

#### Accelerated Breeding 2025 Goals #2 + #3 Deep dive

Accelerated Breeding 18<sup>th</sup> June 2025

## **Meeting design**

## CGIAR

#### Purpose

 An information sharing meeting on goals #2 and #3 of Accelerated Breeding (AB) high-level goals for 2025

#### Outcomes

• Breeding teams across programs understand AB goals #2 and #3, what is expected to achieve the goals, levels of engagement and where to seek support

#### Agenda

- Opening remarks: Peter; 5 mins
- Presentation: Michael; 40 mins
- Discussion: All; 45 mins



#### AB Goals #2 and #3

## CGIAR

#### AB Goal #2

 In interaction with partners, Crop Leads aggregate crop-specific investments around the most important, non-redundant breeding pipelines and market segments, i.e., bring focus based on all available information. It means that CGIAR focuses on the most important market segments and deprioritizes investments in smaller market segments. In some instances, smaller market segments could be the target of national efforts.

#### <u>AB Goal #3</u>

 Building on the updated breeding strategy (as reflected in Goals 1&2), Crop Leads contribute to designing a much stronger joint fund-raising strategy by aggregating highly relevant TPPs into product concepts. A product concept describes how the new product will appeal to its target market and investors, where and why we are investing and with what partners (from Goals 1&2).



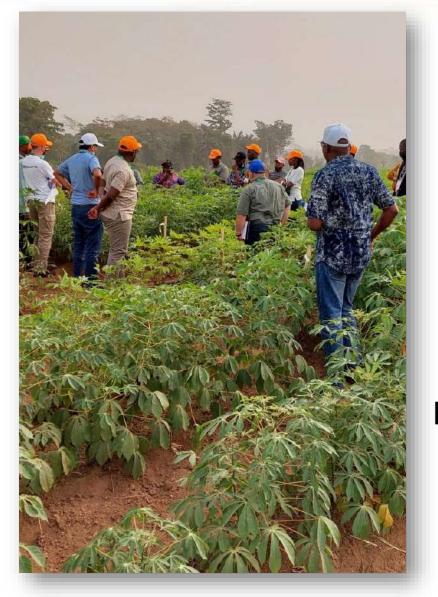
## Goal #2: Breeding strategy – priority setting

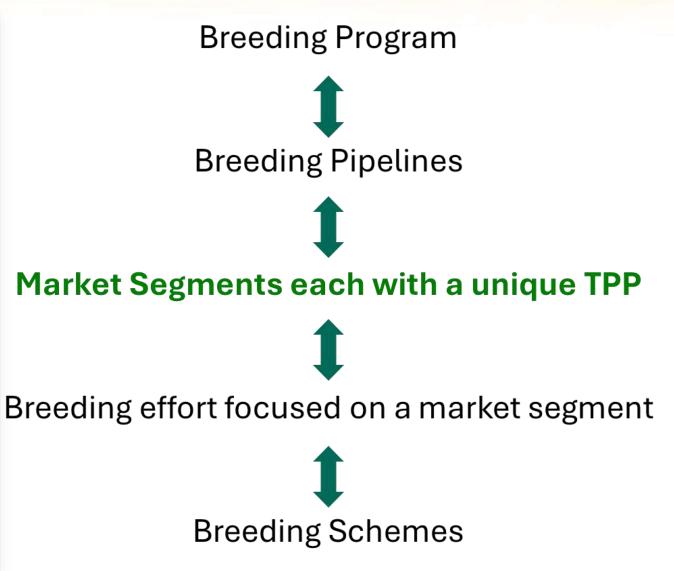
- Doing a little bit everywhere will not result in success.
- Decisions must be made about what to prioritize.
- > Even before declining budgets:
  - > Too many pipelines
  - Too many market segments
  - > Too many traits
  - > Too many countries





#### **Breeding strategy – priority setting**





#### **Breeding strategy**



| Breeding Pipeline |
|-------------------|
|-------------------|

| MS 1  | MS 2  | MS 3  |
|-------|-------|-------|
|       |       |       |
| TPP 1 | TPP 2 | TPP 3 |
|       |       |       |
| Cat 1 | Cat 2 | Cat 4 |

#### **Categories of breeding effort**





**Category 1:** Full Breeding Pipeline.

**Category 2:** Leverages candidates from a Category 1 pipeline testing performance in Early and Late Testing.

**Category 3:** differs from Category 1 by one or two simply inherited Essential Improve Trait(s) that can be delivered via backcrossing, done by CGIAR or by partners.

