



ISPC QUALITATIVE PRIORITIZATION EXERCISE – RESULTS OF A PILOT STUDY



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Background:

The CGIAR's Strategy and Results Framework (SRF) 2016-2030 identified three strategic goals or system level outcomes (SLOs) of the CGIAR: (i) reduced poverty, (ii) improved food and nutrition security for health, and (iii) improved natural resource systems and ecosystem services. Since SLOs are the higher-level goals of the system, CGIAR has introduced the concept of Intermediate Development Outcomes (IDOs) to enable scientists and researchers to consider these ultimate goals from the research activity perspective, i.e. thinking through the contexts in which their outputs might contribute to development. Below this IDO level are 45 unique sub-IDOs that have been adopted as the common research outcome targets within each CGIAR research program (CRP), according to program- and peer-reviewed assessments of priorities and of what can be delivered. The structure of the sub-IDOs under IDOs contributing to SLOs are shown in Figure 1 with 35 sub-IDOs under the three SLOs and 16 under the Cross-cutting Themes. The SRF 2016-2030 will guide the development and implementation of the portfolio of second generation CRPs (CRP-II).

In April 2015, at the 13th Fund Council meeting in Bogor (FC13), donors agreed to endorse the SRF 2016-2030 for approval by the Funders Forum, subject to the ISPC developing "a qualitative prioritization framework by September 2015," and that it "will consult during the process with concerned FC members to ensure that it meets their needs and concerns"¹. The ISPC Chair, therefore, agreed to implement a "qualitative prioritization" of the sub-IDOs (rather than of the research *per se*), with the overarching objective being to develop a framework, independent of Centers' own initiative, for qualitatively assessing relative priorities across sub-IDOs. The intention was that the output from this exercise could then be used by the ISPC alongside its assessment of the quality of the individual CRP-II pre-proposals which were to be submitted in mid-August 2015. In other words, this framework could serve as a "tool" for dialogue between the different parts of the CGIAR System for moving towards a more robust prioritization process in the future and contributing as one of several methods for CGIAR system level priority setting as alluded to in the ISPC White Paper ("*Strengthening Strategy and Results Framework through Prioritization*", 2013)².

This brief note describes the initial steps taken by the ISPC between June and September 2015 towards developing a framework for qualitatively assessing relative priorities across the 45 unique sub-IDOs. It describes the results of two parallel efforts undertaken - pilot exercises - aimed at eliciting priorities from two distinct groups of CGIAR stakeholders: donors themselves and knowledgeable (of CGIAR) development experts.

¹ 13th CGIAR Fund Council Meeting, Bogor, Indonesia, Final Meeting Summary <http://library.cgiar.org/bitstream/handle/10947/3942/FC13%20Summary%20FINAL.pdf?sequence=1>. It was also stated (pg 9 Conclusions and Decisions) that "Once amended per above, the revised SRF will drive the CRP pre-proposal development process pending endorsement by the FC and approval by the Funders Forum."

² This paper introduced the concept of IDOs to the CGIAR discussion and talked about prioritization at both the System level and the level of the CRPs. <https://library.cgiar.org/bitstream/handle/10947/3218/Strengthening%20Strategy%20and%20Results%20Framework%20through%20Prioritization%20by%20ISPC.pdf?sequence=1>

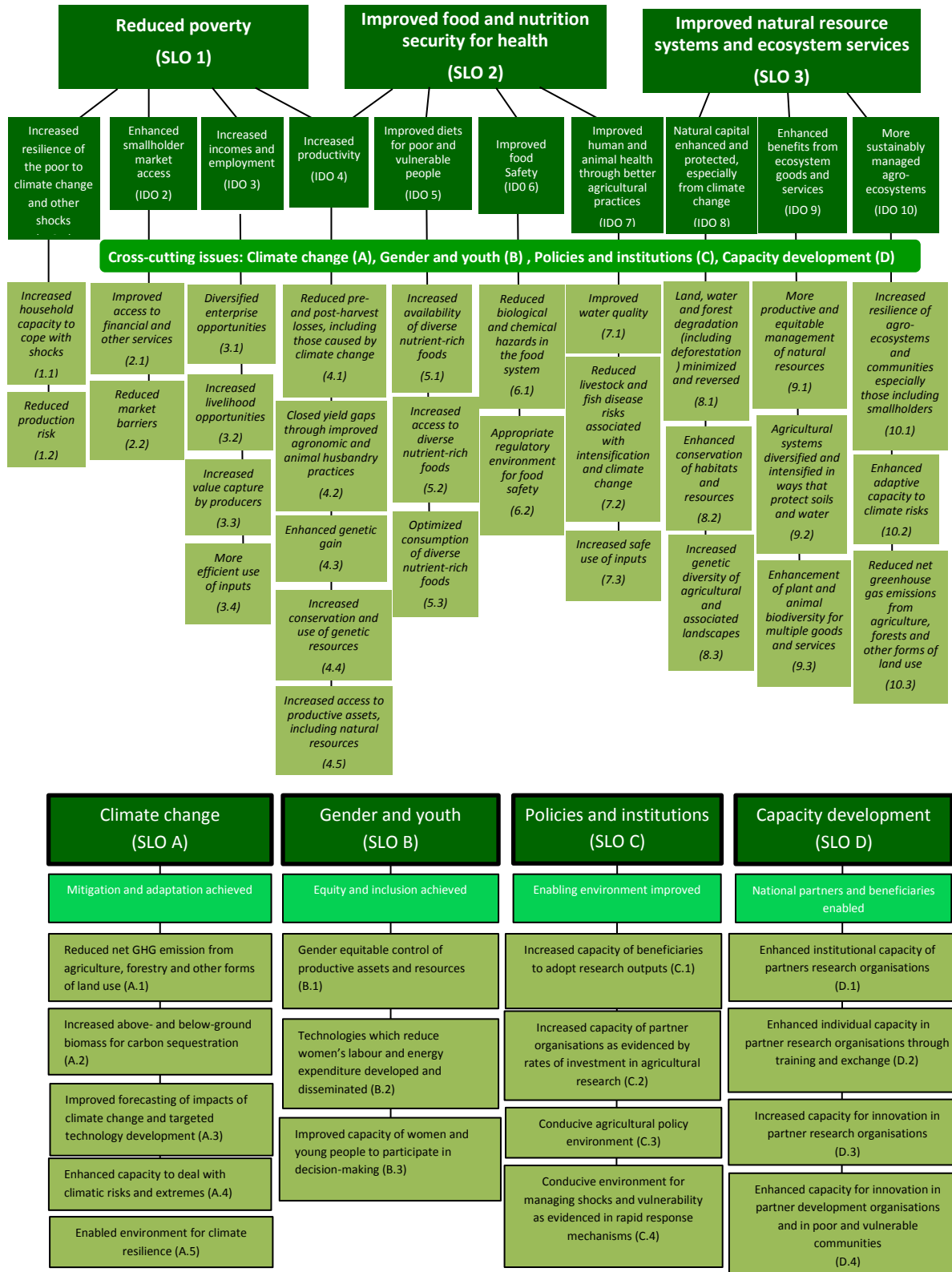


Figure 1. CGIAR Results Framework 2016-2030 (Version 18 May 2015)

Online group surveys (for donors) to elicit priorities and individual questionnaires (for experts) were utilized and subsequently analyzed. We emphasize that these are initial steps. Yet, while we conclude that the results of this pilot exercise cannot be reliably applied to the overall (portfolio) or individual CRP-II pre-proposal assessment, we believe a similar but enhanced two-pronged effort can and should be undertaken prior to the submission of the CRP-II full proposals (31 March 2016). The ISPC believes this second exercise would be useful to both the ISPC in its CRP assessments and, importantly, to the donors in helping them reach strategic decisions about resource allocations. We are also hopeful that this information might be supplemented by more quantitative approaches, modeling exercises, etc., over the course of the next six months.

1. THE ONLINE SURVEY OF DONORS AND STAKEHOLDERS

The Process:

A CGIAR donor/key stakeholder online sub-IDO priority survey (via SoGo Survey platform) was launched by the ISPC Secretariat during June-July 2015. All members of the CGIAR Funders Forum (list provided by the Fund Office), 70 members in total, were invited by email (9-10 July) from the ISPC Chair to complete the survey. The email message explained the objective of the exercise and requested their participation. Two follow-up emails from the ISPC Chair were sent as reminders and the Fund Office also mentioned the survey in its update to the donors in July 2015. Responses were received up to 28th August 2015. Only 19 of the 70 target respondents completed the survey, a response rate of approximately 27%³, although 15 of these 19 contributed 59% of CGIAR funding in the year 2014.

