Virchow, followed by a discussion session.

6) Country working groups followed by a plenary session to discuss the implications of the policy recommendations for each country, based around four questions:

- How do the policy recommendations presented relate to the policies in our country (s) - What are the differences / gaps?
- What changes (if any) should be made to make these recommendations more applicable to our country?
- What could be the challenges in implementing the recommendations?
- What are the possible strategies for dealing with the challenges? Who should do what and what support would they require from researchers.

7) Country working groups to define the way forward and identify areas of immediate action for policy makers and researchers to pursue jointly after returning to their respective countries.

The model of bringing in policy makers on the last day of the workshop worked well, and by the end of the meeting significant commitment was expressed by the policy makers to take action in their respective countries to raise the profile of and investments in of urban agriculture and indigenous vegetables

➢ Objective 7.2 was achieved.

Dissemination of the CA has been undertaken through a variety of channels.

1) A report of the policy dialogue was generated by the professional facilitators of the meeting and edited by CAZS. The final version was circulated to all participants in mid-March 2008 and was also made available on the *IndigenoVeg* website.

2) Dr Pasquini from CAZS attended the International Symposium on "Underutilized plants for food, nutrition, income and sustainable development" held in Arusha, Tanzania, 3-7 March

2008, where she gave a presentation on "Translating research results into policy: lessons from the IndigenoVeg policy dialogue workshop" (authors: Pasquini MW, Ambrose-Oji B, Virchow D and Young EM).

3) Work on the *IndigenoVeg* book is on-going. Partner DES has been coordinating the overall development of the book. Partners who have volunteered to lead or co-lead a chapter comprise CAZS, DAS, BPS, DES, AVRDC, and APT, and there are also external authors from IPGRI, the University of Abomey-Calavi (Benin) and Mwenge University College of Education (Tanzania). The book currently consists of a foreword and 10 chapters.

Dr Pasquini from CAZS reviewed the chapters in March 2008 and provided detailed feedback to authors. Revisions of the chapters is on-going.

In 2007 CTA was approached as potential publishers. However, because of staff changes in CTA responses were very slow, and eventually the Prof Shackleton from DES approached Earthscan, which is a highly regarded publisher internationally. An agreement to publish (as per the Technical Annex) was reached with Earthscan in June 2008. Chapters are due to be delivered to Earthscan by 31st October 2008.

4) Dissemination of the *IndigenoVeg* market supply chain survey results has taken different forms.

Two chapters of the *IndigenoVeg* book which are being developed by AVRDC draw heavily on the production and marketing of indigenous vegetables in urban and peri-urban areas results from the survey carried out in all seven countries.

Partners developed posters for display at the policy dialogue workshop.

- AVRDC – G. Pichop, G. Maro, R. Marealle. Indigenous vegetables supply chain in urban and peri-urban sub-Saharan Africa: a survey reports synthesis.
- AVRDC – G. Pichop, I. Swai, G. Maro, R. Marealle Production and marketing of indigenous vegetables in urban and peri-urban areas of Arusha and Dar es Salaam.
- CNRA – A.H. Djidji, Y. Assouma, G.F. Alla, L. Fondio, N.C. Kouame. Production and commercialisation of indigenous vegetables in urban and peri-urban spaces in Cote d'Ivoire, West Africa.
- CNRA – G.F. Alla, Y. Assouma, A.H. Djidji, L. Fondio, N.C. Kouame. Production and commercialisation of indigenous vegetables in urban and peri-urban spaces: case study of African eggplant and okra in Abidjan, Cote d'Ivoire
- KARI/NARO – Kasambula, P, Pichop, G, Maro, F, Marealle R and Ssruwagi P. "Indigenous Vegetable Supply Chain in Uganda Significance, Constraints and: Opportunities. Case of Kampala and Mbale Districts"
- INRAB – F. Akplogan, F. Assogba Komlan, P. Adégbola, G.E. Achigan Dako. Indigenous vegetables supply chain in urban and peri-urban zones of Benin.
- DES – C. Shackleton, F. Paumgarten, L. Ernst, T. Mthembu, R. Auerbach, M. Pasquini, G. Pichop. Production of and trade in African indigenous vegetables in the urban and peri-urban areas of Durban, South Africa.

