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An allocation strategy for the CGIAR System

Purpose

This paper sets out a proposed strategy to address the longstanding challenge of finding a compelling and successful approach to CGIAR “system-level” allocation of funding. It aims to present a clear and achievable approach to allow for resolution of this issue, with a view to the System Council being ready to establish target allocations by end-2018 for a 4-year period (2019-2022).

This paper also responds to the task, as set out in Article 11 (aa) of the Charter of the System Organization, for the System Management Office to *“develop, taking into account the advice of ISPC and input from the Centers, a proposal for guidelines and criteria for prioritization and annual allocation of Unrestricted Funding across the CGIAR Portfolio, based on strategic priorities and performance”*.

Action requested of the System Council

The System Council is invited to consider, and if thought appropriate:

- A. Endorse the suggested overall allocation strategy set out in this document, specifically the contents of steps 1 and 2; and
- B. Specifically, as two elements of the proposed allocation strategy requiring decision in November 2017:
 - i. Approve the allocation prioritization criteria as set out in Annex 1; and
 - ii. Affirm that System Council allocations to CRPs/Platforms will continue to be made at CRP/Platform level, irrespective of whether flagship-level earmarking is allowed.

Document category: Working document of the System Council

There is no restriction on the circulation of this document

Prepared by: CGIAR System Management Office under the guidance of the System Management Board

Part A – Proposed objectives of a funds allocation approach

1. In many ways, the allocation question resembles an optimization task (solving a differential equation to optimize multiple priorities to find the best solution) - maximizing:
 - i) The impact of system-level funding on the wider portfolio's contribution to CGIAR's 2016-2030 Strategy and Results Framework ('SRF') targets; and
 - ii) The extent to which the overall allocation meets the various and sometimes diverse funding preferences of the System Council.
2. This allocation strategy takes these two goals as guiding objectives.

Part B – 3 Proposed Steps

Step 1: Assess and reaffirm commitment to a system-level approach based on pooled funding and decision-making

3. A successful approach to allocation depends on having enough consensus among CGIAR's Funders on what kind of 'System' is desirable and achievable. This then defines a vision for a financing system, which then determines what kind of allocation approaches are possible.
4. The starting position of this paper is that the drivers of the original 2009 reform¹ of CGIAR are still valid, and that despite many implementation challenges, the general philosophy of that reform holds true – that CGIAR's future lies in collective multilateral action between Funders and Centers.
5. **Step 1** of the strategy would therefore aim to test and reaffirm two propositions:
 - i) An integrated and mutually reinforcing set of research activities across Centers, themes, and stages of product development will have more impact than a broad spread of fragmented and atomized research activities; and
 - ii) Pooled funding and decision-making – when managed well – is more efficient and impactful than atomized funding².
6. Much is embedded in the term "when managed well" in the second bullet above. Unpacking this term adds several additional managerial objectives to any allocation system:
 - i) That it supports prioritization rather than spreading research efforts too thinly;
 - ii) that it allocates system funding in a way that adds special value to the currently larger volume of W3 and bilateral funding; and
 - iii) That it is informed by the best-available objective sense of where system funding can make the most difference.

¹ http://www.cgiar.org/www-archive/www.cgiar.org/pdf/econsult_oct2009/econsult_BCG_finalreport_oct12_2009.pdf

² Note that CGIAR managed 2430 grants in 2016 with an average grant size of \$0.275 million, with only 6% of grants (by number) greater than \$1 million each.

Step 2: Agree on essential building blocks of a successful approach to allocation

7. The table below suggests 12 building blocks of an effective allocation approach, half of which are tabled for decision or action at this 5th System Council meeting.