In the survey, each donor was asked to indicate their organization's (i.e., not individual) priorities across the sub-IDOs (45 unique sub-IDOs across 3 SLOs and 4 cross-cutting themes). Rather than rely on a scheme of assigning scores of 1 (lowest) to 5 (highest) to each of the sub-IDOs, the ISPC chose to force choices, which is more akin to the actual situation allocating scarce resources. Thus, across the entire set of 45 sub-IDOs, respondents were asked to assign points between 0 and 45 to each of the sub-IDOs reflecting the priority of that sub-IDO to their organization, i.e. the total points allocated to **all** 45 sub-IDOs could not exceed 45, thus forcing them to make choices.

Nine key results from the donor/stakeholder survey (based on 19 respondents):

1. One observes *varying extent of discrimination between sub-IDOs* by the donors when it comes to prioritizing (Figure 2). One respondent put all the weight (45 points) on only eight sub-IDOs; eight respondents assigned no points (zero score) to at least 20 sub-IDOs and 13 respondents gave a zero to at least 10 sub-IDOs. Each of those respondents are expressing clear preferences of some (preferred) sub-IDOs over others. However, three respondents assigned a score of '1' to all the sub-IDOs, thereby indicating equal importance to all 45 sub-IDOs. Another three respondents assigned points to all but eight or less of the 45 unique sub-IDOs.

³ Of the 19 respondents, 15 contributed to the CGIAR Fund in 2014 directly through Windows 1, 2, and 3 or through bilateral contributions (CGIAR Annual Report 2014), and represent more than 59% of the total receipts. The other 4 respondents are CIRAD, GRDC, GIZ, and WFP.

Figure 2. Varying discrimination between sub-IDs by 19 respondents (ISPC SoGo Survey)

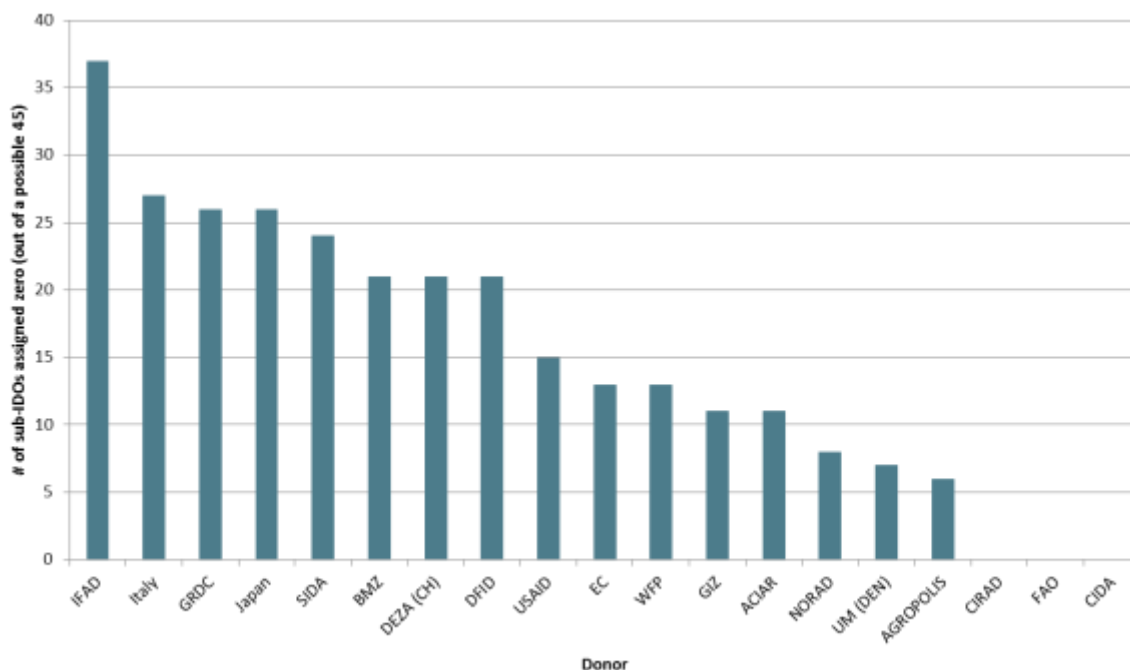
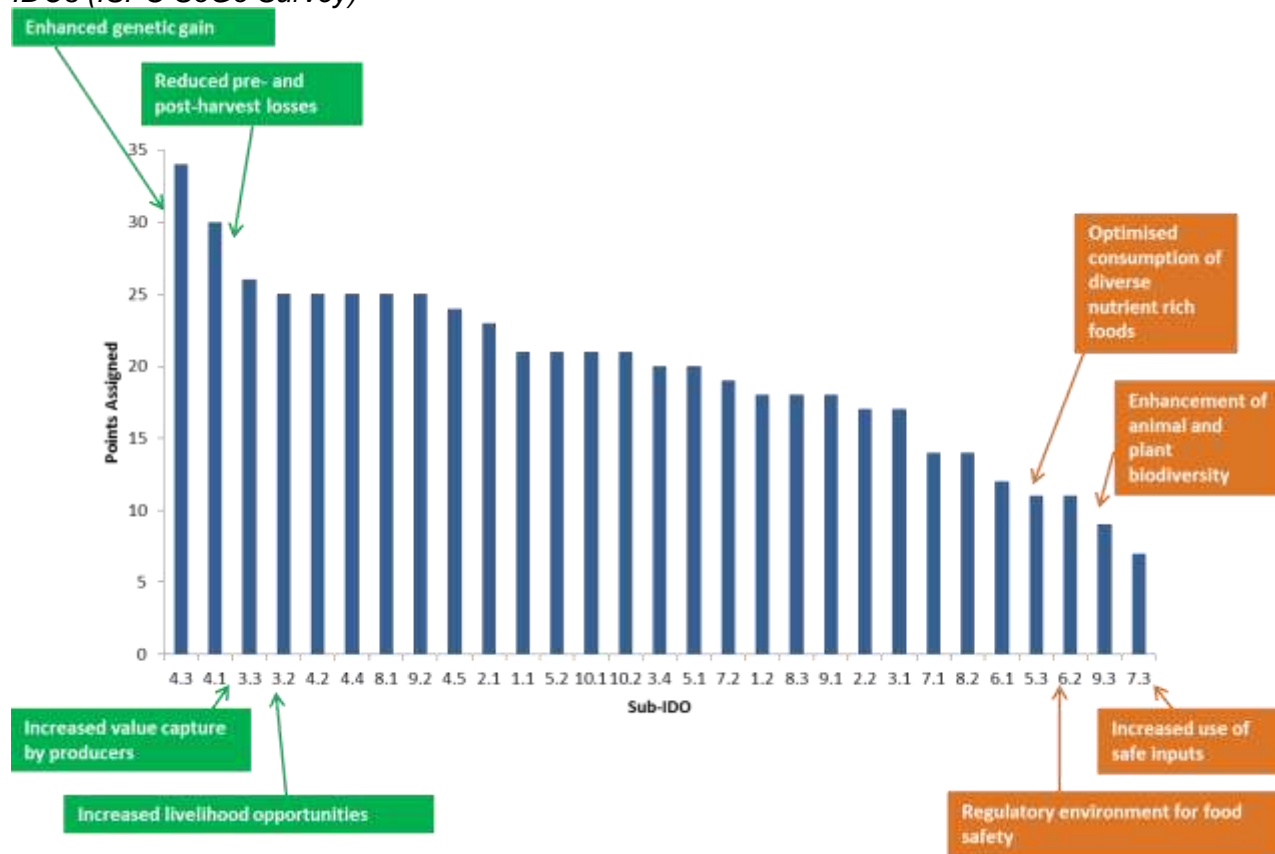


Figure 3. Donor priorities for sub-IDO by total points assigned, excluding cross-cutting sub-IDs (ISPC SoGo Survey)