**Category 4:** Leverages candidates from a Category 1 pipeline testing performance only in Late Testing.

| C | Program             | Pipeline   | MS                   | ТРР                                      | Breeding Effort   |                       | Breeding Scheme           |                          |                             |              |                                      |   |   |  |  |
|---|---------------------|------------|----------------------|--|-------------------|-----------------------|---------------------------|--------------------------|-----------------------------|--------------|--------------------------------------|---|---|--|--|
|   |                     |            | What<br>Where<br>How | Trait 1<br>Trait 2<br>Trait 3<br>Trait X | Product<br>Design | Crossing<br>Screening | Early<br>Stage<br>Testing | Late<br>Stage<br>Testing | On farm<br>Verifi<br>cation | None         | Product<br>Design                    | Crossing<br>Screening                     | Early<br>Stage<br>Testing   | Late<br>Stage<br>Testing   | On farm<br>Verifi<br>cation  |
| _ |                     |            |                      |  |                   |                       |                           |                          |                             |              | # cr<br># sc<br>Trai<br>scre<br>Sele | reened<br>ts<br>eened<br>ection<br>ensity | # entries<br># locations<br># rep<br>Traits s<br>screened<br>Selection<br>intensity | # entries<br># locations<br># reps<br>Traits<br>screened<br>Selection<br>intensity | # entries<br># locations<br># reps<br>Traits<br>screened<br>Selection<br>intensity |
|   |                     | Pipeline 1 | MS1                  | TPP1                                     |                   |                       | Cat 1 M                   | S                        |                             | ]            |                                      | Bre                                       | eeding sche   | me 1   |  |
| [ | Breeding<br>Program | Pipeline 2 | MS2<br>MS3           | TPP2<br>TPP3                             |                   |                       | Cat 1 M                   | S<br>Cat 2 I             | MS                          | ]            |                                      | Bre                                       | eeding sche<br>Bree   | me 2<br>eding scher  | ne 3   |
|   |                     | Pipeline 3 | MS4<br>MS5<br>MS6    | TPP4<br>TPP5<br>TPP6                     |                   |                       | Cat 1 M                   | Cat 2 I                  | MS<br>3 MS                  | ]<br>]<br>]  |                                      | Br  | <u> </u>  | eme 4<br>eding schen<br>Breeding s   |  |
|   |                     | Pipeline 4 | MS7                  | TPP7                                     |                   |                       |                           | С                        | at 4 MS                     | ]            |                                      |   |   |  | Breeding<br>cheme 7  |
|   |                     |            | MS8                  | TPP8                                     |                   | No CGI/               | AR bree                   | eding e                  | ffort                       | Tier 5<br>MS |                                      | No CGI                                    | AR bree   | ding sche  | eme  |

#### Use linked data reports to view breeding strategy



| Queried Record(s)   | BP00125   |  |  |  |  |  |
|---|---|--|--|--|--|--|
| Breeding Pipelines  |   |  |  |  |  |  |
| Breeding Team Name  | Eastern Africa Early  |  |  |  |  |  |
| Breeding Team Lead  | Yoseph Beyene   |  |  |  |  |  |
| BP ID   | BP00125   |  |  |  |  |  |
| BP Short Name   | Maize CIMMYT BP00125  |  |  |  |  |  |
| BP (Internal Name)  | EA-PP1 Early (white)  |  |  |  |  |  |
| BP Description      Early white maize hybrids, adapted to the Eastern African rainfed mid-altitude dry/wet agro-ecologies, and sui use. |   |  |  |  |  |  |
| Pipeline Size   |   |  |  |  |  |  |
| Annual Investment (USD)   | 577364  |  |  |  |  |  |
| Investment Reference Year   | 2021  |  |  |  |  |  |
| Current Cycle Time (months)   | 36  |  |  |  |  |  |
| Market Segments   |   |  |  |  |  |  |
| Region  | East and Southern Africa  |  |  |  |  |  |
| Сгор  | Maize   |  |  |  |  |  |
| Germplasm Type  |   |  |  |  |  |  |
| MS ID   | MS00375   |  |  |  |  |  |
| MS Short Name   | Maize EAF MS00375   |  |  |  |  |  |
| MS Long Name  | Maize   Hybrid   EAF   Food   White   Mid Altitude; Dry   Rainfed   Early   |  |  |  |  |  |
| MS (Internal Name)  | Early maturing white hybrid maize for East Africa   |  |  |  |  |  |
| Area (Ha)   | 963,683   |  |  |  |  |  |
| Organisation  | CIMMYT  |  |  |  |  |  |
| Target Product Profiles   |   |  |  |  |  |  |
| TPP Lead  | Yoseph Beyene   |  |  |  |  |  |
| TPP ID  | ТРРООО7О  |  |  |  |  |  |
| TPP Short Name  | Maize EAF TPP0070   |  |  |  |  |  |
| TPP (Internal Name)   | EAPP1 Early White   |  |  |  |  |  |
| TPP Description   | Early white maize hybrids, adapted to the Eastern African rainfed mid-altitude dry/wet agro-ecologies, and suitable for food<br>use. Rainfed, Eastern Africa tropical rainfed, mid-altitude (1000-1800 masl); dry (600-800 mm annual rainfall)/wet (900-1500<br>mm/year) ; Kenya, Uganda (April-September);<br>Ethiopia: May-October<br>Tanzania (North): April-September<br>Tanzania (South): November-March |  |  |  |  |  |
| Category of Breeding Effort   | Category 1: Full  |  |  |  |  |  |
| Costs (added, USD)  |   |  |  |  |  |  |
| Months to develop   | -   |  |  |  |  |  |
| Essential: Traits to Improve  | 3   |  |  |  |  |  |
| Essential: Traits to Maintain   | 21  |  |  |  |  |  |
| Traits Nice to have   | 4   |  |  |  |  |  |