| | 12 proposed building blocks... | Target date | SC5 topic |
|----|---|--------------------|------------------|
| 1 | Agree on allocation prioritization criteria – see proposed list in Annex 1 | Nov 2017 | ✓ |
| 2 | Agree on concept of a 4-year business cycle – see paper on the business cycle SC5-04 | Nov 2017 | ✓ |
| 3 | Inform the allocation decision – conduct an annual polling of funder preferences according to the agree prioritization criteria (starting in November 2017 meeting) | Nov 2017 | ✓ |
| 4 | Introduce manageable flexibilities into the CRP modality – to enable multi-year pledging with confidence that performance and preference-based changes will be absorbed into the portfolio – see paper on System financing modalities SC5-07 | Nov 2017 | ✓ |
| 5 | Confirm that allocations will continue to be made at the level of CRPs – irrespective of whether Funders agree to allow for any flagship-level earmarking | Nov 2017 | ✓ |
| 6 | Agree on concept of an Annual Performance Report for the CGIAR System and a new results dashboard – see paper on results reporting SC5-05 | May 2018 (SC6) | ✓ |
| 7 | Use the concept of a new 4-year business plan (as part of the new business cycle) as a vehicle to facilitate further discussion on how to prioritize CGIAR's work on a resource-constrained environment – see paper on the business cycle SC5-04 . | May 2018 (SC6) | |
| 8 | Develop an allocation decision tool – to frame and codify main decision parameters based on the agreed prioritization criteria. This is not intended as a classic allocation formula approach, but to draw on elements on this approach to develop a modelling tool to help inform different financing scenarios – see Annex 2 | May 2018 (SC6) | |
| 9 | Establish a clear review process and cycle within business planning cycle: science review, evaluation and other aspects of performance management – see SC5 paper on the business cycle SC5-04 . | May 2018 (SC6) | |
| 10 | Agree on linkage between W1 and W2 for 2019 onwards – see discussion in Annex 3 | May 2018 (SC6) | |
| 11 | Develop cost-efficient multi-year budgets for system entity budgets and CRP management costs from 2019 onwards – see SC5 paper on the business cycle SC5-04 . | Nov 2018 | |
| 12 | Improve the predictability of system-level funding – see analysis and initial proposals - see Annex 4 . | Nov 2018 | |

Step 3 – Implementation in 2017/2018

8. It will take until the Q4 2018 System Council meeting to complete the proposed building blocks above. As such – and if this approach is agreed – it is proposed that the System Council supports a two-part process:
 - i) Adoption and implementation of the proposed 12 building blocks above, including developing a business plan to take forward planning for the 2019-2022 cycle;
 - ii) A 1-year allocation for 2018 that applies the current 2017 allocation approach (Agenda Item 9 in this System Council meeting).
 9. The specific decisions requested from the Council on this paper, if thought appropriate, are set out on the cover sheet.
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Annex 1: Proposed allocation criteria - and information sources

| Domain | Information sources – informed by... |
|--|--|
| <p><u>Estimates of likely results</u></p> <p>1. Estimates of projected future results</p> <p>2. Information on ongoing results when available</p> | <ul style="list-style-type: none"> • Information on quality at entry (ISPC ratings and Funder reviews - the original 2016 flagship-level ratings on the quality of proposals, plus new ratings of the resubmitted GLDC and resubmitted flagship proposals), projected outputs and outcomes, CRP annual reports. • Accumulating performance data in CRP annual reports (a business intelligence tool that includes the latest projections of CRP results and funding levels), ISPC reviews (if requested), IEA evaluations (and implementation) (all including science quality work). |
| <p><u>Estimates of CRP funding need</u></p> <p>3. Strategic case for current + future CRP funding need</p> <p>4. Case for system-level funding need in terms of value-added of W1&2 CRP funding</p> | <ul style="list-style-type: none"> • SMB/SC qualitative assessment at time of allocation recommendation based on CRP proposals, available Foresight analyses, ISPC quality at entry, annual performance reviews, accumulating results data for phase 2 and any relevant phase 1 performance and evaluation data. • Qualitative assessment by SMB/SC taking into account ISPC quality at entry and performance reviews, total projected level of CRP (W1&2) funding relative to W3/bilateral and the ambition of the CRP |
| <p><u>Funder priorities</u></p> <p>5. Level of Funder interest in system-level funding of CRP</p> | <p>A “preference map” of Funders based on their:</p> <ul style="list-style-type: none"> • CRP-level preferences (expressed in terms of actual bilateral intentions and preferred ideal overall collective distribution) and (where expressed) flagship-level preferences, • Preferences between funding stage (upstream discovery, delivery science, piloting + scaling up – see Annex 2), types of program (platform, AFS and integrating CRPs), or objectives (IDOs/sub-IDOs) |