2. Every sub-IDO has been assigned some importance (priority) by donors in a collective sense.
3. Of the 855 total ‘points’ assigned, *Enhanced genetic gain* (sub-IDO 4.3) and *Reduced pre- and post-harvest losses including those caused by climate change* (sub-IDO 4.1) received the highest number of points from the 19 respondents, 34 and 30 respectively (Figure 3); and thus, by that simple account, could be considered the highest priority sub-IDOs.
4. *Increased safe use of inputs* (sub-IDO 7.3) and *Enrichment of plant and animal biodiversity for multiple goods and services* (sub-IDO 9.3) received the least number of points, 7 and 9 respectively (Fig 3); and thus could be considered lowest priority sub-IDOs.
5. All five sub-IDOs under *Increased productivity* are in the top ten donor priority sub-IDOs. Both sub-IDOs under *improved food safety* are in the lowest five priority sub-IDOs.
6. While no clear delineation can be made between high, moderate and low priority groupings – since aggregate points allocated are continuous – distinctions can be made between sub-IDOs clustered around the high end, e.g., first 10 sub-IDOs where the points allocated to sub-IDOs range from 34 to 24, and the last 10 sub-IDOs where the points allocated range from 7 to 12. [In theory, were the sample size sufficient and representative, the ISPC could “rank” the sub-IDOs based on this donor preference elicitation and use that ranking in some manner as part of the assessment of the pre- and full proposal FPs].
7. An alternate method for assessing priorities is examining *how many times* respondents assigned at least one point to a sub-IDO⁴. According to this method, 17 out of 19 respondents gave at least one point to *land, water and forest degradation (including deforestation) minimization and reversed* (sub-IDO 8.1). The lowest priority sub-IDO remains *increased safe use of inputs* (sub-IDO 7.3) – 7 out of 19 respondents gave only one point to this sub-IDO.
8. Assessing these results at the IDO level (based on aggregation of sub-IDO scores under each), discrete delineations in total points are evident as per Table 1: the highest priority IDO is *increased productivity* (IDO 4), followed by *increased incomes and employment* (IDO 3), *capacity development* cross-cutting theme and *climate change* cross-cutting theme. The lowest priority IDO is *improved food safety* (IDO 6).
9. At the SLO level (aggregating across all sub-IDOs under each SLO), *Reduced poverty* emerges as the highest priority SLO (305 points), followed by *improved food and nutrition security for health* (253 points), and *improved natural resource systems and ecosystem services* (166 points).

⁴ This method could be relevant if getting a consensus across as many donors as possible is the key determinant of what priority sub-IDOs are/should be.

Table 1. IDOs in decreasing order of priority (based on aggregated points), 19 respondents,

IDO description	Total points	# of sub-IDOs
IDO 4. Increased productivity [SLOs 1 & 2]	138	5
IDO 3. Increased incomes and employment [SLO 1]	88	4
Climate change cross-cutting theme*	87	5
Capacity development cross-cutting theme	82	4
Gender cross-cutting theme	58	3
IDO10. More sustainably managed agro-ecosystems* [SLO 3]	57	3
IDO8. Natural capital protected and enhanced especially from climate change [SLO 3]	57	3
Policies and institutions cross-cutting theme	57	4
IDO5. Improved diets for poor and vulnerable people [SLO 2]	52	3
IDO9. Enhanced benefit from ecosystem goods and services [SLO 3]	52	3
IDO2. Enhanced smallholder market access [SLO 1]	40	2
IDO7. Improved human and animal health through better ag practices [SLO 2]	40	3
IDO1. Increased resilience of the poor to climate change and other shocks [SLO 1]	39	2
IDO6. Improved food safety [SLO 2]	23	2

*One particular sub-IDO *Reduced net greenhouse gas emissions from agriculture, forests and other forms of land use*, assigned 15 points, appears both under IDO 10 and climate change cross-cutting theme.

Respondents' Comments:

Seven of the 19 respondents provided some comments and reflections about the prioritization exercise that offer useful insight as to the way forward. Key ones by various donors related to:

- The challenging nature of the exercise particularly sub-IDOs are: (a) often defined in general terms, (b) sometimes inter-linked, (c) often equally important, or (d) important (or not) depending on the geographical context.
- The need to consider the comparative advantage of the CGIAR when assessing sub-IDO priorities. For instance, while donors may fund certain sub-IDOs through development funding, they do not consider it a priority for research funding.
- The integral nature of cross-cutting themes and sub-IDOs to the Results Framework.

Lessons Learned and Caveats:

Drawing on respondents' comments above and aspects observed by Secretariat staff throughout the course of the exercise, there appear to be several constraints that limit the usefulness of the donor / stakeholder survey results, which should be resolved if and when a second round of the survey is conducted (we believe it should be). These include:

- a) The need to increase the number of respondents, particularly from the largest contributing donors, e.g., BMGF, the Netherlands and the World Bank, to make results more representative of the CGIAR donor community. It would be useful to have at least half of the Funders Forum respond and at least 90% of the contributing donors. This would also allow for greater discrimination between high, moderate and low priority sub-IDOs.

- b) Confusion as to whether donors/stakeholders should rank sub-IDOs in terms of their organization's overarching priorities for all development funding or whether priorities were reported specifically for research funding or even funding for agricultural research. In the future, it will be important to specify which of these is preferred when donor surveys are carried out. We believe it's the latter that is important to capture, both for clarity and comparability to expert opinion results.
- c) Sub-IDOs are not always unambiguously defined and therefore can be subject to different interpretations, e.g., do the three sub-IDOs under 'natural capital enhanced and protected, especially from climate change' refer to the research aimed at conservation of resources directly relevant to agriculture – the soil, water, biodiversity on the farm or mainly to the off-farm environment, or to both? Footnotes will be required to provide more explanation to particular sub-IDOs.
- d) Some sub-IDOs might be a necessary condition to achievement of other sub-IDOs, i.e. not all sub-IDOs are at the same level and hence impacting one may mean impacting several. For example, if access to high-quality seeds and inputs in market or extension services (influenced strongly by roads) is a necessary condition for the sub-IDO enhanced genetic gain, sub-IDO reduced market barriers is the “enabler” for on-farm genetic gain. Account must be taken of this inter-connectedness.
- e) Development strategies and therefore, agricultural research-related development strategies are highly contextual because of heterogeneity – one can expect substantial variations between countries and within countries (and even regions within countries) in terms of the current priority one sub-IDO has over others. One option is to elicit priorities for sub-IDOs for diverse categories of region x institution x market development classes.
- f) Trade-offs and adverse effects in targeting (prioritizing) a particular sub-IDO have not been addressed. In a future survey, scope for qualifying a particular response along these lines should be provided.

2. THE 'EXPERT OPINION' SURVEY

The Approach and Process for Implementation:

In a parallel effort aimed at generating a stronger conceptual and empirically-based rationale for establishing priorities across the agreed upon set of sub-IDOs, the ISPC drew on the expertise of a group of knowledgeable and well respected agricultural and development experts. These individuals were asked to judge the extent to which the CGIAR is well placed to deliver on each of the 51 sub-IDOs (45 unique + 6 'repeats' appearing under two different IDOs) based on a set of criteria developed by the ISPC. Five criteria had been identified by the ISPC as being potentially relevant in helping determine sub-IDO priority for the CGIAR. These were:

- Relevance of the sub-IDO for achieving the particular SLO;
- Centrality of agricultural research (vis-à-vis other development options) for achieving the particular sub-IDO;
- Comparative advantage of the CGIAR (vs alternative suppliers);
- IPG orientation of the CGIAR lending itself to production of this sub-IDO; and
- Expectation of delivery (short/medium term vs long term).

Approximately 20 agricultural development experts were approached to assess their interest in participating in this sub-IDO priority setting exercise. Most expressed a keen interest in the exercise, but unfortunately time constraints prevented many from actually participating. A few others expressed doubts about the feasibility and value of such an exercise, particularly for specific criteria such as the IPG orientation of the CGIAR (IPG being a useful criterion for consideration of research outputs but does not lend itself easily to achieving a particular development outcome – although that is clearly the ultimate intention) and expectation of delivery. Seven individuals, however, were able to participate in making the assessment, and in particular making the assessment on the basis of the first two criteria: the “relevance of sub-IDO for leading to achievement of the SLO” and the “centrality of agricultural research for achieving the sub-IDO”. It is important to note that these seven individuals are highly respected within the international agricultural community, have multi-disciplinary backgrounds⁵ (economists, agricultural R&D expert, bio-physical scientist, international development expert, donors) with many years of experience (including within the CGIAR) and most have solid publications records.

The other criteria that were initially on the list were dropped after further consideration⁶. For example “Expectation of delivery within a short or long timeframe” will always be highly context specific. It would not be possible to evaluate sub-IDOs on this criterion without knowing the specifics of the research proposed (problem addressed, capacity of teams, time frames, etc.) – which would have to be evaluated in the CRP pre-proposals themselves.

Individually, and using a standard sub-IDO template, each of the seven participating experts were asked to judge by rating from 1 (lowest) to 5 (highest) the extent to which the CGIAR is well-placed to deliver a particular sub-IDO based on the following considerations for the first two criteria listed above, i.e., relevance and centrality. The scores given – one for each criterion – should be based on development theory (of development pathways and constraints), existing empirical evidence and their own expert judgment to assess:

- (a) Relevance: the strength of the direct or indirect linkages between a sub-IDO and its corresponding SLO
- (b) Centrality: the extent to which agricultural research represents a critical intervention point for achievement/delivery of a given sub-IDO relative to other interventions.

