

## **ANNEX 7**

### **BUFFER CALCULATIONS**

### **SUMMARY DOCUMENT**

## **REDD+ RESULTS-BASED PAYMENTS IN PARAGUAY FOR THE PERIOD 2015-2017**

**September 2019**



## Introduction

This annex describes the estimations of the size of a potential buffer for Results-based payments for Paraguay. The calculation has followed the buffer guidelines of the Forest Carbon Partnership Facility (FCPF).

These guidelines build on the premise that emission reductions (ERs) are affected by both uncertainty and reversal risks, where “uncertainty” refers to the possibility that observation methods and data may have overestimated the volume of ERs for the reporting periods and “reversals” refers to the possibility that future events may cause forest carbon emissions to increase (and therefore reduce the total number of ERs achieved).

To counteract uncertainties and risks, the FCPF relies on three separate buffer reserve accounts. These are:

- An ‘Uncertainty Buffer’ to account for the risk that the emission reductions were overestimated in prior reporting periods;
- A ‘Reversal Buffer’ to account for the risk of future potential reversals; and
- A ‘Pooled Reversal Buffer’, which is a contribution to a portfolio of ER projects and accounts for risks at the portfolio level.

The remaining sections of this note provide the estimation of the size of each of these buffers.

## Uncertainty buffer

The size of the uncertainty buffer is a function of the aggregate uncertainty of the total ERs. This is reflected into a “Conservativeness Factor” as shown below:

**Table 1:** aggregate uncertainty and conservativeness factor

Aggregate Uncertainty of Total ERs	Conservativeness Factor
≤ 15%	0%
> 15% and ≤ 30%	4%
> 30% and ≤ 60%	8%
> 60% and ≤ 100%	12%
> 100%	15%

Source: FCPF

The total aggregate uncertainty of the ERs that Paraguay offered to the GCF is 23%, which would translate into a Conservativeness Factor (CF) of 4%. The FCPF guidelines indicate that the CF should be multiplied by the total ERs to obtain the contribution to the Uncertainty Buffer.

However, the scorecard of the GCF already discounts for uncertainties and overestimations both in the definition of the FREL and in the reporting of ERs. The accredited agency (AE) understands that accounting for aggregate uncertainties in the buffer would amount to a double discount. One done by the application of the scorecard and a second by the application of the conservativeness factor. It is also noted that the discount originating in the GCF scorecard can be significant and in the case of Paraguay it may be clearly above the 4% that would have accrued following the FCPF buffer guidelines.

## Reversal Buffer

Reversals can originate in both natural disturbances such as fires or draught, and by human activities, such as the relaxing of enforcement mechanisms against deforestation. The FCPF guidelines apply a “Reversal Risk Assessment Tool” to determine Reversal Risk Set-Aside Percentages as stated in Table 2 below. The full Reversal Risk Set-Aside Percentage for the whole ER Program is calculated as the sum of the Reversal Risk Set-Aside Percentages for each of the Risk Factors.

