Mainstreaming biodiversity for food and nutrition
Challenge: Global malnutrition

2 billion people suffer from micronutrient deficiencies

Global Hunger Index 2014

FAO: The State of Food and Agriculture 2014


Overweight or obese people increase since ‘80s

Today

2.1 billion people

1980

0.875 billion people
Challenge: Shrinking biodiversity in agriculture, food systems and diets

Globally identified plant species: 250,000

Number of crops used for food by humans throughout history: 7,000

3 crops currently provide >50% of the world’s calories from plants:
- Rice
- Maize
- Wheat

12 crops that together with 5 animal species provide 75% of the world’s food today:

(Data source: FAO, 1997)
CBD Conference of the Parties

Decision VII/32 (Kuala Lumpur, 2004)

- Noting the linkage between biodiversity, food and nutrition and the need to enhance sustainable use of biodiversity to combat hunger and malnutrition, and thereby contribute to target 2 of goal 1 of the Millennium Development Goals

- Requests ...to...bring forward options for consideration by the Conference of the Parties at its eighth meeting for a cross-cutting initiative on biodiversity for food and nutrition...to work together with relevant organizations, in order to strengthen existing initiatives on food and nutrition, enhance synergies and fully integrate biodiversity concerns into their work.

Decision VIII/23A (Curitiba, 2006)

- Adopts the framework for a cross-cutting initiative on biodiversity for food and nutrition – led by Bioversity International and FAO
Healthy Environment, Healthy People

- CBD/WHO Connecting Global Priorities: Health and Biodiversity - A State of Knowledge Review
- Healthy Environment Healthy People – UN Environment
**Project aim:** Strengthen the conservation and sustainable use of biodiversity with high nutritional potential, by mainstreaming into nutrition, food and livelihood security strategies and programmes.

5 year project: 2012 - 2017

**Provide evidence** – Demonstrate the nutritional value of local BFN and the role it plays in promoting healthy diets and strengthening livelihoods.

**Influence policies** - Use the evidence to influence policies and markets that support the conservation and sustainable use of BFN for improved human nutrition and wellbeing.

**Raise awareness** – Develop tools and best practices for scaling up the use BFN in development programmes, value chains and local community initiatives.
The main domains of an enabling environment for BFN.

- Evidence & Knowledge Base
- Capacity Building, Partnership Building, Awareness & Understanding
- Resource Mobilization
- Governance, Policies, Institutions, Markets
Improving the Knowledge and evidence Base

Prioritization and food composition data of 64 species

“Plants for the Future”
Exploiting nutrition potential of native biodiversity

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Vitamin A (mcgRAE/100g)</th>
<th>Vitamin C (mg/100g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Papaya</td>
<td>59</td>
<td>38</td>
</tr>
<tr>
<td>Passion fruit</td>
<td>57</td>
<td>53</td>
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<tr>
<td>Carrot</td>
<td>663</td>
<td>112</td>
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<tr>
<td>Pitanga</td>
<td>552</td>
<td>126</td>
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<tr>
<td>Tucumã</td>
<td>844</td>
<td>420</td>
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<td>Buriti</td>
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<td>1888</td>
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<tr>
<td>Lime</td>
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<tr>
<td>Orange</td>
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<tr>
<td>Tangerine</td>
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<tr>
<td>Cagaita</td>
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<td>Mangaba</td>
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</tr>
<tr>
<td>Camu camu</td>
<td>1204</td>
<td>1888</td>
</tr>
</tbody>
</table>
Formalize the role of biodiversity on food and nutrition security policies

- Ordinance MMA/MDS 163/2016 – List of socio-biodiversity products to guide public policies and food procurement
- Defines and supports measures for the production and sale of native ‘neglected and underutilized’ species with nutritional value

Next step - Create financial incentives for production and marketing
  - Premium price, prioritization
National Policy on Minimum Prices for products from Sociobiodiversity (PGPM-Bio)

Promote biodiversity conservation, food security and income generation to local communities (“extractivism”)

- Establishes minimum prices and complements the price paid for products
- 15 species included in 2016/2017, 12 prioritized by BFN

Photo credit: Conab
School Feeding Program (PNAE) and Food Procurement Program (PAA)

- Link family farmers to institutional markets – 30% min for PNAE, PAA 100% family farmers
- Premium price (30%) for organic and agroecological foods
- Priority of purchase from indigenous, *quilombolas* and other traditional communities
- PNAE: schools in traditional communities receive 50% more funds for school meals
Improving Policies and Governance: NBSAPs revision process

Revision of National Biodiversity Strategy and Action Plans (NBSAPs) to comply with Aichi Biodiversity Targets of the Convention on Biological Diversity
Raising awareness and capacity building

- Food fairs, cooking demonstrations
- Capacity building materials for gatherers, farmers, cooks, professionals in the field
- Recipe development
- Online Course on mainstreaming biodiversity for food and nutrition
Cooking competition
Training program on Increase Local Fruit and vegetable consumption of Sri Lankans through *Hela Bojun* Sales Centers

**Expert Consultant/Trainer:** Executive Chef  
**Partner:** Extension & Training Centre, DOA

Training Content 1. *Basic Knowledge in methods of cookery*  
2. *Cuts of vegetables*

**Recipes & demonstrations** with presentation on novel food recipes produced from local fruit and vegetables:

Vegetable ratatoulli with **cowpea & sweet potato mash**