Thus, two scores, one for each criterion, were recorded for each sub-IDO. In addition to the rating for each criterion for every sub-IDO, the experts were also requested to provide a summary narrative highlighting where they believe the best evidence (empirical or theoretical) exists for the strongest linkage(s) between sub-IDO and a particular SLO; and for justifying agricultural research investment to achieve a particular sub-IDO (considering advances in science and technology that may enable or speed up progress towards delivery, or alternately, other related or unrelated factors that may hinder such progress).

⁵ However, it should be noted that there was a preponderance of economists amongst the seven experts, even if they were also donors/international development experts.

⁶ With the exception of comparative advantage which served as the sole criterion for an independent evaluation by one individual. Those results are not reported here given the small sample and limitations with the method used.

Methodology Used for Analysis:

All seven experts scored each of the two criteria for each of the 35 sub-IDOs under SLO1, SLO2 and SLO3; five of the experts also scored each of the criteria under the 16 sub-IDOs under the cross-cutting themes (CCTs). Thus a total of 70 (35 sub-IDOs x two criteria) 1-5 scores were recorded from all seven experts with an additional 32 (16 sub-IDOs x two criteria) 1-5 scores recorded from five of the experts. Different ways of analyzing the results were possible. As this was a very small sample of respondents (n=7 for the SLOs and n=5 for the CCTs) and given the likelihood of different rating scales by each of the experts, all scores were normalized (equivalent z scores calculated) for both the relevance and centrality criteria. The mean of the z-scores for each sub-IDO for each category was then calculated. Each data set (for both relevance and centrality) was then divided into quintiles, and from these quintiles three categories were established: high for those in the top two quintiles, moderate for those in the third quintile and low for those in the bottom two quintiles.

Finally, the sub-IDO was given an overall rating based on the following:

1. 'High Priority' if it had a high rating for both relevance and centrality criteria
2. 'Low Priority' if it had a low rating for both relevance and centrality; it was also rated low if it was low for one of the two criteria, i.e. either relevance or centrality
3. 'Moderate Priority' if it had a moderate score for both relevance and centrality
4. 'Moderate-high Priority' if it had moderate score for one criteria and high for the other.

Five key results from the Expert Opinion survey (based on 7 respondents):

The ratings for each of the sub-IDOs, transformed from their 1-5 scores according to the method described above, are presented in Table 2. In addition to showing the expert group's overall composite score for each of the 51 sub-IDOs, individual ratings for each of the two criteria, "relevance" and "centrality", are also given. Figures 3 and 4 present this more succinctly. The key results emerging from this exercise are:

1. Ten sub-IDOs are classified as high priority, with six of these under the SLOs and four under the CCTs. Eight sub-IDOs fall into the moderate-high priority group (five under the SLOs and three in the CCTs), two sub-IDOs fall into the moderate priority group (one each under the SLOs and CCTs), and 31 sub-IDOs come under the low priority group (23 under the SLOs and 8 in the CCTs).
2. No high priority sub-IDOs are found under SLO1 - reducing poverty. Three are found under SLO2 - improving food and nutrition security, two of which "Closed yield gaps through improved agronomic and animal husbandry practice" (sub-IDO 4.2) and "Enhanced genetic gain" (sub-IDO 4.3) contribute to the IDO "Increased Productivity", a traditional core strength of the CGIAR and arguably the area of best documented achievement. Three high priority sub-IDOs are also found under SLO3 – improving natural resource systems and ecosystem services, two are under the Climate Change CCT, one under the Policies and Institutions CCT and one under Capacity Development CCT.
3. Two of the five sub-IDOs under "Increased Productivity" were ranked differently by the experts depending on whether they were considered as contributing to SLO1 or SLO2 – a clear recognition of the perceived different pathways likely to play out under each, notwithstanding the likely correlation between poverty and household food insecurity in many cases. Figure 3 depicts a bi-modal colouring for those two sub-IDOs.

4. When considering how central or how important agricultural research is to achieving the sub-IDOs, the experts, in their collective judgment, considered that 21 of the sub-IDOs have low priority and another 10 of only moderate priority. If this expert judgment is reasonably correct, a great many sub-IDOs will only be achieved, or will more effectively be achieved, by (a) pursuing development initiatives other than agricultural research, or (b) working in specific locations and situations where the enabling environment is conducive to uptake and effective utilization of the outputs of agricultural research – those would need to be defined and justified clearly on a case by case basis. Should these results stand up in the face of a larger and more representative stakeholder group, it would be a highly significant result with important implications for setting priorities across sub-IDOs and FPs targeting them.
5. The experts also considered that 20 of the sub-IDOs (10 of which overlap with the set identified above) have low priority with respect to their importance for having a clear direct or indirect link with the SLOs or CCTs. A further 11 sub-IDOs have only moderate priority from that perspective. Here again, if this sort of finding holds up under a broader and representative assessment by experts, it has very important implications for targeting for the CGIAR.

Experts' Comments:

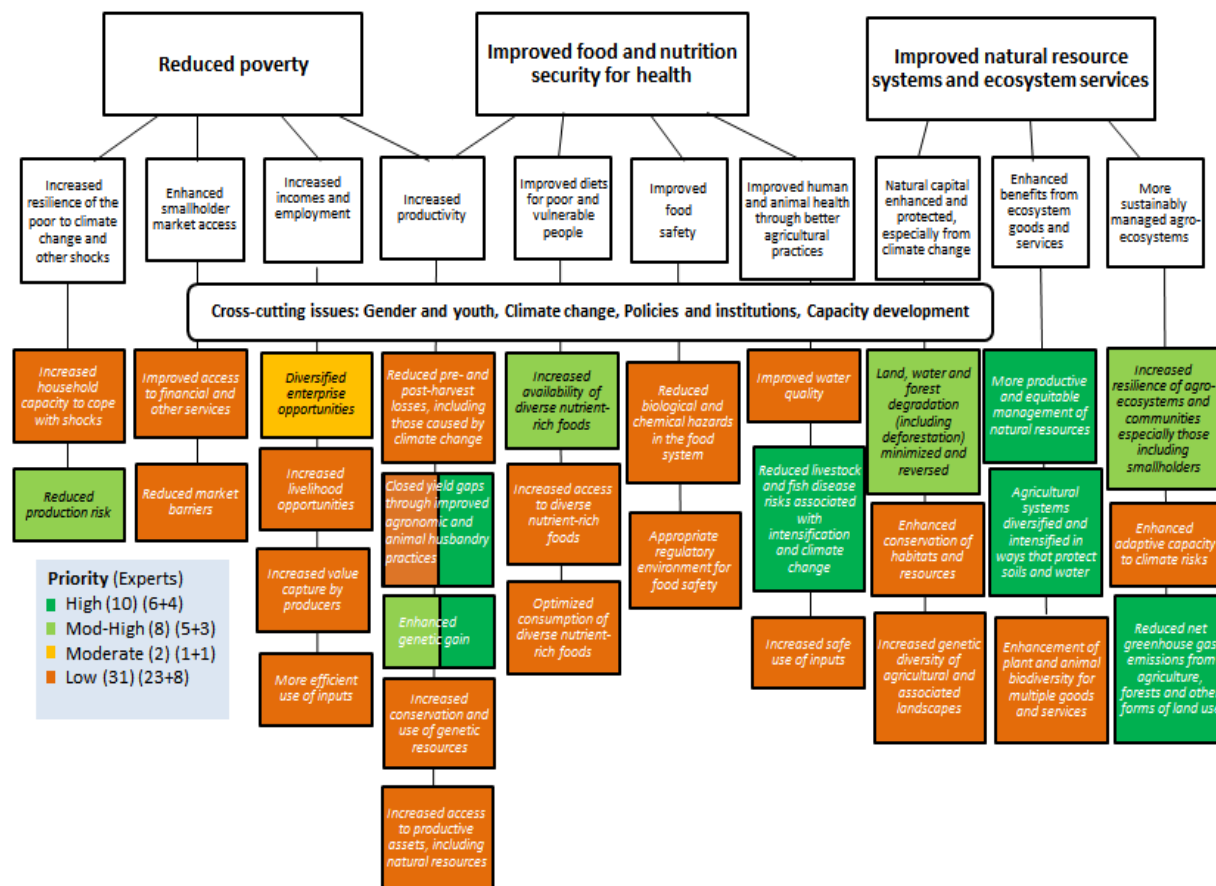
Experts provided some comments and reflections about the prioritization exercise that offer useful insight as to the way forwards. Key ones include:

- Scoring was complicated by the strong inter-connectedness and/or overlaps between many sub-IDOs within a given IDO, and even across the IDOs.
- Notably, the achievement of practically all sub-IDOs requires development efforts and often complementary (non-agricultural) research, but the converse is not true, i.e. some sub-IDOs could be substantially achieved with little or no additional/new agricultural research (even if the sub-IDO is of substantial relevance to the SLO).
- Since most sub-IDOs relate to the outcomes of development rather than to those of research, in these cases CGIAR comparative advantage may be contingent on effective partnerships, with governmental institutions, NGOs or private sector.
- Sub-IDOs seem to have been developed by consensus rather than through a scientific or logical process and there are some difficulties in applying an objective approach to their prioritization. Ideally, priorities in international agricultural research should be assessed on a neutral basis so that different options can be evaluated.