Annex 2: An Allocation decision-support tool – some initial thoughts

1. One of the proposed building blocks for an effective allocation of system-level funding includes the development of a tool that will support this decision-making process. The tool would have two main objectives:
 - i) To develop a common decision framework for allocation decisions that enables a more structured, rigorous and precise discussion about W1&2 allocation, resulting in a transparent and optimal outcome.
 - ii) To use the process of tool development to bring together stakeholders towards a common understanding of the rationale for maximizing the utility of W1&2 and advance the conversation on research prioritization based on higher order choices.
2. To be successful and meet these objectives we need:
 - i) A well-articulated definition of the problem, and what we are solving for;
 - i) A strong understanding of what are the synergies and trade-offs when shifting W1&2 funding between priorities;
 - ii) A well-defined set of criteria for prioritizing research activities; and
 - iii) Support from all stakeholders at key steps along the way.
3. At its most basic conceptual level, the tool will apply some quantitative and qualitative criteria to probable funding scenarios of W1&2 availability over time. The criteria will cover the three domains described in Annex 1 (estimates of likely results, estimates of CRP funding needs and funder priorities). The output of the tool will be a set of possible scenarios for the allocation of W1&2 towards research themes. Decision-makers will then need to decide on which of these scenarios is optimal.
4. The value of this tool will come as much from the discussions that will take place in developing it as the actual results. A key input in developing the tool will be to define the choice variables. To do so, specific taxonomies will need to be developed around each of the criteria to map these preferences in a quantitative way (using a voting mechanism, for example). The core of the model will be the assumptions linking the actual research programs to these taxonomies.
5. Various possible taxonomies are set out under the Funder preferences section of Annex 1 – alternatively various other objectives could potentially be modelled, for example at the objective level in terms of whether to maximize:
 - i) the global impact of CGIAR in terms of numbers of potential beneficiaries in developing countries;
 - ii) CGIAR comparative advantage of at a System level;
 - iii) the contribution of CGIAR across all SDGs;
 - iv) the empowerment of the CGIAR System to be more responsive to changing demand;

- v) food and nutrition security issues in the face of climate change; or
 - vi) the ‘place-based’ role of CGIAR in facilitating ODA investment in national organizations in donor countries.
6. Not all choices will be in the form of trade-offs – many synergies exist as well. In the past, the diversity of these objectives has been seen as a “problem” but each individual objective has the potential to add value to the delivery by the System as a whole.
7. Some factors may limit the extent to which we are able to meet our objectives for the model, at least in the short-term, including:
- i) The inevitable subjectivity of certain allocation criteria and of their quantitative relationship to the actual portfolio;
 - ii) A CRP performance framework (a key input) that is still under development; and
 - iii) A quite broad CGIAR Strategy and Results Framework with potentially overlapping and numerous IDOs and sub-IDOs.
8. Principles for what this tool will and won’t do:
- i) The tool will not be a technical black box and or algorithmic optimization model. It needs to be easy to understand and calculations need to be simple.
 - ii) The tool will not generate one set of numbers as a single answer. Instead it will output several scenarios that will best describe the trade-offs that must be faced.
 - iii) The tool will be flexible to adapt to the different way of expressing priorities (taxonomies) in different audiences.
 - iv) The development of the tool will be an opportunity in itself to bring together the stakeholders. They will be consulted at different stages of the tool’s development.
9. Some of the key development steps include:
- i) A stakeholder analysis (who they are, what their interest might be in this project) and resulting engagement plan.
 - ii) Conceptualization of the time horizon, outputs and inputs of the model
 - iii) Defining the taxonomies for each of the allocation criteria
 - iv) Finding data sources for the inputs, as well as processes for collecting and refreshing the data
10. The timeline is ambitious – with a goal to develop the tool in time to use it to inform potential multi-year allocations for the 2019-2022 period.

