DISCUSSION PAPER - April 2016

Brief history of the CGIAR Fund¹

The CGIAR Fund was established in 2010 as a key component of the reforms implemented, along with the creation of the CGIAR Consortium, Consortium Office, Fund Office, Independent Evaluation Arrangement, and renamed Independent Science and Partnership Council (formerly the Science Council). Governance reform created the Fund Council, Consortium Board and Funders Forum in place of the previous Executive Council and Annual Business Meeting. Programmatically, an overall CGIAR Strategy and Results Framework was put in place and a set of large CGIAR Research Programs (CRPs) were started, each with a lead Centre and many participating Centres and other partners.

The fundamental rationale of the Fund was influenced by new approaches to aid effectiveness taking shape during the decade, embodied in the Paris Declaration with its emphasis on donor harmonization, alignment, reduced conditionality, transparency, untied aid, predictability of funding and mutual accountability. The Fund had three main objectives which had been identified as solutions to current difficulties faced by CGIAR, namely: a) to increase the overall level of funding which was not growing in line with the increased need for research and CGIAR's ambition to do more, b) to improve the predictability of funding for research in order to plan and carry out long term research initiatives which require known budgets over 5-10 year time horizons and to attract and retain top researchers, and c) to provide stability of funding and fund use flexibility through timely disbursements, with a greater proportion as unrestricted funding, and to ensure continuity of research which if stopped cannot be easily restarted.

This paper sets out to answer questions relating to what extent the existence of the Fund over its first five years (2011-2015) has contributed to achieving the above aims.

Summary of main findings:

- 1. Since establishing the Fund CGIAR annual spend has increased faster than at any time in CGIAR's 45 year history. During the last five years annual growth was 40% greater than over the preceding 5 year period (Figure 1).
- 2. Bilateral funding remained fairly constant at around \$500m, whilst W1+W2 and W3 provided scope for growth of CGIAR (Figures 2a and 2b) indicating that the Fund created a mechanism through which donors channeled additional funding.
- 3. The Fund also created a mechanism which helped balance fund receipts with CGIAR capacity to implement funds effectively (Figure 3) as CRPs came on line.
- 4. Fund donors fell into three main categories: (i) contributions exclusively or primarily through W1; (ii) mixed contributions with greater relative emphasis on W2; and (iii) contributions exclusively or primarily through W3 (Figure 4).

¹– I am grateful to Loriza Dagdad for assistance with data compilation and graphics however all errors, omissions, analysis and interpretation are my own, Jonathan Wadsworth, Exec Sec CGIAR Fund Council.

- 5. Almost all Fund donors adjusted their use of the four funding channels over the period (W1, W2, W3 and bilateral), but no generalized trends can be identified. Donors channeled unprogrammed contributions through W1, W2 or W3; some donors increased W3 at the expense of bilateral contributions, some shifted a proportion of their contributions from W1 to W2 and others from W2 to W3, and others maintained the relative distribution constant when their total contribution changed (Figure 5).
- 6. Collectively however, the distribution of contributions across the Fund windows changed markedly over time with a trend toward greater targeting of funds overall. The combined W1+W2 share dropped from 84% of the Fund in 2011 to 44% in 2015; with W1 falling from 66% to 22% of the Fund over the same period. Correspondingly W3 grew from representing 16% of the Fund in 2011 to 55% in 2015.
- 7. Over the period 2011-2014² the total funding requirement to meet the planned CRP portfolio budget was 17% higher than funds raised from all sources. However in the case of W1+W2 this was more severe with a 35% deficit overall; W3+bilateral raised 3% more than required (Table 1). A similar situation continued into the extension phase (Table 2).
- 8. However, half the CRPs were able to compensate for lower than budgeted W1+W2 receipts through exceeding their W3+bilateral approved budgets. Seven CRPs exceeded or came close to achieving full total budgets; five CRPs achieved 75-90% full budgets; and four CRPs fell below 75% full funding despite two of the latter receiving close to their approved W1+W2 budgets (Figure 6, Figure 8).
- 9. Donors were slow to enter into formal multi-year contribution agreements which reached a maximum level of only 40% of Fund receipts in 2014 (Figure 10). Hence, in the absence of any formal multi-year pledging/replenishment system, predictability of funding did not improve noticeably due to the Fund.
- 10. Timely disbursements from the Fund were only possible when the Fund carried sufficient resources over from one year to the next to enable smoothing of the skewed nature of Fund receipts which occurred mainly in the final quarter of the year (Figure 11).

Points for consideration:

1. Existence of the Fund probably had a major effect on accelerating growth of CGIAR and passing the \$1bn/yr target by providing a multilateral approach and new funding channels. But it did not achieve the objective of attracting the majority of CGIAR funding through pooled means (W1 & W2) which would have enabled a truly multilateral approach to international agriculture research through the CGIAR CRPs. Hence Centres continued with the heavy burden of fundraising resulting in many hundreds of bilateral projects persisting across the CGIAR with all the concomitant inefficiencies both programmatic and administrative. This may have limited CGIAR's potential for uniquely transformational research, impact and change that is needed in the global food and agriculture system.

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² CRPs were extended by 2 years (2015-16) at the end of 2014.

- 2. From the perspective of Centres the Fund did not have any effect on increasing unrestricted core funding, stability or predictability of funding. If W1+W2 is taken to mean unrestricted program funding as a replacement for the previously defined unrestricted Centre core funding, then this has remained unchanged at around 33%.
- 3. Predictability of funding was slow to emerge and the Fund only reached the level of 40% of annual receipts under formal multi-year contribution agreements which did not allow for long-term research planning. In practical terms the Fund will only truly offer sufficient predictability on which Centres are confidently able to forward plan research when a much larger proportion of Fund receipts are formally pledged over multiple years. Although an ad hoc approach to resource mobilization as employed historically by CGIAR served to increase total funding, failure to establish more formal pledging methods exposed a weakness of the Fund Council in addressing the equally serious objectives of funding predictability and sustainability
- 4. Moreover, **stability of Fund disbursements could also be radically improved** by building a permanent "cushion" of at least 20-30% annual Fund receipts to mitigate for late donor contributions or sudden modifications in donor allocations between windows.
- 5. W1 is disproportionately reliant on a handful of large donors and is highly sensitive to unanticipated changes in their funding allocations across windows and W2 sub-accounts for whatever reason. For the Fund to function effectively as designed a mechanism should be in place that incentivizes or requires all donors to contribute relatively more to W1. This could require reinvigoration of the multilateral, pooled funding concept underwritten by strong confidence in a truly high quality set of CRPs with each contributing unique high value to the achievement of the overall portfolio's objectives. W1 will not be sustainable if it becomes, or is perceived to be, a crutch for perpetuating poor performance or subsidizing under-funded bilateral projects of other donors.
- 6. W3 and bilateral projects are intended to contribute to achievement of the CGIAR Strategy and Results Framework (SRF) through alignment with CRP activities and objectives. However, most are project specific. An issue for consideration is whether it is counterproductive to set budget caps on restricted sources of funds such as W3 and bilateral?
- 7. It is axiomatic to point out that donors using the Fund must have gained a variety of benefits from doing so, but equally true that a large proportion of CGIAR is still funded bilaterally (including W3) which presumably confers greater benefits to those donors as opposed to pooled funding (W1 & W2). The apparent anomaly being that many CGIAR donors engage in both pooled and bilateral funding. The obvious question is whether the declarations of good intent on aid effectiveness emanating from Paris, Accra, Busan and elsewhere, on which the Fund structure was predicated, have run their course with the inevitable consequence that the international aid community is reverting to greater bilateralism with individualized objectives and priorities at least with regard to agricultural research.
- 8. The question must also be asked as to the prospect of making the CGIAR Fund more attractive to existing bilateral donors and new donors in considering their options. What incentives can be strengthened? What minimal level of pooled funding would make the Fund untenable both financially and practically, and what would CGIAR Fund donors and Centres need to do to ensure the Fund's viability and relative size of pooled resources (W1+W2)?