The consortium agreed to give African partners until June 2008 to convert the survey reports into articles for submission to peer-reviewed journals. Partner DES has submitted an article to *Renewable Agriculture & Food Systems.* Partner CNRA has a first draft of an article entitled "Caracterisation du maraichage urbain et periurbain" (F. Alla, Y. Assouma, C. Kouame, H. Djidji). Partner INRAB has also developed the first draft of an article entitled "Les légumes traditionnels dans les systèmes de production et de commercialisation en régions urbaines et périurbaines du Sud du Bénin"(Assogba Komlan F, Akplogan F, Achigan Dako Enoch, Assogba Thierry).

From 1st July 2008 the survey data were made available to the whole consortium through the *IndigenoVeg* password-protected section of the web page. After two years, these data will be made freely available to the general public.

5) Partner ARC has been leading the development of pamphlets with cultivation information and nutritious, simple to prepare recipes for a range of crops *(Amaranthus* spp., *Brassica carinata*, *Cleome gynandra*, *Hibiscus sabdariffa*, *Abelmoschus esculentus*, *Cucurbita moschata, Solanum aetiopicum*, *Solanum scabrum*, and *Corchorus olitorius)* to be disseminated in a specially prepared folder.

So as to facilitate the wider dissemination of these materials, they have not been subjected to copyright, and they have been made freely available on the web page to be adapted as needed to local contexts. Material was designed in gray-scale, although the photos of the crops were in colour.

Overall, a folder and 10 different pamphlets were developed (cultivation/recipe pamphlets for nine different crops and a general IV seed and seedling production pamphlet). Information was compiled from research carried out by ARC, AVRDC-RCA and KARI/NARO.

6) Partners have continued engaging with other stakeholders to raise the profile of the *IndigenoVeg* activities. For example, CAZS approached various organisations seeking support with the distribution of the book. ICUC agreed to take a consignment of 100 books for further distribution and RUAF will make available its contact list for further distribution.

7) CAZS has been contributing to the development of an article which will be published in the magazine eStrategies (British Publishers - http://www.britishpublishers.com/).

- As can be gathered from the above, the consortium has successfully delivered a range of materials forecast under objective 7.3.

The consortium recognises that the promotion of indigenous vegetables in urban and peri-urban agriculture has to be carried out through the medium of the major languages employed in the African partner countries. Although most of the *IndigenoVeg* output is in English (the language common to the whole consortium), French-English translators were available on the final day of the project policy dialogue workshop. In addition, some of the working groups carried out their work through the medium of French.

The farmer dissemination materials have been produced in English, however, the intention is that these materials should be freely adapted and translated by any of the partners or external interested organisations, into other major local languages.

- Objective 7.4 was achieved in the context of the policy dialogue workshop, though not as successfully in the context of the pamphlets.

Deviations from the project work programme
No deviations, although there have been several renegotiation of deadlines, most notably associated with the book.

Table 1: Deliverables List

Del. no.	Deliverable name	Workpackage no.	Date due	Actual/Forecast delivery date	Estimated indicative person-months *)	Used indicative person-months *)	Lead contractor
8.1	Internal procedures for co-operation	8	1	1	0.25	0.54	CAZS
1.1	Internal procedures for execution of each WP	1	1	1	0.4	0.27	CAZS
8.3	Financial protocols for partners	8	1	1	0.25	0.54	CAZS
1.2	Outline of mentoring strategy	1	2	3	0.4	0.54	CAZS
2.2	WP leaders CC: e-mails to organisers of each meeting to Coordinator	2	On-going	On-going	2	0.25	INRAB, ARC, DES, AVRDC, APT
7.2	Website set-up	7	3	2	2	2	APT
3.1	Literature review	3	3	4	1.1	3.8	CAZS
7.1	Final plan for dissemination	7	4, 6, 8, 10, 12, 15, 18, 23	on-going, last version finalised month 11	19.1	1	DES
8.5	Project presentation	8	4	4	0.25	0.25	CAZS
3.3	Protocols for the surveys	3	4, 9	7	1	1.5	AVRDC-RCA
3.2	Standardised questionnaire	3	5	7	1	7.4	AVRDC-RCA
2.1	Monitoring worksheet	2	5	3	1	0.1	AVRDC-RCA
2.5	Coordinator briefings	2	5, 7, 8, 9, 14, 17, 21, 23	5, 7, 8, 9	1.6	1.11	CAZS
8.2	Regular progress reports	8	6, 12, 18, 24, 30	2, 5, 7, 8, 10, 11, 13, 17, 18, 22, 30	1.25	2	CAZS
8.4	Regular financial reports	8	6, 12, 18, 24, 30	10, 12, 22, 25, 30	1	4.45	CAZS, All

