Regional Consultation Workshop

STRATEGIES FOR RESEARCH AND DEVELOPMENT OF UNDERUTILIZED PLANT SPECIES IN AFRICA

Nairobi, Kenya, 24 - 26 May 2006
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**Acronyms and abbreviations**

AVL..........................African leafy vegetable
AVRDC.......................The World Vegetable Center
BMZ.........................German Federal Ministry for Economic Cooperation and Development
DFID.........................UK Department for International Development
DG.........................Director General
FAO..........................The Food and Agriculture Organisation of the United Nations
GFU .........................Global Facilitation Unit for Underutilized Species
GTZ .........................German Technical Development Corporation
ICRAF.......................World Agroforestry Centre
ICUC.........................International Centre for Underutilised Crops
IDRC.........................International Development Research Council of Canada
IPGRI.......................International Plant Genetic Resources Institute
ISHS .........................International Society for Horticultural Science
IWMI..........................International Water Management Institute
KShs .........................Kenya Shilling (ca. 70KShs = 1 US$)
NGO .........................Non-governmental organisation
NUS..........................Neglected and Underutilized Species
R&D .........................Research and Development
UC..........................Underutilized Crops
US..........................Underutilized Species
Executive summary

33 participants from Benin, Kenya, Malawi, Mali, Mozambique, Namibia, Nigeria, South Africa, Tanzania, Uganda, Zambia, Zimbabwe and from Italy, Sri Lanka and UK, representing NGOs, National Research Institutes, International Research Centres, universities, regional networks, Government institutions and the private sector gathered in Nairobi, Kenya, 24 – 26 May 2006 to discuss and refine a regional strategy for research and development of underutilized plant species. Two members of ICUC’s Scientific Advisory Board from UK and India were also able to join part of the workshop.

The keynote address delivered by Hon. Prof. Ruth Oniang’o to set the scene was an impassioned speech and a plea to promote underutilized plants in whichever capacity participants worked. A lunch during which traditional African vegetable dishes from East, Central and West Africa were served (p 14) was an eye-opener for most participants as it gave a glimpse of Africa’s culinary heritage and indicated that underutilized plants could be an important component in the diets of many people.

The group agreed on the following definition of underutilized plants “Underutilized plant species are those species with under-exploited potential for contribution to food security, health (nutritional and/or medicinal), income generation, and environmental services” (p 17). The group also discussed their vision for 2020 (p 18) and felt that within the next 15 years, many positive developments could be achieved, such as increased cultivation of hitherto underutilized species, better markets, increased consumption and improved partnerships on underutilized species.

The discussion on the underlying issues of the fact that many traditional plant species are underutilized despite their potential to contribute to livelihood improvement identified lack of awareness and appreciation, inadequate marketing, insufficient coordination, inadequate policies, lack of resources (human, financial, genetic), lack of knowledge and information, lack of capacities (institutional, individual) and lack of technologies as major causes for their limited use (p 22). Having this in mind ten areas for intervention, namely education, knowledge, policy, partnerships, value addition, champions, financial support, capacity, research and (social) marketing were prioritized (p 31). These were then further discussed and operational plans on how to address these areas were suggested (p 35).

A field visit to traditional African vegetable producers in Githunguri on 26 May (p 40) complemented the workshop.
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<td>07:30hrs</td>
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<td>08:00 - 08:30</td>
<td>Registration</td>
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<td>Poster presentation/walkabout session</td>
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<td>08:30hrs</td>
<td>Welcome Session:</td>
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<td>Keynote address by Hon. Prof. Ruth Oniang'o, Nairobi, Kenya</td>
<td>Keynote address by Hon. Prof. Ruth Oniang'o, Nairobi, Kenya</td>
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<td>Overview of underutilised species initiatives by Dr Irmgard Höschle-Zeledon, GFU</td>
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<td>Discussion</td>
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<td>11:00 - 11:30</td>
<td>BREAK and GROUP PHOTO</td>
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<td>BREAK</td>
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<td>Personal Introductions</td>
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<td>Following from the discussion about the problem tree, we will develop a framework of key intervention points.</td>
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<td>Introduction into workshop modus, expectations, norms, parking sheet, road map</td>
<td>Introduction into workshop modus, expectations, norms, parking sheet, road map</td>
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<td>12:30 - 14:00</td>
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<td>Definition of underutilised plant species revisited</td>
<td>Definition of underutilised plant species revisited</td>
<td>Working groups on operationalization of key intervention areas, including resource mobilisation and indicators.</td>
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<td>Vision and development goals</td>
<td>Vision and development goals</td>
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<td>15:30 - 16:00</td>
<td>BREAK</td>
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<td>Working groups report back to plenary</td>
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<td>17:30hrs</td>
<td>END OF WORKSHOP SESSION AND BUS DEPARTS TO THE HOTEL</td>
<td>END OF WORKSHOP SESSION AND BUS DEPARTS TO THE HOTEL</td>
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<td>18:00 - 19:30hrs</td>
<td>Welcome Reception at Jacaranda Hotel</td>
<td>Welcome Reception at Jacaranda Hotel</td>
<td>Organisers and facilitators meet // SEANUC meeting (by invitation only)</td>
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<td>Organisers and facilitators meet // SEANUC meeting (by invitation only)</td>
<td>Organisers and facilitators meet // SEANUC meeting (by invitation only)</td>
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DAY 1: SETTING OUR PRIORITIES

Welcome session
The workshop began with an introductory session involving welcoming addresses, presentations and a key note address. This session was chaired by Dr. James Allemann, Senior Lecturer, University of the Free State, South Africa and Chair of the Southern and East African Network for Underutilized Crops (SEANUC).

Welcome by ICUC, Hannah Jaenicke
Dr. Hannah Jaenicke welcomed all of the participants to the workshop, thanked all who helped to make it possible, and expressed her excitement for the workshop ahead. She gave a brief introduction to ICUC stating that it previously did not have much activity in Africa. She expressed ICUC’s wish to become more involved in Africa and indicated that there is a strong force to develop meaningful programmes in the continent. She hoped that this workshop would be valuable in paving the way to greater involvement in Africa and exploring possible strategies to achieve this. She highlighted that at this workshop the participants represent fifteen different countries with a good balance between sub-regions and between Anglophone and Francophone. She also noted a good mix of organisation types being represented, including academic, research, NGO and others. She thanked the donors who provided support to this workshop: the UK Department for International Development (DFD) and the German Federal Ministry for Economic Cooperation and Development (BMZ) through GTZ.

Welcome by GFU, Irmgard Höschle-Zeledon
Dr. Irmgard Höschle-Zeledon welcomed all the participants on behalf of GFU and IPGRI. She stated that this is the right time to develop a strategy for this type of work but we need to be clear about the research and development targets. She gave a brief overview of the GFU and its work. She also thanked the many institutions who were vital in making this workshop a reality, and the donors to GFU, BMZ and GTZ.
Welcome by ICRAF, Tony Simons
Dr. Tony Simons, World Agroforestry Centre (ICRAF), welcomed all the participants to ICRAF, on behalf of Dennis Garrity, DG of ICRAF, saying that they were happy to be hosting this workshop at their centre. He also gave a short presentation outlining some background information on ICRAF and the work they are doing especially in the context of underutilized species. A key question asked by Dr. Simons was to consider whether we are faced with “underutilized species or under-developed opportunities?” (See Appendix IIIa for copy of presentation)

Keynote address by Hon. Ruth Oniang’o, Professor, Parliamentarian and Founder of the Rural Outreach Program (ROP), Kenya
Honourable Professor Ruth Oniang’o gave the keynote address without the use of a manuscript or electronic support. She began by sharing her experiences, especially from her activities with the Parliament of the Kenyan government. Professor Oniang’o then outlined the work undertaken in the Indigenous Vegetable Project run by the Rural Outreach Program highlighting the community seed bank and action research components. She vividly described the vegetable project initiated in her own home village and how she connected this to her Parliament life by organising the supply of vegetables from this project to the Parliament canteen. She stressed the need to recognise HIV/AIDS and poverty as major challenges and to design programmes which would combat these elements. She gave an impassioned speech about taking action on multiple levels, and encouraged everyone that they could and should do something to achieve change.
**Overview of underutilized species initiatives by Irmgard Höschle-Zeledon, GFU**

Dr. Irmgard Höschle-Zeledon, GFU, gave a PowerPoint presentation showcasing a chronology of initiatives related to underutilized species. This demonstrated how over the past 35 years, underutilized plants have received increasing interest from the research community and highlighted a number of key initiatives, such as conferences, germplasm collections and key publications. Two important workshops will be held later this year: a workshop on Moringa and other leafy vegetables in Accra, Ghana, planned for October and the AVRDC International Conference on indigenous vegetables in Hyderabad, India, scheduled for December. (See Appendix IIIb for copy of presentation).

