COCOA GUIDE LAUNCH AGENDA

/ 1 WELCOMING PARTICIPANTS
8H30-9H

/ 2 WORDS OF WELCOME
PRESENTATION OF THE DAY (KINOMÉ)
9H-9H15

/ 3 RECAP OF THE EXCHANGE PROGRAM (WORLD BANK)
9H15-9H30

/ 4 PRESENTATION OF THE KEY MESSAGES OF THE GUIDE AND THE SIMULATOR
9H30-10H

/ 5 PRESENTATION BY EACH OF THE COUNTRIES PARTICIPATING IN THE PROGRAM (IVORY COAST, GHANA, BRAZIL)
10H20-12H

/ 6 PRESENTATION BY EACH OF THE COUNTRIES PARTICIPATING IN THE PROGRAM (COLOMBIA, PERU, DOMINICAN REPUBLIC)
13H30-15H

/ 7 SUMMARY OF THE FIRST PART OF THE DAY
15H-15H30
SEQUENCE OF COUNTRY PRESENTATIONS

/ 10h20 – 10h30  VIDEO: A CHAMPION OF AGROFORESTRY (IVORY COAST)

/ 10h30 – 11h00  IVORY COAST: ROLE OF AGROFORESTRY IN FOREST POLICY AND SUSTAINABLE COCOA FARMING  
YNSA TRAORE  
PATRICIA ASSAMOI

/ 11h00 – 11h30  GHANA: ENABLING ENVIRONMENT (LAND TENURE, TREE TENURE, BENEFIT SHARING ISSUES)  
VINCENT AWOTWE-PRATT  
ERIC AMENGOR

/ 11h30 – 12h00  BRAZIL: ADAPT AGROFORESTRY SYSTEMS TO AGROECOLOGICAL ZONES  
FERNANDO MENDES

/ 13h30 – 14h15  VIDEO: SANTANDER  
COLOMBIA: PARTNERSHIPS BETWEEN RESEARCH, PRODUCERS AND THE PRIVATE SECTOR IN THE CONTEXT OF AGROFORESTRY  
OSCAR HINCAPIÉ

/ 14h15 – 14h45  PERU: THE CASE OF ACOPAGRO  
ALEXANDER BECERRA

/ 14h45 – 15h30  DOMINICAN REPUBLIC  
RAFAEL YONY MOLINA
A GUIDE TO IMPLEMENTING SUSTAINABLE COCOA AGROFORESTRY
A long way

ABIDJAN
NOVEMBER 23, 2022
Forest Carbon Partnership Facility (FCPF) - Private sector engagement

- Knowledge development and capacity building
- Development of a template for a multi-stakeholder framework and guidelines for climate-smart practices
- Co-facilitation of multi-stakeholder and public-private dialogues

Cross-sector and transnational scope

- CASHEW NUT
- MINING
- VANILLA
- CATTLE
- ECOTOURISM
- COCOA
PRODUCTS FROM THE PRIVATE SECTOR ENGAGEMENT WORK
Cocoa
The representatives of the six countries strengthened their negotiation skills and learned from the experiences of other countries.

An agroforestry guide & six videos have been produced based on specific case studies used to design innovative agroforestry projects.

A knowledge exchange community of practitioners has been launched.

Capacity building of stakeholders preparing to: a) implement sustainable practices, b) make informed investment decisions, c) comply with new EU import regulations.
PARTICIPANT COUNTRIES
EXTENDED GROUP STATISTICS

109 participants per session on average

- Private sector: 17%
- International cooperation: 3%
- Other: 25%
- Civil society: 25%
- Public sector: 14%
- Farmer associations: 16%
COCOA SECTOR: PRODUCTS

- Cocoa and forests knowledge exchange program
- Six films were produced to present good practices from Africa and Latin America
- Development of a cocoa agroforestry implementation guide
- An agroforestry simulator

Phase 1) Preparation: Mission launch
Phase 2) Development of the guide
Phase 3) Cocoa and forest knowledge exchange group webinars
Phase 4) Validation
Colombia - Santander | Design of agroforestry systems, yields, shade management, partnership between research and production entities

Dominican Republic | Promotion of cocoa through quality management and certifications

https://www.forestcarbonpartnership.org/sustainable-cocoa-initiatives-through-agroforestry

Photo credits: Kinomé & AADO MEDIA
FILMS

Ivory Coast – La Mé et la Nawa | Agroforestry as part of landscape approaches

Ivory Coast - Abengourou | Camaye Vert: Design of a plot-scale agroforestry model