**Table 2:** estimation of reversal risk set-aside percentages

Risk Factors	Examples of Risk Indicators	Default Reversal Risk Set-Aside Percentage	Discount (increment)	Resulting Reversal Risk Set-Aside Percentage
A. Lack of broad and sustained stakeholder support	Are stakeholders aware of, and/or have positive experience with FGRM, benefit sharing plans etc. or similar instruments in other contexts?  Have occurrences of conflicts over land and resources been addressed?	10%	Reversal Risk is considered high: 0% discount; OR	10%
			Reversal Risk is considered medium: 5% discount; OR	5%
			Reversal Risk is considered low: 10% discount	0%
B. Lack of institutional capacities and/or ineffective vertical/cross sectoral coordination	Is there a track record of key institutions in implementing programs and policies?  Is there experience of cross-sectoral cooperation?  Is there experience of collaboration between different levels of government?	10%	Reversal Risk is considered high: 0% discount; OR	10%
			Reversal Risk is considered medium: 5% discount; OR	5%
			Reversal Risk is considered low: 10% discount	0%
C. Lack of long-term effectiveness in addressing underlying drivers	Is there experience in decoupling deforestation and degradation from economic activities?  Is relevant legal and regulatory environment conducive to REDD+ objectives?	5%	Reversal Risk is considered high: 0% discount; OR	5%
			Reversal Risk is considered medium: 2% discount; OR	3%
			Reversal Risk is considered low: 5% discount	0%
D. Exposure and vulnerability to natural disturbances	Is the Accounting Area vulnerable to fire, storms, droughts, etc?  Are there capacities and experiences in effectively preventing natural disturbances or mitigating <sup>1</sup> their impacts?	5%	Reversal Risk is considered high: 0% discount; OR	5%
			Reversal Risk is considered medium: 2% discount; OR	3%
			Reversal Risk is considered low: 5% discount	0%

Default risk	Not applicable, fixed minimum amount	10%	Not applicable	10%

The highlights in the Table 2 above show the assessment of current and expected conditions in Paraguay and their impact on the size of a buffer. In regard to risk “A”, the REDD+ readiness process and the preparation of the RBP Funding Proposal showed that there is broad stakeholder support. The country has also built experience in the management of systems of payments for environmental services. Conflicts over land use that have an impact on deforestation rates are of low frequency. They tend to happen near boundaries of reserves and protected areas (RBPs will be invested in strengthening legal boundaries of the system of reserves). The dynamic of the advance of the agricultural frontier is not as that observed in other parts of the world, in which forest clearance takes place usually in areas without clear land ownership and often through conflict and violence. Rather, the majority of land in Paraguay is under private title. Deforestation in Paraguay tends to take place over land with relatively clear land titles. All things considered, risk “A” was assessed as Low.

In regard to risk “B”, the level of institutional capacities for effective vertical and cross sectoral coordination is improving. MADES and INFONA are increasingly working together in forest conservation policy. The national REDD+ Roundtable, which brings together the main actors involved in forest conservation and restoration, is increasingly active. The STP plays a major role in coordinating policy across Ministries. RBPs will significantly strengthen and speed up this vertical and cross-sectoral coordination (see Table 14 in the full proposal document). All things considered, risk “B” was assessed as Medium.

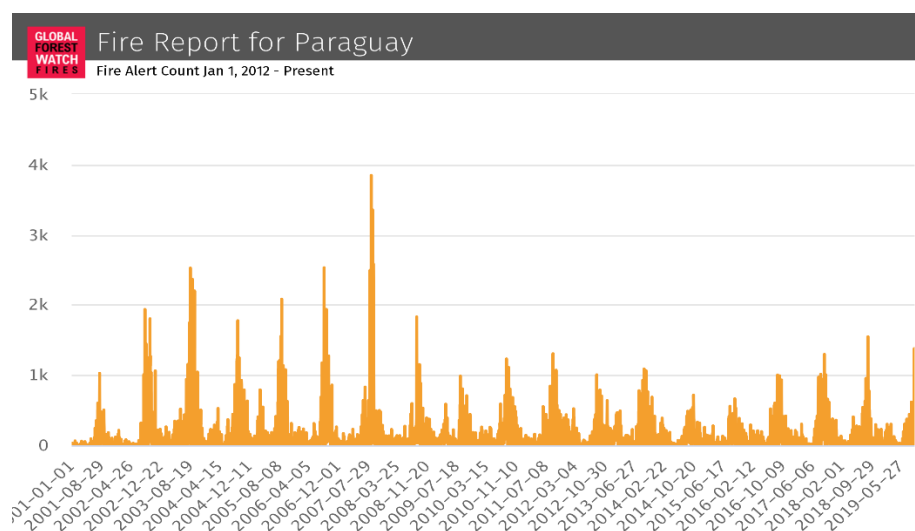
Risk “C” address the effectiveness of deforestation efforts in the long run. The assessment should take into account experience in decoupling deforestation from economic activities and how conducive the legal/regulatory environment is to REDD+ objectives. The Technical Annex submitted to the UNFCCC indicates that efforts at containing and diminishing deforestation are starting to show results. There was an increase in the monitoring capacities of INFONA and MADES. The UNREDD Programme, and later the FCPF, supported the national forest monitoring system. INFONA increased its enforcement of the forestry law and started to formally notify landholders on breaches to the legally required minimum forest area. The Zero Deforestation Law received successive extensions. In the period 2015-2018 the Directorate of Integrated Environmental Auditing carried out 183 auditing and intervention procedures related to deforestation, changes in land use, selective extraction of trees and others. These followed citizen complaints, requests from tax offices, and requests for support from institutions and ex officio verifications. All these interventions took place with MADES as the enforcement authority. Law 5284 on the free access by citizens to public information and governmental transparency facilitated participation of civil society. In parallel, MADES advanced with the implementation of Law 3001/06 that established a system of payments for environmental services, which provides incentives to landowners for the conservation of forest cover. More than half a million hectares received environmental certificates. NGOs also provided technical and financial support for the certification of areas. The combination of these actions has gradually started to have an effect on deforestation rates.