- 9. A more existential question for CGIAR is to ask why other multilateral initiatives such as the Global Fund to fight aids, tuberculosis and malaria are able to function at much higher levels of long term pledged funding with a policy that severely restricts earmarking of funds by contributors³, while CGIAR seemingly cannot, despite having the financial support of many of the very same donors? The CGIAR fragmented funding approach across three Fund windows plus bilateral contributions is quite unique for an international organization of this size and merits careful consideration based on evidence.
- 10. In light of forthcoming governance changes bringing the donors and Centres into a more direct relationship there is scope to address some of shortcomings of how the Fund has functioned to date. One significant change under discussion is that of setting CRP annual budgets and allocating W1 funds under the purview of donors and Centres at the same table collectively to address the specific funding requirements of long term research in terms of improving predictability, timeliness and sustainability of CGIAR funding.

Background and context:

In the beginning the intention of donors was to set up a multi-donor co-mingled Fund. Funding decisions would be taken by a sub-set of Fund donors – the Fund Council. As in all multilaterally supported endeavors all contributors would by definition contribute to everything the organization does and achieves. Contributions not flowing through the Fund, labelled "bilateral" would be expected to support activities integral to delivering on the Strategy and Results Framework agreed by all donors collectively at a Funders Forum.

During donor discussions prior to establishing the Fund some wanted the opportunity to distinguish clearly between the programs they were supporting, argued in some cases by the fact that funds for CGIAR might be available from budget lines other than agriculture within the same donor agency e.g. forestry, social science, health, human development etc. that could be made available for relevant CGIAR programs. This led to the creation of two Fund windows: W1 (the original single fund concept) plus another window (W2) which would have sub-accounts where donors could designate pooled funding for specified research programs (CRPs). This distinction would be made by each donor in its formal contribution agreements with the Trustee, with donor designated W2 sub account contributions going to their respective programs. However, on receipt of funds by lead Centres there would be no distinction made between W1 and W2 funds from the perspective of the lead Centre which would receive single W1+W2 transfers for each program.

A further window (W3) was added during donor discussions at the request of some donors who wished to also be able to continue supporting specific Centres (rather than programs) for historical, legacy, geopolitical and strategic reasons. These donors preferred to qualify as Fund donors and be eligible for Council membership, rather than make contributions outside the fund bilaterally. W3 contributions were termed "institutional funding" as opposed to W1 and W2 unrestricted programmatic funding.

³ GlobalFund (2014) Thirty-Second Board Meeting, Amended and Restated Policy for Restricted Financial Contributions, Montreux, Switzerland, 20-21 November 2014

The clear intent of W3 was to support the Centres as institutions and the expectation was that this would be in the form of Centre-based unrestricted core funding. W3 was intended to be temporary to give enough time for certain donors to transition to programmatic funding from their traditional institutional funding approach. But this did not happen. Donors have reacted strongly to any suggestion of phasing out W3 which has now become a *de facto* fixture of the Fund.

The Plan - rationale and practice of funding programs:

It was always expected that program budgets would be set by the Fund Council based on quality of research, relevance of the research area for development, and priorities for Fund use. And it was assumed that not all programs would attract the same level of designated W2 funding for a variety of reasons. It was never envisaged that the level of W2 support would be taken as a proxy for donor interest or equate with collective donor priorities. Indeed, two very successful programs, CCAFS and GRiSP have had relatively low W2 support vs W1 receipts compared to others (Figure 9).

Approved total budgets for the life of contracted programs were set out in two components, namely W1+W2 (FC designated component) and W3+bilateral (donor designated component), each of which were capped at agreed levels for the duration of the program. Provision was made for the Fund Council to approve virement between components within the overall total budget cap depending on the actual availability and receipt of funds of each component. Hence the total funding for each program would be derived from diverse sources with W1+W2 being a co-mingled or pooled resource with the capacity to smooth any variance in donor designated contributions unexpected or otherwise.

Given that all the programs agreed and contracted by the Fund Council were taken as equally valuable in achieving CGIAR goals, their agreed W1+W2 budgets would be met (subject to the availability of funds), by combining W1 and W2 contributions. W2 being called down first before drawing on W1. Provisions were made for redistributing W2 funds to other programs should any given W2 sub-account become oversubscribed, but this has never needed to be enacted.

Another less well articulated concept was that, since programs were based on delivery of results to a pre-defined program indicator matrix as part of the contract with the funders, programs could go faster or slower than expected provided all results were adequately achieved before reaching the approved budget cap. This never materialized in practice for a variety of management reasons at Centre and Consortium levels, including the availability of W1+W2 funding.

1. Did the Fund enable greater funding for CGIAR?

Total GCIAR annual spend rose by 68% (14% annual) from establishment of the Fund, reaching \$1.1bn in 2014 (Figure 1), compared to growth of 51% (10% annual) over the preceding five years.

However there is no counterfactual evidence to state categorically that this was due to the Fund as a new contributing mechanism for donors. In order to assess the impact of the Fund on CGIAR growth it is necessary to look in greater detail at the patterns and trends of donor contributions.

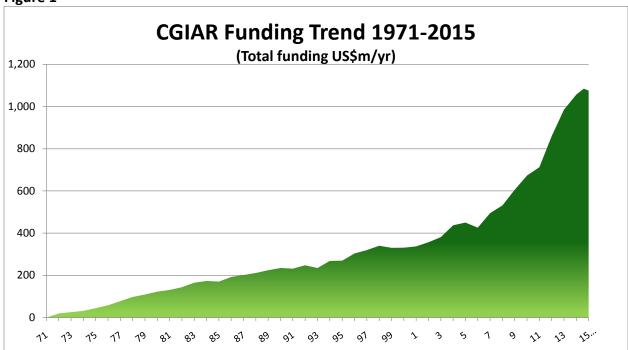
Receipts into the Fund grew rapidly until 2013 (Figure 2a) and levelled off at just over \$550m/yr in 2014 and 2015. Over the five years (2011-2015) W1+W2 constituted 84%, 62%, 54%, 54% and 44% respectively of Fund receipts, with a corresponding increase in the share of W3 funding received over the period.

Figure 2a also illustrates how W1 funding fell over the period from a high of 66% total Fund receipts in 2011 to reach just 22% of total Fund receipts in 2015.

In 2010, prior to establishment of the Fund, unrestricted core funding to Centres averaged around 34% (\$229m) of total CGIAR funding. W1 & W2 probably attracted most of this core funding which peaked in 2014 at \$382m (35% total funding), while bilateral funding remained fairly steady in absolute terms, but fell from representing 72% in 2011 to 49% in 2015.

The most significant change has been the rapid growth of implemented W3, which exhibited an 18-fold increase from \$16m in 2011 to \$295m in 2015, representing 29% of the CGIAR total budget (Figure 2b).