Table 2. Priority levels for all sub-DOs

SLO/CCT	sub-DO	Relevance	Centrality	ISPC Composite Score
CCT4	D.1 Enhanced institutional capacity of partners...	High	High	High
CCT1	A.1 Reduced net GHG emission from agriculture...	High	High	High
SLO2	4.2 Closed yield gaps through improved agronomic...	High	High	High
SLO2	4.3 Enhanced genetic gain	High	High	High
SLO2	7.2 Reduced livestock and fish disease risks...	High	High	High
CCT3	C.3 Conducive agricultural policy environment	High	High	High
CCT1	A.3 Improved forecasting of impacts of climate change...	High	High	High
SLO3	9.1 More productive and equitable management...	High	High	High
SLO3	9.2 Agricultural systems diversified and intensified in...	High	High	High
SLO3	10.3 Reduced net greenhouse gas emissions from...	High	High	High
SLO1	4.3 Enhanced genetic gain	Moderate	High	Moderate-high
SLO2	5.1 Increased availability of diverse nutrient-rich...	Moderate	High	Moderate-high
CCT1	A.2 Increased above- and below-ground biomass...	Moderate	High	Moderate-high
SLO1	1.2 Reduced production risk	Moderate	High	Moderate-high
CCT2	B.1 Gender equitable control of productive assets...	High	Moderate	Moderate-high
SLO3	8.1 Land, water and forest degradation...	High	Moderate	Moderate-high
SLO3	10.1 Increased resilience of agro-ecosystems and...	High	Moderate	Moderate-high
CCT1	A.4 Enhanced capacity to deal with climatic risks...	High	Moderate	Moderate-high
CCT2	B.3 Improved capacity of women and young people...	Moderate	Moderate	Moderate
SLO1	3.1 Diversified enterprise opportunities	Moderate	Moderate	Moderate
SLO1	4.2 Closed yield gaps through improved agronomic and...	Low	High	Low
SLO1	4.4 Increased conservation and use of genetic resources	Low	High	Low
CCT4	D.2 Enhanced individual capacity in partner research...	Low	High	Low
SLO2	7.3 Increased safe use of inputs	Low	High	Low
SLO3	8.3 Increased genetic diversity of agricultural...	Low	High	Low
SLO1	3.4 More efficient use of inputs	Low	High	Low
CCT3	C.1 Increased capacity of beneficiaries to adopt....	Moderate	Low	Low
SLO1	1.1 Increased household capacity to cope with shock	High	Low	Low
CCT3	C.2 Increased capacity of partner organisations....	High	Low	Low
SLO2	5.2 Increased access to diverse nutrient-rich foods	Moderate	Low	Low
SLO2	7.1 Improved water quality	High	Low	Low
SLO3	8.2 Enhanced conservation of habitats and resources	High	Low	Low
SLO1	2.1 Improved access to financial and other services	Moderate	Low	Low
CCT4	D.3 Increased capacity for innovation in partner....	High	Low	Low
CCT3	C.4 Conducive environment for managing shocks...	Moderate	Low	Low
SLO1	2.2 Reduced market barriers	High	Low	Low
SLO1	3.2 Increased livelihood opportunities	Moderate	Low	Low
SLO2	4.1 Reduced pre- and post-harvest losses including....	Low	Moderate	Low
SLO3	10.2 Enhanced adaptive capacity to climate risks	Low	Moderate	Low
CCT1	A.5 Enabled environment for climate resilience	Low	Moderate	Low
SLO1	4.1 Reduced pre- and post-harvest losses those...	Low	Moderate	Low
SLO1	4.5 Increased access to productive assets, including...	Low	Low	Low
SLO2	4.4 Increased conservation and use of genetic resources	Low	Low	Low
SLO2	4.5 Increased access to productive assets, including...	Low	Low	Low
CCT2	B.2 Technologies which reduce women's labour energy...	Low	Low	Low
SLO2	5.3 Optimized consumption of diverse nutrient-rich foods	Low	Low	Low
SLO2	6.1 Reduced biological and chemical hazards...	Low	Low	Low
SLO2	6.2 Appropriate regulatory environment for food safety	Low	Low	Low
SLO3	9.3 Enrichment of plant and animal biodiversity...	Low	Low	Low
CCT4	D.4 Enhanced capacity for innovation in partner...	Low	Low	Low
SLO1	3.3 Increased value capture by producers	Low	Low	Low

Figures 4 & 5. Priority levels for all sub-IDOs under the SLOs and the cross-cutting themes (CCTs)



Climate change	Gender and youth	Policies and institutions	Capacity development
Mitigation and adaptation achieved	Equity and inclusion achieved	Enabling environment improved	National partners and beneficiaries enabled
Reduced net GHG emission from agriculture, forestry and other forms of land use	Gender equitable control of productive assets and resources	Increased capacity of beneficiaries to adapt research outputs	Enhanced institutional capacity of partner research organisations
Increased above- and below-ground biomass for carbon sequestration	Technologies which reduce women's labour and energy expenditure developed and disseminated	Increased capacity of partner organisations as evidenced by rates of investment in agricultural research	Enhanced individual capacity in partner research organisations through training and exchange
Improved forecasting of impacts of climate change and targeted technology development	Improved capacity of women and young people to participate in decision-making	Conducive agricultural policy environment	Increased capacity for innovation in partner research organisations
Enhanced capacity to deal with climatic risks and extremes		Conducive environment for managing shocks and vulnerability as evidenced in rapid response mechanisms	Enhanced capacity for innovation in partner development organisations and in poor and vulnerable communities
Enabled environment for climate resilience			

Priority (Experts)
 High (10) (6+4)
 Mod-High (8) (5+3)
 Moderate (2) (1+1)
 Low (31) (23+8)

Lessons Learned and Caveats:

Drawing on experts' comments above and aspects observed by Secretariat staff throughout the course of the exercise, there appear to be several constraints that limit the usefulness of the expert opinion survey results, which should be resolved if and when a second round of the survey is conducted (we believe it should be). These include:

- a) The need to increase the number of experts with enhanced cross-disciplinarity and diversity of experience in different regions (important for the development context). Gender balance amongst the experts would also be desirable.
- b) The relevance of sub-IDOs to SLO achievement varies across agro-ecologies, farming systems, institutional landscapes (including value chains and markets) and policy environments. One option would be to elicit priorities for sub-IDOs for diverse categories of region x institution x market development classes.
- c) It must be recognized that the sub-IDOs are correlated and their interconnectedness must be taken into account.
- d) The target time frame merits mention. The time frame of the SRF is 2030, which begs the question - is research for achieving the sub-IDOs factored into the 15-year vision while CRPs last only 6 years (for the second generation CRPs)? It is important to make a distinction between types of sub-IDO targets that are feasible to achieve in a six-year time frame and some equally/more important ones that contribute to long term strategic goals. This will need to be teased out further in a future exercise.
- g) Some sub-IDOs are poorly or ambiguously worded and are thus open to interpretation. For example, the sub-IDOs under CCT 3 - Policies and Institutions - are very heavy on capacity building, rather than focusing on the nature of the policy analysis, advice and advocacy. If these were modified accordingly, the sub-IDOs under CCT4 - Capacity Development – could then focus on capacities in the CGIAR and partners to deal across the three SLOs. Footnotes may be required to provide more explanation for such sub-IDOs or alternatively, some sub-IDOs could be rephrased (for instance sub-IDO C.1 “Increased capacity of beneficiaries to adopt research outputs” could be reformulated as “Increased analytical capacity to inform policymakers across the three SLOs, negotiate best solutions in the interest of people and the environment, and monitor their implementation”).
- h) Trade-offs and adverse effects in targeting (prioritizing) a particular sub-IDO have not been addressed. In a future survey, scope for qualifying a particular response along these lines should be provided.

