



Ministère des Affaires Locales et de  
l'Environnement

## Deuxième Rapport Biennal de la Tunisie

Second Biennial Report of Tunisia,  
December 2016

Convention Cadre  
des Nations Unies  
Sur les Changements  
Climatiques

Décembre 2016

# FACILITATIVE SHARING OF VIEWS

## TUNISIA



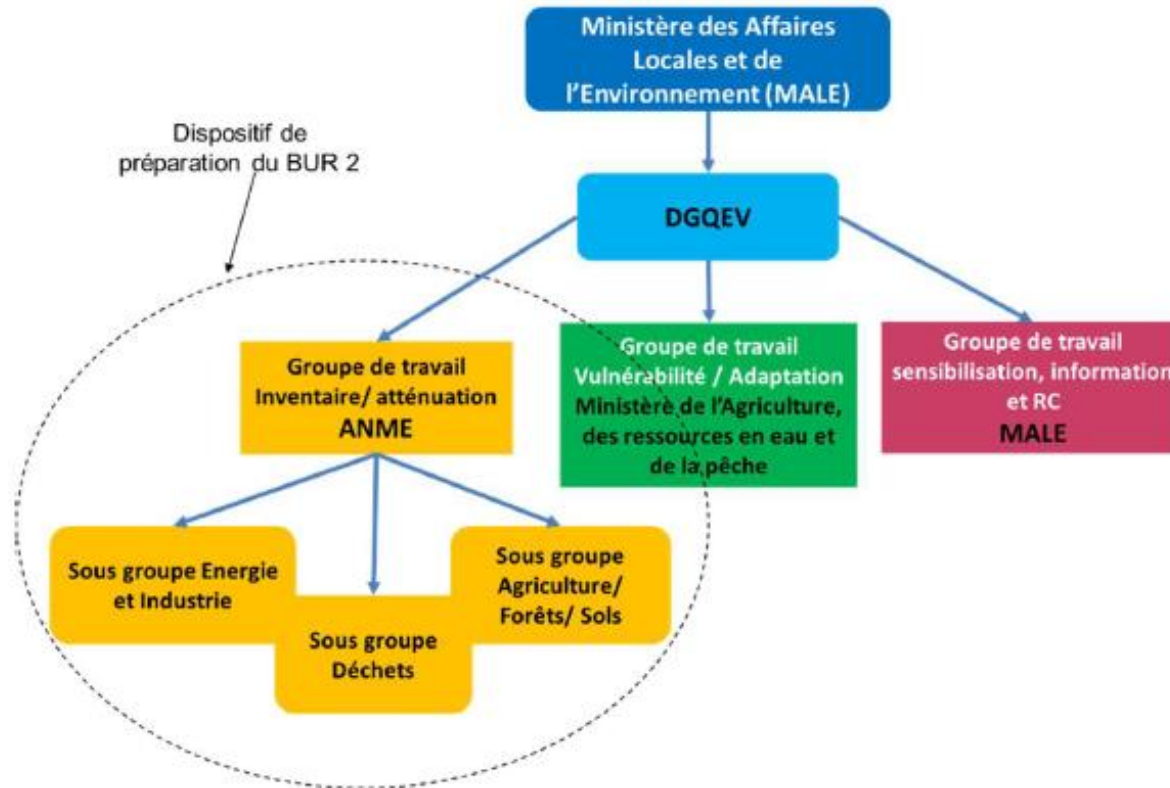
FSV Workshop  
Katowice, Poland

**7 December 2018**

**Samir Amous**  
(APEX Conseil)

# Part I: Summary of BUR and recent development

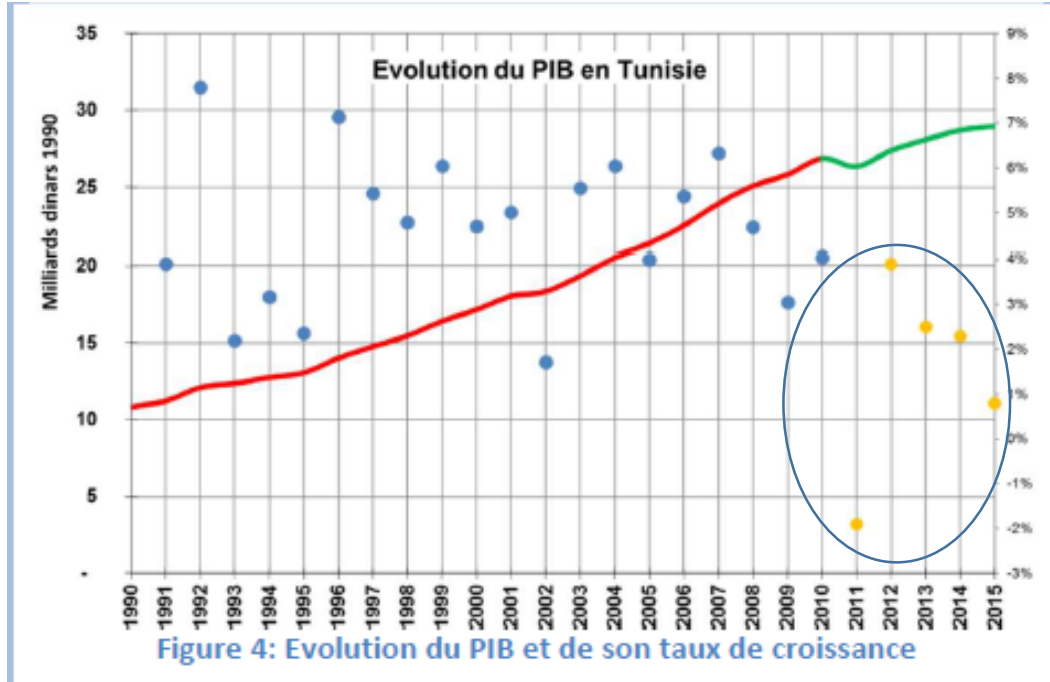
# Institutional arrangements for BUR preparation



# Tunisian circumstances



INDC Submission	Sept. 2015
BUR1	Dec. 2014
BUR2	Dec. 2016
Ratification of Paris Agreement	Oct. 2016



# Tunisian circumstances: relevant facts

Tableau 2: Principaux indicateurs économiques de la Tunisie sur la période 2011-2015 (source : Banque Centrale de Tunisie)