**Feedback on electronic consultation by Hannah Jaenicke, ICUC**

Dr. Hannah Jaenicke, ICUC, shared with the participants the preliminary results from the electronic consultation about the strategy framework document. The key highlights were information provided about ongoing activities by partners which demonstrated the very broad coverage of underutilized crops research activities, but a lack in market and market-related activities; the increased interest for in situ conservation and a growing interest by partners to engage in policy lobbying. She closed her presentation by setting the scene for the workshop by highlighting four points for discussion during the workshop: a definition for underutilized plant species, to ensure there is common understanding of the topic; a discussion about Africa-specific constraints and opportunities for research and development of underutilized plant species; a discussion about how opportunities can be captured; and lastly, if possible, the development of action plans. (See Appendix IIIc for copy of presentation)
Day 1-Session 1: Introduction to workshop

- Agenda
- Workshop road map
- Personal Introductions
- Establish workshop norms
- Parking Sheet
- Establish workshop expectations
- Lunch
Session 1: Introduction to workshop modus

Road map
A ‘road map’ showing the activities of the workshop and their flow was presented to show the participants where the workshop would be ‘going’ over the two days.
Personal introduction and ice breaker

Before embarking on the workshop activities, the facilitators initiated an activity for participants to get to know each other, where they come from and what they do. The participants were asked to create ‘Wanted Posters’ of themselves using the instructions on the slide.

### Personal Introductions

1. Create your own wanted poster

   **Wanted Posters featuring:**
   - Your name
   - Where you are from
   - What you are wanted for!—your profession, skills, interests
   - How to be recognised—draw yourself

2. Present it to everyone

Some photos of the presentation of ‘Wanted Posters’ by the participants and some ‘Wanted Poster’ results:
Workshop norms
An exercise to establish some workshop norms was then undertaken. This exercise was done to establish a consensus amongst the group as to the type of acceptable behaviour and atmosphere for the workshop.

The norms established were:

- Turn off cell phones
- No mini-conferences
- Don’t re-invent the wheel
- Group action output
- Don’t get defensive
- Patience
- Listen
- Good time keeping
- Get to the point

Parking sheet
As part of the workshop process, the facilitators discussed that sometimes certain comments, questions, statements, ideas etc. arise which do not fit with the particular session or topic being covered but are still important and need to be remembered to be addressed at a later or more appropriate time. The facilitators showed the participants the ‘Parking Sheet’ which was a flip chart sheet which would be used to ‘park’ these statements etc until a time when they could be addressed. This ‘Parking Sheet’ was kept up during the entire workshop and could be used by facilitators and participants both.

Workshop expectations
_Aim: to establish a common understanding on what the workshop objectives and outputs would be._

In this session the participants were asked to write on cards what their expectations for the workshop were. These were collected before the tea break. During the tea break the workshop facilitators grouped the cards by common ideas.
These were then classified into three categories and put up on separate pin boards for each of:

- Will achieve
- Will try to achieve
- Will not achieve

These were presented to the participants. The facilitators explained that the grouping of the cards did not mean that they disagreed with any of the points raised in this exercise, but to gain a common understanding amongst participants about what the aim of the workshop was and what could realistically be achieved during the two days. Cards listed in the ‘Will Not Achieve’ category were valuable but would need more time and input beyond this workshop to realise. Some results from this exercise were discussed further but an overall consensus was achieved on what the workshop would focus on and what outcomes could be expected.

The details of participants’ expectations are presented in the table on the following page.
<table>
<thead>
<tr>
<th>WILL ACHIEVE</th>
<th>WILL TRY TO ACHIEVE</th>
<th>WILL NOT ACHIEVE</th>
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</thead>
<tbody>
<tr>
<td>Practical/Realistic activities to promote NUS</td>
<td>Find new way to sell NUS concepts</td>
<td>Documenting local knowledge on NUS</td>
</tr>
<tr>
<td>Development strategy for UC’s</td>
<td>Increase awareness of participants of existing tree work</td>
<td>Adding value to local/traditional diets/foods</td>
</tr>
<tr>
<td>Problem Trees matched by pragmatic objective trees</td>
<td>Ammunition to convince donors to support work on underutilized species</td>
<td>Action plan for dry land agro forestry</td>
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<tr>
<td>Develop a strategy</td>
<td>To have in the strategy the local knowledge as the basic of science for underutilized crops</td>
<td>Regional and National priorities</td>
</tr>
<tr>
<td>A negotiated strategy for research and development on underutilized crops</td>
<td>Delineation of roles and strategies for networking</td>
<td>Strategy for seed multiplication and distribution</td>
</tr>
<tr>
<td>Priority areas for intervention!</td>
<td>Good overview of underutilized species</td>
<td>Priority list of crops?</td>
</tr>
<tr>
<td>Be informed about UC and see where we fit in</td>
<td>To learn about all that is going on with UC</td>
<td>Africa-wide proposal for different crop groups</td>
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<tr>
<td>Way forward for underutilized plants</td>
<td>Raising Africa’s competitiveness on Global market (How?)</td>
<td>Promotion hand in hand with sustainable use</td>
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<tr>
<td>Identified priorities partnerships and roles</td>
<td>To put in the strategy, people in the centre of the implementation</td>
<td>Extension of ICUC to West Africa</td>
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<tr>
<td>Clear understandings of status and way forward of NUS</td>
<td>How to engage top policy makers</td>
<td>Strategies for organising local communities to produce for market</td>
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<tr>
<td>Refined strategic framework</td>
<td>Plan of action for promoting NUS</td>
<td>Actions for improving of underutilized crops</td>
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<tr>
<td>Ideas for involving private sector</td>
<td>Multi disciplinary strategy</td>
<td>Valuing farmers innovations</td>
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<tr>
<td>Practical action points</td>
<td>Find new way to sell NUS concepts</td>
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<tr>
<td>To leave the workshop with an effective work plan and clear vision of next steps/action</td>
<td>Increase awareness of participants of existing tree work</td>
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<tr>
<td>Practical strategies for research and development of underutilized plants in Africa</td>
<td>Ammunition to convince donors to support work on underutilized species</td>
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<tr>
<td>Action oriented research and development strategies</td>
<td>To have in the strategy the local knowledge as the basic of science for underutilized crops</td>
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<tr>
<td>Expectations</td>
<td>Delineation of roles and strategies for networking</td>
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<tr>
<td>Networking</td>
<td>Good overview of underutilized species</td>
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<tr>
<td>Common strategy?</td>
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<tr>
<td>Strategy that incorporates u/crops for development</td>
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<tr>
<td>This group is engine for African U/C’s</td>
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<tr>
<td>Share experience on promotion of underutilized crops</td>
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<tr>
<td>Share vision on strategy document for research and development activities of neglected and underutilized crops in Asia and Africa</td>
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<tr>
<td>New Partnerships</td>
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<tr>
<td>Sharing experiences</td>
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Lunch of underutilized species

A special lunch made from African traditional vegetables was prepared on the first day. This was a delicious and informative lunch. It was prepared using recipes from various African countries by the following caterers:

1. Didis West African Restaurant (West African)
2. Renzaho Symphorose (Congolese)
3. Wilson Kigani Caterers (East African)
4. Coconut (provided general catering support)
Day 1-Session 2

• Definition of underutilized plant species revisited

• Vision and development goals
  – Visioning exercise by groups

• Coffee
Session 2: Definition and 15-year vision

Definition of underutilized species and general goals for development

Aim: to establish some common understanding on underutilized species and the general development goals

In this session, the facilitators asked the participants if there was a common understanding or definition of underutilized species and the general goal of working in this area. Some participants felt that there were differences in perspective and no common definition possible. However, the facilitators suggested that in order to move ahead with the workshop activities to develop a common strategy it is necessary to have some common understanding of what underutilized species are and the general development goal for working on this topic.

The facilitators asked the participants if they wanted to see and discuss the definition developed by the participants of the Asia regional consultation workshop. The majority of the participants did not want to do this. The facilitator then engaged the participants to suggest a definition or components of a definition of underutilized species. Participants put forward suggestions which lead to a lot of discussion and debate.