3. EXPERT OPINION RESULTS VERSUS DONOR SURVEY RESULTS

When comparing results from the expert opinion exercise and from the donor survey, there appears to be some degree of convergence. For example, “Enhanced genetic gain” (sub-IDO 4.3) received the most number of “points” from the donors and thus, by that account, is the highest priority sub-IDO. Likewise, the results from the expert opinion exercise also scored sub-IDO 4.3 under SLO2 as high priority, and moderate-high priority under SLO1. There are another four sub-IDOs that were identified as high or moderate-high by both groups. In a similar vein, the donors identified “Increased safe use of inputs” (sub-IDO 7.3) and “Enrichment of plant and

animal biodiversity for multiple goods and services” (sub-IDO 9.3) as the lowest priority sub-IDOs; these sub-IDOs were also scored as low priority by the experts. Some other sub-IDOs, for example the two under the IDO “Improved food safety” (sub-IDOs 6.1 and 6.2), were also scored as low priority both by donors and the experts.

Nonetheless, there were a few areas of divergence where the donor survey results did not quite align with the expert opinion results. For example, “Reduced pre- and post-harvest losses including those caused by climate change” (sub-IDO 4.1) was scored as high priority by the donors but low priority by the experts. This incongruence can partly be explained by the fact that donors were asked to indicate their organization’s priorities - hidden bias could be brought in by different donor agency priorities (rather than focusing on what CGIAR priorities should be), including weighting (i.e. relative emphasis based on scale of funds offered by each respondent’s donor agency). But there is no a-priori reason to expect to see complete convergence between these two different stakeholder groups.

4. COMPARING PRIORITIZATION RESULTS TO SUB-IDO TARGETS IN THE CRP PRE-PROPOSALS

While the ISPC did not consider that the prioritization exercise was sufficiently robust to be part of its review, we do think it is useful to consider how a more robust exercise in future might be applied to assessment of CRP proposals. Figure 6 shows the distribution of sub-IDOs targeted by the 13 CRPs. Sub-IDOs under SLO1 and sub-IDOs under three of the CCTs dominate the attention of more than the two-thirds of the CRPs. Sub-IDOs contributing to the IDO “Increased productivity” under both SLO1 and SLO2 are also major targets of the CRPs. Sub-IDO under SLO2, SLO3 and CCT on Climate Change have a relatively lower frequency. While all sub-IDOs are covered by the CRPs, in fact only one CRP targets sub-IDO 6.2 (Appropriate regulatory environment for food safety), and only two CRPs are targeting the other sub-IDO that comes under the IDO “Improved Food Safety”. All the other sub-IDOs are covered by at least three CRPs.

Figure 7 depicts a similar distribution using data from the Flagship Projects (FPs). The cumulative number of sub-IDOs targeted by the 72 FPs across the 13 CRPs was 494⁷. Here again, it is the sub-IDOs under the CCTs of gender and youth, policies and institutions and capacity development and the sub-IDOs under SLO 1 – reducing poverty that are most often targeted by the FPs and CRPs. Relatively few of the FPs target the sub-IDOs under SLO2 (with the exception of the *Increased Productivity* IDO). Only two FPs from the total of 72 consider sub-IDO 6.2 as a target, and only three are targeting its neighbor sub-IDO 6.1 (Reduced chemical and biological hazards in the food chain). Fig 7 also identifies the sub-IDOs that have received the highest and lowest priority from the donor survey that were discussed earlier in this note. In comparing those results to this FP sub-IDO frequency distribution, there appears to be good convergence between the donor priority sub-IDOs and their relative importance amongst the FPs, i.e., “Enhanced genetic gain” and “Reduced pre- and post-harvest losses” were the two highest priority sub-IDOs for donors and these are sub-IDOs where 14 and 15 FPs respectively include them as targets. Conversely, the two sub-IDOs for which donors gave least priority,

⁷ For the purposes of the analysis the following three cross-cutting programs were treated as equivalent to flagship projects, since sub-IDOs were specified for these in the Performance Indicator Matrices: “Core Theme: Gender and Inclusive Growth” (CRP: Agriculture for Nutrition and Health), “Cross-cutting program on Gender, Equity and Empowerment” (CRP: Agriculture for Nutrition and Health) and “Supporting Platform 1. Delivering Impact and Inclusion” (CRP: Forests, Trees and Agroforestry).

“Increased safe use of inputs” (sub-IDO 7.3) and “Enhancement of plant and animal biodiversity for multiple goods and services” (sub-IDO 9.3) have only 4 and 5 FPs targeting them respectively. The high frequency of FPs targeting sub-IDs in the CCTs is not surprising since this was a requirement in the CRP-II pre-proposal guidelines for submission.