However, while the country is succeeding in reducing forest loss, the track record on experience in decoupling deforestation from economic activity is still limited. All things considered, risk “C” was assessed as High.

In regard to risk “D”, fire, storms and draughts have not been historically significant drivers of deforestation or forest degradation. For the current season, which has caught the public attention, INFONA reports that about 60,000 hectares have been affected during August and September. Other fires areas have been spotted in the Eastern Region of Paraguay but with less severity.

It is still early to determine whether the current season will see fires significantly above average. Figure 1 below show how the current season compares to past ones in terms of fire alerts count.

Figure 1: Fire alert count – Jan 1, 2001 to present



Source: Global Forest Watch; available at [this link](#).

The institutions coordinating national actions to combat forest fires include the National Emergency Secretariat, the Paraguayan Space Agency, MADES, and INFONA. In addition, the Faculty of Rural Sciences at the National University of Asunción and WWF also contribute important efforts. Paraguay enacted the Law 4014/10 on “Fire prevention and control” to regulate fire activities in grasslands, forests, bushlands, pastures and fallow lands. In addition to direct interventions to combat forest fires, there are regular activities to train local firefighters. Usually this type of training is tailored to park rangers in public and private protected areas as well as farmers.

The project envisages investments in training and equipment for rapid response mechanisms, which include fire prevention and suppression. In addition, the use of RBPs for strengthening public and private protected areas will include training and equipment to combat forest fires. Training will continue to be provided to farmers. The National Forest Monitoring System will continue to provide fire alerts. In view of this, Risk “D” has been assessed as Medium.

Finally, the FCPF guidelines states that half of the Default Risk percentage of 10% should be deposited as Buffer ERs into the Pooled Reversal Buffer account while the remaining of the Actual Reversal Risk Set-Aside Percentage should be deposited as Buffer ERs into the Reversal Buffer account. Given that this RBPs Funding Proposal is not part of a wider pooled portfolio, the contribution of the Default Risk is assessed at half of the 10%. The 5% that would accrue is that one originally intended to go to the Reversal Buffer account.

### Summary of total contributions to the Buffer reserve

Table 3 below summarizes the contribution of the three accounts to the total buffer reserve.

**Table 3:** contributions to the buffer accounts and total size of the buffer reserve

Buffer account		Discount (percentage)
Uncertainty buffer		0
Reversal buffer	Risk "A"	0
	Risk "B"	5
	Risk "C"	5
	Risk "D"	3
Pooled reversal buffer	Default risk	5
<b>TOTAL</b>		<b>18</b>