The following is a list of definition discussion points which emerged from this activity:

- Under researched
- Under exploited
- Unknown and not reaching potential
- Utilitarian
- Nutritionally beneficial
- Traditionally utilized
- Normally grown under low input
- Conditions of input may change depending on research
- Underutilized markets
- Lack of markets for specific species
- Women’s crops
- Traditional ecological
- Weak seed supply systems
- Options for diversification
- Opportunities for a wider variety (overview idea with more specific streams)
- Cultural, indigenous, traditional background
From these elements, an initial working definition was developed at the workshop:

“Plant species with a potential to contribute to food security, nutrition and health, income generation, cultural values and ecosystem stability”.

However, this being a rather broad and thus not focused definition which may not be helpful in future discussion, following the workshop a group of volunteer participants continued to discuss the definition and offered the following:

<table>
<thead>
<tr>
<th>Underutilized plant species are those species with under-exploited potential for contribution to food security, health (nutritional and/or medicinal), income generation, and environmental services.</th>
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<tr>
<td>These species commonly have the following features:</td>
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<tr>
<td>▪ They have a strong link to cultural heritage at their place of origin;</td>
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<td>▪ They are mostly local and traditional crops, wild species, ecotypes and landraces;</td>
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<td>▪ They tend to be adapted to specific agro-ecological niches and marginal land;</td>
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<td>▪ They have weak or no formal seed supply systems;</td>
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<td>▪ They are recognized to have traditional uses in localized areas;</td>
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<td>▪ If not collected from the wild, they are produced in traditional production systems with little or no external inputs;</td>
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<td>▪ They receive little attention from research, extension services, farmers, policy- and decision makers, donors, technology providers and consumers;</td>
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<td>▪ Their distribution, biology, cultivation and uses are poorly documented;</td>
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<tr>
<td>▪ Many of them are highly nutritious and/or have medicinal properties or may have other multiple uses.</td>
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Vision exercise

Aim: to develop a vision for work with underutilized species from which we can identify and develop long term goals, areas for intervention and possible processes and activities

The vision exercise was introduced to the participants using the instructions below.

Develop a vision of underutilized species by 2020

- Work in groups
- Take 5 minutes to individually answer the question
  - You wake up in 2020. Your work has been a success. Describe what this success looks like to a journalist:
    - What is happening differently now?
    - Who is doing what differently?
    - What have been the changes in the lives of the people
    - Who do they interact with?
    - How is knowledge shared better?
    - What political support is nurturing this spread? How did that happen?
- Discuss and develop a common vision

The vision developed by each group was presented by one member of each group and briefly discussed. There was a great deal of mutual agreement between the visions developed by the groups. The key elements which emerged from the exercise were:

- There will be increased cultivation of underutilized species;
- There will be greater partnerships in developing underutilized species;
- Underutilized species products will be available in mainstream supermarkets;
- Farmers and others will reap improved income from the sale of underutilized plant products;
- Increased consumption of underutilized food plants or foods made with ingredients from underutilized plants will result in improved nutrition;
- There will be more involvement of the private sector in underutilized crop development;
- There will be greater policy support for NUS.

The detailed results of each group’s vision can be found in Appendix IV.
Day 1- Session 3

What are our constraints and opportunities and priority areas for intervention?

• Addressing the challenges we face
  – Creating a Problem Tree

• End of Day 1
Session 3: The challenges we face

What are our constraints and opportunities and priority areas for intervention?

To address the question above, two distinct activities were undertaken looking at (1) constraints and (2) priority intervention areas for activities to be initiated.

Creating a ‘problem tree’

To identify and discuss the constraints that exist in the work with underutilized species, the facilitators lead the participants in an exercise to create a ‘problem tree’. They began this session with an explanation of the concept of creating a problem tree, using a visual representation on a slide similar to the one on the next page. Beginning with a central problem such as “Underutilized species development faces constraints in achieving its goals in Africa” placed on the far right hand side, the next step is to ask the question of WHY. At this stage the participants were asked to consider the reasons why this particular problem exists. A list of broad reasons for the problem had earlier been extracted from the results of the electronic discussion of the consultation on developing a strategy and these were highlighted on the slide in a column called 1st WHY. (See next page).

The proposed 1st WHYs were:
- Lack of Awareness
- Lack of Marketing
- Lack of Coordination
- Inadequate Policies
- Lack of Resources
- Lack of Knowledge and Information

While there was general agreement on this list, the participants adjusted some of the problems and added two additional ones:

- Lack of Capacity
- Lack of Technology
The next stage of the exercise, as explained by the facilitators, was to identify reasons for the problems that are listed under the 1st WHY. Asking for example ‘why is there a lack of awareness?’. This may result in a number of potential answers. These are then the 2nd WHYs for each of the 1st WHYs. Following on from this the participants were asked to do the same thing for these new points (2nd WHYs), exploring what reasons there may be for the existence of these problems. These answers will then be the 3rd WHYs. This exercise can continue following this line of exploration, developing 4th and even further WHYs.

The participants were then divided into groups to discuss and identify the 2nd WHYs for the eight listed 1st WHYs. The groups were given yellow cards to write their 2nd WHYs on.
The exercise undertaken to identify the 2nd WHY was repeated in order to identify and discuss further reasons or problems stemming from the 2nd WHY—the 3rd WHY. These were written onto green cards.

At the end of the exercise, all of the cards were collected from the different groups. The next part of the exercise took place on the next day. The facilitators then wrapped up the day’s events.

~END OF DAY 1~
Before the sessions of the second day of the workshop actually began, there was a small poster presentation session. Participants had been invited to bring and put up posters and other materials. During this morning session, people were invited to explore the posters and to discuss the topics with those around. One participant had brought samples of juice made from various underutilized species: guava, ginger, baobab, which generated a lot of interest.
**Session 1: Recap and problem tree**

**Discussion of underlying problems**

During the problem tree exercise the previous afternoon, some of the participants had raised concerns about the main problem that had been presented as part of the problem tree. It was felt that the originally proposed problem statement: “Underutilized species development faces constrains in achieving its goals in Africa” did not reflect the contribution underutilized plants can make to the larger development agenda in Africa. This was discussed by some of the participants during the evening and some new ideas were proposed. These suggestions were used by the organisers and facilitators to adjust and modify the problem statement to better reflect the situation posed by the participants.

Before continuing with the problem tree presentation and discussion, this new high-level problem statement was presented and discussed. A next-level underutilized plant related problem was then agreed and posted up on the wall.

**African development problem statement:**

Many food, nutrition, health, ecosystem and cultural difficulties are acute in Africa as there is an over-dependence on a few plant species.

**Next level problem (UPS-related):**

Many plant species with potential to contribute to food security, nutrition, health, income generation, cultural heritage, ecosystems and other services are underutilized.
Presentation of group work for problem tree

Before the session begun, the facilitators had stuck up on the wall the cards with the 1st WHYs and next to the appropriate ones, stuck up the 2nd WHY cards.

Each of the eight groups then presented the 2nd WHY cards and the line of thinking and discussion which had gone into identifying these. This created a lot of interest and discussion amongst the participants. Lots of overlap between the groups became apparent. For example, the marketing group repeatedly pointed out the lack of technology as inhibiting; most groups had identified lack of awareness and resources as main bottlenecks; lack of partnerships were also mentioned by several groups. Participants continued this discussion during the coffee break.

The subsequent 3rd WHYs (and 4th WHYs in the case of one group) were then presented by the facilitator (in the interest of time). The finished problem tree is shown on the next two pages.
Many plant species with potential to contribute to food security, nutrition, health, income generation, cultural heritage, ecosystems & other services are underutilised. Lack of awareness and priority for research and development. Difficult to access target market. Lack of adequate, up-to-date basic research. So little is known about these species. Lack of understanding of the potential benefits. Lack of market demand. Lack of lack of strategic concepts, priorities, planning and coordination. The potential of these underutilised species is unrecognised. It is unattractive for researchers and new technologies to be considered and used.
Problem tree discussion
The presentation of the problem tree generated a lot of discussion. Some points that could not be resolved immediately by placing additional cards, and issues that were cross-cutting were noted down on a flipchart so the organisers could ensure these ideas were remembered in the revision of the strategy document.

Issues to remember
- Where is coordination meaningful? (vis-à-vis collaboration)
- Movement of germplasm (recognising that this can sometimes pose risk of invasive species/weediness
- Some products not developed
- Underutilized plant species are grown on marginal soils/conditions
- Transfer of genetic resources across borders
- Local markets different in East, South, West and Central Africa – supermarkets don’t have the same status everywhere
- Associate cause of underutilized plant species to BIG ISSUES (such as climate change, HIV/AIDS etc - in connection with fund raising efforts)
At this point in time, the facilitator felt that there was need for an ice breaker. Tony Simons then took the stage…

Suitably re-energised, the participants then reassembled to address the next agenda item.