	2011	2012	2013	2014	2015	
<b>PIB<sub>const2005</sub> par habitant (DT)</b>	4 843	4 981	5 049	5 113	5 092	
<b>Croissance du PIB à prix constants (%)</b>	-1,9	3,9	2,4	2,3	0,8	
<b>Investissement/PIB (%)</b>	21,7	21,6	21,9	20,6	19,4	●
<b>Taux de chômage (%)</b>	18,9	16,7	15,3	15,0	15,4	●
<b>Taux de couverture (%)</b>	74,5	69,5	70,1	67,6	69,6	
<b>Endettement/PIB (%)</b>	44,4	44,5	41,4	44,3	48,3	●
<b>Déficit budgétaire/PIB (%)</b>	3,3	5,2	6,9	5,0	4,8	●
<b>Taux d'inflation (%)</b>	3,5	5,6	6,1	4,9	4,9	●

	2011-2015	2016-2020	
<b>Croissance du PIB (%)</b>	1,5	5,0%	●
<b>Revenu par habitant (DT/hab.)</b>	8283	12400	
<b>Taux de chômage (%)</b>	15,2	11	●
<b>Taux d'investissement (% PIB)</b>	18,5	25	●
<b>Taux d'épargne (%)</b>	10,5	17,7	
<b>Déficit de la balance de paiement (%)</b>	8,5	6,8	
<b>Taux d'inflation (%)</b>	5,4	3,6	●