Annex 3: The linkage between W1 and W2

1. It is proposed that a decision on the linkage between Window 1 and Window 2 for a potential 2019-2022 business cycle is made once the 2017 financial year has been completed and the new linkage formula has been tested in this real-world situation.
2. A key variable is how best to use W1 in support of achieving the strategic funding objectives of the System Council for 2017. Two key parameters are System Council indicative allocations – which are already known, and actual W2 outcomes – which will only become known at the end of each year.
3. The 5th meeting of the System Management Board in March 2017 decided on an approach for 2017 based on the “middle ground option” described below - whereby W1 is allocated across all funding gaps between W2 and System Council indicative W1&2 allocations such that these are reduced by the same percentage amount until W1 funding is exhausted (with Platforms being excluded from such reductions). This aims to offer a middle ground between full and zero coverage of the gap with W1, thus creating a greater incentive for W2 financing while partially helping reduce potential funding gaps for all CRPs.
4. The 2017 Portfolio Financing Plan (‘2017 FinPlan’) explored the following four alternative approaches, concluding that for 2017 the ‘middle ground’ approach was the best:
 - i) **“Undefined until year-end”**: an ex post approach which defers a decision on how to address funding gaps until later in the year. This would enable more flexibility in response depending on having clearer information at the end of the year, although would reduce the predictability and potentially therefore the credibility of System-level finance.
 - ii) **“Fixed in advance – winner takes all (W2)”**: equal amount of W1 would be allocated to each CRP up to the System Council indicative W1&2 allocation and not adjusted for W2 end-of-year outcomes. This gives a major incentive for W2 fundraising for CRPs by not reducing W1 1:1 for each W2 contribution. However, when applied in 2016 this led to some CRPs only being made aware at the end of the year of receiving less funding than programmed. This approach provides the largest variation between CRP outcomes and System Council indicative allocations.
 - iii) **“Middle ground – partial filling of funding gaps”**: the approach for 2017, whereby W1 is allocated across all funding gaps between W2 and System Council indicative W1&2 allocations such that these are reduced by the same percentage amount until W1 funding is exhausted (with Platforms being excluded from such reductions). This offered a middle ground between full and zero coverage of the gap with W1, thus creating some incentive for W2 fund-raising while partially helping reduce gaps for all CRPs (just at different rates). Compared to approach 2 above, this would narrow the gap between W2 outcomes and System Council

indicative allocations in the case of a financial underrun, but still add a greater level of unpredictability to the outcome than Approach 4 below.

- iv) **“Egalitarian – cuts applied equally across CRPs”**: equal application of a possible cut irrespective of the level of W2 funding already received by CRPs. W1 is allocated such that all CRPs face the same percentage reduction of W1&2 from their System Council allocation until W1 funds are exhausted. This has the advantage of being optimal in terms of getting closest to the original System Council allocation, although it does not provide an immediate incentive for CRP fundraising (except when 100% of the System Council allocation can be raised from W2).

Annex 4 - How to improve funding reliability to make allocations more reliable

5 potential solution areas

1. The following measures could provide more predictability to CRP System-level financing annually and multi-annually:
 - i) **Maintain and increase the share of W1 contributions** – this would have a major impact on the ability of the system to honor annual or multi-annual allocations.
 - ii) **Continue to set System Council-level allocations that cover W1&2 as a combined financing pool** with combined strategic financial allocations – the W1 linkage to W2 is an essential element in rebalancing any anomalies between individual Funder allocations and the overall expressed preference of the System Council on what should be the balance of funding effort between CRPs.
 - iii) **Increase the share of multi-year system-level funding commitments to CGIAR** – establish a soft target at the System Council level for the share of multi-year funding pledges – to 50% of System financing up from the current level of 16% in 2016.
 - iv) **Make multi-year pledges at the CRP-level too** – shifting this dialogue into a multi-annual rather than annual planning process.
 - v) **Develop an innovative funding arrangement to stabilize system funding.** This could, for example, be in the form of a guarantee or loan arrangement that could provide greater assurance to CRPs/platforms that annual or multi-annual System Council allocations will be met even in the event of any unanticipated shortfalls.