Ivory Coast – Azaguie | A champion of AFS

https://www.forestcarbonpartnership.org/sustainable-cocoa-initiatives-through-agroforestry

Photo credits: Kinomé & AADO MEDIA
Presentation of key messages from the guide (Kinomé)
Agenda

- Presentation of the main chapters of the guide
- Key messages
- Presentation of the simulator
- Discussions
Process

Participation of the core group of countries

3 technical sessions
6 countries
50 to 70 participants/session

- Private sector: 31%
- Public sector/government institution: 15%
- NGO/research institution: 8%
- Civil society organization: 7%
- Indigenous Peoples group: 8%
- Intergovernmental organization: 31%
**Process**

- **Mid Nov 2021**: Online meetings to present the guide to all country groups
- **Nov 21**: Advanced version ENG/FR/SP
- **Dec 2021**: Workshop in Bogotá, Abidjan with members of country groups
- **March 2022**: Online validation workshop with groups from the five countries
- **Jan 2022**: Final version
- **Mid April 2022**: Document + translation + publication
- **Mid April 2022**: In-person dissemination workshop in Ivory Coast with the participation of the 5 country groups
- **November 2022**:
Focus on two continents: Latin America and West Africa

Exchange of best practices and highlight on concrete situations in each country

A guide to support the implementation of public-private cocoa agroforestry projects in existing and new cocoa plantations

Strengthen deployment and expansion of sustainable cocoa in the context of REDD+ and CFI

Technical aspects to take into account in the design of plots

PPP and business models
• In a REDD+ context

Work with small producers
• Living income
• Environmental and social monitoring
• Funding

MRV, warning systems

Value creation around sustainable agroforestry products
• Certification
• PSE
CHARTERS OF THE GUIDE

**Context of the study, objectives and method**
- Context of the study
- Objectives of the guide
- Approach and methodology

**Overview of cocoa production systems in the world**
- The diversity of cocoa production systems
- Land use dynamics and threats to the environment
- Cocoa agroforestry in the world, background and interests

**Good agricultural practices identified**
- Ecology and practices of *Theobroma cacao*
- Analysis of current practices and innovations to be promoted
- Typology of cocoa-based agroforestry systems (SAC)
- Field analysis and recommended practices

**Pathway to sustainable cocoa agroforestry and sustainable landscapes**
- Socio-cultural analysis
- Environmental analysis
- Cost-benefit analysis
- Partnerships and innovative financing to mainstream sustainable cocoa
- Certification of the sustainable cocoa

**Barriers and opportunities**
- Barriers
- Opportunities
Best practices identified at all phases of cocoa farming

1) Establishment
   - E.g.: site selection, soil clearance...

2) Initial phase
   - E.g.: weeding, pest control, etc.

3) Maintenance – Mature AFS
   - E.g.: shade management, soil fertility
BEST PRACTICES | PLOT DESIGN

- Preliminary diagnosis
- Adapt routes to environmental conditions
- Prioritize rehabilitation
- Analyses of needs
- Compliance with environmental and land-use planning standards

See Ivory Coast video
See Brazil presentation
BEST PRACTICES | SUPPORT TO FARMERS

- Training (preliminary diagnosis, maintenance pruning, shade management, nursery management, etc.)
- Raising awareness (protected species, land use planning etc.)
- Favorable conditions (access to income from trees, security of access to land, adequate financing etc.)

See Colombia and Ghana presentations
BEST PRACTICES | PROMOTION OF COCOA AGROFORESTRY

- Showcasing sustainable AFS cocoa
- Promoting non-cocoa products
- Certifications
- Local transformation, diversification

See Dominican Republic presentation
BEST PRACTICES | TOOLS

40-55% de surface terrière relative d’un peuplement de cacaoyers – gage d’un bon compromis entre le rendement du cacao et la longévité d’un peuplement de cacaoyers.

Dans cette étude menée au Cameroun (Région centrale), chaque point de ce graphique représente un peuplement de systèmes agroforestiers à base de cacaooyer et la taille du point est proportionnelle au rendement commercial du cacao allant de moins de 50 kg/ha à plus de 2 t/ha.


Au centre du graphique (bleu), les peuplements des systèmes agroforestiers à base de cacaoyers ont des caractéristiques optimales. Les rendements sont proches de ou supérieur à 2 t/ha de cacao et cette performance a duré plus de 60 ans. Ces peuplements possédaient 137 arbres mixtes par hectare. La surface terrière relative des cacaoyers variait de 30 à 55% - en moyenne, les cacaoyers représentaient 9,3 m² et les arbres mixtes 31,4 m².

