

# Practical issues concerning temporary carbon credits in the CDM

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1. Options for implementing tCER accounting
2. What is the value of a tCER?
3. Who will be interested in buying tCERs?
4. Conclusions

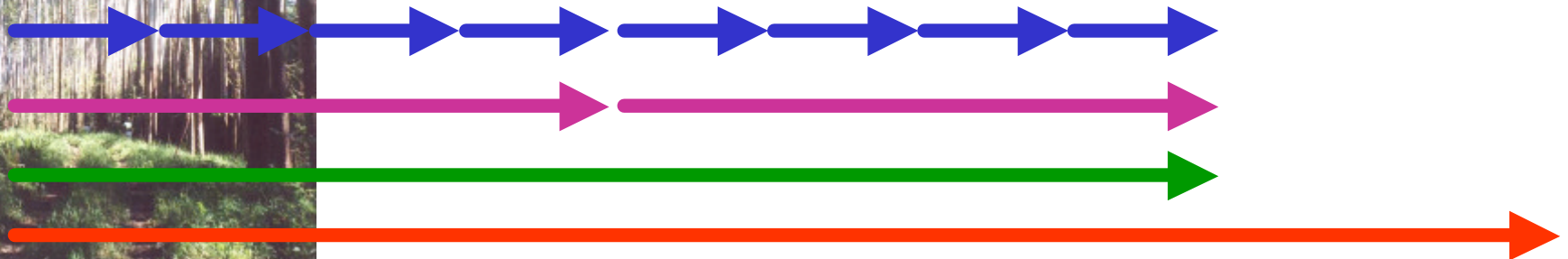


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# Project lifecycle definitions

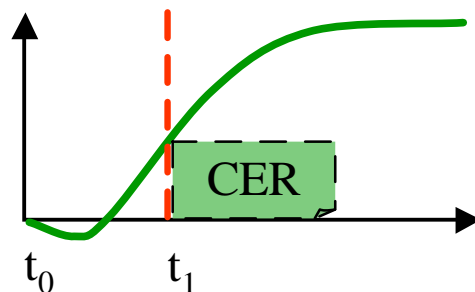
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- Project lifetime  $\geq$  crediting period
- Crediting period =  $\Sigma \text{tCER}_{1\dots n}$
- time between baseline revisions
- tCER lifetime



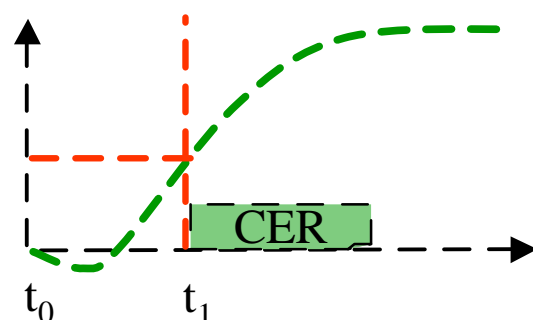
# Accounting options as proposed by the Parties

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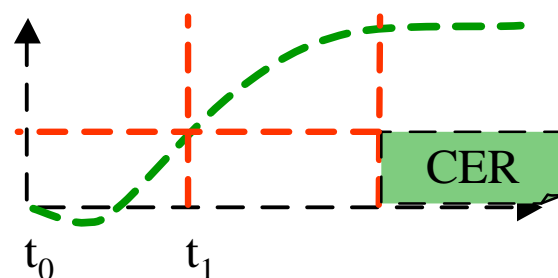
Total stock (advanced crediting)

