



## Cost-Benefit Analysis of REDD+ in Lebanon, Morocco and Tunisia

Demonstrating REDD+ potential and  
recognizing importance of non-C co-benefits

IV SFM	IV MFW	IV SFM
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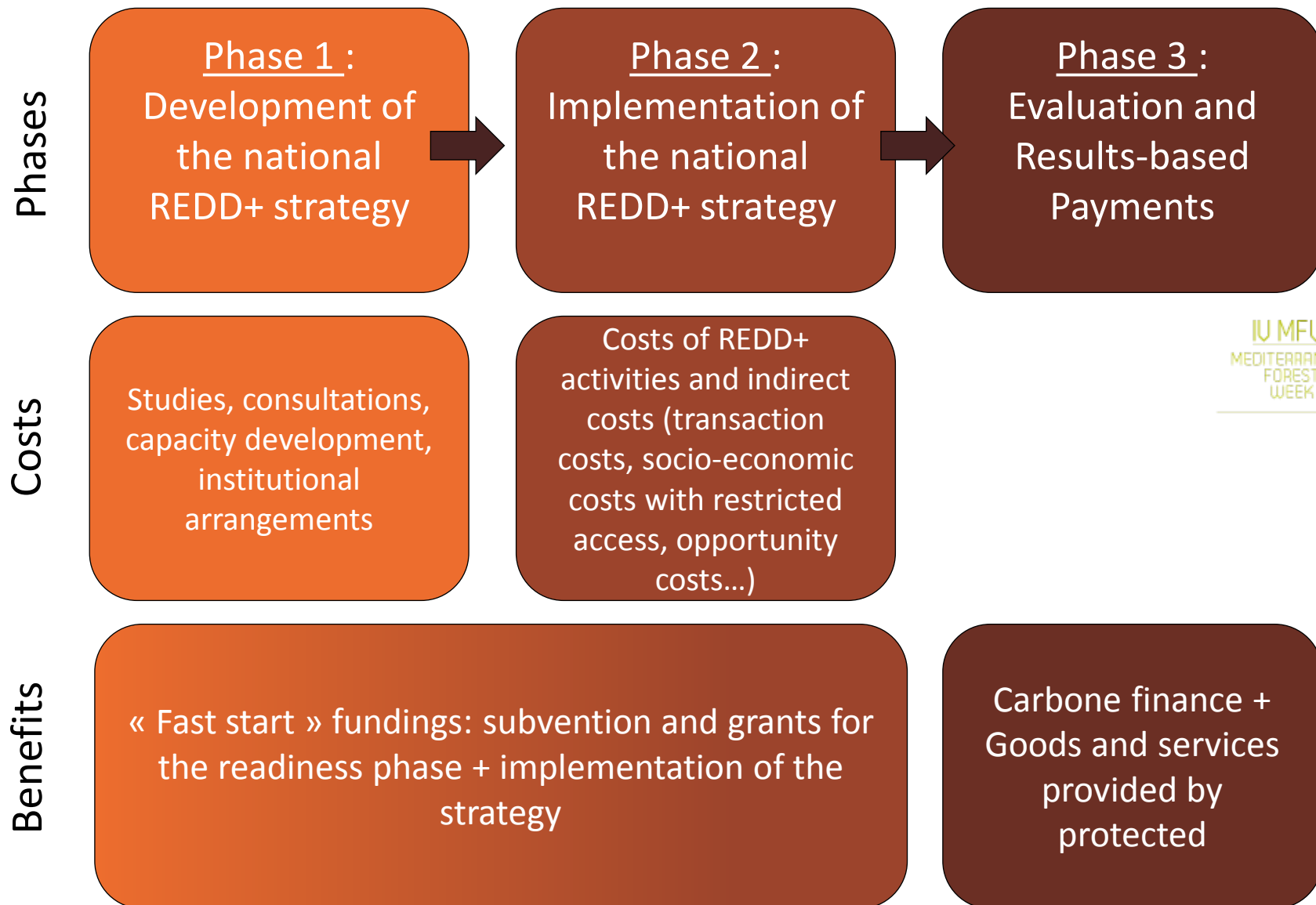
# Context

- ✓ A series of CBA studies in the framework of the Regional Project GIZ-CPMF : Adapting forest policy conditions to climate change in Middle East North Africa  
[www.giz-cpmf.org](http://www.giz-cpmf.org).
- ✓ With the financial support of the Forest Governance Programme (FGP) of the Federal Ministry for Economic Cooperation and Development (BMZ).
- ✓ Technical expertise provided by SalvaTerra.

# Objectives

- ✓ At the **national** level, the CBA aimed at :
  - a. developing capacities of national institutions on the REDD+ issues ;
  - b. raising awareness among policy makers from various sectors about the feasibility of REDD+ implementation and related direct and indirect costs and benefits ;
  - c. identifying the cost-efficiency of REDD+ options and highlighting possible priorities for action.
  
