

Forest Carbon Partnership Facility (FCPF) Carbon Fund

FY20 Budget Status and FY21 Proposed Budget for the FCPF Carbon Fund

June 2020

This note is designed to (a) present the status of the FY20 budget and (b) present the proposed budget for FY21 of the Carbon Fund for virtual approval by the Carbon Fund Participants and includes the Appendix with the Matrix of Comments and FMT Responses.

1. The Budget Cycle

The timing for FCPF budgets – for both the Readiness Fund (RF) and Carbon Fund (CF) – are based on the World Bank fiscal year (July 1 - June 30), with FY20 starting July 1, 2019. Per the Charter, budgets are approved annually. The Carbon Fund budget is approved by the Carbon Fund Participants (CFPs). In light of COVID-19 and the cancellation of the FCPF Carbon Fund meeting planned for June 2020, the **FY21 budget of the Carbon Fund is submitted and proposed for a virtual no-objection to the Carbon Fund Participants through an “Action Without Meeting”**, under section 12.5 (b) of the Charter.

The FCPF Carbon Fund budget is built around two core activity types. Those are Carbon Fund Administration and ERPA Costs.

- a. The **Fund Administration** work consists of functions related to the World Bank’s role as Trustee of the Carbon Fund, including:
 - Fund strategy and management, fundraising
 - Preparing budgets, business plans and longer-term financial projections (sources and uses)
 - Legal guidance on Methodological Framework, General Conditions and Legal Agreements
 - Accounting, resource management, contracting, contributions management
 - Carbon Fund Meeting costs, including costs of organization and logistics
 - Preparation of Annual Report and semi-annual monitoring and reporting
 - FMT staff time spent on Carbon Fund activities, programs and stakeholders
- b. The **ERPA Costs** category contains the bulk of the operating budget as it supports the selection and development of ER Programs and costs of supervision of ERPAs. There are three main categories of ERPA costs envisaged as follows:

ERPA Costs – Selection & Development of ER Programs:

- Support to CF Participants in the ER Program selection process
- Assistance to REDD Country Participants in preparing ER Programs
- Due diligence for World Bank operational policies and procedures (including social and environmental safeguards)
- Drafting of ERPA for the ER Program, based on the General Conditions and pricing/valuation approaches agreed by the PC
- Development phase usually comes to an end upon signature of an ERPA (starting the next phase of supervision and implementation support); or in some cases, if an ERPA is not agreed, when the ER program is dropped from the portfolio

ERPA Costs – Supervision and Implementation Support:

- Implementation support to assist REDD Country Participants in keeping ER programs on track
- Supervision activities to help ensure that the ER program complies with applicable World Bank operational policies and procedures as well as specific ERPA provisions

ERPA Costs – Carbon asset creation, monitoring, verification and issuance:

- ‘Validation’ of ER program and systems in place for emissions reductions
- Support to REDD Country monitoring of ERs and preparation of monitoring reports
- Support to and costs of independent verifications of ERs
- Making payments and maintaining accounts for ERs delivered to the Tranche(s) and Participants of the Carbon Fund

2. Shared Costs

Upon the set-up of the FCPF an agreement on ‘Shared Costs’, that is costs of activities that cut across both the Readiness Fund and Carbon Fund, was agreed. The agreed split is that those costs are covered 65% by the Readiness Fund 35% by the Carbon Fund (per the FCPF Charter). Since the Carbon Fund was only in the early stages of development, it was agreed that the Shared Costs were only to be borne by the Carbon Fund from July 1, 2011. ‘Shared Costs’ have included in practice the activities paid out of the FCPF Secretariat and REDD Methodology Support functions.

The budget for these two cost categories, and hence for Shared Costs, is approved by the Participants Committee (PC). To ensure that costs are contained, an overall cap of \$12 million that can be charged to the Carbon Fund for Shared Costs over the lifetime of the Fund was also established (Approved by the PC through Resolution PC/8/2011/8). Any additional Shared Costs in excess of \$12 million over the lifetime of the Readiness Fund will therefore be wholly charged to the Readiness Fund. With the extension of the Readiness Fund to December 2022, Shared Costs are estimated to be approximately \$13 million over the lifetime of the Readiness Fund. If this is the case, this will result in a charge to the Readiness Fund (in lieu of the Carbon Fund) of approximately \$350k (35% of the additional \$1 million).