Figure 1



Note: 2015 is estimated as of December 2015 as final bilateral spends not known until mid-2016

Figure 2a. Growth of the CGIAR Fund receipts 2011-2015 (\$ million)

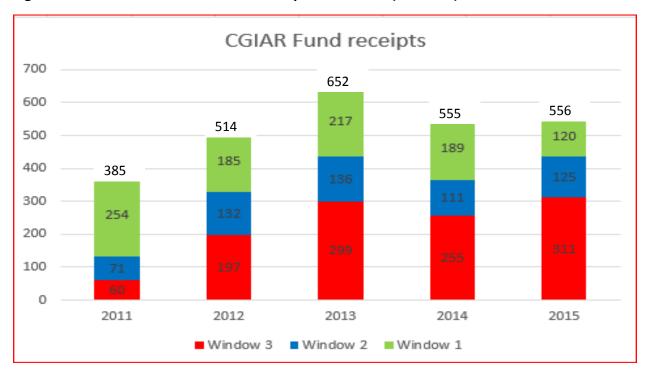
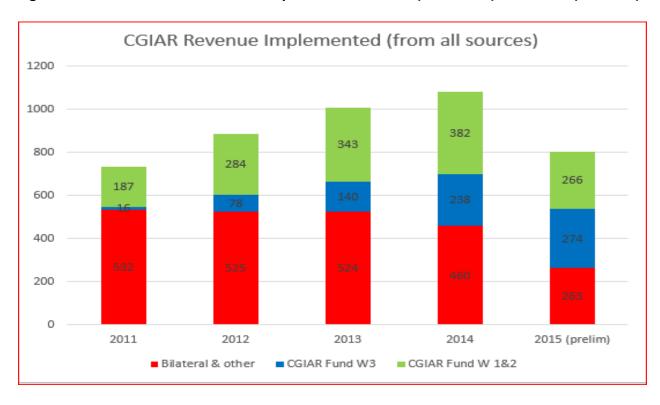


Figure 2b. Growth of the CGIAR total implemented revenue (all sources) 2011-2015 (\$ million)



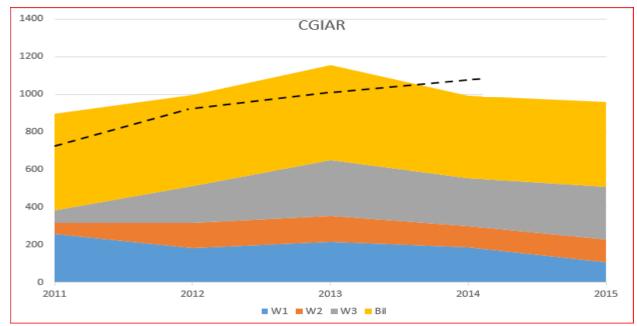


Figure 3. Cash receipts (W1, 2 & 3) and bilateral (spend) CGIAR 2011-2015

Note: 2015 bilateral is estimated based on FinPlan Centre projections, data not available until mid 2016

Since no differentiation is made at the implementation level Figure 2b necessarily combines W1 & W2 in a single figure. In order to understand better any interactions between specific window contributions it is only possible to do so at point of entry to the Fund, shown in Figure 3.

Figure 3 indicates how Fund receipts were in excess of implementation capacity from 2011 to 2013, as CRPs were being brought on line sequentially, which allowed both the Fund and Centres to carrying unspent funds into the following year. Since 2014 implementation has been greater than receipts. This approach has worked adequately until now. However the growth experienced up until 2013 was not maintained and did not keep up with Centres' growing capacity for implementation once the full complement of CRPs became active.

It is also clear (Figure 3) that the rapid growth in receipts was largely due to increases in W3, which grew faster than W1 and W2, with no apparent impact on bilateral contributions. It could be inferred that W3 provided a stimulus to Fund donors to increase bilateral-type funding which might otherwise have been channeled through W1&W2 since true bilateral funding remained fairly constant over the period.

In retrospect it seems that the 2013 peak in funding (Figure 3) represents a "bulge" rather than a trend, due to the extra effort to reach the \$1bn target in five years which had been set in 2008.

1.1 How did donors respond to the Fund?

In order to unpack any common patterns or changing trends in donor behavior it is necessary to look at individual donors' contributions over the period. Figure 4 illustrates the contributions of the ten largest CGIAR Fund donors which account for over 65% of total CGIAR income, and over 90% of Fund income.

At the outset there was a group of Fund donors strongly committed to the pooled funding approach that would channel resources primarily through W1, just as there were donors who were unable or unwilling to use W1 and favored W3 and bilateral. In between there were donors that made contributions through various combinations of the available windows including W2. Few donors chose a single channel, 10 funded via all four streams (i.e. W1, W2, W3 and bilateral), 32 donors funded W1 and/or W2. In all there were some 10 different combinations used by donors (Figure 4) making it difficult to draw out clear generalizable patterns. However given the observations raised in the preceding sections it is relevant to try and determine if there are any emerging trends or changes in donor behavior.

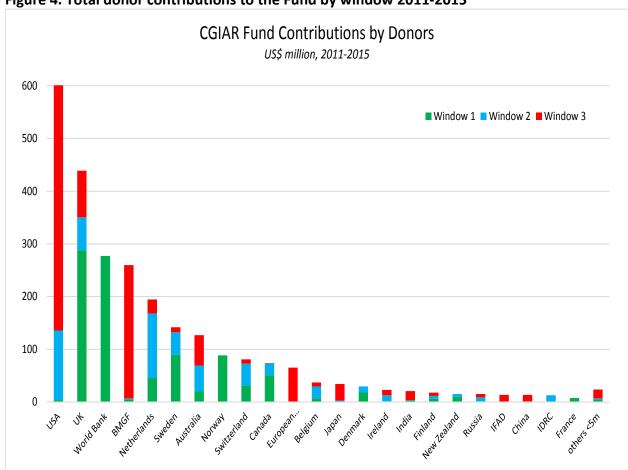
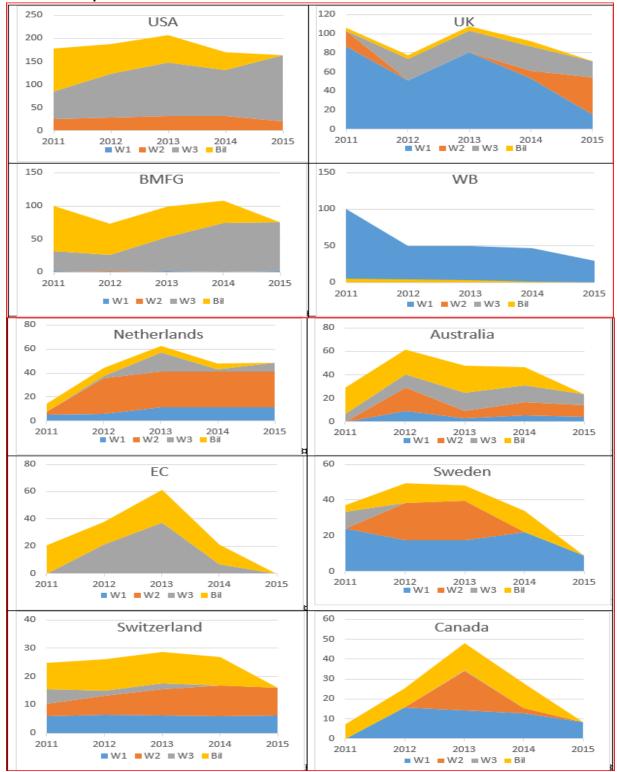


Figure 4. Total donor contributions to the Fund by window 2011-2015

Taken together Figures 4 and 5 reveal striking differences between how donors chose to use the Fund, and how this varied over time. Although categorization may be prone to subjectivity at the margins, three main groups or types tend to emerge:

- I WB, UK, Sweden, Norway, Canada, Denmark, New Zealand, and France made contributions exclusively or primarily through W1.
- II Netherlands, Australia, Switzerland, Belgium, Ireland, Russia, and IDRC placed greater emphasis on W2 in their overall contributions mix.
- III US, BMGF, EC, Japan, India, IFAD, China made contributions exclusively or primarily through W3

Figure 5. Cash receipts (W1, 2 & 3) and bilateral (spend) - Comparison of top 10 donors' contribution patterns 2011-2015



Note well: 2015 does not include bilateral spend as data not available until mid-2016

One factor which could distinguish between type I and type III donors could be their relative capacity and approach to managing research funding. Type I donors are more likely to have a multilateral focus with greater institutional incentives to refrain from involvement in project management, whilst type III donors may be more inclined to take a hands-on approach with closer direct interaction on the ground.

Turning back to Figure 5 in an attempt to extract any generalized trends in funding patterns over the past 5 years, again with the caveat that 2015 bilateral spend is not included in the data set as it is unknown and impossible to estimate for each donor at this time. The following trends can be identified by donor:

United States grew W3 contributions considerably from 2011 to 2013 as the old (bilateral MDTF) was phased out. However bilateral contributions, especially from regional and country programs, remain strong. W2 was fairly constant and important until 2015 when about a third was transferred to W3 in order to target specific CRP activities previously funded collectively through W2.