**Identification of priority areas for intervention**

The facilitators then lead the group through a review of the entire problem tree to identify those areas which were of high priority and where those particular areas reoccurred. This involved a lot of discussion and debate. In order to reach some kind of agreement, participants were invited to ‘vote’ for what they each considered were the most important issues. Each participant was assigned five ‘dots’ which they could place onto cards they felt was important. They could also ‘spend’ all five dots on a particularly important issue. Cards that received the highest number of dots were marked with yellow stickers. The following issues emerged as high-potential areas for interventions:
1. Education
2. Knowledge
3. Policy
4. Partnerships
5. Value Addition
6. Champions
7. Financial Support
8. Capacity
9. Research
10. (Social) Marketing

In order to discuss these in groups and given the number of participants and the time available at the workshop, it was felt that some of the issues could be discussed together. The new aggregated areas that were agreed upon by the participants were:

1. Education, Capacity and Knowledge
2. Policy and Financial Support
3. Partnerships and Champions
4. Research (incl. Value Addition)
5. (Social) Marketing

These were the five groups for the working group discussions in the next session.
Session 2

- Working group sessions
- Lunch
Session 2: Operationalisation
The participants then broke into five working groups of 5-6 participants each to discuss the operationalisation of the main areas of priority identified in the previous exercise. They were asked to identify and discuss the following for each topic area:

- WHAT
- HOW
- WHO
- WHEN
- WITH WHAT

Marketing group

Partnerships and Champions group

Research group

Policy and Financial support group

Education, capacity and knowledge group
Session 3

- Working groups report back to plenary
- Workshop evaluation and closing comments
- End of workshop
Session 3: Report back and workshop closing

Report back by groups

Each of the groups then presented the result of their discussion on operationalisation of the particular priority area. (See Appendix V for details).

Education, Capacity and Knowledge group
This group started by noting the uses of underutilized species to gain clarity of the task. Species are used for: food crops; medicinal crops; forage; those that aid in improvement of soil fertility; dyes; fibres; latex, rubber and gums. The group then went on to describe five areas of priority:
- Identification of underutilized crops through surveys;
- Creation of awareness through public media (radio, TV etc.), workshops, seminars etc.;
- Change the education curriculum by including underutilized crops in the curriculum at all levels;
- Capacity building by training the stakeholders and establishing and/or strengthening institutional capacity;
- Database establishment through the collection of data and dissemination through print and electronic media.

All these activities were of high priority to be started immediately.

Discussion: Participants mentioned that there were already relevant databases, for example PROTA, to which contributions could be made. This raised an issue since PROTA does not cover Southern Africa – and the suggestion that this group could lobby for PROTA to expand its mandate.

Policy and Financial support group
This group started by explaining that policy should recognize, facilitate/enable and provide support to underutilized plant research and development. Policies considered by the group were on: production, research, commercialisation and trade. This group suggested that an international organisation, such as ICRAF, GFU or ICUC should take the lead for this activity and involve reputable national institutions in each country, including working with the grassroots level and the general public.

The group suggested that financial support should be garnered through a targeted proposal taking advantage of other big issues. An example given was the recent call by DFID and IDRC for climate change adaptation to which a proposal should be submitted by lead organisations such as SAFIRE and CRIAA SA-DC in collaboration with ICRAF/ICUC/GFU.
**Discussion:** Participants suggested that FARA and NEPAD should be lobbied. They also pointed out that awareness creation amongst donors was not the responsibility of only a few international or national designated organisations, but that everyone in the room had opportunities to raise awareness amongst their local and national policy makers.

**Networking and Champions group**

This group started by explaining that they did not think another network was needed, but rather a “modulated community of interest” managed by ICUC. They provided ideas for a working modus, for example, members in this community should be actively involved and be de-registered if they were not contributing regularly. The group then went on to list other ideas, such as the development of a web forum, community blogs, world space radio programme, an information-learning programme and an electronic journal.

The group continued by explaining that champions needed to be identified in every stakeholder group:
- Donors
- National advocates
- Commodity advocates
- Private marketers, processors and input providers
- The research community and
- The media.

**Discussion:** ICUC pointed out that they had planned an e-journal and were in discussion with various agencies, for example the ISHS. They are also planning an electronic discussion forum on their website.

**Research group**

This group benefited from a similar exercise carried out by the University of the Free State which mapped activities to identify suitable plant species in a logical manner, looking at the following topics: germplasm, identification of growth conditions, botany, propagation, stress effects, selection and breeding, crop husbandry, post-harvest and marketing.

**Discussion:** Participants voiced their concern that the presented framework was focussing too much on on-station research and missed out the social sciences. They also pointed out the need to communicate with farmers and were wondering how this could happen if extension services were collapsing unless researchers were taking some of that responsibility and include farmers as partners in research.
Marketing group
This group explained that they felt a lot of successful activities had already happened and that progress could be made by documenting, analysing and disseminating success stories in formal, informal and export markets in Africa.

Further, there was need for entrepreneurial training as well as linking supply and demand through partnerships, buyers-suppliers fora and demonstrations and trade fairs. They also suggested that there was need for adapting credit and grant schemes to encourage all relevant stakeholders and that market surveys were necessary to study consumers preferences, risks, partners, prices and marketing strategies, amongst other things.

Lastly, technical support was considered important for processing packaging, labelling and certification.

Discussion: The GFU pointed out that they had commissioned case studies of success stories. Participants also felt that the experience from Asia should be shared with African stakeholders.
Workshop evaluation

At the end of the workshop, the facilitator checked the Parking Sheet; however, no issues had been noted down. Then, an informal evaluation was undertaken to find out what the participants felt about the workshop. The participants were given cards and asked to write what they thought was **POSITIVE (+)** and **WHAT COULD BE DONE BETTER (Δ)** for the workshop. The results were:

<table>
<thead>
<tr>
<th>WHAT COULD BE IMPROVED Δ</th>
<th>WHAT WAS POSITIVE +</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem tree needs to be planned for short time</td>
<td>Good participation</td>
</tr>
<tr>
<td>More short presentations from different sectors</td>
<td>Well organized workshop</td>
</tr>
<tr>
<td>More donors</td>
<td>Discussions given enough time</td>
</tr>
<tr>
<td>Time keeping</td>
<td>Good logistics arrangements</td>
</tr>
<tr>
<td>Participants not always active. Some not heard at all</td>
<td>Satisfied my expectations of the workshop</td>
</tr>
<tr>
<td>The time was too short</td>
<td>Good meals</td>
</tr>
<tr>
<td>Needed some more time to focus on priority areas for action</td>
<td>Important and timely topic</td>
</tr>
<tr>
<td>Could have moved faster with an analytical approach to the problem rather than listing ideas</td>
<td>Each section looked at bringing forward actionable research</td>
</tr>
<tr>
<td>Problem analysis is a terrible basis for strategic planning</td>
<td>Very enthusiastic participants</td>
</tr>
<tr>
<td>Time not well managed</td>
<td>Interactive and very well organized</td>
</tr>
<tr>
<td>Copy of presentations not provided to participants</td>
<td>Good facilitation</td>
</tr>
<tr>
<td>Bad time keeping; Wasted time on trivia and introductions</td>
<td>very participatory; facilitators are efficient</td>
</tr>
<tr>
<td>The timeframe should be extended</td>
<td>Good interaction among participants</td>
</tr>
<tr>
<td>Not necessary to re-hash definition!</td>
<td>Active participation of all</td>
</tr>
<tr>
<td>Beginning of session was a little slow</td>
<td>Good team dynamics, good ideas, NUS’ lunch</td>
</tr>
<tr>
<td>Its unfortunate that we lost our facilitator along the way</td>
<td>Demo lunch</td>
</tr>
<tr>
<td>Listening to participants’ contributions could be improved</td>
<td>Room for interactions; Manageable size; Organizers did not impose their opinions; Relaxed atmosphere</td>
</tr>
<tr>
<td>Day one was largely a waste of time</td>
<td>Very interactive and participatory and easy to follow</td>
</tr>
<tr>
<td>Two hours on personal introductions in a two-day meeting</td>
<td>Demonstrated interest in bringing underutilized species forward</td>
</tr>
<tr>
<td>Lack of end point at the outset</td>
<td>Site is ok, organization, duration, approach</td>
</tr>
<tr>
<td>Too many “big groups” and not enough small group discussions</td>
<td>Facilitated good interaction among participants</td>
</tr>
<tr>
<td>Problem tree produces what we already knew</td>
<td>Many brilliant contributions</td>
</tr>
<tr>
<td>Starting point assumed no previous experience</td>
<td>Informative, well organized, stimulating</td>
</tr>
<tr>
<td>No case studies</td>
<td>Good visualization process; good interactions; good time management</td>
</tr>
<tr>
<td>‘Too long for ‘problem part’ and too short for concept + intervention</td>
<td>We got there eventually with most people contributing; informal atmosphere</td>
</tr>
<tr>
<td>Methodology sometimes too sophisticated</td>
<td>It was fun!! / it was very participatory</td>
</tr>
<tr>
<td>Lack of farmers</td>
<td>Prof. Oniango’s keynote address</td>
</tr>
</tbody>
</table>
**Closing words**