Breeding Pipeline

MS 1

TPP 1

### Use linked data reports to view breeding strategy



| Target Product Profiles   |   |
|---|---|
| TPP Lead  | Yoseph Beyene   |
| TPP ID  | TPP00070  |
| Essential: Traits to Improve                                      | 3   |
| Essential: Traits to Maintain                                     | 21  |
| Traits Nice to have   | 4   |
| TPP Traits  |   |
| Abiotic - ASI (days)  | Essential: Maintain - Lower than 5                              |
| Abiotic - Stay-Green (1 to 9)                                     | Nice to Have - Lower than or equal to 6                         |
| Abiotic - Yield Under Drought (tons/ha)                           | Essential: Improve - Percentage above check 5                   |
| Abiotic - Yield Under Low N (tons/ha)                             | Essential: Improve - Percentage above check 5                   |
| Agronomic - Female Inbred Seed Yield (tons/ha)                    | Essential: Maintain - Higher than or equal to 1                 |
| Agronomic - Female Single Cross Seed Yield (tons/ha)              | Essential: Maintain - Higher than or equal to 4.5               |
| Agronomic - Yield Under Optimum Conditions (tons/ha)              | Essential: Improve - Percentage above check 5                   |
| Biotic - Disease - Common Rust (Ps) Resistance (1 to 9)           | Nice to Have - Lower than 4                                     |
| Biotic - Disease - Fusarium Ear Rot (FER) Percentage (%)          | Essential: Maintain - Lower than 10                             |
| Biotic - Disease - Gray Leaf Spot (GLS) Resistance (1 to 9)       | Essential: Maintain - Lower than or equal to 4                  |
| Biotic - Disease - Maize Lethal Necrosis (MLN) Resistance (1 to   | Essential: Maintain - Lower than or equal to 4                  |
| Biotic - Disease - Maize Streak Virus (MSV) Resistance (1 to 9)   | Essential: Maintain - Lower than 3                              |
| Biotic - Disease - Maize Streak Virus (MSV) Resistance            | Essential: Maintain - Equal to Presence of haplotype linked to  |
| Biotic - Disease - Turcicum Leaf Blight (TLB) Resistance (1 to 9) | Essential: Maintain - Lower than 4                              |
| Biotic - Disease - Yield Under Artificial MLN (tons/ha)           | Essential: Maintain - Higher than or equal to 4                 |
| Biotic - Pests - Fall Armyworm (FAW) Resistance Cob (1 to 9)      | Nice to Have - Lower than or equal to 3                         |
| Biotic - Pests - Fall Armyworm (FAW) Resistance Leaf (1 to 9)     | Nice to Have - Higher than or equal to 5                        |
| Morphological - Ear Position (=Ear height/plant height) (%)       | Essential: Maintain - Lower than 50                             |
| Morphological - Husk Cover (%)                                    | Essential: Maintain - Higher than or equal to 90                |
| Morphological - Male plant height : female ear height ratio (%)   | Essential: Maintain - Higher than or equal to 100               |
| Morphological - Plant Height (cm)                                 | Essential: Maintain - Equal to +/- 10 cm of check               |
| Morphological - Root Lodging (%)                                  | Essential: Maintain - Lower than 10                             |
| Morphological - Stem Lodging (%)                                  | Essential: Maintain - Lower than 10                             |
| Phenological - Grain Moisture (%)                                 | Essential: Maintain - Similar to check                          |
| Phenological - Maturity (FAO Scale) (GDD)                         | Essential: Maintain - Within range ( to) 300 to 400             |
| Phenological - Parental Nicking (days)                            | Essential: Maintain - Within range ( to) -5 days to plus 5 days |
| Quality - Visual - Grain Color (yellow, white, blue)              | Essential: Maintain - Equal to white                            |
| Quality - Visual - Grain Texture (flint, semi-flint, semi-dent,   | Essential: Maintain - Within range ( to) semi flint, semi den   |