United Kingdom is characterized by providing a basal commitment to the Fund, and towards the end of the year making additional deposits to W1 using funds freed up from under-spent programs if available. CGIAR Fund W1 is an exceptionally efficient method of channeling such windfalls and is used by a number of other donors. This explains the zig-zag profile of the W1 curve. W2 and to some extent W3 have been used more by UK since 2013 as agency policies regarding focus and prioritization became stronger. This was manifest particularly in 2015 when a large portion of W1 funding moved to a number of selected CRPs through W2 based on an independent performance review.

Bill and Melinda Gates Foundation: has been consistent in its primary use of W3 and bilateral funding and since 2012 has grown its overall CGIAR support through expanding W3 contributions at the expense of bilateral funding.

World Bank contributions to W1 in 2011 of \$100m was an artefact of setting up the Fund and closing the old CGIAR secretariat in 2010. When, due to timing issues, two WB financial years' contributions of \$50m coalesced in one CGIAR financial year. In 2014, due to WB budget constraints the W1 contribution declined by 6% and for the same reason dropped by a further 36% in 2015. This level of W1 funding will remain stable until at least 2018.

Netherlands put in place a four year Contribution Agreement in 2012 and stuck to it, largely based on significant W2 contributions and increasing W1, with a specific project W3 bulge in 2013. Netherlands has been exemplary of the type of donor approach envisaged in setting up the Fund.

Australia significantly grew all Fund windows from 2011 to 2012 when, including bilateral its contributions peaked. Following a multilateral aid review, 2013 saw a drop in W1 and W2 with W3 and bilateral continuing to grow. W1 and W2 recovered in 2014, seemingly at the expense of bilateral contributions, however budget pressure plus unfavorable exchange rate against the dollar saw reductions across all windows in 2015. In 2014 total contributions had declined by 32% below the 2012 peak.

European Commission employs only W3 and bilateral funding for specific projects which is channeled through IFAD for fiduciary reasons. Long term funding envelopes are put in place with annual disbursements dependent on implementation rates and satisfactory performance monitored by IFAD

and EC. From 2011 to 2013 contributions grew by 192% before dropping back to 2011 levels in 2014. This would appear to be more a question of program implementation than donor commitments.

Sweden has been a significant and stable W1 contributor until 2015 when agency budget pressure led to a 30% fall in W1 contributions. In 2012 and 2013 additional contributions in excess of programmed amounts were channeled through W2 which, along with increased bilateral funds grew the overall contribution by 30%.

Switzerland is the most consistent donor. From 2011 to 2013 W3 funding was gradually replaced by W2 funding although exchange rates led to a 5% decrease in W1+W2 funding in 2015.

Canada maintained a level W1 profile until 2014/15 when exchange rates and budget cuts reduced the W1 contribution by 35%. 2013 saw a significant bulge in W2 and bilateral contributions.

1.2 Was funding sufficient and how did CRPs cope?

Over the period 2011-2014 funding was not sufficient to cover the CRP budgets as approved by the Fund Council. This was a major departure from planned practice. It was largely due to the sequential and prolonged period of approving programs and bringing them on line which lasted about 18 months. When completed, the overall program portfolio budget totaled more than was raised from all sources even with the achievement of doubling total funding to over \$1 billion. Using data for the four year period 2011-2014, and adjusting for programs that were budgeted for five years, Table 1 shows how the total requirement added up to \$3.22 billion which was 17% more than the \$2.67 billion actually raised over the same period. This meant that all but two programs were underfunded, a situation which continued into the approved extension phase 2015-16 (Table 2).

A major difficulty for lead Centres in developing CRP proposals and budgets before the Fund had been established was the lack of any prior experience, of Centres and donors alike, regarding how much money might be available in the Fund, and if or how the Fund might affect bilateral contributions. Consequently, overall the CRPs budgeted for W1+W2 availability of \$1.7 billion, while in reality only \$1.1 billion was achieved over the four years (Table 1). This was 35% lower than aspired to by the portfolio.

In aggregate lead Centres were better at estimating and/or raising future W3+Bilateral funds which overall surpassed the requirement by 3% (Table 1). However it should be noted that aggregate figures mask much variability between CRPs.

Table 1. Approved and received CRP budgets 2011-2014 (\$ millions)

	Approve	d Budget 2011	L-2014	Funding F	Received 201:	1-2014	Percent of Funding /Budget					
	Window 1&2	Window 3 & Bilateral	Total	Window 1&2	Window 3 & Bilateral	Total	Window 1&2	Window 3 & Bilateral	Total			
Dryland Systems	70.33	62.39	132.73	40.73	71.20	111.93	58%	114%	84%			
Humid Tropics	57.66	86.76	144.42	36.59	46.80	83.39	63%	54%	58%			
Aquatic Agricutural Systems	37.82	47.20	85.02	37.82	45.50	83.32	100%	96%	98%			
PIM	140.83	124.40	265.23	72.01	188.70	260.71	51%	152%	98%			
Wheat	40.97	186.58	227.55	40.97	71.80	112.77	100%	38%	50%			
Maize	51.07	193.10	244.17	49.85	169.40	219.25	98%	88%	90%			
Rice	306.15	168.56	474.71	138.52	240.40	378.92	45%	143%	80%			
Roots, Tubers and Bananas	135.60	71.80	207.40	85.21	109.20	194.41	63%	152%	94%			
Grain Legumes	79.31	59.82	139.14	45.06	72.60	117.66	57%	121%	85%			
Dryland Cereals	46.58	37.75	84.33	20.54	25.00	45.54	44%	66%	54%			
Livestock & Fish	49.80	69.92	119.72	44.83	37.60	82.43	90%	54%	69%			
A4NH	93.63	97.77	191.40	69.25	138.70	207.95	74%	142%	109%			
Water, Land & Ecosystems	163.78	82.47	246.25	85.26	99.00	184.26	52%	120%	75%			
Forests, Trees and Agroforestry	99.18	167.09	266.27	95.90	157.70	253.60	97%	94%	95%			
CCAFS	259.12	54.88	314.00	165.67	82.40	248.07	64%	150%	79%			
Genebanks	68.27	10.76	79.03	69.23	17.30	86.53	101%	161%	109%			
Total	1,700.11	1,521.25	3,221.36	1,097.44	1,573.30	2,670.74	65%	103%	83%			

Table 2. Approved and projected CRP extension budgets 2015-2016 (\$ millions)

	Approve	Funding 201	5-2016			
	Window 1&2	Window 3 &		Window 1&2	Window 3	
	Williaow 102	Bilateral	Total	Williaow 1Q2	& Bilateral	Total
Dryland Systems	21.00	71.42	92.42	11.30	75.20	86.50
Humid Tropics	25.20	36.24	61.44	18.30	58.90	77.20
Aquatic Agricutural Systems	31.58	37.50	69.08	14.90	32.80	47.70
PIM	54.50	141.06	195.56	35.20	146.40	181.60
Wheat	39.57	91.12	130.69	25.40	74.30	99.70
Maize	41.05	160.37	201.41	20.50	101.50	122.00
Rice	86.36	134.57	220.93	46.00	125.40	171.40
Roots, Tubers and Bananas	68.46	87.68	156.13	35.90	122.20	158.10
Grain Legumes	35.47	77.91	113.38	21.50	78.30	99.80
Dryland Cereals	16.51	30.43	46.94	8.80	21.90	30.70
Livestock & Fish	34.76	26.10	60.86	23.30	42.90	66.20
A4NH	59.00	120.20	179.20	37.10	138.50	175.60
Water, Land & Ecosystems	60.69	67.90	128.59	41.40	78.10	119.50
Forests, Trees and Agroforestry	68.84	127.51	196.34	38.50	119.50	158.00
CCAFS	99.20	52.50	151.70	69.40	55.30	124.70
Genebanks	37.60	7.30	44.90	33.10	13.50	46.60
Total	779.78	1,269.80	2,049.58	480.60	1,284.70	1,765.30
Budget /Funding				62%	101%	86%

One obvious question, in hindsight and based on experience over the period of analysis, is whether it is preferable to set realistic CRP budgets and remain within them, or if having headroom for growth in line with CGIAR aspirations is a better approach? There is no easy answer, and there are trade-offs in areas such as flexibility, long-term research planning, results-based management, measurement of program performance, strategic allocation of resources and priority setting amongst others. It is clear however

that more than half the CRPs compensated for deficient W1+W2 budgets with greater than expected W3+Bilateral funds.