2.3 & 2.4	Now reported monthly and by copying key e-mails to coordinators	2	Monthly	Monthly and on-going	2	0.25	N.A.
4.2	Report SOA 2	4	8	9	3.3	7.41	INRAB
4.4	Report DM 4	4	8	9	3.2	7.41	CCMA
4.1	Report SOA 1	4	9	9	3.4	7.41	CDH
4.3	Report DM3	4	9	9	3.1	7.41	CNRA
3.4	Standardised statistical analysis	3	9	13	1	68.2	AVRDC-RCA
4.6	Report SOA 6	4	11	12	3.4	8.1	DAS
6.4	Report Di 14	6	11	12	3.7	6.41	APT
4.5	Report DM 5	4	13	21	3.2	7.41	BPS
5.3	Report DM 9	5	13	21	3.8	7.41	KARI/NARO
5.2	Report Di 8	5	17	22	3.8	1	RLF
5.4	Report SOA 10	5	17	17	3.8	0.91	DES
6.1	Report Di 11	6	17	17	3.7	1.17	CAZS
4.7	Synthesis document WP 4	4	19	23	1	1	INRAB
4.8	Presentation outline for integration	4	19	N.A.	0.3	0	INRAB
6.2	Report SOA 12	6	20	22	3.7	1.8	APMR & APT
6.3	Report DM 13	6	20	17	3.7	2	ARC
3.5	City, country, African survey reports	3	20	26	66.7	85.15	AVRDC
3.6	Outline of presentations for SOA 7	3	20	21	4	42	AVRDC
6.5	Synthesis document WP 6	6	21	23	0.8	0.82	ARC
6.6	Presentation outline for integration	6	21	N.A.	0.3	0	ARC
5.1	Report SOA 7	5	22	22	3.8	3	AVRDC-RCA

5.5	Synthesis document WP 5	5	22	23	0.8	0.2	DES
5.6	Presentation outline for integration	5	22	N.A.	0.3	0	DES
1.3	Outcome of integration meeting	1	25	24	21.6	1	CAZS
1.4	List of researchable constraints	1	25	23	0.5	11.76	CAZS
1.5	One-page proposals	1	25	23	1.5	1	CAZS
7.2	End of project conference	7	25	25	5	15	DES

***) if available**

Table 2: Milestones List

Milestone no.	Milestone name	Workpackage no.	Date due	Actual/Forecast delivery date	Lead contractor
1	Opening meeting	1	1	1	CAZS
2	Detailed work plan for each WP and outline of mentoring strategy	1	1	1	CAZS
3	Procedure to be followed by WP leaders for internal reporting and trouble shooting	1	1	1	CAZS
4	Integration meeting	1	22	23	CAZS
5	Reports on the scientific integration of the CA activities	1	24	24	CAZS
6	One-page proposal outlines	1	24	24	CAZS
7	Monitoring worksheet	2	5	3	AVRDC
8	Briefings for each thematic meeting on progress on previous meetings	2	5, 7, 8, 9	5, 7, 8, 9	CAZS
9	A comprehensive literature list	3	3	4	CAZS