Hannah, on behalf of both ICUC and GFU, officially closed the workshop, thanking everyone who participated. She expressed that she thought that it had been a good workshop and a lot of productive work had been accomplished. She hoped that the level of enthusiasm and participation would continue with future work to develop the strategy document continuing after the workshop and future collaborative projects. She invited volunteers to come forward to assist her and Irmgard in the further revision of the strategy document. She mentioned a few planned activities by ICUC which addressed some of the suggestions by the participants. In particular, ICUC is planning to launch a Working Group on Underutilized Plants within the International Society for Horticultural Science (ISHS). This working group would raise the profile of underutilized plants and also offer the required information exchange amongst members.

She then went on to thank the World Agroforestry Centre and in particular the Trees and Markets Theme team who had made all the logistic arrangements for the workshop. She also thanked the International Plant Genetic Resources Institute’s Sub-Saharan Africa office who had organised the special lunch on the first day of the workshop which had received a lot of praise from the participants.

Finally, she handed the participants copies of a CD kindly produced by ICRAF which contained the presentations from the first day, a participants’ list and the group photo.
Field Trip – Friday 26th June

Participants were given the opportunity to see a successful case of re-introduction and marketing of ‘forgotten’ crops. In many parts of East Africa, traditional African Leafy Vegetables are not available in the shops. The health and nutrition benefits of these greens have often been forgotten. The field trip to Githunguri was organised by IPGRI Sub-Saharan Africa Office and Farm Concern (formerly Family Concern). The participants were accompanied during the day by Mr Stanley Mwangi from Farm Concern. They were introduced to the project through the following information:

Overview

In 1996, IPGRI and its partner institutions in Sub-Saharan Africa (SSA) put the first concerted effort to promote research in African Leafy Vegetables (AVLs). From 2001 more attention was turned to creating awareness and promoting use. In 2003, efforts were made by Family Concern, a local NGO to link farmers in peri-urban Nairobi to the formal market. Rigorous promotional campaigns aimed at creating demand were carried out simultaneously by a group of organisations. The efforts are now bearing fruit as seen from the positive trends in recent years. Most local supermarkets are selling these vegetables. A project that had a humble beginning is now a major source of livelihood for local farmers.

Some facts
1. Source of basic seed: mainly AVRDC and Rural Outreach Programme (ROP)
2. Seed multiplication: By farmers themselves
3. ‘Factoring’ and extension work: Farm Concern
4. Main outlets: Uchumi Supermarkets- the pioneers and other supermarkets, groceries and the informal markets
5. Production from monitored groups has grown by about 1100% in the last 3 years and sales in informal markets have increased because the vegetables have been ‘legitimized’.

Vegetables commonly grown in Githunguri
1. African nightshades- locally called Managu (Solanum spp.)
2. Spideplant or cat’s whiskers- locally called Seget (Cleome gynandra)
3. Leafy amaranth- Terere (Amaranthus spp.)
4. Pumpkin leaves- Malenge (Cucurbita maxima)
5. Buffalo gourd leaves- Kahurura (Cucurbita ficifolia)

Programme for Field Visit

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.00</td>
<td>Assemble by the bus at the Jacaranda Hotel.</td>
</tr>
<tr>
<td></td>
<td>Introductory remarks</td>
</tr>
<tr>
<td>10.00</td>
<td>Visit Uchumi Supermarker, Aga Khan Walk, Nairobi</td>
</tr>
<tr>
<td>10.30</td>
<td>Leave for Githunguri</td>
</tr>
<tr>
<td>10.50</td>
<td>Meet Mugima Farmer’s group</td>
</tr>
<tr>
<td>12.30</td>
<td>Visit vegetable fields</td>
</tr>
<tr>
<td></td>
<td>Lunch on way back</td>
</tr>
<tr>
<td>15.00</td>
<td>Visit Ngara outdoor market</td>
</tr>
<tr>
<td>15.30</td>
<td>Arrive at Jacaranda Hotel</td>
</tr>
</tbody>
</table>
The first stop was Uchumi Supermarket Aga Khan Walk where participants were welcomed by the Store Manager. He explained how Uchumi carries out quality control, through their own category manager dedicated to ALV who visits the farmers. Farmers deliver to a central location. Payment is guaranteed within 7 days. Different farmers deliver on different days of the week, thus each farmer only harvests once within a week which takes account of the small areas each has under ALV.

Prices in the shop are for traditional vegetables KShs 15 per bunch, whereas sukuma wiki (*Brassica oleracea*) costs KShs13. Yet, customers readily buy the traditional vegetables so that stock is usually finished by early afternoon.

The next stop was Mugima Self Help Group in Githunguri. This group was formed in 2001, first as a group to sell cut flowers under an FAO project. The group consists of 19 active members, nine women and 11 men. In 2003 the group was approached by Mr Mwangi of Farm Concern and started the vegetable project which now forms the main income source for the group members.

Members explained that their biggest problem – and the incentive to work as a group – is to produce enough to justify the rather expensive transport to Nairobi. They calculated that they needed 1,000 bunches to make transport profitable. Farmers receive KShs 12 for each bunch, of which KShs 1/= is immediately put into a joint bank account as reserve. The group explained that they had earned KShs 1.3 million during the last 6 months – this amounts to roughly KShs 10,000 income per active group member and month, from which expenses of ca KShs 3,000 were subtracted. This yields a monthly income per group member of about KShs 7,000 (USD100) from the vegetable business.

Participants were then invited to visit the vegetable fields and engage in some further discussion with the Mugima group members.

After a quick stop for lunch on the way back to Nairobi, the last stop during the field visit was the Ngara Road outdoor market in Nairobi. Participants took a quick tour through the stalls and engaged in discussion with some of the sellers to learn more about the vegetable supply and demand.

The field visit ended at 3.30pm.
APPENDICES

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APPENDIX I: Invitation letter to workshop

23 March 2006

Dear xxx,

Consultation workshop on “Strategies for research and development on underutilised plant species in Africa”

Underutilised or neglected crops are those plants species that have been overlooked by scientific research and by development workers, and yet may play a crucial role in the food and nutritional security, income generation and culture of the rural poor. Lack of attention has meant that their potential value is under-exploited and places them in danger of continued genetic erosion and ultimately disappearance, further restricting development options for the poor.

The International Centre for Underutilised Crops (ICUC), the International Plant Genetic Resources Institute (IPGRI) and within it the Global Facilitation Unit for Underutilized Species (GFU), have agreed to jointly facilitate the development of regional strategies for underutilised and neglected plant species research and development through regional consultations in Asia and Africa. A regional strategy for Latin America is planned for a later stage.

The need for these strategies arises from the fact that increasingly national and international institutions, including ICUC, IPGRI and GFU, are involved in research and development activities relevant to underutilised and neglected species, however a lack of coordination and strategic direction has been perceived.

It is hoped that the strategies will:
1. facilitate the collaboration of the various national and international players in the public and private sector by outlining their unique strengths and comparative advantages;
2. allow partners to address priority issues without losing sight of important gaps;
3. lead to greater impact of research undertaken; and
4. attract more funding for work on neglected and underutilised crops.

Individual institutions’ strategies for their involvement in underutilised and neglected plant species can then be nested within the larger regional strategy and thus provide stronger justification for future research and development activities, resource mobilization and networking.

An electronic consultation of experts is ongoing (see www.icuc-iwmi.org/consultation or www.underutilized-species.org) and feedback on the draft strategy document is being received. I attach a copy for your reference. Your comments are valuable and will form the background to further debate.