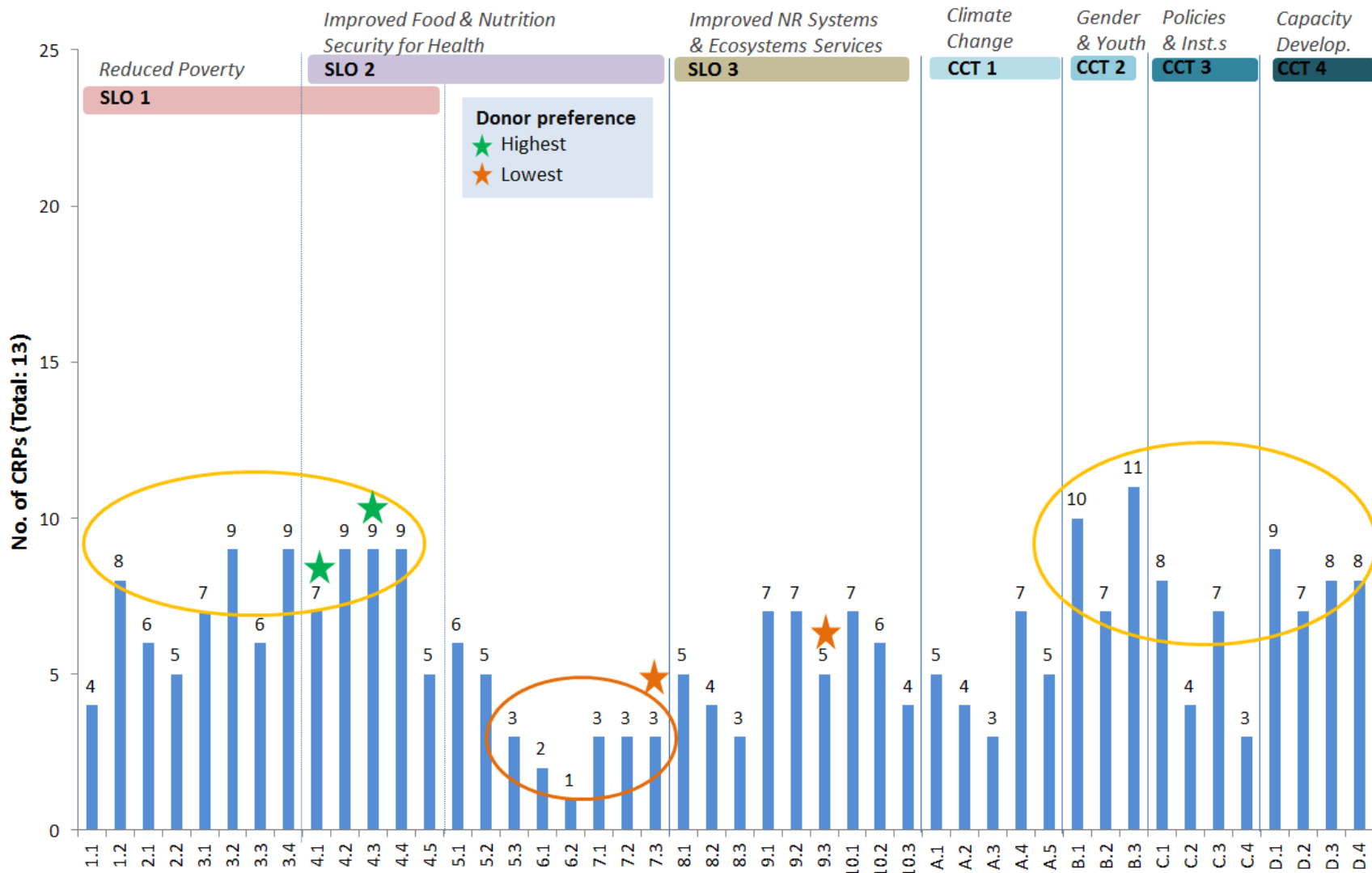


Figure 6. Number of CRPs targeting each sub-IDO

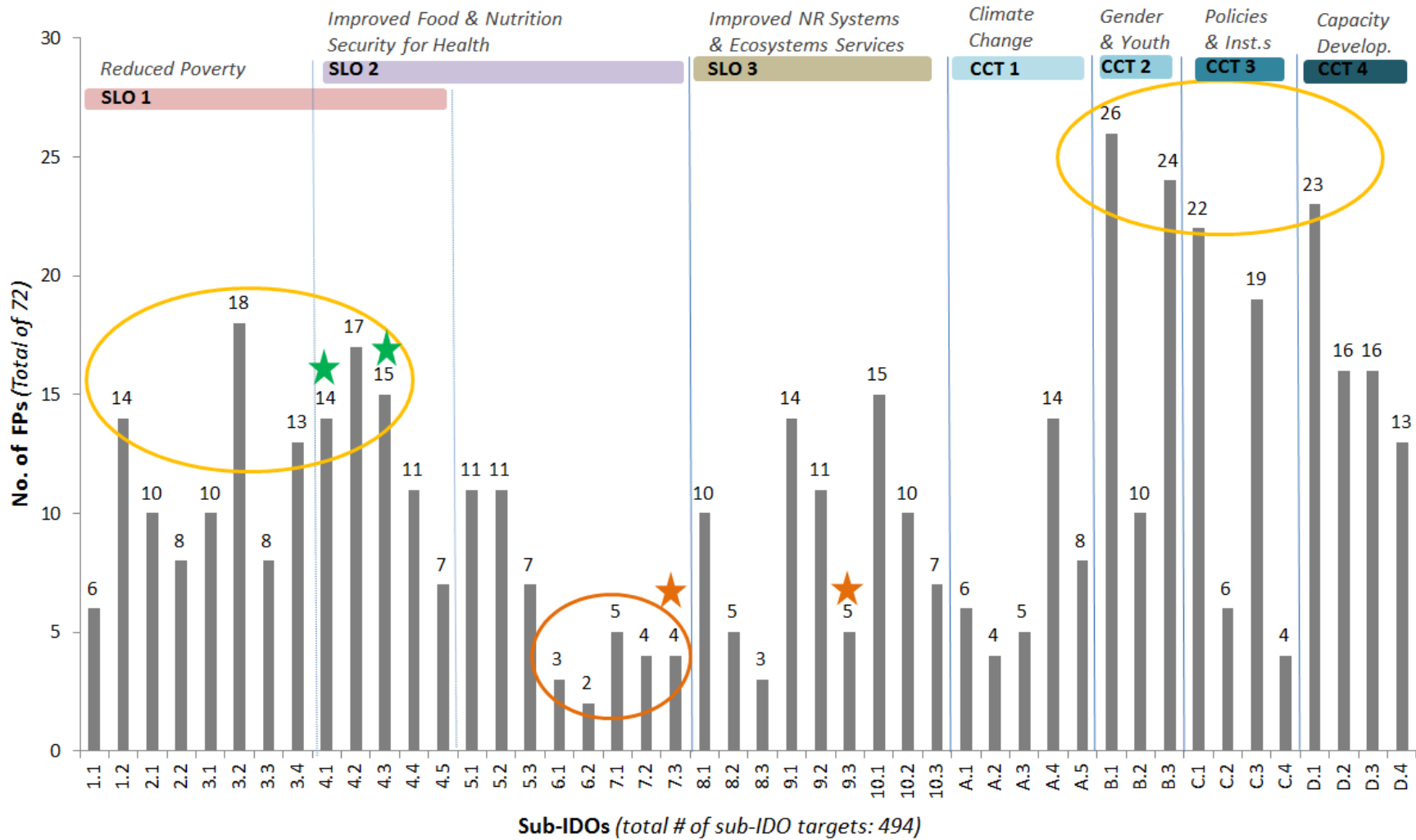


Figure 7. Number of FPs targeting each sub-IDO

The preceding analysis describes the relationship between the individual sub-IDOs against frequency of CRPs and FPs targeting them. The CRP pre-proposals included information about approximate budgets associated with the sub-IDOs, which are included in the Performance Indicator Matrix (PIM) annex of each pre-proposal. Therefore, it is possible to look beyond simply the number of relevant FPs, to the magnitude of proposed investment associated with each of the sub-IDOs, albeit, by making some critical (but reasonable) assumptions about distribution of resources across the joint set of sub-IDOs targeted by the FPs⁸. This is shown in Figure 8. This gives a much clearer picture of the relative effort proposed in the CGIAR aimed at achieving these sub-IDOs, and by implication the corresponding IDOs and SLOs. Striking is the very high level of proposed investment for (the proposed) research activities targeting the five sub-IDOs within the IDO “Increased Productivity”, accounting for almost one-quarter of the total budget requested over the six-year period (USD 8.56 billion). The two highest donor priority sub-IDOs alone (sub-IDOs 4.1 and 4.3) – indicated by the green stars in the Figure 8 – attract a collective budget across 29 FPs of USD 850 million over the 6 years. This is equivalent to 10% of the total CGIAR requested budget. The two lowest donor priority sub-IDOs (sub-IDO 7.3 and 9.3) – indicated by the orange stars – targeted by 9 FPs, have a budget of less than USD 100 million. At least from the donor perspective, this sort of convergence is reassuring. But of course the question still to be asked is whether this difference in (proposed) investment is appropriate in terms of adequately reflecting the relative importance of these sub-IDO priorities.

The figures at the bottom of Figure 8 show the total proposed investments in research that targets the sub-IDOs across the three SLOs and four CCTs. SLO1- reduced poverty - intends to attract some USD 3.4 billion in investment or about 40% of the total CGIAR budget. The first three IDOs under SLO1 represent a research investment of some USD 1.45 billion. With the exception of one moderately high priority sub-IDO and one moderate priority sub-IDO, the other six sub-IDOs in this SLO are considered low priority by the expert group (shown in Figure 9) and were in the middle range for the donor group. This analysis cannot answer the question as to whether an investment of USD 1.45 billion over six years (roughly 17% of the total) focused on those three IDOs within SLO1 is an appropriate amount, but it does begin to bring together the number of FPs targeting the various sub-IDOs, the magnitude of the proposed research investments across FPs and CRPs targeting those sub-IDOs, and the priorities assigned to them by different stakeholder groups, i.e., donors and experts. Taken together, these data offer a good basis for in-depth discussion and for further analysis for establishing a more focused set of priorities and allocating resources accordingly. Of course this is only looking at the demand side: resource allocation should also take into consideration the quality of science and research proposed in the narrative of the CRPs as well as the feasibility of the theories of change and impact pathways, among many other considerations as per the criteria in the guidelines.

Figure 9 pulls together the complete set of information harvested from this exercise: the results of the expert opinion survey which assigns priorities across each of the sub-IDOs, the two high and two low donor elicited priority sub-IDOs and the proposed research investment associated with each of the targeted sub-IDOs. Of the sub-IDOs that receive a relatively high level of investment, a large proportion are also deemed high or moderately-high priority by the experts. It was noted that a disproportionate number of high and moderately-high priority sub-IDOs are found under SLO3 and CCT1 (Climate Change) compared to SLOs 1 and 2 where a large number of moderate and low priority sub-IDOs are found with the notable exception of the IDO “Increased Productivity” which spans both SLO 1 and 2.

⁸ This does not consider the obvious heroic challenges involved in estimating the research investment associated with the set of sub-IDOs targeted for each FP, as per the data provided in the PIMs.