The Fund function was constructed in such a way that, provided that total CRP budgets approved in the Consortium Performance Agreements (CPA) are not exceeded, CRPs are at liberty to increase W3+Bilateral fundraising to compensate for deficiencies in W1+W2 allocations. Due to ambitious budgets originally proposed by CRPs and approved by FC, sufficient headroom was created for the majority of CRPs to expand their expected funding profile by going "over budget" on the W3+Bilateral component of the total budget. This did not trigger reductions in W1+W2 allocations due to insufficient W1+W2 funding, however it could have done so if these had been higher.

A question raised recently in discussions on the second round of CRPs relates to whether this rule should continue to hold under conditions of more realistically set budgets. In other words, should (or should not) W3+Bilteral fundraising in excess of approved budgets trigger a corresponding reduction in W1+W2 allocations in order to keep them within the total budget cap? Given that W1+W2 funds are unrestricted at program level this could be counterproductive, resulting in CRPs effectively becoming collections of unconnected bilateral projects with a related loss of strategic focus and flexibility to address key research issues not favored by bilateral donors.

Total approved budgets span a wide range (Table 1) from the lowest of \$84m (Dryland Cereals) to the highest of \$475m (GRiSP), with a similar wide range in the case of W1+W2 budgets (\$38m to \$306m) and W3+Bilateral (\$38m to \$193m).

From 2011 to 2014 two CRPs received more funding than the approved budget (A4NH and Genebanks), and two CRPs (AAS and PIM) came close to receiving their full approved budgets. All others were underfunded to varying degrees, the worst cases being WHEAT and Dryland Cereals that received about half their approved total budgets during the period (Table 1, Figure 5).

While the overall portfolio W3+bilateral budget received 3% higher than the approved budget in total, this masks large variability between CRPs across the portfolio. Eight CRPs received more W3+bilateral than originally envisaged in the program proposals, two were about the same, and seven received less. WHEAT received only 38% and L&F 54% of their approved W3+bilateral budgets, while PIM and GRiSP received 52% and 43% more than budgeted respectively (Table 1).

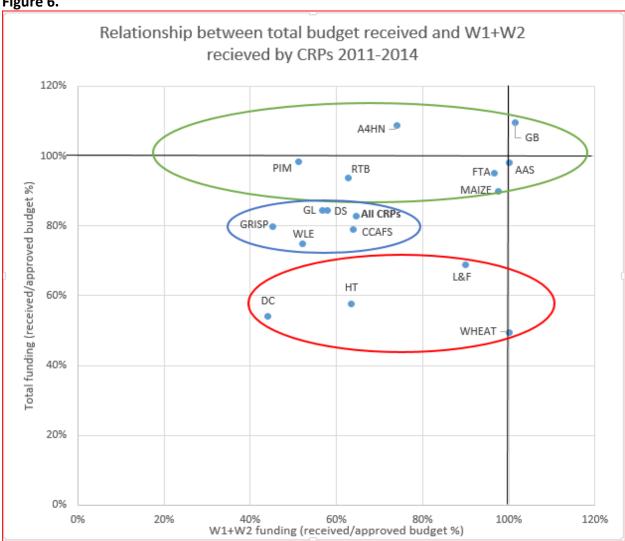
With respect to W1+W2 funding, five CRPs exceeded or received close to the approved amounts, whilst ten CRPs received less than the budgeted amounts to varying degrees (Figure 6), but there is no clear indication of a strong the relationship with level of W1+W2 funding.

Figure 7 introduces the variable of W3+bilateral funding which shows how CRPs fall into four main types based on the composition of total funding received:

- 1. W1+W2 and W3+bilateral close to full budget (AAS, FTA, MAIZE)
- 2. W1+W2 close to full budget but low W3+bilateral receipts (WHEAT, L&F)
- 3. W1+W2 well below budgets but compensated by over-budget W3+bilateral receipts (A4HN, CCAFS, RTB, GL, DS, WLE, PIM, GRISP)
- 4. W1+W2 and W3+bilateral both well below approved budgets (HT, DC)

It seems probable that type 3 CRPs (blue circle Figure 7) were more able and effective in attracting W3+bilateral funding, possibly through more aggressive fundraising by lead Centres and/or by greater alignment with bilateral donor preferences. However it does not fully explain why CRPs of this type were all under-funded from W1+W2 relative to types 1 CRPs (green circle Figure 7), unless some other factor, such as level of W3+bilateral funding, was taken into account in allocating W1 funds.

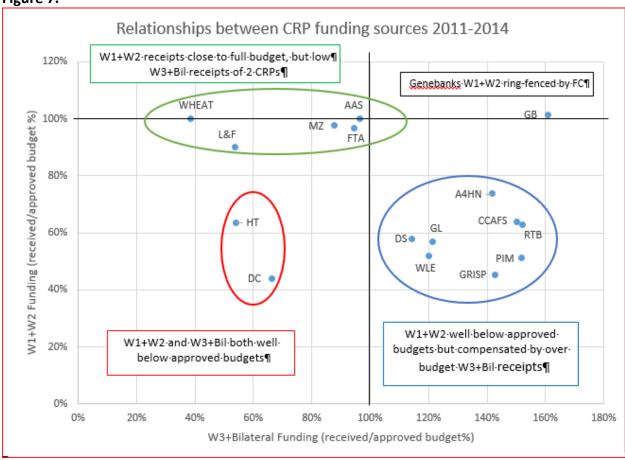
Figure 6.



Notes to Figure 6:

- 1. Seven CRPs (circled green) achieved over 90% approved total budget across a wide spread of W1+W2 received budgets – PIM and RTB compensated for low relative W1+W2 by W3+Bil over achievement.
- 2. Five CRPs (circled blue) achieved 75-90% total approved budgets, all below 65% approved W1+W2 receipts.
- 3. Four CRPs (circled red) had below 75% approved total budget, despite two CRPs,(WHEAT and L&F) achieving 100% and 90% W1+W2 approved allocations respectively.

Figure 7.

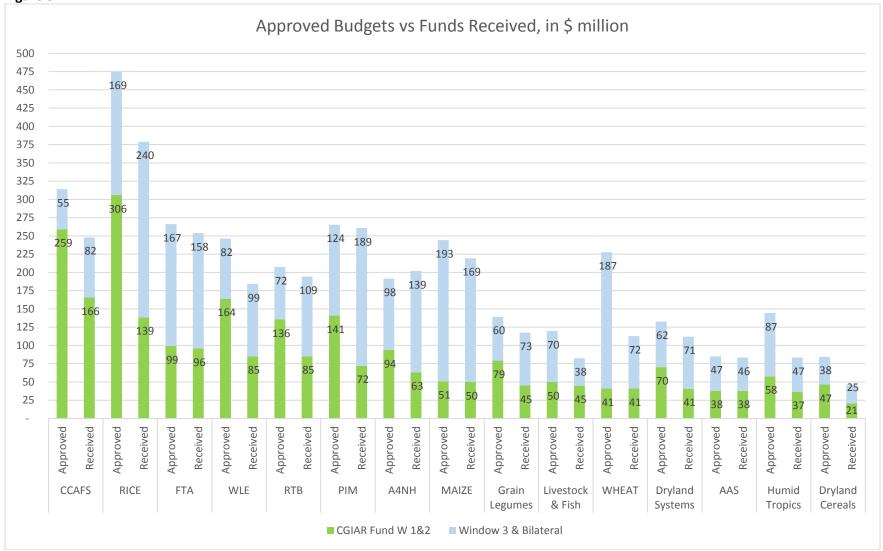


1.2.1 Interplay between W1 and W2 funding:

Moreover, not only did the CRPs vary widely in total approved budgets, but also the proportions of W1+W2 compared to the total approved budgets ranged from a high of 82% in the case of CCAFS to a low of 18% for WHEAT, with a mean of 52% across all CRPs (Figure 8). In absolute terms the approved W1+W2 budget of CCAFS (\$259m) was almost 7 times that of the smallest, AAS which had an approved W1+W2 budget of \$38m (Figure 8).