**TPP traits** 

#### Need to understand full set of requirements for each pipeline



- Moving away from "your team's budget", think about the total set of requirements for each pipeline to be successful, and estimate the total investment required per breeding pipeline.
- Understand the number of new products required by a market segment over a period of years and size each breeding pipeline appropriately.
- Understand and use the cross-cutting services provided by Accelerated Breeding and Breeding Resources.
- Include the cost of marker data points, compositional assays, QG support, support to establish NARES-CG breeding networks, etc. in each pipeline budget.
- Leverage representative locations to test potential new products for different market segments in the region e.g., white, yellow and orange corn, early, mid and late maturities and OPV's and hybrids.

#### **Prioritization criteria**

- Alternative suppliers
  - Focus on low-income and lower-middle income countries as per World Bank classification
  - > Where do strong alternative suppliers exist?
- Relevance = Size of (future) Market Segment
  - > Document assumptions made re: future market segments
  - Breeding pipeline: >1 million ha
  - > Market Segment: >250,000 ha
  - Or, target smaller market segments over larger, but not both. You must decide.
- > Opportunity
  - Goal #1 (TPPs that are **in-demand**, impactful, feasible)
  - > Who will produce and distribute seed at scale? >> partner & country choices
  - Who are your effective partners NARES, local universities, local seed companies that share the joint vision of making a difference >> partner & country choice





## Using criteria for decision-making

There is no strict formula to make these decisions – but decisions must be made.

➤ Mapping of pipelines and market segments (MS) revealed small MS are currently targeted. → Drop or move to category 4 breeding effort.

Ranking pipelines within crop and market segments within pipelines and category of breeding effort per market segment can be helpful.







### Data now available for assessing against criteria

- Use the Excel sheet I shared in invite
- Presents the same data aggregated / disaggregated according to:
  - > Breeding Pipeline
  - Market Segment
  - > Country
- This is the Breeding Portal data matched with GloMIP data (in future to become automatized through the Harmonized Crop Report)
- To update the data, we need you to update Breeding Portal data.