10	A standardised questionnaire	3	4	7	AVRDC
11	Completion of questionnaire survey data collection and inputting	3	11	21	AVRDC, KARI/NARO, BPS, DES, ARC, RLF, INRAB, CDH, CNRA
12	Completion of data analysis	3	16	23	AVRDC
13	Completion of report write-up	3	18	26	AVRDC, KARI/NARO, BPS, DES, ARC, RLF, INRAB, CDH, CNRA
14	Outline of presentations for meeting SOA 7	3	20	20	AVRDC, KARI/NARO, BPS, DES, ARC, RLF, INRAB, CDH, CNRA
15	All meetings should have taken place by month 11	4	11	11	N.A.
16	The synthesis document and the presentations for the integration meeting completed	4	19	23	INRAB
17	All meetings should have taken place by month 15 except SOA 7	5	15	21	N.A.
18	The synthesis document and the presentations for the integration meeting completed	5	20 (except SOA 7 which will happen 22)	23	DES
19	All meetings should have taken place by month 17	6	17	21	N.A.
20	The synthesis document and the presentations for the integration meeting completed	6	21	23	ARC
21	Website established by month 3 and updated on a monthly basis	7	3, monthly	2, monthly	APT
22	Linking up to networks	7	8	4, on-going	APT
23	Conference advertisement and call for papers	7	6	22	DES

24	Closing deadline for call for papers	7	18	N.A.	N.A.
25	Conference	7	25	25	DES
26	Firm arrangements with publishing house	7	22	30	DES
27	Contributions to peer-reviewed journals and newsletters	7	On-going	On-going	All
28	Technical support pamphlets and radio programme arrangements, policy brief development	7	21 onwards	30	ARC
29	Regular contact with all WP leaders (on a quarterly basis)	8	On a quarterly basis	On a monthly basis	CAZS
30	Timely reports to the EC	8	6, 12, 18, 24, 30	2, 5, 7, 8, 10, 11, 13, 17, 18, 22, 30	CAZS

Section 3 – Consortium management

Consortium management tasks and their achievement, problems and solutions

Objectives
8.1 To establish internal procedures to maintain interdisciplinary understanding and co-operation;
8.2 To organise a realistic format for the timely implementation of the project;
8.3 Working closely with WP 7 leader, to confirm the dissemination strategy regarding i) who needs access; ii) The reasons for disseminating findings; iii) Determine which findings need to be disseminated to whom; iv) Methods for dissemination;
8.4 To ensure timely reporting of progress and any problems encountered to the Commission and that milestones are met and the deliverables and expected results are achieved;
8.5 To ensure that the project finances are properly managed.

Tasks undertaken to achieve the WP 8 objectives
This reporting period has continued to address objectives 8.3, 8.4 and 8.5.

The group activities in 2008 have focused primarily on the book, the end-of-project workshop and the farmer pamphlets. Other forms of dissemination (including through networking) have been decided and carried out on an institutional basis.

- Objective 8.3 has been achieved, though certain dissemination activities will continue beyond the lifetime of the project (e.g. the book and survey articles).

The Coordinator offered detailed guidance to partners on the procedure for the final report submission in several instalments, starting two months prior to the end of the project. Most of this guidance was through email, though the Coordinator also followed up certain partner queries by telephone.

- Through this activity, partners were encouraged to identify any potential problems well in advance of the actual end of year report, to ensure timely reporting of progress (objective 8. 4) and proper management of project finances (objective 8.5).

The coordinator has also kept the commission informed of any developments throughout the year. For example, the coordinator:

1. Alerted Prof. Montanari on 04 February 2008 to the disturbances in Kenya which had resulted in the closure of partner 8 Maseno University, preventing the timely submission of the annual report.
2. Submitted the documentation to amend the CPF forms for various partners (various emails exchanged between Maartje Wouters and Margaret Pasquini from late April onwards).
3. Identified an underspend on various headings and proposed to re-route part of this to improve the project dissemination, in an email to Prof. Montanari on 22/05/08. On 10/06/08 an email was received by Maartje Wouters confirming that a formal amendment to the contract would need to be submitted. The electronic versions were submitted on 17/06/2008, and the hardcopies were sent before the end of the project.
4. Requested to extend the submission of the final report and audit certificates (query on procedure sent 18/06/2008, formal request sent on 01/07/2008). The request was approved on 01/07/2008, and the new submission date of 30/09/2008 was confirmed.