3. Fund Contributions

The current capitalization of the fund is \$870.1 million.

Table 1. FCPF Carbon Fund Contributions as of May 15, 2020

FCPF Carbon Fund														
Donor Contributions as of May 15, 2020 (in \$ thousands)														
Participant Name	Total	Outstanding*	FY20	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09
Australia	18,392										5,658	12,735		
BP Technology Ventures	5,000											5,000		
Canada	5,015										5,015			
European Commission	6,709												362	6,347
France	5,114							114				5,000		
Germany	321,295		55,974	57,265	29,616	54,771	13,329	32,108	27,280	6,556	15,443	21,125	3,819	4,009
Norway	297,087		27,166	27,618	12,640		58,352			161,310				10,000
Switzerland	10,796										10,796			
The Nature Conservancy	5,000													5,000
United Kingdom	177,182	67,089	92,153										17,940	
United States of America	18,500					4,500				4,000		10,000		
Committed Funding	870,090	67,089	175,292	84,883	42,256	59,271	71,681	32,222	27,280	171,866	36,912	71,800	4,181	25,356

*Amounts may vary due to exchange rate fluctuations.

4. Common Costs

Common costs are the costs that are not specific to one Tranche i.e., they are to be borne jointly by the two Tranches. Since both Tranches have made decisions jointly to date, except for with regard to the Nicaragua ER Program, Common Costs include all costs to date and all FY21 budgeted costs, excepting the costs relating to the Nicaragua program from the date of the Nicaragua ER program resolution (July 11, 2019). It was agreed at CF4 in Santa Marta, Colombia in June 2012 that Common Costs would be apportioned between the Tranches (and between the Participants) on a pro rata share based on signed commitments at First Closing (shortly before signing first ERPA). Current pro rata apportionments, based on contributions as at May 15, 2020, would be as follows:

Table 2. Carbon Fund Pro Rata Apportionments (US\$000)

Participant Name	Total	%age
Tranche A		
Australia	18,392	2.1%
BP Technology Ventures	5,000	0.6%
The Nature Conservancy	5,000	0.6%
United States of America	18,500	2.1%
Tranche A Committed Funding	46,892	5.4%
Tranche B		
Canada	5,015	0.6%
European Commission	6,709	0.8%
France	5,114	0.6%
Germany	321,295	36.9%
Norway	297,087	34.1%
Switzerland	10,796	1.2%
United Kingdom	177,182	20.4%
Tranche B Committed Funding	823,197	94.6%
Total Committed Funding	870,090	100%

5. Approved FY20 Budget

The Carbon Fund Participants (CFPs) approved the following operating budget of \$9.1 million for FY20 (CFM/20/2019/6). Subsequently the PC approved the Shared Costs budget for the facility as a whole, which translated into a Shared Costs budget for the Carbon Fund for FY20 of \$1.5 million. The total Carbon Fund budget for FY20 was therefore about \$10.7 million as shown in Table 3 below.

Table 3. FCPF Carbon Fund Overall FY20 Annual Budget (Operating Costs in US\$000)

Carbon Fund Costs (\$000s)	FY20 Budget
Carbon Fund Admin	1,414
ERPA Costs – Selection & Development of ER Programs	
Carbon Fund TAP	251
Carbon Fund Country Advisory Support	2,772
Program Development - enhanced ER-PIN/PDs	1,945
ERPA Costs - Supervision	1,740
Additional Activity on Registries	1,000
Sub-total	9,122
Shared Costs	1,529
Total Carbon Fund Costs	10,651

6. Total Expenses to Date (As at April 30, 2020)

Below is an overview of costs of the Carbon Fund from inception to date, including costs not charged to the CFPs shown in the two top shaded rows.