### **Prioritizing pipelines**

| Organization | Cron        | Internal Name for Breeding Pipeline                          | Annual investment | Sum of MS Area | Value adjusted MS Area     | Value of      |
|--------------|-------------|--|-------------------|----------------|----------------------------|---------------|
| organization | crop        | internal Name for Dreeding Pipeline                          | as estimated by   | (ha)           | (ha) - calculates the area | Production    |
|              |             |  | teams in the past | (na)           | taking the production      | (USD)         |
|              |             | · · · · · · · · · · · · · · · · · · ·                        |                   | Ţ              | - · ·                      | (050)         |
| CIMMYT       | Millet      | HPM ESA-HYB Pearl Millet                                     | 36,413            | 7              | 2                          | 3,074         |
| CIAT         | Cassava     | Low amylose cassava for industry (LAC)                       | 653,752           | 1,000          | 2,156                      | 5,817,733     |
| ICARDA       | Chickpea    | Irrigated  | 115,000           | 5,000          | 3,121                      | 5,326,897     |
| ICARDA       | Chickpea    | Rainfed Spring   | 30,000            | 30,000         | 15,389                     | 28,495,208    |
| AfricaRice   | Rice        | TELS-I   | 246,852           | 36,289         | 29,256                     | 42,833,316    |
| ICRISAT      | Sorghum     | BP4  | 50,000            | 44,604         | 11,152                     | 15,674,755    |
| СІММҮТ       | Millet      | LWFM   | 121,861           | 45,600         | 21,116                     | 34,525,809    |
| CIAT         | Rice        | DMeLF_I_Hyb  | 250,000           | 51,000         | 68,253                     | 111,234,932   |
| СІММҮТ       | Sorghum     | HWS  | 36,973            | 52,641         | 19,905                     | 36,463,232    |
| CIAT         | Rice        | DELF_ITemp_Hyb   | 250,000           | 64,000         | 85,651                     | 108,250,218   |
| ICARDA       | Faba bean   | Medium Seeded, Irrigated                                     | 100,000           | 65,000         | 104,107                    | 407,074,121   |
| СІММҮТ       | Sorghum     | HRS  | 36,973            | 67,877         | 21,447                     | 40,613,969    |
| IITA         | Soybean     | Medium/Late Soybean Mid-Altitudes                            | 210,000           | 79,864         | 44,406                     | 59,902,823    |
| ICARDA       | Lentil      | Small Seeded, Rainfed Highlands                              | 100,000           | 80,000         | 74,672                     | 103,739,883   |
| CIAT         | Cassava     | Biofortified cassava for fresh and processing (Dual Purpose) | 87,500            | 92,814         | 200,133                    | 277,892,378   |
| ICARDA       | Grasspea    | High Biomass Grasspea  | 50,000            | 96,447         | 73,648                     | 102,317,692   |
| ICARDA       | Wheat       | West/Central Asia Drylands                                   | 250,000           | 100,000        | 43,111                     | 60,949,853    |
| ICARDA       | Faba bean   | Small Seeded, High Rainfed                                   | 140,000           | 100,621        | 222,241                    | 94,023,007    |
| ICARDA       | Wheat       | West Africa Savannas   | 150,000           | 115,000        | 53,774                     | 98,675,730    |
| AfricaRice   | Rice        | TMeLS-I  | 246,852           | 135,688        | 109,392                    | 166,888,161   |
| ICRISAT      | Pigeonpea   | TPP2-Early-Asia  | 250,000           | 150,000        | 63,200                     | 87,801,720    |
| СІММҮТ       | Millet      | EWFM   | 53,344            | 153,600        | 71,128                     | 95,134,149    |
| IITA         | Cowpea      | Medium To Late Duration Cowpea                               | 322,189           | 178,210        | 38,292                     | 56,667,437    |
| ICRISAT      | Sorghum     | BP3  | 100,000           | 178,440        | 44,615                     | 62,707,454    |
| ICARDA       | Faba bean   | Large Seeded, Low Rainfed Cool                               | 130,000           | 193,000        | 208,914                    | 246,612,036   |
| AfricaRice   | Rice        | DELF-U   | 329,137           | 193,286        | 128,574                    | 187,033,431   |
| CIP          | Sweetpotato | Southern Africa Drought Heat OFSP                            | 925,000           | 196,928        | 619,662                    | 1,001,302,588 |
| ICARDA       | Wheat       | East Africa Drylands   | 150,000           | 220,000        | 169,739                    | 228,544,590   |
| IITA         | Soybean     | Early Maturing Soybean Mid-Altitudes                         | 140,000           | 230,874        | 127,531                    | 179,760,299   |
| IITA         | Cowpea      | Short Duration Cowpea  | 966,568           | 261,604        | 75,058                     | 102,493,555   |
| CIAT         | Beans       | Medium-large red bush beans                                  |                   | 274,738        | 156,743                    | 233,304,454   |
| CIP          | Potato      | LTVR   | 362,398           | 277,293        | 1,664,417                  | 2,394,571,616 |
| IITA         | Cowpea      | Medium Duration Dual-Purpose Cowpea                          | 859,172           | 296,287        | 70,513                     | 96,274,848    |
| CIMMYT       | Sorghum     | MDWSH  | 500,000           | 311,732        | 64,036                     | 104,431,471   |
| CIMMYT       | Millet      | LBFM   | 121,861           | 318,411        | 147,447                    | 230,115,643   |
| CIP          | Sweetpotato | East Africa OFSP   | 1,000,000         | 323,386        | 419,430                    | 655,243,829   |
| ICRISAT      | Sorghum     | BP2  | 175,000           | 334,548        | 83,647                     | 117,566,988   |
| ICARDA       | Lentil      | Large Seeded, Rainfed Cereal System                          | 100,000           | 372,000        | 218,888                    | 304,095,605   |
| ICARDA       | Grasspea    | Small Seeded Grasspea  | 100,000           | 376,255        | 159,479                    | 221,560,495   |
| CIMMYT       | Millet      | EBFM   | 329,105           | 380,416        | 176,160                    | 218,396,836   |
|              |             |  |                   |                |                            |               |