It is our great pleasure to invite you or your delegate to a consultation workshop on “Strategies for research and development on underutilised plant species in Africa”. The meeting will take place on 24 and 25 May in the Conference Hall of the World Agroforestry Centre in Nairobi, Kenya. The objective is to further develop the strategy and to define next steps towards its implementation. There will be opportunity for a field visit on 26 May for interested participants.

Please notify ICUC as soon as possible if you will be able to attend. By email: S.Rajamanie@cgiar.org, fax: +94-11-2786854 or phone: +94-11-2784080, ext: 3306.

We look forward to your contributions during the workshop.

On behalf of the initiators of the consultation -
Yours sincerely,

Dr Hannah Jaenicke
Director, ICUC

Dr Irmgard Höschle-Zeledon
Coordinator, GFU
### APPENDIX II: List of Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
<th>Organization/Center</th>
<th>Address/Location</th>
<th>Contact Information</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assétou Kanoute</td>
<td>Director</td>
<td>ADAF – Gällè – ROCARPA – WECANPAR</td>
<td>BP 3267, Rue Gamal Abdel Nasser, Porte 211 Badalabougou, Bamako, Mali</td>
<td>Tel: +223 222 00 33/ 6410507, Email: <a href="mailto:adafgalle@afribone.net.ml">adafgalle@afribone.net.ml</a>, Website: <a href="http://www.adafgalle.org">http://www.adafgalle.org</a></td>
<td></td>
</tr>
<tr>
<td>Bernhard Löhr</td>
<td>Head Horticulture Programme</td>
<td>ICIPE</td>
<td>P.O.Box 30772, 00100 Nairobi, Kenya</td>
<td>Tel: +254 20 8654485, Email: <a href="mailto:blohr@icipe.org">blohr@icipe.org</a>, Website: <a href="http://www.icipe.org">http://www.icipe.org</a></td>
<td></td>
</tr>
<tr>
<td>Caroline de Kock</td>
<td>Managing Director</td>
<td>Speciality Foods of Africa Pvt. Ltd</td>
<td>9 Lezard Ave, Milton Park, Harare, Zimbabwe</td>
<td>Tel: +263 4 708882, Fax: +263 4 708882, Email: <a href="mailto:caroline@tulimara.co.zw">caroline@tulimara.co.zw</a>, Website: <a href="http://www.tulimara.co.zw">http://www.tulimara.co.zw</a></td>
<td></td>
</tr>
<tr>
<td>Dennis Depommier</td>
<td>Regional Director of CIRAD for Eastern and Southern Africa</td>
<td>CIRAD</td>
<td>P.O. Box 30677, Nairobi, Kenya</td>
<td>Cell No: +254 0723 274 069, Fax: +254 20 7222 4653, Email: <a href="mailto:d.depommier@cgiar.org">d.depommier@cgiar.org</a>, Website: <a href="http://www.cirad.fr">http://www.cirad.fr</a></td>
<td></td>
</tr>
<tr>
<td>Detlef Virchow</td>
<td>Director</td>
<td>AVRDC-The World Vegetable Center</td>
<td>Regional Center for Africa, P.O. Box 10, Duluti-Arusha, Tanzania</td>
<td>Tel: +255-27-2553093/2553102, Fax: +255-27-2553125, E-mail: <a href="mailto:detlef.virchow@avrdc-rca.co.tz">detlef.virchow@avrdc-rca.co.tz</a>, Website: <a href="http://www.avrdc.org">http://www.avrdc.org</a></td>
<td></td>
</tr>
<tr>
<td>Elizabeth Omino</td>
<td>Head, PROTA Network Office Africa</td>
<td>CIRAD</td>
<td>P.O. Box 30677 – 00100, Nairobi, Kenya</td>
<td>Tel: +254 20 7224784, Fax: +254 20 7224781, Email: <a href="mailto:e.omino@cgiar.org">e.omino@cgiar.org</a>, Website: <a href="http://www.prota.org">http://www.prota.org</a></td>
<td></td>
</tr>
<tr>
<td>Faith Kirima</td>
<td>Sales and Marketing Coordinator</td>
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APPENDIX III: Presentations made at the Opening Session
Under-utilised plant species in Africa

World Agroforestry Centre
Dennis Garrity, Nairobi, May 2006

ICRAF’s Regions

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Species 4
Species 5
Species 6
Species 7
Species 8
Species 9
Species 10
Species 11
Species 12
Species 13
**Millennium Development Goals**

- September 2000, all UN countries signed up to the Millennium Declaration
- Declaration is underpinned by the 8 Millennium Development Goals
- Within the 8 Goals, 18 Targets, 48 Indicators
- MDGs set targets for development by 2015
- Quantify change based on a 25 year time-frame using 1990 as a baseline
- Agreeing to goals and targets is one thing, operationalising them is another

**Goal 1: Eradicate extreme poverty and hunger**

- Tree products, especially fruit, medicine, timber, fodder, fuelwood, beverage, oils and extracts can contribute more to household income as well as substitute for current expenditure.
- Markets for tree products are imperfect and function sub-optimally thus progress is needed to improve market structure, conduct and performance.
- Trees provide several products for direct human consumption (e.g. fruit, seed, leaves) as well as indirect consumption (e.g. fodder for livestock and fish).
- Trees also provide several products that can be processed and stored providing food throughout the year and as a precaution against drought or flood.
Millennium Development Goals

Goal 1: Eradicate extreme poverty and hunger

Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day

Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger

Indicators

1. Proportion of population below $1 per day
2. Poverty gap ratio (incidence x depth of poverty)
3. Share of poorest quintile in national consumption
4. Prevalence of underweight children (under five years of age)
5. Proportion of population below minimum level of dietary energy consumption

18 Targets and 48 Indicators

Malaria incidence in Africa

New Cultivar Development
(Uapaca kirkiana)

Wide variation even in one species

Earlier ripening, bigger fruits, heavy fruit loads, smaller trees and uniform quality

A highly precoc. cultivar (fruited after 2 yrs.)
To develop and promote fruit-tree portfolios for small-holder farming systems that make fruit available all year round to both rural and urban households in poor countries of Africa.
Do we know where we are going?
Is everyone on board?
Underutilized Plant Species
Evolving Interest
1970 -2005

1970-1979
- R&D focus on major commodities (staples and industrial crops)
- High impact on hunger and poverty reduction
- Mitigation of impact of crop failures through diversification of agricultural production not perceived as an issue yet

1980-1989
- Attention increasing, also due to greater recognition of importance of CWR by CGIAR
- Collection missions (e.g. IITA in 1986 on Vigna species)
- All Indian Coordinated Research Project on Underutilized Plants (1982)
- Conference “New Crops for Food and Industry” (1987
- ICUC founded (1988)
- First Purdue Symposium on “New Crops” (1988)

1990-1999
- Increased donor funding (EU, DFID, SDC, BMZ, The Netherlands, Japan, Italy)
- Projects launched at IPGRI (UMS, monographs)
- CIHEAM: “Underutilized Fruit Crops in the Mediterranean Region” (1994)
- FAO IV Technical Conference and GPA Activity 12 (1996)
- EU Projects (REGEN programme)
- WCHR Rome emphasis on underutilized horticultural species (1998)
- Intern. Consultation by CGIAR GR Policy Committee (1999)
- Networks (MEDUSA, BAMNET, UTFANET, SEANUC, PROSEA...)
- AVRDC work on indigenous African vegetables

2000-2005
- GFAR Conference (2000) recommends involvement in underutilized crops
- Global Facilitation Unit for Underutilized Species established (2002)
- PROTA network founded (2000)
- Major Global Projects Launched (IFAD/PGRI, 2001)
- Web sites dedicated to underutilized species (ICUC, IPGRI-NUS, GFU, PURDUE)
- ICUC/PROTA/Global research on underutilized crops” (2002)
- ACUC established (2005)
- LEISA issue on underutilized crops published (2004)
- Recognition by SGR/Gr/GRD and CoP (2006)
- EU 6th FP call (2005)
- CGIAR priorities include underutilized genetic resources (2001)
- UN/FAO/FAO/Food and Agriculture of 2005
- GFU/IPGRI/MSRF: Chennai Consultation for policy makers (2005)
2000-2005