Table 4. Expenses to Date (in US\$'000 as at April 30, 2020)

Budget Line/Category of Costs (\$000s)	Pre-FY09	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20 Estimate	FY21	Total
Development Costs absorbed by WB	2,350														2,350
Shared Costs paid by the Readiness Fund		635	1,728	1,262											3,625
Shared Costs paid by the Carbon Fund		-	-	-	1,069	1,236	1,159	821	797	1,172	1,128	1,211	890	1,590	11,073
Carbon Fund Administration			183	366	470	652	626	741	555	657	696	864	775	1,371	7,956
Additional Activity on Private Sector Engagement											162	371	-	-	533
Additional Activity on Registries												100	750	714	1,564
Validation/Verification Costs														461	461
ERPA Costs - Selection															
Carbon Fund TAP								23	440	514	463	533	49	-	2,022
ERPA Costs - Development															
Carbon Fund Country Advisory								350	1,290	1,691	2,331	2,396	1,727	1,927	11,711
ER-PD Development						229	273	910	2,351	2,585	2,347	2,301	1,096	1,117	13,208
ERPA Costs - Supervision											-	-	177	2,438	2,615
Total			183	366	1,539	2,117	2,058	2,846	5,432	6,619	7,126	7,777	5,464	9,617	51,144

It is worth noting that:

- The World Bank paid \$2.35 million for FCPF development costs (from early design meetings in 2006 through June 2008)
- The Readiness Fund has waived and paid \$3.6 million to cover what would have been the 35% of Shared Costs for the Carbon Fund from FY09 to FY11
- Expenses forecast to be charged against the Carbon Fund from FY10 to FY21 are \$51.1 million, of which \$11 million are for shared costs.

7. Forecast Spend for FY20

Final FY20 expenditures will be reflected in the Annual Report to be prepared by the time of the Participants Assembly (PA). With the FY20 books not closing until June 30, 2020, the estimated expenditures are tentative.

Table 5. Estimated Spend for FY20

Carbon Fund Costs (\$000s)	FY20 Budget	FY20 Estimate	Underspend	Spend Rate
Carbon Fund Admin	1,414	775	639	55%
ERPA Costs – Selection & Development of ER Programs				
Carbon Fund TAP	251	49	201	20%
Carbon Fund Country Advisory Support	2,772	1,727	1,045	62%
Program Development - enhanced ER-PIN/PDs	1,945	1,096	849	56%
ERPA Costs - Supervision	1,740	177	1,563	10%
Additional Activity on Registries	1,000	750	250	75%
Sub-total	9,122	4,574	4,547	50%
Shared Costs	1,529	890	639	58%
Total Carbon Fund Costs	10,651	5,464	5,186	51%

8. Overspends and Underspends

The FY20 spend is projected to be 51% of the total FY20 allocated envelope once the final figures are available.

The underspend of about \$4.5 million out of the total budget of \$9.1 million is mostly accounted for by the low spend on administration, ERPA cost supervision, and Carbon Fund Country Advisory Support. Please see rationale below:

a. Carbon Fund Administration

Fund Administration costs are estimated to be around 55% of budget. The main contributing factor is lower than expected spend on meeting expenses.

b. Carbon Fund TAP

Total Carbon Fund TAP costs are estimated at 20% of budget. The FY20 budget was based on reviews of an estimated 2 ER-PDs including in-country trips by the TAP team members.

c. Carbon Fund Country Advisory Support

The budget for Country Advisory Support was about \$2.8 million. The FMT has provided the anticipated level of support as 18 countries work to develop ER-PDs and/or sign ERPAs. The estimated spend is 62% of budget.

d. ERPA Costs – Enhanced ER-PDs

The budget of \$1.9 million was an estimated spend during FY20 from the \$650k allocations made to programs entering the Carbon Fund pipeline and signing a Letter of Intent (LoI). The budget was made up of the estimated unspent allocation to the countries that were invited to join the CF Pipeline in FY17 and 18.

Of the countries selected into Carbon Fund pipeline, only those that sign an LoI gain access to the \$650k allocations for ER-PD development. Of the 19 countries invited into the pipeline of the Carbon Fund, all 19 had signed LoIs, thus releasing the \$650k of ER-PD Development

funds. Many of those countries have spent on ER-PD development in FY20, with the exception of those countries that had already exhausted their allocation. Of the \$1.9 million budgeted for FY20, it is estimated that about \$1 million (or 56%) will be spent in FY20. It should be noted that costs were incurred on development of the Cameroon program before it was decided to not select it into the portfolio.

e. ERPA Costs – Supervision

Budget was planned for ERPA Supervision costs to eliminate the need to come back to the CFPs for additional budget once ERPAs were signed. ERPA Costs Supervision were lower than initially planned given that only four programs have signed ERPAs for which expenses towards supervision have been incurred.