Problems and solutions
In the course of 2008, serious disturbances in Kenya in late December and early January meant that partner 8, Maseno University, was closed. The project leader could not therefore submit the annual report. The Coordinator informed Prof. Montanari of this problem, and delivered the annual report on time, but without the submission of partner 8. The Coordinator kept in email and phone contact with the partner 8 project leader, and as soon as the situation settled sufficiently for Maseno University to re-open in April, the required documentation was forwarded.

Contractors: comments regarding contributions, changes in responsibilities and changes to the consortium itself

All contractors have met their minimum contributions to the network contributing to the dissemination activities, reporting and networking. As in previous years, in 2008, inputs varied between partners, with partners DES, CAZS and AVRDC contributing most heavily to the policy dialogue workshop and partner ARC to the preparation of the pamphlets. Partners DES and CAZS have also made significant contributions to the *IndigenoVeg* book.

They have been no changes in responsibilities amongst contractors and there have been no changes to the consortium itself. Partners 1, 4 and 7 have undergone name or structural changes, but this has not modified the participation by individual scientists. Partner 1 University of Wales Bangor was renamed Bangor University. Partner 4 the Royal Veterinary and Agricultural University merged into the University of Copenhagen (UoC), becoming a faculty within UoC. Partner 7 National Agricultural Research Organisation (NARO) underwent a restructuring process, and thus the mandate for horticultural research was taken up by the National Crops Resources Research Institute (NaCRRI) within NARO, in place of the Kawanda Agricultural Research Institute (KARI).

Project timetable and status

This section discusses the project timetable and status. Activities under WP 7 and WP 8 have progressed according to plan. These details are reported in the indicative timetable and project current status barchart below. The grey areas represent the indicative timetable as seen in the Technical Annex and the red triangles represent actual achievements in relation to it.

Indicative timetable of activities (in months) for *IndigenoVeg* and project current status

WP 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28-30
1.1 Opening meeting for all	▲																											
1.1 Meeting WP leaders	▲																											
1.2 Integration meeting																							▲					
1.3 Collating outcomes																								▲				
1.4 Outline proposals																								▲				
	▲ Task completed																											
WP 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28-30
2.1 Check for survey										▲																		
2.2 WP 4 keep contact with WP 2 leader & meeting organisers										▲																		
2.3 WP 5 as above																					▲							
2.4 WP 6 as above																					▲							
2.5 Report reminders	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																

2.6 WP 1 contact WP leaders	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																
2.7 Monthly briefings to Coordinator	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																
2.8 Review briefing					▲		▲	▲		▲																		
2.9 Problem-solving as required	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																
	▲ Task completed																											
WP 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28-30
3.1Final strategy	▲																											
3.2 Lit review				▲																								
3.3 Lit review sent to leader				▲																								
3.4 Standard. questionnaire							▲																					
3.5Questionnaire to WP 8							▲																					
3.6 Procedure, timescales									▲																			
3.7 Monitoring checklist			▲																									
3.8 Survey															▲													
3.9 Standard. data analysis														▲														
3.10 Data analysis/write-up																							▲	▲				
3.11 Reports sent to WP 7																												
3.12 Present data at SOA7																					▲							
	▲ Task completed																											

WP 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28-30
4.1Final strategy	▲																											
4.2 SOA 1					▲																							
4.3 SOA 2							▲																					
4.4 DM 3						▲																						
4.5 DM 4							▲																					
4.6 DM 5											▲																	
4.7 SOA 6									▲																			
4.8 Collating outcomes																												
4.9 Reports to WP 7									▲ ▲			▲									▲							
4.10 Synthesis reports																							▲					

▲ Task completed

WP 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28-30
5.1Final strategy	▲																											
5.2 SOA 7																					▲							
5.3 Di 8																					▲							
5.4 DM 9										▲																		
5.5 SOA 10															▲													
5.6 Collating outcomes																												
5.7 Reports to WP 7																	▲				▲	▲						
5.8 Synthesis reports																							▲					

▲ Task completed

WP 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28-30
6.1Final strategy	▲																											
6.2 Di11															▲													