#### **Prioritizing Market Segments (within pipeline)**

CIP

IITA

CIP

CIP

CIP

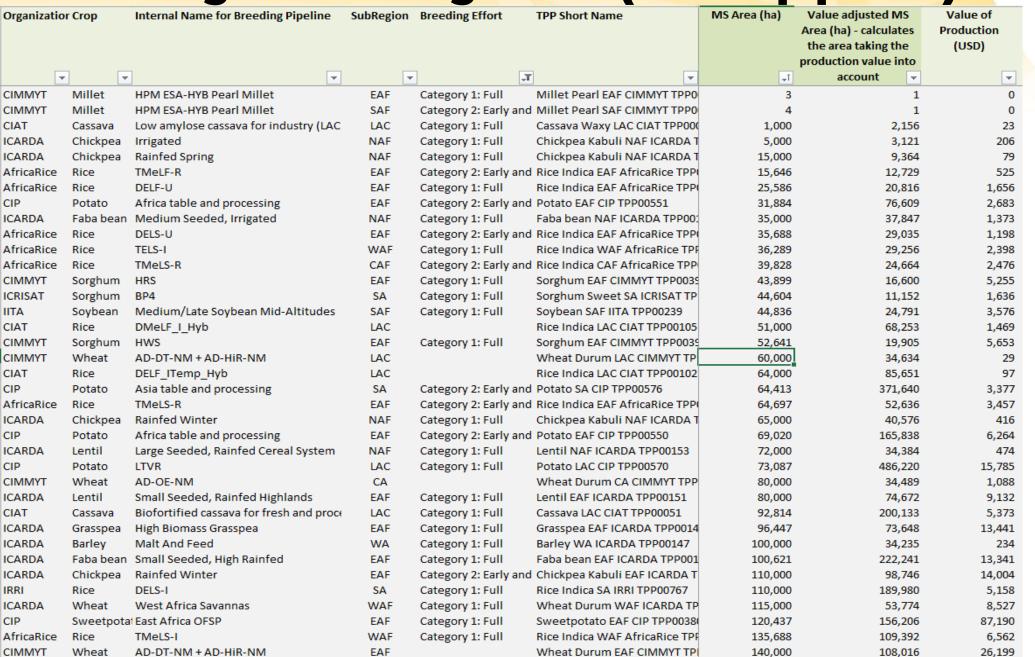
CIP

CIAT

Cassava

White cassava for industry (SEA; SA; SS

EAF



Category 0: Pre-bree(Cassava EAF CIAT TPP00059

145,918



11,577

99,402

#### **Prioritizing Market Segments (within pipeline)**

| Organizati | or Crop   | Internal Name for Breeding Pipeline  | SubRegion | Breeding Effort TPP Short Name                     | MS Area (ha) | Value adjusted MS      | Value of   |
|------------|-----------|--|-----------|--|--------------|------------------------|------------|
|            |           |  |           |  |              | Area (ha) - calculates | Production |
|            |           |  |           |  |              | the area taking the    | (USD)      |
|            |           |  |           |  |              | production value into  |            |
| L          | • •       |  |           |  | <b>▼ ↓</b>   | account 👻              | <b>•</b>   |
| IITA       | Soybean   | Early Soybean For Lowlands   | EAF       | Category 4: Late Testi Soybean EAF IITA TPP00242   |              |                        | 59         |
| ITA        | Soybean   | Early Maturing Soybean Mid-Altitudes   | WAF       | Category 4: Late Testi Soybean WAF IITA TPP0024    |              |                        | 110        |
| ITA        | Soybean   | Early Maturing Soybean Mid-Altitudes   | EAF       | Category 4: Late Testi Soybean EAF IITA TPP00246   |              |                        | 134        |
| ITA        | Soybean   | Medium/Late Soybean Mid-Altitudes  | CAF       | Category 4: Late Testi Soybean CAF IITA TPP00241   |              |                        | 347        |
| IITA       | Soybean   | Early Soybean For Lowlands   | CAF       | Category 4: Late Testi Soybean CAF IITA TPP00245   |              |                        | 207        |
| IITA       | Maize     | Intermediate And Late Yellow And Ora   | WAF       | Category 4: Late Testi Maize WAF IITA TPP00221     | 5,010        |                        | 253        |
| IITA       | Banana    | Mchare Banana  | CAF       | Category 4: Late Testi Banana Mchare CAF IITA TP   |              |                        | 953        |
| IITA       | Soybean   | Medium/Late Soybean Lowlands   | CAF       | Category 4: Late Testi Soybean CAF IITA TPP00237   |              |                        | 415        |
| IITA       | Soybean   | Medium/Late Soybean Lowlands   | EAF       | Category 4: Late Testi Soybean EAF IITA TPP00234   |              |                        | 353        |
| IITA       | Soybean   | Medium/Late Soybean Mid-Altitudes  | WAF       | Category 4: Late Testi Soybean WAF IITA TPP0024    |              |                        | 1,078      |
| CIP        | Potato    | Asia table and processing  | SEA       | Category 4: Late Testi Potato SEA CIP TPP00563     | 9,378        |                        | 384        |
| CIMMYT     | Sorghum   | ERS  | SAF       | Category 4: Late Testi Sorghum SAF CIMMYT TPP0     |              |                        | 1,384      |
| IITA       | Maize     | Intermediate And Late White Maize  | CAF       | Category 4: Late Testi Maize CAF IITA TPP00233     | 11,790       |                        | 767        |
| CARDA      | Chickpea  | Rainfed Spring   | WA        | Category 4: Late Testi Chickpea Kabuli WA ICARDA   | T 15,000     |                        | 12:        |
| RRI        | Rice      | TMeLF-R  | EAF       | Category 4: Late Testi Rice Indica EAF IRRI TPP007 | 57 15,646    |                        | 52         |
| CIP        | Potato    | Asia table and processing  | SEA       | Category 4: Late Testi Potato SEA CIP TPP00564     | 15,678       | 145,736                | 597        |
| CIP        | Potato    | Asia table and processing  | SA        | Category 4: Late Testi Potato SA CIP TPP00581      | 15,993       | 92,274                 | 888        |