- ✓ At the **regional** level, the CBA process targeted :
  - a. the identification of common points between CPMF partner countries about the REDD+ options to be implemented ;
  - b. the agreement on key messages regarding direct and indirect costs and benefits, such as the importance of non-carbon benefits (i.e. co-benefits of REDD+).

# Perimeter



# Methodology

## 4 steps

1. Identification of the most promising REDD+ actions (afforestation, grazing management, fires control, etc.).
2. Identification of « Business as usual » and « REDD+ » scenarios for each activity (depending on available funds, technical constraints, etc.).
3. For each scenario, calculation of implementation costs, transaction costs, GHG net emissions and loss/gain of value production by forests (based on pre-existing studies).
4. Costs and benefits calculation, considering direct and indirect costs and benefits (several hypothesis for the value of mitigation/C prices).

# Selected deforestation and forest degradation drivers

REDD+ options	Country where the REDD+ option has been analyzed
Fighting against forest fires	Lebanon, Morocco and Tunisia
Afforestation and reforestation	Lebanon, Morocco, Tunisia and Turkey
Reducing needs for wood fuel	Morocco
Producing sustainable wood fuel	Lebanon
Reducing overgrazing	Morocco and Tunisia
Managing forests	Tunisia (implementation of forest management plans) and Turkey (all management practices)
Controlling agricultural and urban expansion	Lebanon

**REDD+ options are all very significant contributions to Sustainable Forest Management.**

**A REDD+ strategy is a catalyzer for SFM.**

# Key elements of costs and benefits

**Phase 1** : Costs related to REDD+ strategy design (R-PP; REDD+ strategy)

**Phase 2 + Phase 3**: Direct and Indirect Costs and Benefits of implementing REDD+ options

Costs	Benefits
<p><b>Direct costs</b> Reinforcing SFM activities (REDD+ options) with more ambitious objectives.</p>	<p><b>Direct benefits</b> Result-based payments 3 prices hypotheses (current C-market price; projected C-market price; tutelary price; ie. 5, 15 and 140 US\$/tCO2)</p>
<p><b>Indirect costs</b> Monitoring, Reporting, Verification (MRV) of carbon stocks + E&amp;S impacts monitoring (safeguards)+ Certification.</p>	<p><b>Indirect benefits</b> Non carbon co-benefits: economic valuation of forest ecosystems goods and services.</p>

# In a nutshell

## 1) Abatement costs

Carbon price (hyp) : 5, 15, 140 US\$/tCO<sub>2</sub>

REDD+ options	Lebanon	Morocco	Tunisia
Fight against forest fires	31,8 US\$/tCO <sub>2</sub> e	49,2 US\$/tCO <sub>2</sub> e	494 US\$/tCO <sub>2</sub> e**
Afforestation and reforestation*	266,6 US\$/tCO <sub>2</sub> e	87 US\$/tCO <sub>2</sub> e	45,7 US\$/tCO <sub>2</sub> e to 229,9 US\$/tCO <sub>2</sub> e
Produce sustainable woodfuel	56,9 US\$/tCO <sub>2</sub> e	-	-
Reduce overgrazing	-	17 to 43,6 US\$/tCO <sub>2</sub> e	30 à 81 US\$/tCO <sub>2</sub> e

\* Calculation based on the carbon storage in 2030. On a longer term, abatement costs decrease.

\*\* Very high operational costs, but several discussions with the concerned services confirmed this estimate.

**2) Result-based payments from REDD+ should be considered as very relevant co-financing opportunities for SFM.**

	Lebanon	Morocco	Tunisia
Non C co-benefits value***	762 US\$/Ha	182 US\$/Ha	110 US\$/Ha