Analysis

2. The credibility of System-level funding allocations rests in part on the predictability of System-level funding. The effort of making effective System Council allocations is wasted if those allocations do not reflect the actual funding reality at the end of the allocation period. Centers have noted that the quality of finance is as important as its volume. This was a key element of the Funding Modalities Scoping paper presented at SC4³, which noted (page 9) that:

“Within-year and multi-year predictability of funds:

- a. **In the short term (within year)**, CRP funding from W3 and Bilateral is more predictable than System-level financing since these rely on typically 3- year project commitments. However, the W1&2 predictability of funding is poor – the last Funders to announce their funding decisions are two major Funders

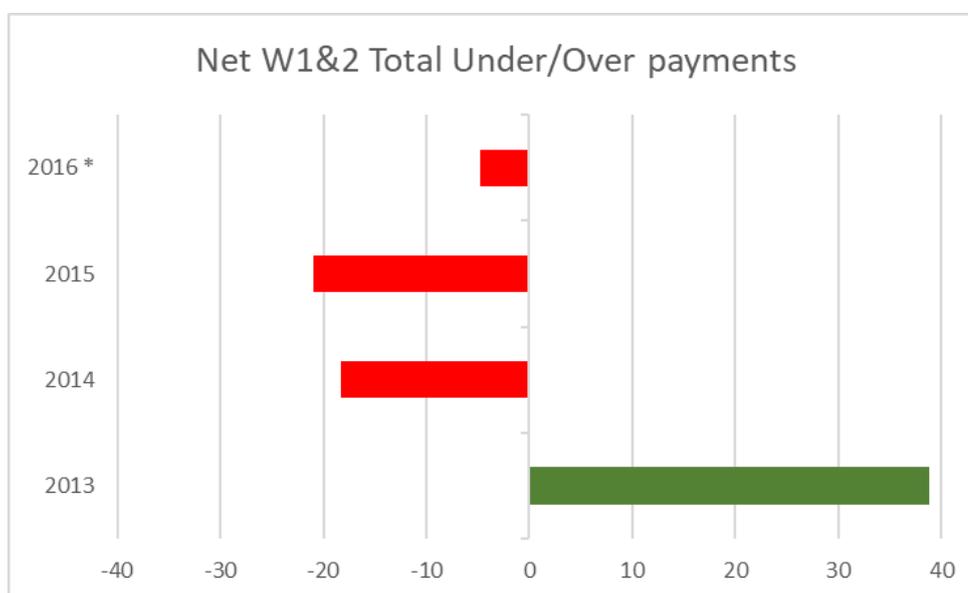
³ http://www.cgiar.org/wp-content/uploads/2017/05/SC4-03_Funding-Modalities-ScopingPaper_Revision-1_4May2017.pdf

who together represent 30% of W1&2 funding, towards the end of the year, requiring Centers to pre-finance the research and absorb the risk between budgeted and actual income.

- b. **In the medium and long term:** CRP funding from W1&2 is mostly unpredictable over the medium and long term. In terms of ‘revealed preference’, W2 *percentage* allocations to some CRPs by Funders appears to be stable over years but the corresponding *amount* received often varies because of changes in their total size of contributions (including due to exchange rate changes).”

Within-year unpredictability

- 3. Each year, CGIAR develops a financing plan based on prior year funding experience as targets. However, the financing plan turns out to be unrealistic each year. End of year differences in actual funding received by CRPs compared to System Council allocations of system funding are significant. 2016 was a particular year in this regard since W1 was fixed in advance and not used to rebalance actual W2 contributions towards System Council allocations. This complete ‘de-linking’ led to about \$16.7m losses by 8 CRPs, which in turn drove a number of Center-level losses and declines in reserves.



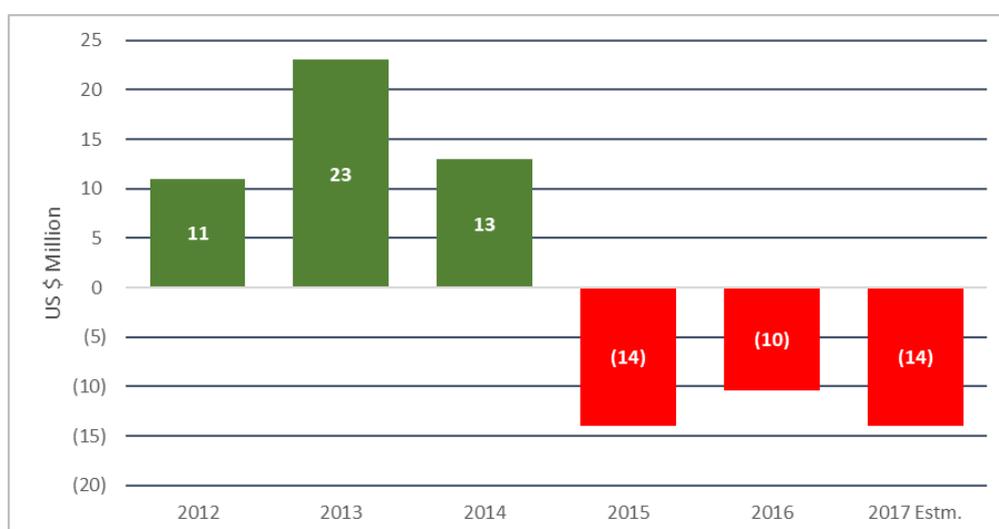
* Adjusted for A4NH \$6 million additional contribution resulting from revised calculations in 2014 and 2015