f. Additional Activity on Registries

The CFPs approved \$1 million for work on Registries. The estimated spend is 75% of budget. Significant progress has been made on the development of Phase 1 of the Central Transaction Registry, Carbon Assets Tracking System (CATS).

g. Shared Costs

As explained in section 2, Shared Costs are directly related to the Readiness Fund expenses in two key cross cutting areas: FCPF Secretariat and REDD Methodology Support costs. Since the Readiness Fund expenses are estimates at this time, the Shared Costs for the Carbon Fund are also estimates and may change when the final FY20 expenses are recorded. The current estimate projects expenditure to be within budget at \$890k.

9. Sources and Uses as of April 30, 2020

The overall financial status of the fund is healthy. As shown in Table 6, of the total contributions of \$870.1 million, about \$803.4 million is available for the purchase of ERs. Estimated costs of the Fund over its lifetime are \$66.7 million, or about 8% of the total funds. The average ER amount per program is projected to be \$44.6 million, assuming 18 programs are developed (i.e. not including Cameroon).

Table 6. State of the Fund - April 30, 2020

Carbon Fund Sources and Uses Summary (\$m)	
	Current Situation
Sources (\$m)	870.1
Number of Lols (#)	18
Number of ER Programs (#)	18
Uses	
Costs over Fund Lifetime	
Fixed Costs (FY10 to FY26)	22.7
ER Program Costs	44.0
Total Costs	66.7
Available for Purchase of ERs	803.4
Average ER Program	44.6

10. FY21 Budget Proposal**Table 7. FY21 Proposed Budget by Activity**

Carbon Fund Costs (\$000s)	FY20 Budget	FY20 Estimate	FY21 Proposed Budget
Carbon Fund Admin	1,414	775	1,371
ERPA Costs – Selection & Development of ER Programs			
Carbon Fund TAP	251	49	-
Carbon Fund Country Advisory Support	2,772	1,727	1,927
Program Development - enhanced ER-PIN/PDs	1,945	1,096	1,117
ERPA Costs - Supervision	1,740	177	2,438
Validation/Verification Costs			461
Additional Activity on Registries	1,000	750	714
Sub-total	9,122	4,574	8,027
Shared Costs	1,529	890	1,590
Total Carbon Fund Costs	10,651	5,464	9,617

The proposed overall budget for FY21, excluding Shared Costs, is about \$8 million, indicating a reduction of about \$1.1 million from the FY20 budget. The decrease being mostly attributed to lower program development costs of ER-Program Documents (ER-PDs) and country advisory support. The FY21 proposed budget reflects the goal of signing additional ERPA's in the coming months and moving into the supervision phase.

a. Carbon Fund Administration

As shown in Table 7, the Carbon Fund Administration budget of \$1.3m reflects an increase when compared with the forecast expenditure for the FY20 of \$775k. This reflects the higher number of staff needed to support the increasing work under the Carbon Fund. In addition, with many countries past the ER-PD stage and moving towards ERPA, FMT depth has increased to support the ERPA negotiations process and monitoring of progress on the ERPA conditions of effectiveness.

- b. Country Advisory Support** comprises staff time and travel in providing support to countries developing their ER programs. In FY21, almost all the remaining countries in the Carbon Fund that have not yet signed ERPAs and will require support to finalize their programs with the aim to sign ERPAs in the first half of FY21. This budget for the Country Advisory Support cost category in the amount of \$1.9 million is intended to enable the provision of this support.

c. Program Development - Enhanced ER-PINs/PDs

The funds allocated for Program Development - Enhanced ER-PINs/PDs are designed to support the remaining 14 REDD Countries that are yet to sign ERPAs. The budget is based on the agreement that each country may avail itself of \$650k in support funds for the preparation and finalization of their ER-PD and proceeding to ERPA signature, after selection into the CF pipeline and signing an Lol. The budget for FY21 of \$1.1 million is an approximate amount based on the anticipated ER-PD Development funding needs for the current 14 countries.

d. ERPA Costs – Supervision of ER Programs

As countries get closer to signing ERPAs, the teams must plan for proper oversight of those arrangements. Because it is anticipated that most of the countries will reach this milestone by the end of November, 2020, funds have been set aside to cover the work of the supervision activities to help ensure that each ER program complies with applicable World Bank operational policies and procedures as well as specific ERPA provisions. For FY21, \$2.4m have been budgeted for this work.