Such high variation across CRPs (Figure 8) regarding W1+W2 approved allocations does not appear to accord with any logical priority setting by donors in the relative weights given to Fund use. The sequential approval process did not give the opportunity to prioritize through funding allocations between CRPs. Hence approved budgets seem more an artefact of lead Centre historical funding levels rather than the future relevance and potential impact of the planned research.





The previous analysis and discussion has treated W1+W2 as a single co-mingled amount which is budgeted, allocated and disbursed to CRPs with no distinction made regarding the proportional distribution of W1 or W2 as independent sources of funding. This led to some CRPs receiving relatively little W1 allocations e.g. Livestock & Fish which received just 4% of its W1+W2 budget from W1 (Figure 9) because almost the entire W1+W2 approved budget was provided by donor designated W2 contributions.

Figure 9 illustrates the variability across CRPs, not only in terms of total W1+W2 approved budgets, but also in the proportional attainment of them, and the relative amounts of W1 & W2 funds received. Since W2 was always drawn down first this was clearly a determinant of W1 funds allocated in the case of CRPs that had fully funded W1+W2 budgets (MAIZE, WHEAT, AAS and L&F), but does not explain variation amongst CRPs that did not receive full W1+W2 budget allocations.

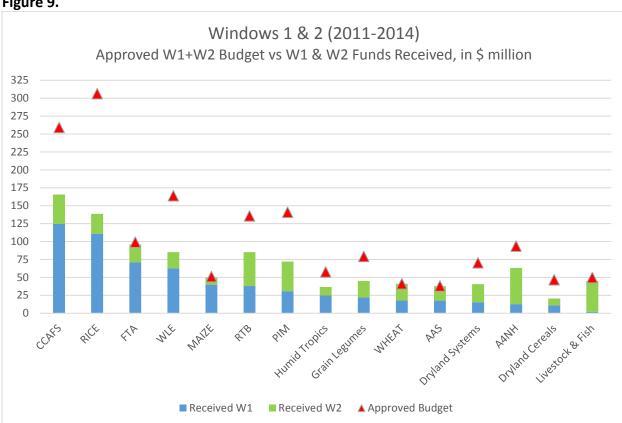


Figure 9.

Annual financing plans for allocating W1 funds were developed by the Consortium based on the availability of projected W1 & W2 funds and were provided to FC for information (not decision). It is possible that other factors such as size of W1+W2 approved budgets, availability of W3+Bilateral funds, absorptive capacity, work plans and performance of each CRP etc. could have also been taken into account in allocating W1 funds across CRPs.

One unforeseen consequence of the interplay between W1 and W2 was that Centres identified with donors contributing to specific CRPs through W2, and understandably sought to forge special relationships with them, to the extent that they considered themselves responsible for raising W2

funding and should therefore be given credit for it. Effectively lead Centres argued that those raising more W2 funds should not be penalized with reduced W1 allocations – a reversal of the original Fund concept. Since most programs were running below W1+W2 approved budget levels there was headroom for the Consortium to de-link W1 and W2 to some extent, thus reducing the perceived "penalty" on W1 of W2 contributions. In parallel some W2 donors expected their W2 contributions to be truly additive and not diluted by matching reductions in W1 allocations.

It is therefore unsurprising that the question of W1-W2 fungibility has been raised during current CRP2 discussions and there are valid points from both sides of the argument. Clearly those CRPs attracting above average W2 contributions would likely have differing views to those in receipt of proportionately less W2 funding. Equally, there are W1 donors who would prefer to contribute to a genuinely comingled Fund where their contributions support everything the CGIAR does; while there are others who consider their W2 contributions should have an additive effect.

This issue however could become less controversial as the proportion of W1 funds compared to W2 decreases thereby reducing the relative ability of W1 to contribute significantly to CRPs. As noted above, in 2015 both W1 and W2 each contributed 22% to Fund receipts. If this trend continues and the relative proportion of W1 with respect to W2 falls significantly further the question of W1-W2 fungibility becomes largely moot regarding CRPs, since W1 also has to cover system costs and approved special initiatives which further limits its capacity to contribute to CRPs.

What is clear is that any formal de-linking of W1 and W2 would change the fundamental nature of the Fund, and could alter donor preferences and allocative funding decisions – such potentially unknown consequences should be carefully considered before making any decisions.

1.2.2 Nature and purpose of W3 funding:

As mentioned earlier, W3 was intended to be a temporary facility to allow donors to continue providing unrestricted core funding to specified Centres as they transitioned to funding programs through W1 and W2.

However, since inception of the Fund it quickly became apparent that W3 was not being used to channel unrestricted core funding to Centres as institutional contributions, but rather, donors were using W3 to channel funds to contracted bilateral projects governed by side agreements. Since the responsibility of the Trustee was simply to pass W3 funds on to the selected Centre(s) at the request of donors, W3 became effectively identical to bilateral funding with three important differences: a) W3 donors are, by definition, Fund Donors and therefore eligible for Fund Council membership, b) W3 funds have the 2% Cost Sharing Percentage (CSP) deducted at source, before transfers are made to Centres in contrast to bilateral funds where CSP has been difficult to recoup once disbursed to Centres, and c) use of W3 funds should be integral to work carried out by CRPs, whilst in the case of bilateral funding this may be considered by recipient Centres as not part of any CRP.

There are no current major questions concerning W3, which at about 46% of the Fund receipts and representing 22% of total CGIAR spending (Figure 4, 2014 data), constitutes a significant funding channel used by some of the biggest Fund contributors. The only topic raised in recent discussions is whether W3 should be used for more downstream development focused activities. Many donors do use W3 to link CGIAR research with national and regional development programs they support, however making this a specific objective of the Fund and of all W3 donors is a larger question.

2. Did the Fund lead to more long term predictability of funding?

Even before establishment of the Fund CGIAR Centres habitually had to contend with uncertain future funding streams which required research planning in the absence of hard financial commitments of funders. The Fund was intended to rectify such uncertainty through multi-year contribution agreements (CAs) entered into between fund donors and the Trustee.

Funders were slow to establish multi-year CAs, however by 2013 there were 13 multi-year agreements in place which rose to 18 in 2014. These constituted around 40% of Fund receipts from 2013 to 2105 (Figure 10). This meant that more than half the Fund income remained unconfirmed at the start of each financial year and projections had to be based on past funder history and informal, non-binding, communications with them.

Table 3 and Figure 10 indicate how total Fund income at the start of each year was always lower than the final result, ranging from 62% projection in 2013 due to faster funding growth than anticipated resulting in the "funding bulge" in that year discussed earlier, and 88% in 2015 which was the most closely predicted.