- 4. However, end of year financing shocks also existed in past years when W1 and W2 were linked, as illustrated below:

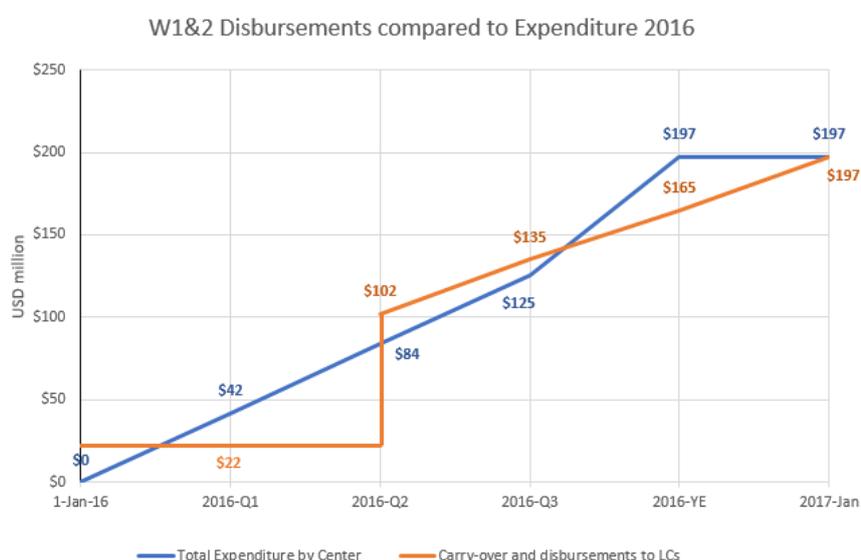


5. The operational impacts of this unpredictability are pernicious in many ways:

- a) In terms of programming, Centers have to plan their research work less efficiently because they face incentives to under-program against System Council allocations to factor in a level of risk that they can absorb in case of an actual funding shock. It also has an impact of the balance of fundraising preferences between W3 and system funding, since Centers see W3/bilateral as a more secure and predictable funding source.
- b) In terms of financial impacts, this instability is a major driver of Center losses and reserve depletion. The impact on System wide surpluses and shortfalls resulting from unpredictable funding realities is shown in the following illustration which includes the forecast from Centers submitted as of June 2017:



6. The drivers of this unpredictability are described in detail in the Improving System Financing Modalities paper presented at SC4⁴. In summary, these are:
- i) Poor forecasting of overall financing levels of W1&2 and late confirmation of W2 annual allocations;
 - ii) Significant differences between assumptions of W2 which provides the bases for System Council W1&2 allocation and actual W2 allocations;
 - iii) Changing policies on the use of W1 in terms of whether it should be used to rebalance the gap between actual W2 contributions and System Council W1&2 allocations;
 - iv) Additionality of W2 which some Funders and Centers feel should not result in reduced W1 allocations; and
 - v) Allowing any W2 allocated to CRPs beyond the System Council allocations to be kept for that CRP.
7. Because Centers pre-finance CRPs, the risk of any shortfalls is held at the Center level and typically falls on reserves. The following table shows how within the year the total pre-financing of W1&2 CRP spend can rise to about \$60 million at its peak mid-year or \$30 million by year-end receiving the balance in January of the following year:

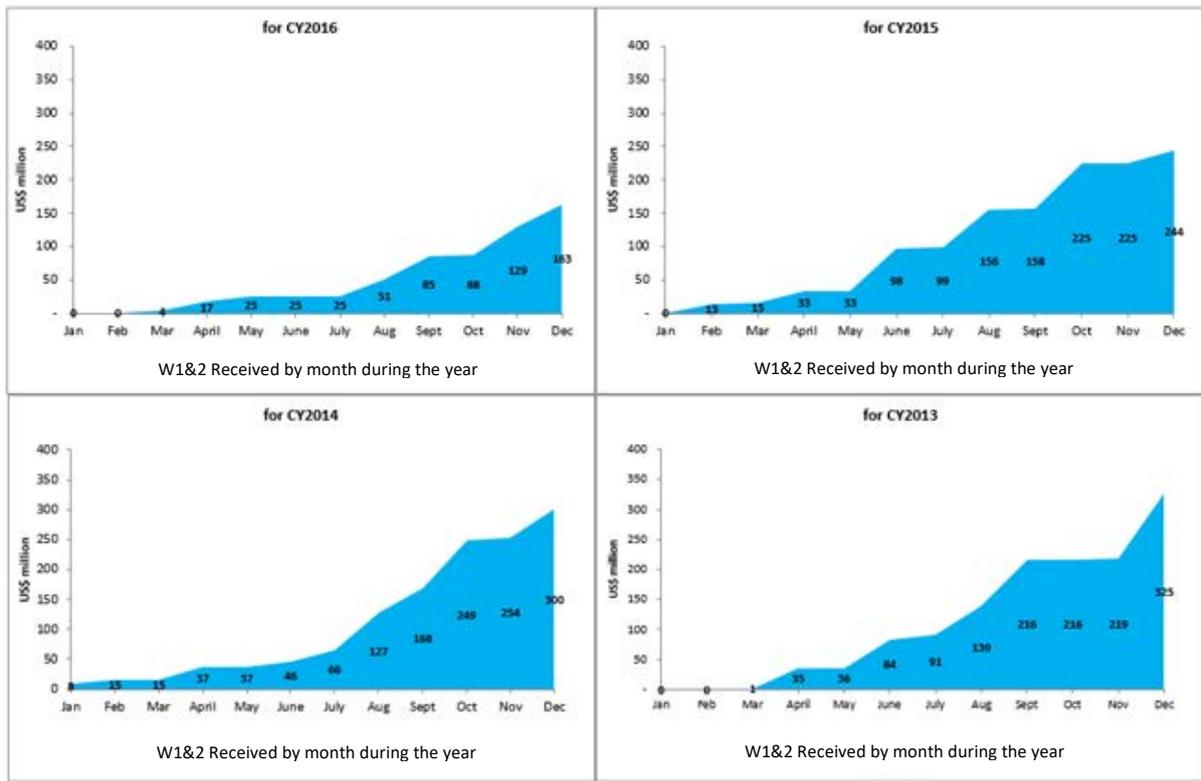


8. Most of the funding becomes available only towards the second half of the year and sometimes, towards the end of the calendar year and this results in an asymmetric spending pattern which is illustrated for demonstration purposes in the following graph.

⁴ Improving System Financing Modalities SC4-03 http://www.cgiar.org/wp-content/uploads/2017/05/SC4-03_Funding-Modalities-ScopingPaper_Revision-1_4May2017.pdf