e. Validation/Verification Costs

The FY21 Budget proposal includes about \$0.5 million for validation and verification costs.

f. Additional Activity on Registries

Significant progress has been made on the development of the Central Transaction Registry, Carbon Assets Tracking System (CATS). This budget of \$0.7m is an estimate to ensure funds are available to enable the registry team to i) ensure proper communication and dissemination of information on the registry, ii) potentially provide linkages between different registries and iii) the potential use of the designed and coded Blockchain prototype, if agreed.

- g. The FY21 Shared Costs** budget of \$1.6 million for the Carbon Fund is submitted for approval by the PC as part of the approval of the FY21 budget for the Readiness Fund.

11. Virtual no-objection to the Carbon Fund Participants through an “Action Without Meeting”.

The Carbon Fund Participants are asked to virtually approve the proposed Carbon Fund budget for FY21 of \$8 million, including the proposed Additional Activities on Registries, and to note the CF portion of the Shared Costs of \$1.6 million.

Appendix

Matrix of Comments and FMT Responses

Comment	FMT Response
FY20 Budget	
<p>Country Advisory Spend: The budget for this was ~\$2.8m, and FMT has estimated spend to be around 62% of budget. This means there is a 38% underspend. The explanation provided within the document is unclear on the reasons for this significant underspend. If we take the budgeted amount to represent the “anticipated level” of support, we do not feel a 38% underspend is an adequate reflection of providing this. Could the WB expand on why the budgeted support was not used/reasonings for underspend here? Was this related to timelines/delays in activities, or countries needing less support than anticipated?</p>	<p>Please note the general principle in preparing FCPF budgets of proposing an authorized budget, that is the maximum expenditure permitted without referring back to the Carbon Fund Participants for further authorization during the year. The “anticipated level” of support was with the intent of having all ERPAs signed by the end of June 2020. Now, we envisage most, if not all, ERPAs being signed by the end of November 2020. Thus, there has been some slippage in the “anticipated level” of support required. Much of this slippage is due to the COVID-19 outbreak and will be carried over to FY21.</p>
<p>TAP underspend: It is unclear why the budgeted costs were not delivered, - could the WB expand on the 80% underspend here?</p>	<p>The FY20 budget was based on TAP reviews of an estimated 2 ER-PDs (Guatemala and Nicaragua), including in-country trips by the TAP team members. These TAP reviews were completed in the previous year, FY19, after the FY20 budget was prepared. However, some TAP costs relating to TAPs conducted in FY19 were actually charged in FY20.</p>
<p>Shared costs: Could the WB expand on why there is a 42% underspend in this component, as the current explanation is inadequate to explain this. It is unclear why the two cross-cutting areas (Methodologies and Fund management) would be estimated to be spending less than assumed.</p>	<p>Shared Costs charged to the Carbon Fund simply equate to 35% of the spend on FCPF Secretariat and REDD Methodology Support costs in the Readiness Fund. FCPF Secretariat costs were budgeted at \$2.8 million, whilst the estimated spend was \$1.7 million. REDD Methodology Support costs were budgeted at \$1.6 million, whilst the estimated spend was \$0.9 million. The reasons for these underspends were explained in the Readiness Fund budget note from June 2020 (FMT Note 2020-1) as follows: For FCPF Secretariat costs - The main contributing factor is the COVID-19 outbreak, with the cancelled PC meeting originally planned for the spring of 2020 and some of the activities planned for Communication and Knowledge Management are now delayed and will be carried over to the FY21. For REDD Methodology Support - This lower expense rate is attributed to two main factors: a lower than expected spend on the TAP due to fewer than anticipated R-Packages; and, delayed work on the activities for Gender Inclusion in Forests and Landscapes.</p>

FY21 Proposed Budget

Carbon Fund Administration: The budget of \$1.3m for FY21 is similar to budgeted amount for FY20 (\$1.4m); however, there is significant underspend in FY20 reportedly due to lower than expected meeting expenses. Given Covid-19 restrictions we'd expect to see the same underspend situation in FY21 – and thus, would we not expect to see the budget decreasing – (could the WB expand on the scale of meeting expense reductions, and proposals for any potential continued/future virtual working)?