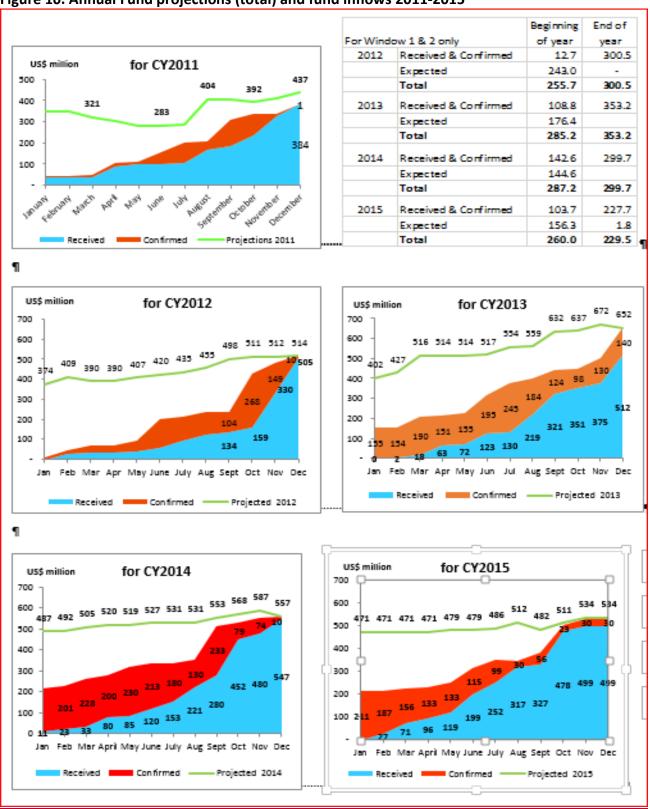
W1+W2 funding (Table 3) was more predictable than total Fund receipts in all years with the exception of 2015 when start of year prediction was 13% greater than actual receipts during the year.

Table 3. Predictability of Fund receipts by year

	Total	Fund Projection	n (\$m)	W1+W2 Fund Projection (\$m)							
Year	Start of	End of	Start/End	Start of	End of	Start/End					
	year	Year	(%)	Year	Year	(%)					
2011	350	385	90	n/a	n/a	n/a					
2012	374	514	73	256	301	85					
2013	402	652	62	285	353	81					
2014	487	557	87	287	300	96					
2015 (est)	471	534	88	260	230	113					

The green line in Figure 10 indicates how it was necessary to update predicted fund inflows almost monthly as information from funders was incorporated based on actual receipts, amendments to CAs were received from donors, and as more detailed and reliable informal funder information was forthcoming.

Figure 10. Annual Fund projections (total) and fund inflows 2011-2015



3. Did the Fund provide greater stability of funding?

It should be noted that prediction of W1+W2 funding is of greater relevance to CRP lead Centres than W3 which Centres are fully aware of through their associated bilateral agreements with funders. W1+W2 disbursements are programmed according to the annual FinPlan constructed by the Consortium based on predictions and modified accordingly throughout the year.

The pattern of Fund receipts and disbursements are shown in Figure 11 which indicates the effect of receipts being skewed toward the final 3-4 months of the year by disproportionately late disbursements to lead Centres. This effect was ameliorated somewhat up until 2015 by having sufficient Fund balance from the previous year (\$200m in 2014, Figure 11) to enable early disbursements the following year. However, during 2014 such reserves were drawn down to a greater extent, leaving only \$64m at the start of 2015, making it impossible for the Fund to disburse as early as in previous years.

4. Role and function of the Fund Council

The Fund Council was able to set research priorities and budgets of CRPs at the point of approving CRP proposals through formal Consortium Performance Agreements (CPAs) for each CRP entered into between the Fund Council and the Consortium Board. It was the Consortium's responsibility to construct an overall annual financing plan taking account of all sources of funding, and budget caps. This was provided to the Fund Council for information only (notably not for approval). The annual finance plan included W1 fund allocations to CRPs taking account of program designated W2 funds receivable.

As mentioned earlier Fund Donors did not respond to the call to enter into multi-year contributions to the Fund in sufficient numbers or volume of funding to provide even medium term predictability of funding. Consequently the total availability of resources in the Fund were not known with any certainty until towards the end of the year in which disbursements were taking place. Introduction of resource mobilization based on a replenishment system was first suggested to the Fund Council at FC7 in 2012 based on 3-5 year pledges. This suggestion was subsequently reiterated in external reviews (PwC Governance Review and the Mid Term Review) and discussed by the Fund Council on a number of occasions, including the most recent "fund drive" proposals but no decision was ever reached on adoption of this modality.

Although an *ad hoc* approach to resource mobilization as employed historically by CGIAR served to increase total funding, failure to establish more formal pledging methods exposed a weakness of the Fund Council in addressing the equally serious objectives of funding predictability and sustainability.

Figure 11. Fund balances, inflows and disbursements 2012-2015

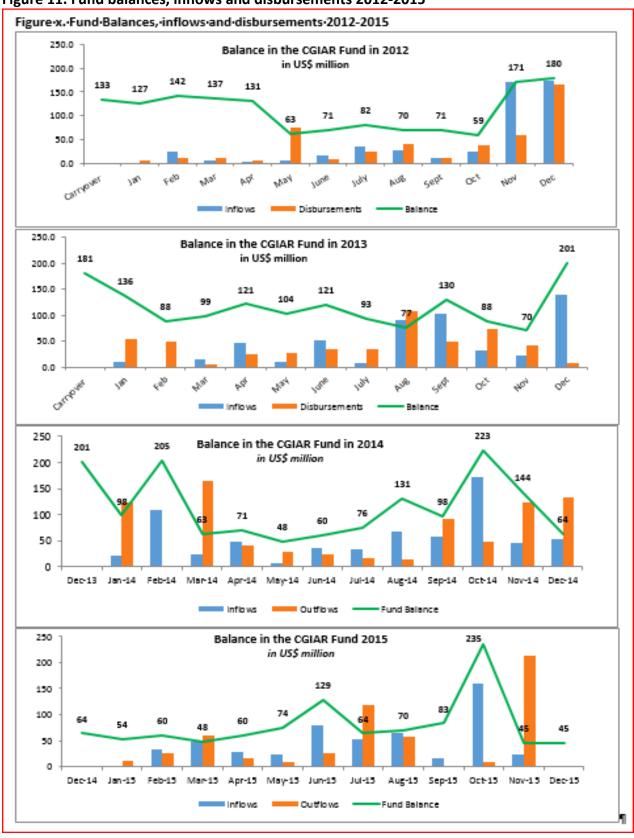
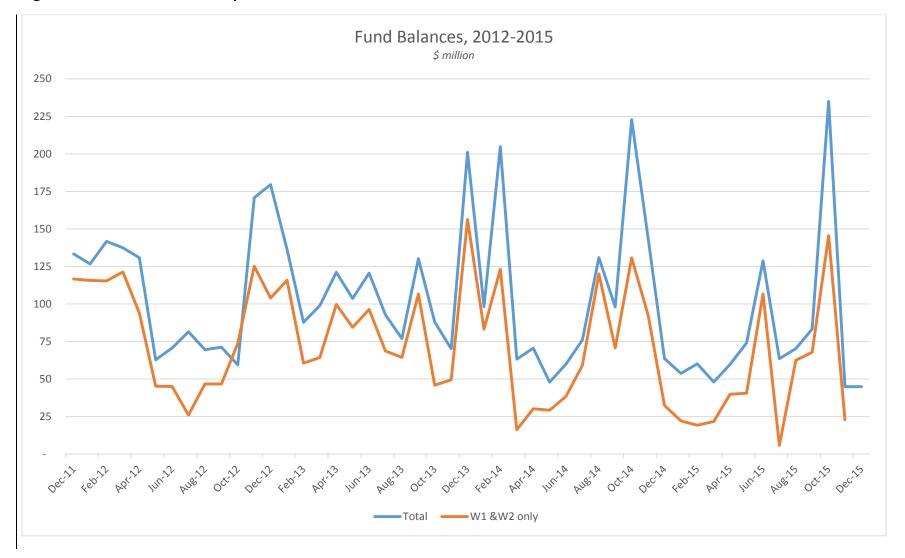