| IITA       | Soybean   | Medium/Late Soybean Lowlands   | SAF       | Category 4: Late Testi Soybean SAF IITA TPP00235   | 17,974       | 9,938                  | 1,203      |
| CARDA      | Faba bean | Large Seeded, Low Rainfed Cool   | WA        | Category 4: Late Testi Faba bean WA ICARDA TPPO    | 01 18,000    | 24,402                 | 73         |
| ITA        | Soybean   | Medium/Late Soybean Mid-Altitudes  | EAF       | Category 4: Late Testi Soybean EAF IITA TPP00238   | 22,630       | 12,738                 | 1,67       |
| CIP        | Potato    | Asia table and processing  | SA        | Category 4: Late Testi Potato SA CIP TPP00582      | 23,084       | 133,187                | 1,29       |
| ITA        | Maize     | Early And Extra-Early Yellow And Orang   | CAF       | Category 4: Late Testi Maize CAF IITA TPP00209     | 23,580       | 9,987                  | 1,53       |
| CIMMYT     | Sorghum   | HRS  | SAF       | Category 4: Late Testi Sorghum SAF CIMMYT TPP0     | 039 23,978   | 4,847                  | 2,84       |
| CIP        | Potato    | Africa table and processing  | EAF       | Category 4: Late Testi Potato EAF CIP TPP00549     | 26,049       | 62,589                 | 2,52       |
| ICARDA     | Faba bean | Medium Seeded, Irrigated   | EAF       | Category 4: Late Testi Faba bean EAF ICARDA TPP(   | 001 30,000   | 66,261                 | 369        |
| ITA        | Cowpea    | Medium To Late Duration Cowpea   | EAF       | Category 4: Late Testi Cowpea EAF IITA TPP00201    | 33,129       | 9,505                  | 1,584      |
| CIMMYT     | Sorghum   | ERS  | EAF       | Category 4: Late Testi Sorghum EAF CIMMYT TPPO     | 34,299       | 12,970                 | 1,73       |
| ITA        | Maize     | Early And Extra-Early Yellow And Oran  | CAF       | Category 4: Late Testi Maize CAF IITA TPP00208     | 35,370       | 14,980                 | 2,300      |
| CIP        | Potato    | Asia table and processing  | SEA       | Category 4: Late Testi Potato SEA CIP TPP00109     | 42,964       | 399,376                | 1,504      |
| CIMMYT     | Millet    | LWFM   | EAF       | Category 4: Late Testi Millet Finger EAF CIMMYT T  | PP 45,600    | 21,116                 | 5,23       |
| CIP        | Potato    | Asia table and processing  | SA        | Category 4: Late Testi Potato SA CIP TPP00577      | 48,424       | 279,390                | 2,446      |
| ITA        | Soybean   | Early Soybean For Lowlands   | SAF       | Category 4: Late Testi Soybean SAF IITA TPP00243   | 52,205       | 28,866                 | 4,48       |
| ITA        | Cowpea    | Medium To Late Duration Cowpea   | SAF       | Category 4: Late Testi Cowpea SAF IITA TPP00200    | 62,000       | 4,949                  | 3,483      |
| CIMMYT     | Groundnut | Short Duration Groundnut   | WAF       | Category 4: Late Testi Groundnut WAF CIMMYT TP     | P0 64,630    | 18,308                 | 6,730      |
| CARDA      | Barley    | Food And Feed  | SA        | Category 4: Late Testi Barley SA ICARDA TPP00142   | 65,000       |                        | 3,353      |
| ITA        | Maize     | Early And Extra-Early Yellow And Orang   | CAF       | Category 4: Late Testi Maize CAF IITA TPP00212     | 69,900       |                        | 4,544      |
| ITA        | Cowpea    | Medium Duration Dual-Purpose Cowp  | SAF       | Category 4: Late Testi Cowpea SAF IITA TPP00191    | 70,000       |                        | 3,932      |
| CIP        | Potato    | Highland Potato  | LAC       | Category 4: Late Testi Potato LAC CIP TPP00561     | 70,156       |                        | 8,798      |
| CIP        | Potato    | Asia table and processing  | SEA       | Category 4: Late Testi Potato SEA CIP TPP00107     | 72,106       |                        | 2,365      |
|            | D.1.1.    | A fairs to be a second se | EAE       | C-+ 4.1-+- T+: D-+-+- FAE CID TODOOFEA             | 74.010       | 170 5 60               | 1.04       |