- GFAR Conference (2000) recommends involvement in underutilized crops
- Global Facilitation Unit for Underutilized Species established (2002)
- PROTA network founded (2000)
- Major Global Project launched (IFAD/IPGRI, 2001)
- AVRDC Strategy 2010 published (2001)
- Web sites dedicated to underutilized species (ICUC, IPGRI-NUS, GFU, PURDUE)
- ICUC-PURDUE “Global research on underutilized crops” (2002)
- ACUC established (2004)
- LEISA issues on underutilized crops published (2004)
- Recognition by SBSTTA/CBD and COP (2004)
- EU 6th FP call (2005)
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- ICUC-IPGR-GFU electronic consultation on a strategic framework for research and development of underutilized species
- Regional strategy workshop in Colombo, Sri Lanka (March 16-17)
- Regional strategy workshop in Nairobi, Kenya (May 24-25)
- International workshop on *Moringa* and other leafy vegetables in Accra, Ghana (October)
- AVRDC International Conference on Indigenous vegetables, Hyderabad, India (December)
- ICUC/IPGRI: “Global research on underutilized crops”
- GFU/InWEnt Intern. workshop (2003), follow-up consultation (2004)
- ACUC established (2004)
- LEISA issue on underutilized crops published (2004)
- EU 6th FP call (2005)
- CGIAR priorities include underutilized genetic resources (2005)
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2006

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Reasons for today’s increased attention

- Alternative source of income
- Collapse of commodity prices
- Greater appreciation of biodiversity in enhancing livelihood
- Participation of communities in setting research agendas
- Stronger NARS, willing to invest beyond commodities
- Search for cultural identities in a globalized/more mobile world
- Multi-ethnicity in cities and demands for traditional food
- Better understanding of “Green Revolution” limits
- Greater attention on gender sensitive research

www.underutilized-species.org

Thank you for your attention!!!
Africa regional strategy for research and development of underutilised plant species

Feedback on the consultation process

Dr Hannah Jaenicke
International Centre for Underutilised Crops
24 May 2006

The process

- Draft background document prepared by ICUC and GFU during January 2006;
- Document and key questions circulated from February onwards to > 200 named recipients and four listers (>>1000 recipients);
- Regional consultation workshop for Asia in Colombo Sri Lanka 16/17 March;
- To date, formal feedback received from >50 individuals or institutions (ca 25%).

The draft document

1 Introduction
1.1 Guiding principles
1.2 Putting underutilised plant species into context
1.3 Contribution to MDGs
2 Background
2.1 Challenges and opportunities with a regional focus
3 Actors
3.1 Broad description of actors
3.2 Ongoing activities
4 Strategy
4.1 Assumptions
4.2 Priority areas for action
4.3 Measuring impact
5 Implementation
5.1 Operational plans
5.2 Roles of partners
5.3 Resource mobilisation
6 References

What challenges do you perceive on a global and regional scale?

- Lack of awareness: national agencies, donors, small-scale farmers;
- Lack of resources: financial, genetic / genetic erosion;
- Lack of capacity: access to literature, researchers, language barrier;
- Lack of coordination;
- Lack of (access to) knowledge: e.g. processing, seed availability, difficult to identify the “right” crops;
- Marketing and processing issues: non-tariff barriers to trade / marketing; food safety standards / legal protection / complex legislation also for trade across national borders regionally;
- Demographic issues: population growth / urbanisation (can also be opportunity);
- Ecological limitations: water, soil productivity.

What activities are you/your institute involved in?

- Breeding, domestication;
- Germplasm collections;
- Bioactive compounds of medicinals/nutritional analysis;
- Biotechnology;
- Post-harvest technology;
- Marketing studies;
- Business development support/credit facilities;
- Social studies;
- Biodiversity conservation/systems research;
- Capacity building through co-operations;
- Awareness creation;
- Database creation.

Where do you see your / your institute’s future priorities (time frame)?

- More of the same;
- Expand range of products;
- Shift towards wild species;
- In-situ conservation;
- Sustainable use of plants;
- Seed systems;
- Employment / income generation / commercialisation;
- Capacity strengthening;
- Work through alliances;
- Lobbying.
How can this framework be made operational?

- Concerted action / multi-stakeholder approaches / regional cooperation (regional secretariat);
- Identify lead institution in each country;
- More resources ($$ and capacity);
- Develop markets / involve private sector;
- Information exchange / use modern IKM systems;
- Engage with the media;
- Competitive grants mechanism;
- Strengthen farmers/farmer organisations/CBOs.

Do different partners (NARS, IARCs, NGOs etc.) have different roles – if so what are they in your opinion/experience?

- NARS/NGOs: mentoring role, working on the ground, germplasm collections;
- NGOs: more efficient action, can support private sector, social mobilisation;
- IARCs: capacity building, coordinating projects;
- Private sector: buying & selling, processing & marketing;
- Partnerships need to be built on mutual trust/focus on people.

What resource mobilization strategy would you suggest?

- Build a consortium to lobby / collaborative research / build partnerships;
- Work with regional organisations / SROs;
- Change attitudes of donors;
- Resource contributions from private sector;
- More marketing of viable products to raise awareness / create show cases;
- Source inputs from within the population, but this needs to be managed well.

Next steps

- Are we all "singing from the same hymn sheet": what are underutilised crops – and what do we intend to do with them?
- What are Africa-specific constraints / opportunities – and what the priority areas for intervention? Match interventions with constraints
- What resources are at disposal and how can interventions be made operational?
- Action plans...

"Securing a future for Africa's children"
APPENDIX IV: Group Vision 2020 Results

VISION GROUP 1

- **What is happening differently now?**
  - 50% of available foods in supermarket are underutilized species
  - ½ the land in Africa is cultivated with underutilized crops
  - Increased consumption of underutilized species
  - More efficient food processing technologies
  - Cooperatives/Private Sector play major role in marketing
  - Cooperatives/private sectors market farmer products with geographic indication

- **Who is doing what differently?**
  - Private sectors and farmers are working in partnership
  - Farmers growing more diverse crops
  - Local value addition
  - Non-donor driven funding

- **Changes in the lives of the people**
  - Improved income, nutrition
  - Diverse choice for consumers

- **Who do they interact with?**
  - Close interactions with all the stakeholders

- **How is knowledge shared better?**
  - Specialized growers forum
  - Shared knowledge between species
VISION GROUP 2

General points:

- Every one eating healthy nutritional diets—Due to contribution of underutilized species integrated within current food systems
- Conserved biodiversity in natural and farming systems
- Developed markets for underutilized species
- Improve livelihoods of small holder farmer + rural populations
- Diversifying income sources/reducing risks
- Knowledge (scientific, awareness, policy, BASE known and etc. available for all)

What is happening differently now?

- Health /nutrition are better
- Biodiversity and environmental health are better
- Markets – developed
- Knowledge – collated/researched, documented/shared

Who is doing what differently?

- Farmers growing wider crop base, more underutilized crops in more integrated way
- Private sector more involved (investing) in Underutilized Crops
- Donors investing more Public-Private Partnerships for underutilized species
- Researchers confidently working with underutilized crops († domesticated)

Changes in the lives of the people

- Healthy
- Happy
- Wealthy
- Reduce migration to urban cities

Who do they interact with?

- Researchers
- Private sector/entrepreneurs
- Civil society
- CBO, Extension, NGO, IR
VISION GROUP 3

What is happening differently now?
- African vegetables sold in world markets
- Africans in diaspora eating AIVs
- Broadened African diets
- Improved nutrition
- Diversified agricultural system, sustainable, low external input and highly productive
- Longer life expectancy
- Sustainable value chain
- Diversified farming systems for dynamic resilience to climate change
- Farmers’ easy access to wider range of crops
- More perennial crops
- Policy support for NUS
- Nutritional awareness is high and consumers willing to pay for it
- Networking through technology advancements
- People empowered and informed

VISION GROUP 4

General Vision Statement:
“World where peoples’ livelihood including food, health, income have improved through the utilization of the planet’s biodiversity”

What is happening differently now?
- Underutilized species well researched, promoted and available in the market
- Global support

Who is doing what differently?
- Researchers, farmers, extensionist, policy makers/politics (food, health and income)

How is knowledge shared better?
- Networking, partnership etc.
APPENDIX V: Operation Group Work

GROUP 1 - EDUCATION, CAPACITY AND KNOWLEDGE

Uses of underutilized species:
- Food
- Medicines
- Forage
- Dyes
- Those that aid in improvement of soil fertility
- Fibres
- Latex, rubber, gums

A. What?
   - Identification of underutilized species

   ➢ How?
     - Carry out survey on the available species

   ➢ Who?
     - Social scientists → researchers
     - Botanists
     - Community
     - Entrepreneurs
     - Private sector

   ➢ When?
     - Now – immediately

   ➢ With what?
     - Human, financial
     - Indicators
     - How many species identified
GROUP 1 - EDUCATION, CAPACITY AND KNOWLEDGE (Page 2)