Dans la partie supérieure du graphique (maron), la culture des cacaoyers n’est pas durable. Ces peuplements sont simples, ils possédaient 70 arbres mixtes par hectare. La surface terrière relative des cacaoyers est supérieure à 55% - celle des cacaoyers est de 8,0 m² en moyenne.

Alors que celle des arbres associés est de 3,8 m². Les rendements peuvent dépasser les 2 t/ha, mais ces cacaoyers ne durent pas plus de 30 à 40 ans parce qu’ils sont difficiles à entretiens, même avec l’utilisation d’intrants chimiques tels que les engrais.

Inversement, dans la partie inférieure du graphique (orange), la culture des cacaoyers est durable mais à rendement faible. Ces peuplements sont complexes, ils possédaient 176 arbres mixtes par hectare. La surface terrière relative des cacaoyers est de moins de 30% - les cacaoyers représentent 5,1 m² et les arbres associés 24,4 m². Les rendements vont de moins de 50 kg/ha à 750 kg/ha.
RECENT DEVELOPMENTS: ARS 1000 AND AGROFORESTRY

- A cocoa-based agroforestry system is an association of trees with cocoa trees to sustainably support cocoa production. The integration of the tree in the plantation is only possible under the following conditions:
  - A minimum density of cocoa trees of 800 plants/ha;
  - Preservation or planting of trees compatible with cocoa;
  - A density of trees associated with cocoa between 25 and 40 trees/ha;
  - Species diversity, with a minimum of three (3) species, including at least one (1) stratum-3 species (canopy height > 30 m), picked from the approved list of compatible trees (which do not host diseases and/or pests) with the cocoa tree.

See Ivory Coast presentation
## ARS 1000 and Agroforestry: Identified Models

<table>
<thead>
<tr>
<th>Models</th>
<th>Characteristics</th>
<th>Goals</th>
<th>Woody shrub species used</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Trees inside the cocoa field</strong></td>
<td>This approach includes two types of tree species:</td>
<td>Establishment of shade</td>
<td>Stratum-3 forest species</td>
</tr>
<tr>
<td></td>
<td>• Stratum-3 forest species</td>
<td>• Biodiversity</td>
<td>Stratum-2 forest species</td>
</tr>
<tr>
<td></td>
<td>• Stratum-2 forest species</td>
<td>• Diversification of income sources</td>
<td>Stratum-1 woody species</td>
</tr>
<tr>
<td></td>
<td>Number of trees: 25 to 40 per ha</td>
<td>• Carbon sequestration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Minimum 3 species including at least 1 from stratum 3</td>
<td>• Adaptation to climate change</td>
<td></td>
</tr>
<tr>
<td><strong>2. Tree in and around the plantation</strong></td>
<td>Model 1 and planting or maintaining rows of trees around the plantations</td>
<td>Model 1 goals plus:</td>
<td>Stratum-3 forest species</td>
</tr>
<tr>
<td></td>
<td>(width to be determined depending on the space available)</td>
<td>• the demarcation of plantations with trees</td>
<td>Stratum-2 forest species</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• the fight against bush fires</td>
<td>Stratum-1 woody species</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• the barrier against CSSVD</td>
<td>Species for barriers</td>
</tr>
<tr>
<td><strong>3. Hedgerow</strong></td>
<td>Planting or maintaining rows of trees around the plantations (width to be</td>
<td>Demarcation of plantations with trees</td>
<td>Species for barriers</td>
</tr>
<tr>
<td></td>
<td>determined depending on the space available)</td>
<td>• Fight against bush fires</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Barrier against CSSVD</td>
<td></td>
</tr>
<tr>
<td><strong>4. Improved tree fallow</strong></td>
<td>Combination of woody shrubs and forest trees</td>
<td>Agroforestry development for future cocoa plantations</td>
<td>Woody species</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Stratum-3 forest species</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Stratum-2 forest species</td>
</tr>
</tbody>
</table>
FUNCTIONING

STEP 1 – CHOICE OF ROUTE
(“DASHBOARD” TAB)

Please select a pathway for more detailed economic results

Select from the 8 technical sectors available in the tool: 4 for West Africa and other 4 for good cocoa-based agroforestry practices in Latin America.