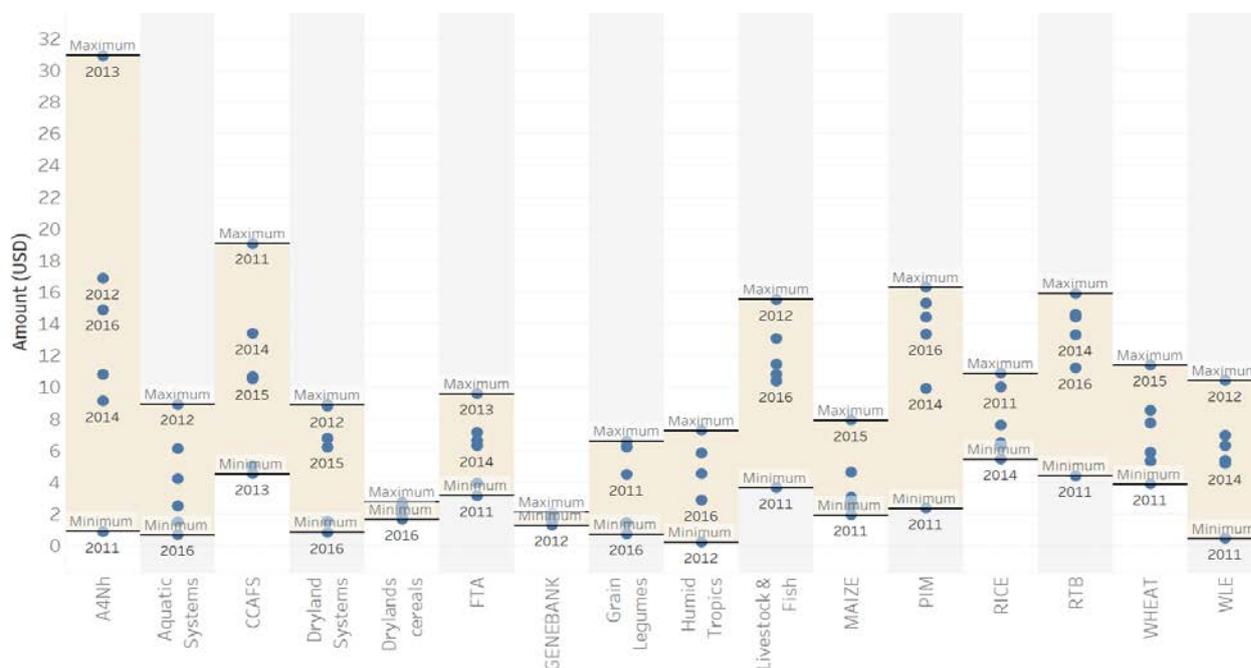


9. The following tables shows how W1&2 contributions are concentrated towards the end of the year which is a root cause of the unpredictability of the current funding system.



Multi-year unpredictability

10. A major further element of unpredictability is at the multi-year level. There are large annual variations of W2 amounts allocated to CRPs, which have partially been offset by the use of W1:



This chart shows the band (minimum/maximum between 2011 and 2016) of W2 amount received by CRPs.

Annex 5: Governance - Agreed Roles on allocation

1. The CGIAR System Framework⁵ and the Charter of the CGIAR System Organization⁶ set out the following roles regarding prioritization and allocation:
 - i) The role of the **System Council** is to “approve, taking into account advice from the ISPC and proposals from the System Management Board, guidelines and criteria for prioritization and for annual allocation of Unrestricted Funding across CGIAR Research based on strategic priorities and performance”⁷ and “approve allocation of Unrestricted Funding for CGIAR Research, taking into account advice from the ISPC and proposals from the System Management Board”⁸.
 - ii) The role of the **System Management Board** is to “recommend to the System Council guidelines and criteria for prioritization and for annual allocation of Unrestricted Funding across CGIAR Research based on strategic priorities and performance”⁹, and “recommend to the System Council the allocation of Unrestricted Funding for CGIAR Research”¹⁰.
 - iii) The **System Management Office** is tasked to “develop, taking into account the advice of ISPC and input from the Centers, a proposal for guidelines and criteria for prioritization and annual allocation of Unrestricted Funding across the CGIAR Portfolio, based on strategic priorities and performance”¹¹, and to “lead a consultative process with the ISPC and other CGIAR System entities for the development of an integrated framework for a performance management system for CGIAR Research that provides feedback on progress and results and contributes to decisions on the allocation of resources”¹².

⁵ <https://cgspace.cgiar.org/bitstream/handle/10947/4371/CGIAR%20System%20Framework%20-%20WEB.pdf?sequence=4>

⁶ <https://cgspace.cgiar.org/bitstream/handle/10947/4370/CGIAR%20System%20Charter%20-%20WEB.pdf?sequence=4>

⁷ CGIAR System Framework, Article 6.1(p)

⁸ Ibid, Article 6.1(s)

⁹ Charter of the CGIAR System Organization, Article 8.1(bb)

¹⁰ Ibid, Article 8.1(ee)

¹¹ Ibid, Article 11(aa)

¹² Ibid, Article 11(hh)