B. What?
- **Creation of awareness**

- **How?**
  - Use of public media – Radio, TV etc
  - Holding workshops, seminars to disseminate info

- **Who?**
  - Researchers
  - Private sector
  - Extension officers

- **When?**
  - After the identification and documentation of the info

- **With what?**
  - Human and financial resources

- **Indicators**
  - How many stakeholders have been reached
  - How many radio programs, TV have been made
  - No. of publications made

---

C. What?
- **Change the education curriculum**

- **How?**
  - To include underutilized species in the curriculum at all levels

- **Who?**
  - Policy makers
  - Ministry of Education

- **When?**
  - Immediately

- **With what?**
  - Financial and human resources

- **Indicators**
  - Changed curriculum
  - No. of related subjects
GROUP 1- EDUCATION, CAPACITY AND KNOWLEDGE (Page 3)

D. What?
   - Capacity building

   ➢ How?
     - Training of the stakeholders
     - Establishing and/or strengthening institutional capacity

   ➢ Who?
     - Scientists/researchers
     - Policy and decision makers
     - Extension workers & community leaders
     - Private sector

   ➢ When?
     - Immediately

   ➢ With what?
     - Human and financial resources

   ➢ Indicators
     - No. & category of people trained
     - No. of institutions strengthened and established

E. What?
   - Database establishment

   ➢ How?
     - Data collection, entry & compilation & dissemination (print, electronic etc)

   ➢ Who?
     - National research centres

   ➢ When?
     - Immediately - 2007

   ➢ With what?
     - Human and financial resources

   ➢ Indicators
     - No. of databases established
GROUP 2 - POLICY & FINANCIAL SUPPORT

A. What? - Policy

Policy should:
- Recognize
- Facilitate/enable
- Provide support

Policy:
- Production
- Research
- Commercialization
- Trade

- How?
  - Generate data to substantiate the claims
  - Develop an international/African generic policy on underutilized species
  - Market/promote at policy makers’ level
  - Involve reputed national institutions in each country
  - Enlist support from farmers’ organisations, NGOs, general public/govt. organisations
  - Link up with national champions

- Who?
  - An action group – multi-country level
  - Identify an international institution to take a lead – ICRAF/GFU/ICUC

- How?
  - Enlist support from Farmers’ organizations, NGOs, general public/government organizations
  - Link up with national champions

- When?
  - 2007

- With what?
  - Consultant – Policy development 40 days @ $ 400
  - Review group
  - Finance to be raised – about $40,000

- Indicators
  - Draft policy presented to National Leaders (African Union)
GROUP 2 - POLICY & FINANCIAL SUPPORT (Page 2)

B. What? - Financial support

➢ How?
   ▪ Proposal to DFID and IDRC–climate change and adaptation
   ▪ Awareness among donors
   ▪ Seek time of % scientists/experts from international institutions
   ▪ Develop proposals linking to HIV/AIDS and nutrition projects

➢ Who?
   ▪ Lead institutions like SAFIRE, CRIA SA-DC based in Africa in collaboration with ICRAF/ ICUC/GFU;
   ▪ Involve regional institutions

➢ When?
   ▪ Immediate

➢ With what?
   ▪ With available human resources of collaborating institutions

➢ Indicators
   ▪ Draft proposal developed
   ▪ Proposal submitted by deadline

C. What?
   ▪ Awareness amongst donors

➢ How?
   ▪ Collection of data case studies
   ▪ Briefing documents developed
   ▪ Personal interactions

➢ Who?
   ▪ GFU/ICUC/CG Networks

➢ When?
   ▪ Continuously

➢ With what?
   ▪ Within available budget

➢ Indicators
   ▪ Feedback from donors
A. What?
   ▪ Not Network

➢ How?
   ▪ ICUC moderated community of interest

➢ Who? (criteria)
   ▪ Active involvement
   ▪ Willingness to share in the public domain
   ▪ Contactable
   ▪ Responsiveness

➢ When?
   ▪ Now!

➢ With what?
   ▪ Web forum
   ▪ Community blogs
   ▪ World space radio
   ▪ Data base of expertise ICUC managed
   ▪ Info – learning system
   ▪ E-journal

➢ Indicators
   ▪ Uptake of outcomes
   ▪ Membership and hits – two way
B. What?
  - Champions

➢ How?
  - In donors
  - National advocates
  - Commodity advocates
  - Private marketers, processors, input providers
  - Research community
  - Media

➢ Who?
  - Partnerships

➢ Why?
  - Critical mass
  - Value chain
  - Expertise
  - Information flow
  - Lobby power
  - Avoid duplication
  - Enable validation
  - SRO endorsement FARA
GROUP 4 – RESEARCH

- **What?**
  - Species
  - Disciplines

- **How?**
  - Species by functional groups:
    - Food
    - Medicinal
    - Timber
    - Bio fuels
    - Feed
    - Ornamentals
    - Etc.

  - Domestication
  - Cultivation
  - Utilization
  - Conservation
  - Germplasm
  - Identification of growth conditions
  - Botany
  - Propagation
  - Stress effects
  - Selection & breeding
  - Crop husbandry
  - Post harvest
  - Marketing

(Ref: J Allemann 2006)
GROUP 4 – RESEARCH (Page 2)

- **Who?**

<table>
<thead>
<tr>
<th>Work doers</th>
<th>Coordinators</th>
<th>Donors</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Programme (Universities &amp; RIs)</td>
<td>IARCs + NARS</td>
<td>Government Foundations &amp; Philanthropists Institutions</td>
<td>$, €, £</td>
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<td>IARS</td>
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<td>Capacity Infrastructure</td>
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<td>SGPRC)</td>
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<td>Resources</td>
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<tr>
<td>Regional Platforms</td>
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</tr>
</tbody>
</table>

- **Indicators**
  - Academic/Extension
  - Publications: reports, manuals, leaflets, articles
  - Technology products
  - Improve seeds, market products
  - Core collections
  - Varieties
  - Economic/social
  - Higher HHI
  - Diversified diets
  - Public-private partnership
  - Improved health
  - Appreciation of biodiversity
GROUP 5 - MARKETING

What?

A. Document, analyse and disseminate success stories in formal, informal and export markets in Africa

B. Entrepreneurial training for producers’ groups

C. Linking supply and demand

How:
- partnerships
- buyers-suppliers fora
- demonstration and trade fairs

D. Adapting credit and grant schemes to encourage all relevant stakeholders

E. Market surveys (Consumer preferences, risks, partners, prices, marketing strategies, ...)

F. Technical support for:
  - processing
  - packaging (as it may apply)
  - labelling
  - certification
APPENDIX VI: Operationalisation group work discussion

**Group 1 - Education, Capacity, Knowledge**
- Including the species when teaching crop science
- Comparing underutilized crops and commodity crops
- Cosmetic & industrial crops
- Expand on PROTA database to cover Southern Africa
- In reference to databases look at existing technologies
- Awareness creation at household level
- NGO’s and self-help groups to be more involved with extension
- Private partnerships

**Group 2 – Policy/Financial Support**
- Generic policy development by pan-Africa institutions such as FARA?
- Awareness creation among donors not a task of a few international institutions
- Empower CBOs/NGOs to bring up policy issues
- African right to be used to promote underutilized spp.
- What is plan B in case there is no funding?
- Need for stand alone policies
- Where does a species leave the “underutilized” status?
- Lobbying with NEPAD and other policy makers
- Collation of data at international level for policy briefs
- Look for interested parties to start off

**Group 3 – Partnerships/Champions**
- In partnerships: need for trust and knowing each other
- E-discussion included in ICUC website
- Discussion with ISHS on e-j article
- Working with the private sector and CGIAR institutes
Group 4 – Research

- Include marketing research
- No social scientists included in research activities
- Option for funding if underutilized species is part of a larger biodiversity issue
- Do communities receive the information created by research?
- How to communicate with farmers if extension services are collapsing
- Who will do safety + efficacy trials for medicinal species
- Working directly with farmers
- AAMPS to be involved in work on medicinal plants; are involved in clinical trials
- Basic research is not a waste of resources
- Indigenous and scientific knowledge have to be used in parallel
- Need for socio-economic studies

Group 5 – Marketing

- Presented tasks should guide all other work
- Certification for local markets
- Market research ⇒ underutilized crops studies?
- Share Asian experience with African stakeholders
- Intelligent market analysis
- GFU case studies
- Regional marketing courses in planning stage