Technical pathway

ITK-WAF3
## FUNCTIONING

### STEP 2 - CUSTOMIZATION (TAB S “ITK”…)

<table>
<thead>
<tr>
<th>REGION</th>
<th>ITINERARY</th>
<th>DESCRIPTION</th>
<th>SYSTEM</th>
<th>DENSITY CLASS</th>
<th>MIN AGF TREES</th>
<th>MAX AGF TREES</th>
<th>MIN COCOA TREES</th>
<th>MAX COCOA TREES</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEST AFRICA</td>
<td>ITK-WAF1</td>
<td>Eastern Côte d'Ivoire - Multistrata agroforestry model with low density of shade trees and fruit trees</td>
<td>MULTISTRATA</td>
<td>LOW DENSITY</td>
<td>15</td>
<td>20</td>
<td>1100</td>
<td>1250</td>
</tr>
<tr>
<td></td>
<td>ITK-WAF2</td>
<td>Côte d'Ivoire - Intercropped agroforestry model with medium density of shade trees and fruit trees. Shade is mainly provided by commercial timber trees.</td>
<td>INTERCROPPED</td>
<td>MEDIUM DENSITY</td>
<td>25</td>
<td>35</td>
<td>1100</td>
<td>1250</td>
</tr>
<tr>
<td></td>
<td>ITK-WAF3</td>
<td>Côte d'Ivoire - Complex multistrata agroforestry model with high density of shade trees and fruit trees</td>
<td>MULTISTRATA</td>
<td>HIGH DENSITY</td>
<td>75</td>
<td>85</td>
<td>1050</td>
<td>1150</td>
</tr>
<tr>
<td></td>
<td>ITK-WAF4</td>
<td>Togo - Intercropped agroforestry model with high density of shade and fruit trees</td>
<td>INTERCROPPED</td>
<td>HIGH DENSITY</td>
<td>90</td>
<td>110</td>
<td>1100</td>
<td>1300</td>
</tr>
</tbody>
</table>

### …AND “ITK_MANAGEMENT”]

<table>
<thead>
<tr>
<th>ITK-WAF3</th>
<th>Species (select within this list)</th>
<th>Number of individuals</th>
<th>Total individuals per ha</th>
<th>ITK range</th>
<th>Basal area at 15 years (m²)</th>
<th>Total basal area at 15 years (m²)</th>
<th>Relative basal area</th>
<th>Minimum tree cover</th>
<th>Mean tree cover</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theobroma cacao</td>
<td>1100</td>
<td>1050 - 1150</td>
<td>0,02</td>
<td>19,44</td>
<td>83,70%</td>
<td>3,77%</td>
<td>18,27%</td>
<td></td>
</tr>
<tr>
<td>Select species N 1</td>
<td>Terminalia ivorensis</td>
<td>30</td>
<td></td>
<td>0,08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select species N 2</td>
<td>Khaya anthotheca</td>
<td>10</td>
<td></td>
<td>0,07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select species N 3</td>
<td>Distemonanthus benthamianus</td>
<td>15</td>
<td></td>
<td>0,03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select species N 4</td>
<td>Entandrophragma angolense</td>
<td>20</td>
<td></td>
<td>0,01</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Select species N 5</td>
<td></td>
<td></td>
<td></td>
<td>0,00</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Select species N 6</td>
<td></td>
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<td>0,00</td>
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<td>Select species N 7</td>
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<td>0,00</td>
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<tr>
<td>Select species N 8</td>
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<td></td>
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<td>0,00</td>
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<tr>
<td>Select species N 9</td>
<td></td>
<td></td>
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<td>0,00</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Select species N 10</td>
<td></td>
<td></td>
<td></td>
<td>0,00</td>
<td></td>
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</tbody>
</table>
**FUNCTIONING**

**STEP 3 – ADJUSTING INPUTS**

(“ASSUMPTIONS” TAB)