*too risky*



Average stock

*too few CERs*



Delayed stock

*too late*



# Hybrid accounting

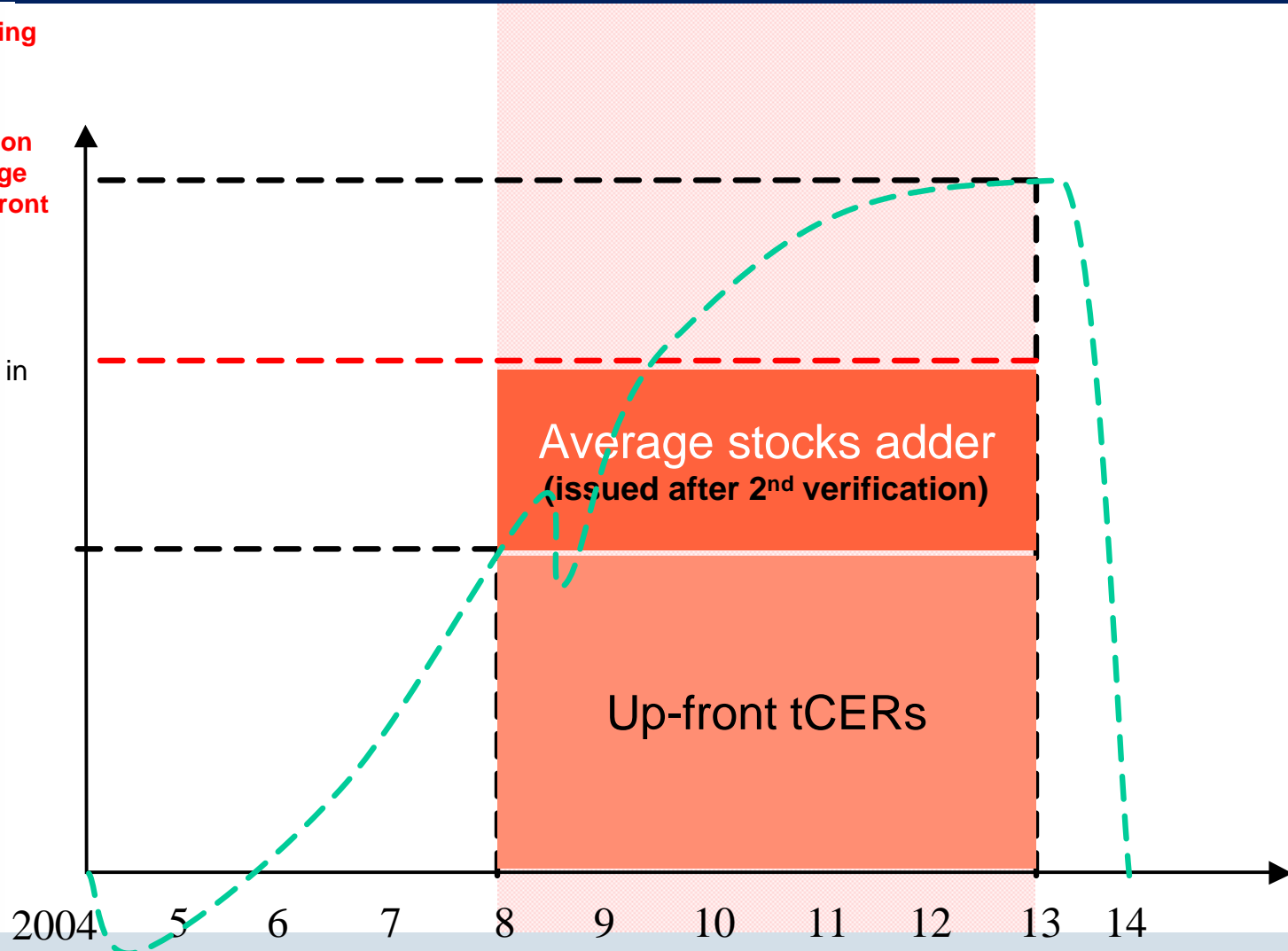
## 1. Options for implementing tCER accounting

a) A hybrid accounting option based on average stocks and up-front tCER issuance

2. What is the value of a tCER?

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# Permanent project emissions

## 1. Options for implementing tCER accounting

a) A hybrid accounting option based on average stocks and up-front tCER issuance

b) **Permanent project emissions**

2. What is the value of a tCER?

3. Who will be interested in buying tCERs?

4. Conclusions

## Project emissions above the BL

### Non-permanent

### Permanent

Land clearing

Machine use

Site preparation

Fertilization

Drainage

☞ Subtract from 1st tCER issuance

Subtract total amount from all tCER issuances



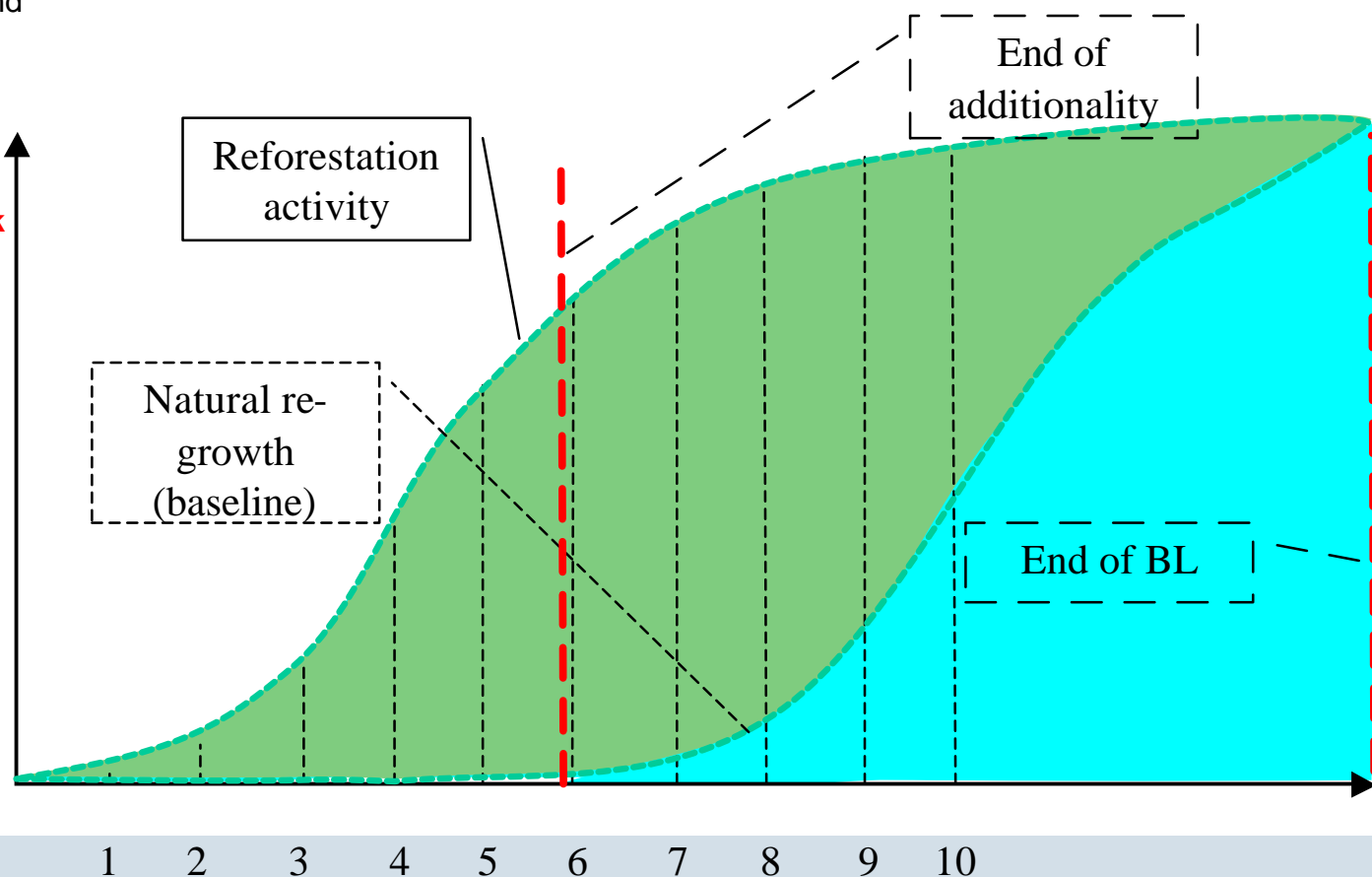
# The problem of additionality and baseline in the case of forest restoration