Figure 12 – Fund cash balance by month



Annex for information

CGIAR Contributions																										
\$ millions																										
		2011				2012							2013				2014					15 (estimate)				
	W1	W2	W3	Bilateral	Total	W1	W2	W3	Bilateral	Total	W1	W2	W3 I	Bilateral	Total	W1	W2	W3	Bilateral	Total	W1	W2	W3	Bilateral	Total	Total
		Receipts		Spend			Receipts		Spend			Receipts		Spend			Receipts		Spend			Receipts		Spend		
Unites States of America	0.5	24.1	9.0	59.6	93.2	0.5	28.0	94.6	64.0	187.1	1.5	30.5	116	59.52	207.5	0.75		101.1	38.26		0.5	19.2	144.52		164.22	658.1
United Kingdom	86.9	16.4		3.1	106.4	51.4		22.6	3.4	77.5	80.6		22.5	4.47	107.6	53.08		26.34	5.18		15.7	38.35	16.96		71.01	383.9
Bill & Melinda Gates Foundation	1.5		29.9	68.6	100.0		1.5	24.3	47.5	73.3	1.67		51.5	45.45	98.6	0.5		73.47	33.63	107.6	1.67		73.68		75.35	379.5
World Bank	100.0			4.8	104.8	50.0			3.8	53.8	50		45.0	3.1	53.1	47		44.00	1.53	48.53	30	0.74			30	260.2
Australia			6.9	22.4	29.3	8.8	20.5	11.3	21.0	61.6	2.7	6.3	15.8	23.3	48.1	5.06		14.23	15.61	46.71	4.17	9.74	9.42		23.33	185.7
Netherlands	5.4	2.5		6.7	14.6	5.8	30.0	2.0	6.7	44.5	11.4	30	15.9	5.01	62.3	11.4	30	1.92	4.82	48.14	11.4	30	7		48.4	169.5
Sweden	23.9		9.5	3.7	37.1	17.6	20.6		11.0	49.2	17.6	21.9		8.86	48.4	21.86			12.06	33.92	8.86				8.86	168.6
European Commission				20.9	20.9			21.0	16.8	37.8			37.5	23.69	61.2			6.67	14.58	21.25					0	141.2
Canada				7.4	7.4	15.6			9.6	25.2	14.2	19.7	0.4	13.64	47.9	12.66	2.75		12.38	27.79	8.23				8.23	108.3
Switzerland	5.9	4.6	5.1	9.1	24.7	6.5	6.7	1.9	10.9	25.9	6.2	9.3	2	11.18	28.7	6.01	10.93		9.98	26.92	6.2	9.81			16.01	106.2
Mexico				16.2	16.2		0.5	0.5	30.9	31.9		0.5	0.5	33.82	34.8				21.09						0	104.0
Norway	19.9			6.4	26.3	18.5			5.5	24.0	21.2			6.14	27.3	18.16			5.77	23.93	10.49				10.49	101.6
Germany				21.3	21.3				20.9	20.9				18.27	18.3				18.26	18.26					0	78.7
IFAD				21.8	21.8			2.6	12.7	15.3			0.5	12.05	12.6			4.05	8.21	12.26			6.344		6.344	61.9
Japan				12.9	12.9	0.1	0.7	1.0	7.9	9.7	0.2	1.4	18.6	5.67	25.9	0.05	0.13	5.95	4.11	10.24	0.3		5.48		5.78	58.7
Belgium				13.8	13.8		7.1	1.3	5.8	14.2		7.7	2.5	3.8	14.0		7.88	1.97	1.73	11.58		6.96	1.74		8.7	53.6
India				10.2	10.2	0.7	0.6	1.8	7.2	10.3	0.7		4.6	8.63	13.9	0.75		5.29	7.14	13.18	0.73		5.38		6.11	47.6
Ireland	1.3	1.3		6.2	8.8		1.9	3.4	4.5	9.8		2.7	2.9	5.71	11.3		2.7	2.97	6.57	12.24		2.81	1.05		3.86	42.1
Finland	1.3	1.3	1.3	1.1	5.0	1.3	1.3	1.3	1.0	4.9	1.3	1.3	1.3	6.87	10.8	1.27	1.27	1.27	7.64	11.45	1.08		1.08		2.16	32.1
Denmark	5.5			0.3	5.8	3.1	3.0			6.1	3.1	3.1		0.64	6.8	6.36			0.79	7.15	5.32				5.32	25.9
China		0.1	1.5	2.3	3.9		0.1	2.7	1.8	4.6		0.1	2.9	2.04	5.0		0.15	2.85	2.27	5.27		0.15	2.85		3	18.8
IDRC		1.5		2.5	4.0		8.0			8.0		0.5		4.25	4.8				1.72	1.72		2.72			2.72	18.4
Nigeria	0.3		0.1	1.5	1.9	0.6		0.1	2.9	3.5	0.2			4.45	4.7				5.87	5.87					0	15.9
Russia	2.0	4.0	2.5		8.5	0.5	1.5	1.8		3.8		1.2	1		2.2		0.52			0.52					0	15.0
FAO				4.1	4.1				2.7	2.7				1.99	2.0				4.25	4.25					0	13.0
New Zealand	2.0			0.4	2.4	2.0				2.0	1.9				1.9	2.15	4.3			6.45	1.92	0.77			2.69	12.7
France	1.7			0.8	2.5	1.2				1.2	1.6			2.21	3.8	1.48				1.48	1.56				1.56	9.0
Italy	1.1		0.9	0.6	2.5						0.5		0.6	2.36	3.5				1.69	1.69					0	7.7
Austria				2.7	2.7					-				2.06	2.1			1.8	1.07	2.87			1.93		1.93	7.6
Korea	0.3			1.5	1.8	0.3				0.3	0.3			1.47	1.8	0.31			2	2.31	0.26				0.26	6.2
Luxembourg			0.8	2.5	0.8	0.3		0.4		0.6	0.3		0.4	0.27	1.0	0.3		0.38	-	0.68	0.24		0.3		0.54	3.1
Morocco			0.5	0.3	0.8	0.5		0.7		-	0.5		0.4	0.27	-	0.5		1.5	0.2		0.24		0.0		0.54	2.5
Portugal		0.2	0.3	0.2	0.7			0.6		0.6			0.1	0.34	0.4			0.52	0.18	0.7			0.5		0.5	2.4
Iran		0.2	0.3	0.7	0.7			0.96		1.0			0.1	0.54	-			0.52	0.13	0.63			0.5		0.5	2.3
South Africa		0.1	0.4	0.7	0.6			0.50		1.0		0.1	0.4	0.28	0.8		0.06	0.8	0.15	0.03		0.06	0.58		0.64	2.3
Spain	0.5	0.1	0.4	1.0	1.5			0.5		0.5		0.1	0.4	0.26	0.8		0.00	0.0	0.03	0.91		0.00	0.50		0.04	2.3
Turkey	0.3		0.5	0.2	0.7			0.5		0.5			0.5	0.00	0.5			0.5	0.01	0.01			0.5		0.5	2.2
Sudan			0.0	0.2	0.7			0.5		0.5			0.5		0.5		0.1	0.3		0.5		0.1	0.39		0.49	0.5
Thailand			0.1	0.1	0.2			0.1		0.1			0.1		0.1		0.1	0.4		0.5		0.025	0.075		0.49	0.5
				0.1																		0.025				
Bangladesh Abu Dhahi			0.1		0.1			0.1		0.1			0.1		0.1			0.1		0.1		0.1	0.1		0.1	0.4
Abu Dhabi				175.5	175.5				102.2	102.2				101.4	101.4				100.00	100.00		0.1	0.4		0.5	720.2
Others				175.5	175.5				183.2	183.2				181.4	181.4				188.02	188.02					U	728.2
Total contributions	260.0	56.1	69.3	511.0	896.4	184.7	132.0	197.3	481.7	995.7	217.2	136.3	298.8	503.0	1,155.3	189.2	110.6	254.7	436.8	991.3	108.63	120.795	280.279	0	509.704	4,038.6