6.3 SOA 12																											
6.4 DM 13																											
6.5 Di 14																											
6.6 Collating outcomes																											
6.7 Reports to WP 7																											
6.8 Synthesis reports																											
	▲ Task completed																										
WP 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28-30
7.1Final strategy																												
7.2Final plan for dissemination																												
7.3 Website																												
7.4 Plan implementation																												
7.5 Joining networks																												
7.6 Conference																												
7.7 Collate conference output																												
	▲ Task completed																										
WP 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28-30
8.1 Final report-back system																												
8.2 EU system explained																												
8.3 Constant contact WP leaders																												
8.4 Crisis																												

management team																												
8.5 Meeting EU deadlines												▲												▲				▲
8.6 Reports to the Commission		▲			▲		▲	▲		▲	▲		▲	▲			▲	▲				▲				▲		▲
8.7 Work closely with WP 1	▲																				▲	▲	▲	▲	▲	▲	▲	▲
8.8 Project presentation				▲																								
	▲ Task completed																											

Additional information on coordination activities
The Yahoo group continues to be a very good communication tool. New members from the 2008 policy dialogue workshop have joined, and information has been shared about research funding opportunities, study programmes and interesting publications.

Partners have also been consolidating links by supporting student exchanges. Two master students from Life Sciences at partner 4 are currently undertaking their thesis in Uganda, under the joint supervision of Jane Nalunga, NOGAMU, Uganda, who participated in the Arusha meeting in 2007, and Andreas de Neergaard. They will be defending their theses in September 2008. The contact between NOGAMU and Life Sciences was made at the Arusha meeting with *IndigenoVeg*.
One additional Master student from partner 4 will start her thesis and internship at AVRDC, India in September 2008. The contact with AVRDC has been established during the IndigenoVeg programme, and facilitated by Katinka Weinberger, who is responsible for the research programme that will be hosting the student.

Research collaboration between partners and other external partners continues. For example KARI/NARO continues to collaborate with AVRDC (The World Vegetable Center, Regional Center for Africa, Tengeru, Tanzania) both on research and production of IVs. This enables future exchange or linking between the IV project and the project on (1) "Production of Neglected Indigenous Vegetables for Nutritional Health in Eastern and Southern Africa" (ProNIVA II) together with other Institutions like Bvumbwe Agricultural Research Station, Limbe, Malawi, Horticultural Research Institute, Tengeru, Tanzania, Helen Keller International, Dar-es-Salaam, Tanzania, IPGRI Sub-Saharan Africa, Nairobi, Kenya, Agrobiodiversity and Plant Genetic Resources in the Tropics, Georg-August-University of Göttingen, Germany and AVRDC - The World Vegetable Center, Shanhua, Taiwan. (2) "Vegetable Breeding and Seed Systems for Poverty Reduction in Africa"(vBSS) together with other Institutions like Bvumbwe Agricultural Research Station, Seed Co. Malawi, Horticultural Research Institute, Tengeru, Tanzania, Hygrotech Zambia Ltd, Tanzania seed companies – Alpha, Kibo, Tan Seed, and East African Seed. Kenya Seed companies – FRESCO Seeds, FAIDA Seeds, Lagrotech Consultants & Seed Company and Kenya Agricultural Research Institute.

In the last reporting period, a number of African partners have been following up on the outcomes of the policy dialogue workshop in their respective countries, and will continue to do so in the months to come. For example, the INRAB partner prepared a mission report which was sent to the participating policy makers for comments and approval, and subsequently forwarded to the Minister of Agriculture for "*Conseil des Ministres*" in April 2008. A national workshop is planned for later this year. The CNRA partners intend to disseminate the outcomes of the policy dialogue workshop at a national workshop on the promotion of the nutritional values of fruit and vegetables for the health of the population in Cote d'Ivoire, which will take place 26-27 August 2008. The KARI/NARO partner discussed two possible options with the policy maker participants for further in-country dissemination (a central workshop in Kampala or visits by Kampala-based researchers to 6 regions in Uganda), but in this year they have been constrained by a lack of funds, as their budget framework for the year had already been finalised.

Section 4 – Other issues

No other issues apply to this particular coordination action.

Appendix - Plan for using and disseminating the knowledge

Section 1 – Exploitable knowledge and its use

The coordination action has not resulted in any exploitable results.