## 1. Options for implementing tCER accounting

- a) A hybrid accounting option based on average stocks and up-front tCER issuance
- b) Permanent project emissions

### c) The baseline risk

- 2. What is the value of a tCER?
- 3. Who will be interested in buying tCERs?
- 4. Conclusions



# How to mitigate the BL risk

## 1. Options for implementing tCER accounting

- a) A hybrid accounting option based on average stocks and up-front tCER issuance
- b) Permanent project emissions

### c) The baseline risk

- 2. What is the value of a tCER?
- 3. Who will be interested in buying tCERs?
- 4. Conclusions

- Forestry is long-term business
- The project owner is not responsible for the baseline change and risks to loose all credits ever gained

- 1. BL should only be renewed at first harvesting (excl. pruning / thinning)
- 2. Fixed BL for forest restoration without harvesting



# What is a tCER worth?

1. Options for implementing tCER accounting
2. **What is the value of a tCER?**
3. Who will be interested in buying tCERs?
4. Conclusions



<b>A tCER stream compared to a permanent CER</b>				
Disc'rate	<b>5 years</b>	<b>15 years</b>	<b>30 years</b>	Equivalent after
<b>3%</b>	14%	37%	60%	<b>151,2</b>
<b>4%</b>	18%	46%	71%	<b>112,8</b>
<b>5%</b>	23%	54%	79%	<b>89,8</b>
<b>6%</b>	27%	60%	84%	<b>74,4</b>
<b>7%</b>	30%	66%	89%	<b>63,5</b>
<b>8%</b>	34%	71%	92%	<b>55,2</b>
<b>9%</b>	38%	76%	94%	<b>48,8</b>

## Who will buy tCERs?

Depends on domestic market design

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1. Sinks excluded from domestic trading
2. A/R CERs treated on equal terms to energy CERs, government liability after tCER expiration
3. TCERS are allowed within domestic trading, buyer liability after tCER expiration
  - a) Compliance period is shorter than the Kyoto CP
4. Government itself invests in tCERs

# Who will buy tCERs?

## Our assumptions

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1. Private investors and governments act on the same market
2. tCER validity period is 5 years, coinciding with Kyoto CP



## Who will buy tCERs?

### What are tCERs good for?

1. Borrowing from next CP,  
without interest payment
  - Enterprises that plan for  
restructuring, leading to over-  
compliance in the next CP



## Who will buy tCERs?

### What are tCERs good for?

1. Borrowing from next CP, without interest payment
2. Hedging against non-compliance risk
  - Buyer does not intent to use tCERs
  - Small capital fixation (20 – 30% of CER value)
  - Useful for enterprises and governments
  - Could be used as a safety valve in order to implement a price cap



1. Options for implementing tCER accounting
2. What is the value of a tCER?
3. Who will be interested in buying tCERs?
4. **Conclusions**



1. **Accounting:** combination between upfront payment and average C stocks over one CP
2. **Permanent project emissions** need to be accounted for on every tCER renewal
3. **BL revision** at the time of harvesting
4. **tCER value** determined by price expectations and discount rate
5. **Crediting period** should be >50 y
6. tCERs can be useful as **compliance reserve**

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