\*\*\*Annual value, based on TEV calculations

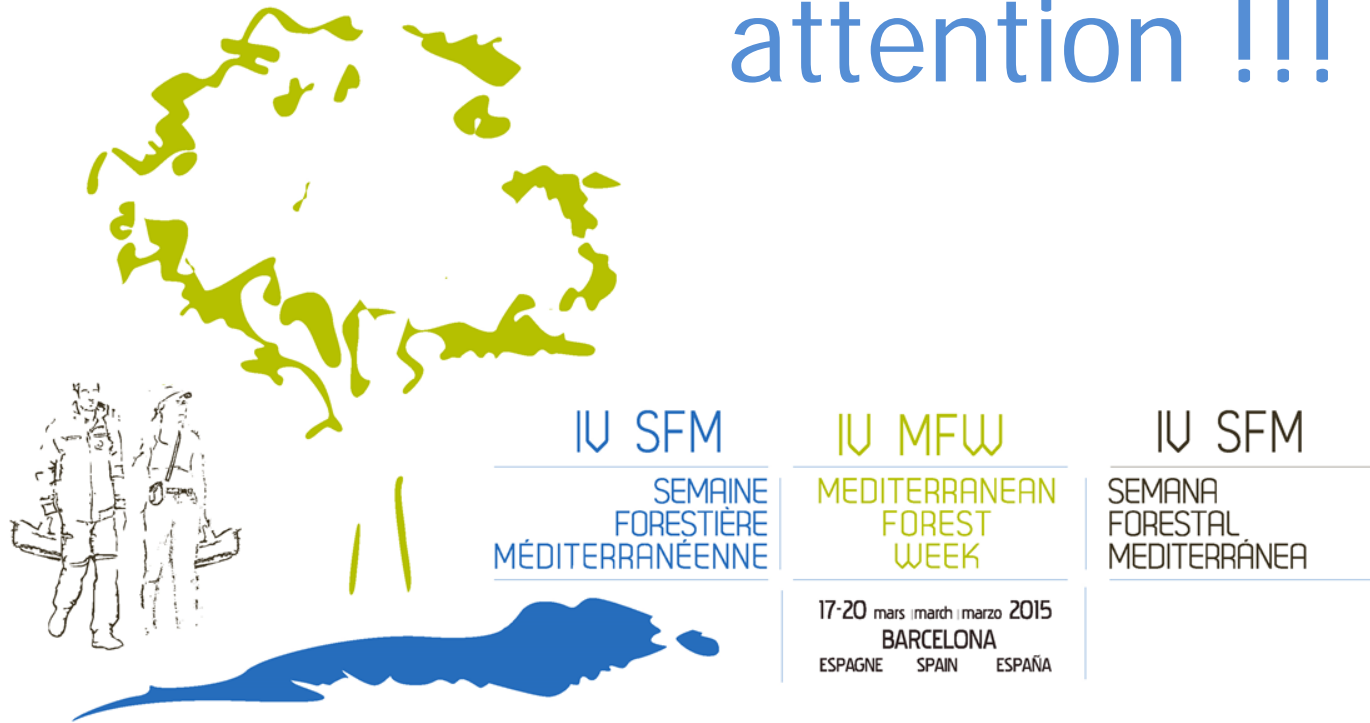
**3) Integrating non carbon co-benefits in the CBA justifies fully REDD+ investments.**



## Next steps

- ✓ **Now that the REDD+ potential is proven, financial resources are needed for the Readiness phase and the design of REDD+ strategies (R-PP, REDD+ strategy) = financing Phase 1**
- ✓ **Efforts should focus in particular on :**
  - ✓ Deepening stakeholder consultations and information sharing to develop and implement the Readiness Preparation Proposal (R-PP);
  - ✓ Improving CBA calculation and integrating the whole range of possible REDD+ actions;
  - ✓ Updating the forest inventory, in order to refine the assessment of forest degradation and deforestation drivers;
  - ✓ Elaborating a BaU baseline and a REDD+ baseline, at sub-national levels and national level;
  - ✓ Developing a National System dedicated for monitoring, reporting and verification of GHG emission (MRV system) and REDD+ non carbon co-benefits;
  - ✓ Developing an ad hoc framework for Strategic Environmental and Social Assessment (SESA);
  - ✓ Fine-tuning institutional arrangements.
- ✓ **Potentially interested donors : World Bank (FIP), FCPF, UN-REDD, GEF (SFM/REDD+), Green Climate Fund (GCF), others?**

# Thanks for your attention !!!



Download the studies : [www.giz-cpmf.org](http://www.giz-cpmf.org)

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# Annexes

# Coût de préparation de la stratégie REDD+ (phase 1)



Coût de 200 000 US\$ (1,72 MDH), subventionné, en premier lieu par le FCPF

Coût variable. Fonction :

- Des caractéristiques du pays (facteurs de déforestation, types de forêts,...)
- De son état d'avancement sur les différents sujets
- De son ambition

# Coût de préparation de la stratégie REDD+ (phase 1)

Comp	Intitulé
1 a	Organisation institutionnelle pour la phase Préparation
1 b/c	Consultations et partage d'information
2 a	Etat des lieux du secteur forestier
2 b	Elaboration des stratégies REDD+
2 c	Cadre de mise en œuvre
2 d	Evaluation environnementale et sociale stratégique
3	Scénario de référence
4 a	Suivi des émissions et absorptions (MRV)
4 b	Suivi des impacts socio-environnementaux
5	Suivi et évaluation de la mise en œuvre

**Coût moyen pour  
31 pays : 12,4 M  
\$US**

**Coût pour le  
Maroc:  
~ 10 M \$US**