<table>
<thead>
<tr>
<th>MINIMUM GUARANTEED PRICES</th>
</tr>
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<tbody>
<tr>
<td><strong>PRODUCT</strong></td>
</tr>
<tr>
<td>West Africa</td>
</tr>
<tr>
<td>Sustainable cocoa (ton)</td>
</tr>
<tr>
<td>Carbon (T/eqC)</td>
</tr>
<tr>
<td>Percentage of carbon income perceived by the farmer</td>
</tr>
<tr>
<td>Latin America</td>
</tr>
<tr>
<td>Sustainable cocoa (ton)</td>
</tr>
<tr>
<td>Carbon (T/eqC)</td>
</tr>
<tr>
<td>Percentage of carbon income perceived by the farmer</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>LABOR COST</th>
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</thead>
<tbody>
<tr>
<td><strong>FARMING STAGE</strong></td>
</tr>
<tr>
<td>West Africa</td>
</tr>
<tr>
<td>Nursery and Planting</td>
</tr>
<tr>
<td>Maintenance</td>
</tr>
<tr>
<td>Harvesting, drying and conditioning</td>
</tr>
<tr>
<td>Latin America</td>
</tr>
<tr>
<td>Nursery and Planting</td>
</tr>
<tr>
<td>Maintenance</td>
</tr>
<tr>
<td>Harvesting, drying and conditioning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REGION</th>
<th>ITINERARY</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Africa</td>
<td>ITK-WAF1</td>
<td>397</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ITK-WAF2</td>
<td>222</td>
<td>0</td>
<td>0</td>
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<tr>
<td></td>
<td>ITK-WAF3</td>
<td>20</td>
<td>0</td>
<td>0</td>
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<tr>
<td></td>
<td>ITK-WAF4</td>
<td>70</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Latin America</td>
<td>ITK-LAM1</td>
<td>72</td>
<td>0</td>
<td>0</td>
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<tr>
<td></td>
<td>ITK-LAM2</td>
<td>131</td>
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<td>41</td>
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<td>ITK-LAM3</td>
<td>47</td>
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<td>ITK-LAM4</td>
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<tr>
<td>West Africa</td>
<td>ITK-WAF1</td>
<td>40</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>ITK-WAF2</td>
<td>40</td>
<td>56</td>
<td>56</td>
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<tr>
<td></td>
<td>ITK-WAF3</td>
<td>28</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
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<td>ITK-WAF4</td>
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<td>Latin America</td>
<td>ITK-LAM1</td>
<td>84</td>
<td>89</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>ITK-LAM2</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>ITK-LAM3</td>
<td>38</td>
<td>32</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>ITK-LAM4</td>
<td>6</td>
<td>45.27</td>
<td>45.27</td>
</tr>
</tbody>
</table>

**Adjust or update key model inputs such as labor cost, labor requirements, technical support cost, and expected price of outputs (cocoa beans, carbon and others)**
**FUNCTIONING**

**STEP 4 – UPDATE THE OTHER MODEL INPUTS**

(“SPECIES_CHARACTERISTICS” AND “COCOA_RAW_YIELD” TABS)

<table>
<thead>
<tr>
<th>Common name</th>
<th>Scientific name</th>
<th>Category</th>
<th>Wood density (g/cm³)</th>
<th>DBH (cm)</th>
<th>HEIGHT (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Year 5</td>
<td>Year 10</td>
</tr>
<tr>
<td>Cacaoyer / Cocoa tree</td>
<td>Theobroma cacao</td>
<td>Cash crop</td>
<td>0.420</td>
<td>6.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Tiama</td>
<td>Entandrophragma angolense</td>
<td>Timber</td>
<td>0.520</td>
<td>7.2</td>
<td>10.4</td>
</tr>
<tr>
<td>Sipo</td>
<td>Entandrophragma utile</td>
<td>Timber</td>
<td>0.530</td>
<td>16.4</td>
<td>23.5</td>
</tr>
<tr>
<td>Aboudikro</td>
<td>Entandrophragma cylindricum</td>
<td>Timber</td>
<td>0.640</td>
<td>17.4</td>
<td>24.9</td>
</tr>
<tr>
<td>Iroko</td>
<td>Milicia excelsa</td>
<td>Timber</td>
<td>0.590</td>
<td>9.9</td>
<td>14.2</td>
</tr>
<tr>
<td>Bété</td>
<td>Mansonia altissima</td>
<td>Fruit</td>
<td>0.590</td>
<td>10.4</td>
<td>14.9</td>
</tr>
<tr>
<td>Acajou Blanc</td>
<td>Khaya anthotheca</td>
<td>Timber</td>
<td>0.490</td>
<td>20.0</td>
<td>28.7</td>
</tr>
<tr>
<td>Oba/Kapokier</td>
<td>Bombax buonopozense</td>
<td>Fertilizer</td>
<td>0.410</td>
<td>14.6</td>
<td>20.9</td>
</tr>
<tr>
<td>Koto</td>
<td>Pterygota macrocarpa</td>
<td>Fruit</td>
<td>0.590</td>
<td>10.9</td>
<td>15.6</td>
</tr>
</tbody>
</table>

If necessary and if data are available, update or adjust to local conditions:

1- The growth characteristics of the species (cocoa tree and associated species)
   - “Species_Characteristics” sheet -
2- The expected yield of cocoa beans from the chosen technical sector – “Cocoa_Raw_Yield” sheet -
FUNCTIONING

STEP 5 – VISUALIZATION OF OUTPUTS

- Average cocoa bean yield of selected ITKs
- Average carbon storage potential of selected ITKs