- **The higher admin budget** “reflects the higher number of staff needed to support the increasing work under the Carbon Fund”. While we are supportive of more FCPF staff, we would be interested to know in what ways exactly work is increasing, e.g. what are the functions of these new staff? It is not clear from the information provided why overall burden is increasing, as opposed to some previous phases dropping off and new ones picking up.

Following the general principle of proposing an authorized budget, the FY21 Budget Proposal includes an allocation for meeting costs in case we convene face-to-face meetings. We do not want to refer back to CFPs for additional budget if face-to-face meetings become possible. However, we anticipate virtual meetings continuing for some time and would therefore anticipate an underspend. The Carbon Fund Administration budget includes a budget of \$200k per meeting. The FMT was requested by the PC in November 2019 to draft an FMT Note laying out options for the frequency and modality of future PC meetings for decision. This is recorded in the Chairs Summary from that meeting. Of course, meeting modalities have changed since then as a result of COVID-19. The FMT has also looked at options for future Carbon Fund meetings, in conjunction with the PC/PA meetings, and plans to share a note with participants for meetings across the Facility as a whole.

With regard to a higher number of staff, the fund administration work consists of functions related to the World Bank’s role as Trustee of the Carbon Fund. Additional staff time is needed in this function to support the ERPA negotiations process, monitoring and verifying that ERPA Conditions of Effectiveness have been properly met, and then support on the whole process for Monitoring Reports and payments for ERs.

ERPA costs – supervision: It is anticipated that most countries will reach this milestone by end of November, 2020 and funds have been set aside to cover the work of the supervision activities to ensure that each ER programme complies with applicable WB operation policies and procedures. As this is going to be growing budget line going forward, we would appreciate some more information on what it comprises. This does not necessarily have to be numbers but could provide further information. For example, what volumes and types of staff, and activities, does the WB expect this to entail? We would be interested to compare this to the requirements for the ‘advisory’ budget line which we’ll see being phased out. This would help us to put in context the underspend report in Table 5 as well; noted that fewer ERPAs were signed, but were the costs-per-ERPA as budgeted or not?

The ERPA costs – supervision budget for FY21 includes budget for 18 programs moving into the supervision phase (i.e. signing ERPAs). This budget covers staff in task teams primarily from the World Bank’s Environment Global Practice and the World Bank’s Social Development Global Practice. Typically, task teams comprise at a minimum a Task Team Leader (TTL), an Environmental Safeguards Specialist and a Social Safeguards Specialist, as well as a Financial Management Specialist. The activities covered here are in essence program supervision and implementation support, ensuring all requirements of the program, ERPA, benefit sharing plan, reporting and safeguards are met. The Program Development budget line should be phased out when all ERPAs are signed. With regard to costs per ERPA there is an agreed allocation of \$650k for each ER Program from LOI signing to ERPA signing.

	<p>This is spent at differing rates for different ER Programs but we do not analyse this spend compared to progress; we calculate the unspent balance and assume it will be fully expended by the time of ERPA signing.</p>
<p>Validation and verification costs: On the \$0.5m for validation and verification, could the WB provide additional information on these costs? (e.g. amount of verifications expected, comparison to future years' verification costs, length of single firm contracts, will verification partners be 'paid by results'?)</p>	<p>The \$461k budget includes an estimate for 3 verifications at an estimated cost of \$120k per verification, plus the estimated FMT costs of organizing and supervising verifications. These are the first verifications of this kind and we will therefore get a better estimate of real costs when the first couple of verifications have been completed. Future year verification costs will increase significantly when all ERPAs are signed and more Monitoring Reports become due. Since these are the first verifications of this kind we are beginning with contracts with individual firms for a single verification. Verification contracts will include target dates for deliverables and a closing date, all agreed with the Validation and Verification Body (VVB), but there will be an option to extend the term of the contract if necessary. VVBs will be paid according to the payment schedule in the contract which will indicate intermediate deliverables, culminating with a final payment for delivery of the final validation and verification report. If by "will verification partners be 'paid by results'" the question is referring to the verified ERs then no, VVBs are NOT paid according to the number of verified ERs. However, larger programs or larger quantities of ERs could indicate greater complexity and hence higher cost of verification.</p>