Section 2 – Dissemination of knowledge
IndigenoVeg will not result in any knowledge that is subject to intellectual property rights. However, the coordination action will result in a large amount of knowledge that should be disseminated to a wider audience, accruing from the thematic meetings, the baseline surveys and the conference. As explained in the project proposal, in some instances *IndigenoVeg* partners would be sharing ongoing research and might not wish for this information to be open access because of the need to publish in peer-reviewed journals. For this reason, a website with a password-protected section was created to

allow members to freely share information amongst each other prior to publication. In general, the consortium has endeavoured to be as open as possible with its findings, and indeed, the Yahoo group has now grown to include members from outside the consortium.

The consortium agreed to allow the African partner countries until June 2008 to produce articles for publication in journals. From 1st July 2008 the market supply chain survey data has been made available to the whole consortium through the password-protected section of the website. After two years these data will be made available to the general public.

The consortium also agreed that it would be most beneficial for the farmer pamphlets not to be subject to copyright. The material has been posted on the *IndigenoVeg* website, and any organisation will be able to reproduce the material, or adapt and translate it to their needs. Photos taken during the thematic meetings will be used in the production of these materials, and may therefore be used freely by other organisations in the future.

The dissemination activities are listed in the overview Table below.

Overview table

Planned/actual dates	Type	Type of audience	Countries addressed	Size of audience	Partner responsible /involved
Month 9, 10, 12, 13, 17, 22	Meeting reports	Research	EU Africa	-	All partners
Month 9, 12 and on-going	Publications	Research	EU Africa	-	All partners
Month 18, 20, 21, 23, 24	Survey reports	Research Policy makers	EU Africa	-	AVRDC and African partners
Month 24	Outcome of integration meeting	Members Research	EU Africa	-	CAZS
Month 25	Policy dialogue workshop	Members, Research, Policy makers	EU Developing countries	150	DES/AVRDC/CAZS
Month 27	Presentation on lessons from the policy dialogue	Research	Developing countries	200	CAZS
Month 28	Policy dialogue report	Policy makers	Africa	50	DES/AVRDC
Month 30	Farmer pamphlets	Farmers	Africa	1000	ARC
Draft to be finished by month 30; but final publication will be after	Book	Research Policy makers	EU Developing countries	-	DES
Post-project month 32	e-Strategies Projects Europe article	Research Industry	EU Africa	-	CAZS

The project website (http://www.indigenoveg.org) has been continually updated throughout the year. There are two sections to this website, a public area and a password protected area. The public section contains a project description, announcement of project events, useful links and documents, and the meeting reports which partners have agreed for public dissemination. The password protected

section contains all the presentations from the meetings, interim reports, data from the survey and any management related documents.

The policy dialogue workshop report describes the activities which took place during the workshop at Rhodes University in January, and synthesises the outcomes. It is available on the project website.

A folder and ten pamphlets targeted to a farmer/consumer audience have been developed. The activity was led by ARC. The pamphlets offer cultivation and recipe information for nine crops and on seed and seedling management. 1000 pamphlets have been produced, and will be distributed through the IndigenoVeg African partners. The pamphlets are not subject to copyright and are freely available on the website for any organization to download, re-print or modify.

Publication of *IndigenoVeg* activities and outcomes will continue after the end of the project. For example, partner DES has submitted an article to *Renewable Agriculture & Food Systems.* Partners CNRA and INRAB have also prepared first drafts of articles.

The chapters for the *IndigenoVeg* book are due to be delivered on the 31st October 2008. The book, which will be published by Earthscan, will be an up-to-date scientific synthesis of existing knowledge and new information (drawing extensively from, but not restricted to, the *IndigenoVeg* project) bringing together the fields of urban and periurban agriculture and indigenous vegetables on the African continent, which has not been done before.

eStrategies Projects published by British Publishers will be developing a special section for August 2008 with a focus on *Bio-diverse, bio-safe and value added crops*. The publishers approached the Coordinator to invite the development of an editorial for the *IndigenoVeg* project.

Section 3 – Publishable results

The coordination action has not resulted in any exploitable results, and therefore this section does not apply.