Country

+

TPPs and MS

Breeding Pipelines

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#### **Next steps**



- > Over to you What are your prioritization decisions?
- Please decide where you prioritize and show in Breeding Portal before July 23 so that it is clear:
  - Which pipelines, market segments and countries you will continue to work on/in, and importantly those which you will not.
  - Which market segments will continue to be targeted but with a lower category of breeding effort?
  - How do you rank your pipelines? (Not in Breeding Portal)
  - What are the investment levels into each Breeding Pipeline? And into each Category of Breeding?



#### Guidance for assigning investment levels to Pipelines and Market Segments



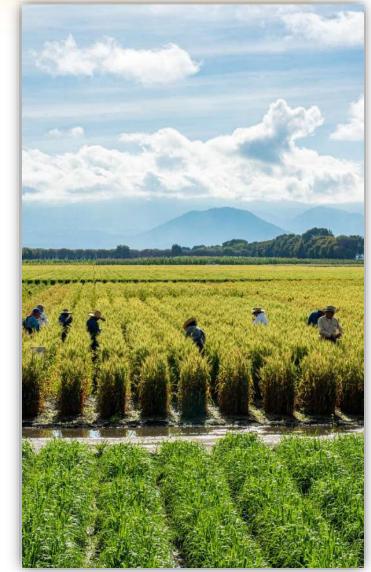
- Please keep simple and high-level
- > Use detailed data, then use this
- If not, make an estimate. Of the total funding you are managing for a program, what portion of the total spent on each pipeline and each MS?
- May help to think of it in terms of portion of breeding team's time, rather than direct expense of a pipeline or MS



#### **Once completed**

- Full transparency of CGIAR breeding strategies will become visible to all through Breeding Portal and GloMIP.
  - Market Segments and TPPs targeted by each
    Breeding Pipeline defined
  - Category of breeding effort associated with each TPP/MS
  - Investment per pipeline
  - > TPP details discussed 2 weeks ago
- > There is an e-learning module in the Breeding Portal to help with use.
- Requesting 4 crops to present July 23 how Goals 1 and 2 have been implemented.







### **Questions / Discussion**

# >Other priority setting criteria?

# >What are our greatest opportunities?



#### **AB Goals #3**



#### <u>AB Goal #3</u>

 Building on the updated breeding strategy (as reflected in Goals) 1&2), Crop Leads contribute to designing a much stronger joint fund-raising strategy by aggregating highly relevant TPPs into product concepts. A product concept describes how the new product will appeal to its target market and investors, where and why we are investing and with what partners (from Goals 1&2).

#### **AB Goal #3 - Resource Mobilization**





Building on the updated breeding strategy (as reflected in Goals 1&2), Crop Leads contribute to designing a much stronger joint fund-raising strategy by aggregating highly relevant TPPs into product concepts. A product concept describes how the new product will appeal to its target market and investors, where and why we are investing and with what partners (from Goals 1&2).



### **AB Goal #3 - Resource Mobilization**

- We need to work together across crops to develop a stronger pitch for resources. We suggest to aggregate highly relevant TPPs into clusters describing how products will appeal to its target market and investors, where and why we are investing and with what partners (derived from your prioritization in 1&2).
  - Climate resilience
  - Food security / reduced food price inflation
  - Improved nutrition
  - Reduced GHG emissions
  - New or increased income opportunities
- These can then be aggregated across crops to create a more compelling and CG level fund-raising strategy.





## **Thank You!**

## Questions and discussion