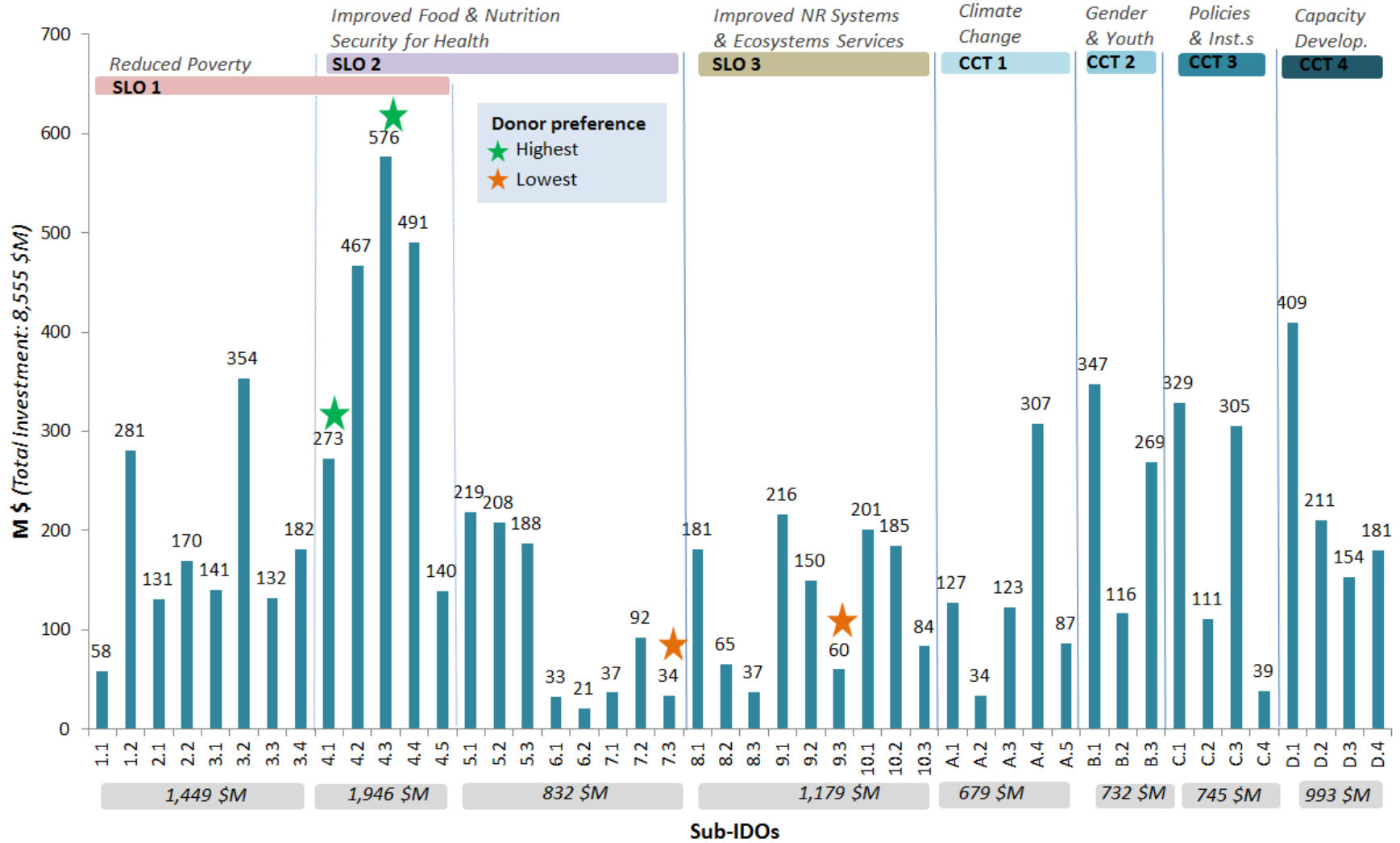


Figure 8. Level of Investment for each sub-IDO

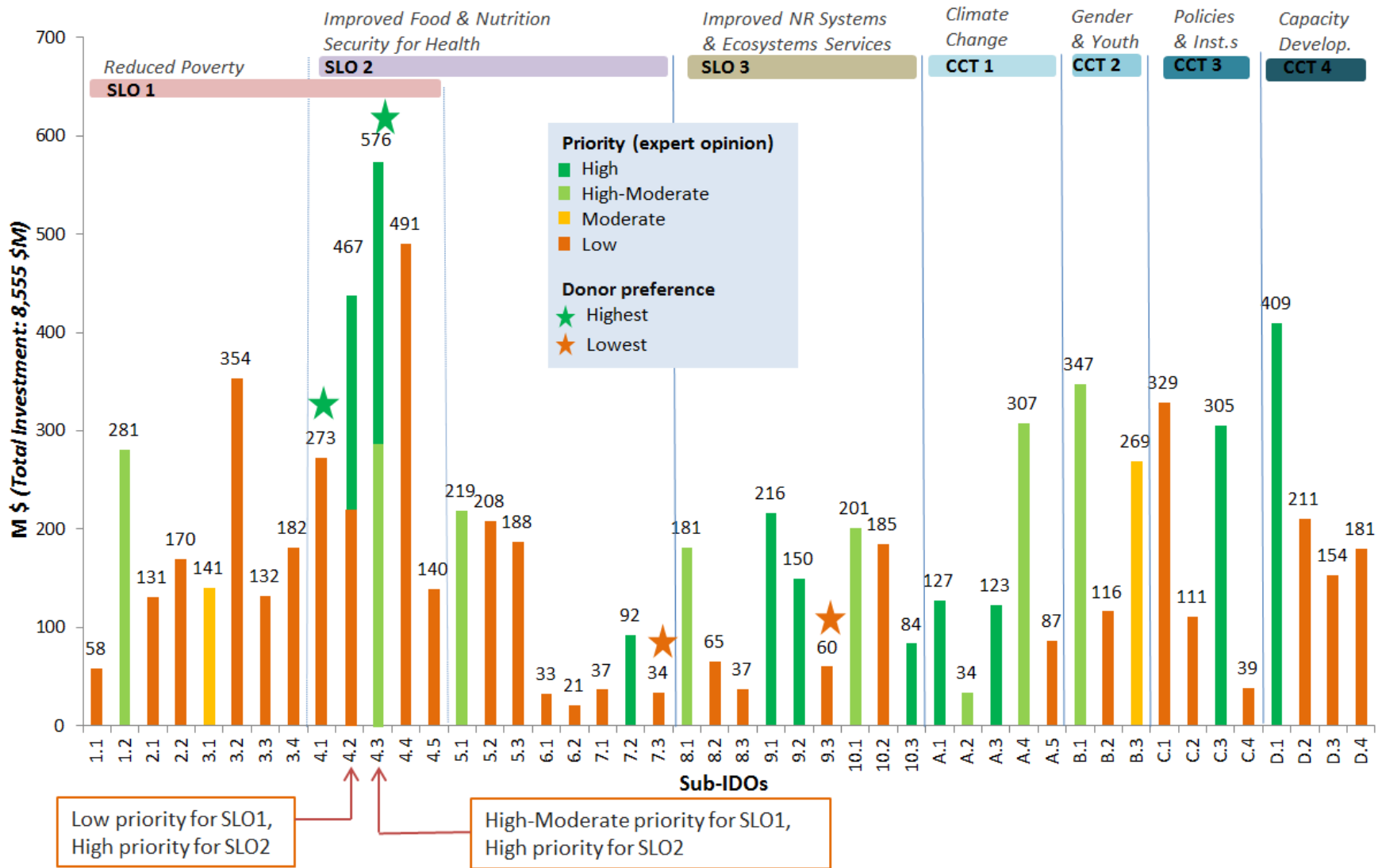


Figure 9. Level of Investment for each sub-IDO (priorities indicated)

5. CONCLUSIONS AND NEXT STEPS

This exercise has shown how a more robust prioritization exercise could be used to compare information about different stakeholder sub-IDO priorities with the targeting of sub-IDOs by the 72 FPs across the 13 CRP-II pre-proposals. Using the results from both the donors and the experts, the ISPC has been able to identify 5-6 high and moderately-high sub-IDOs and in every case there are a large number of FPs targeting them. Interestingly, the low priority sub-IDOs identified by both groups have a correspondingly small number of FPs targeting them. Still, for the reasons spelled out above under the donor and expert group sections, the ISPC decided that the results were not robust enough to be applied to the ISPC's assessment of the relative importance of the CRP-II pre-proposals. For this CRP-II pre-proposal assessment, the ISPC will continue to rely on the arguments and rationale as presented in each of the pre-proposals for that assessment.

The ISPC aims to refine and conduct an expanded qualitative prioritization exercise to feed into a more robust analysis of full proposals. The objective of this exercise will remain the same: to strengthen the quality, relevance, and impact of new investments through the provision of expert scientific guidance through an appropriate qualitative prioritization for the next generation of CRPs. The ISPC will take a similar approach in expanding the dialogue and soliciting inputs from (a) a larger set of donors, and (b) some 30 or so experts drawn from various relevant disciplines (combining survey with Delphi method and/or workshop to reconcile the knowledge and judgment of several experts), and (c) consider addressing other criteria such as comparative advantage of the CGIAR explicitly.

More quantitative prioritization efforts have been used by different Centers at different times. TAC itself for many years relied on a quasi-quantitative prioritization tool (a modified congruence approach) for recommending resource allocation at the System level. The ISPC hopes to bring in the required expertise to help explore, perhaps with groups such as PIM/IFPRI, ways in which different models might be used or adapted to complement the more qualitative exercise on prioritization described above. The IMPACT model, for example, is already being used (and is being expanded upon) by almost all of the Centers under the coordination of the Global Futures project of PIM. There is scope for using combinations of models, to explore *ex-ante* the impact of different types of research investment at the System level, but validating estimates is a huge challenge here.