# GHG emissions inventory

	Emissions Nettes (ktéCO <sub>2</sub> )					Croissance annuelle		
	1994	2000	2010	2011	2012	1994-2000	2000-2012	1994-2012
1 - Energie	15 830	21 163	27 082	25 671	27 023	5,0%	2,1%	3,0%
2 - Procédés industriels et utilisation des produits	3 776	3 871	5 071	4 438	5 441	0,4%	2,9%	2,0%
3 - Agriculture, Forêt, et Autres Utilisations des Terres	-269	-1 422	-2 391	-3 116	-2 878			
4 - Déchets	1 115	1 998	2 807	2 872	3 018	10,2%	3,5%	5,7%
<b>TOTAL</b>	<b>20 452</b>	<b>25 610</b>	<b>32 569</b>	<b>29 864</b>	<b>32 604</b>	<b>3,8%</b>	<b>2,0%</b>	<b>2,6%</b>
	Emissions Brutes (ktéCO <sub>2</sub> )					Croissance annuelle		
	1994	2000	2010	2011	2012	1994-2000	2000-2012	1994-2012
1 - Energie	15 830	21 163	27 082	25 671	27 023	5,0%	2,1%	3,0%
2 - Procédés industriels et utilisation des produits	3 776	3 871	5 071	4 438	5 441	0,4%	2,9%	2,0%
3 - Agriculture, Forêt, et Autres Utilisations des Terres	8 238	8 669	11 219	10 737	11 150	0,9%	2,1%	1,7%
4 - Déchets	1 115	1 998	2 807	2 872	3 018	10,2%	3,5%	5,7%
<b>TOTAL</b>	<b>28 959</b>	<b>35 701</b>	<b>46 179</b>	<b>43 717</b>	<b>46 632</b>	<b>3,5%</b>	<b>2,3%</b>	<b>2,7%</b>
	1994	2000	2010	2011	2012	1994-2000	2000-2012	1994-2012
Population (1000 d'habitants)	8 785,4	9 444,4	10 540,8	10 649,6	10 759,5	1,2%	1,1%	1,1%
Emissions nettes par habitant (téCO <sub>2</sub> /tête)	2,3	2,7	3,1	2,8	3,0	2,6%	0,9%	1,5%
Emissions brutes par habitant (téCO <sub>2</sub> /tête)	3,3	3,8	4,4	4,1	4,3	2,3%	1,1%	1,5%

# GHG inventory

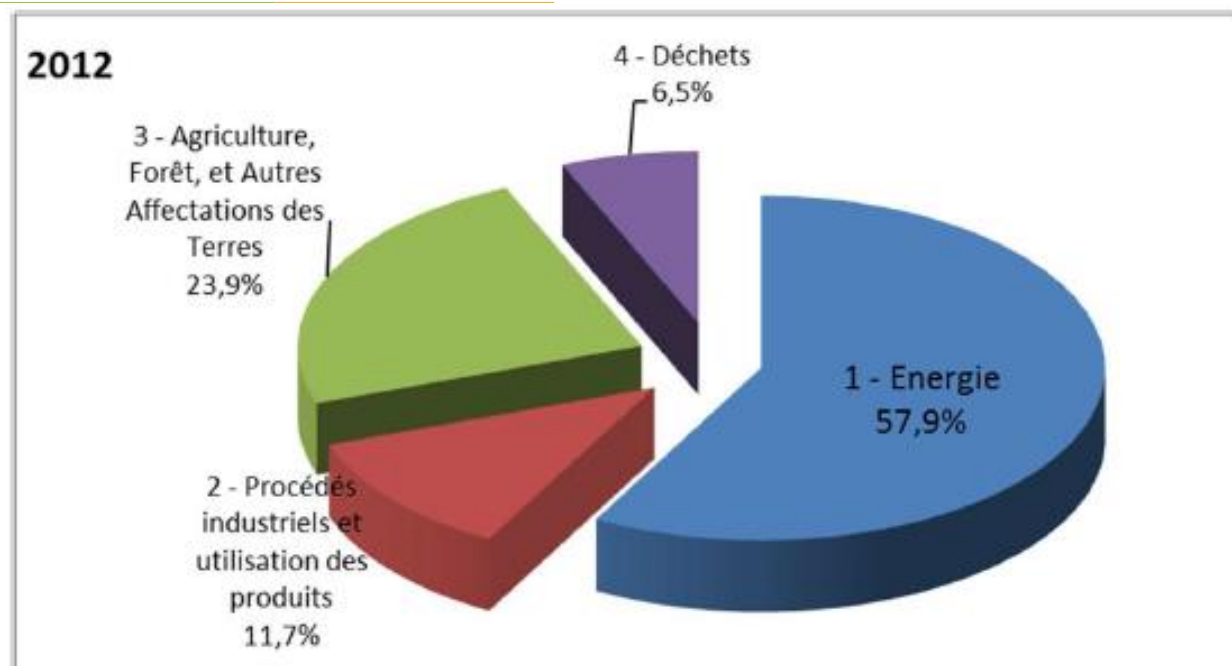


Figure 10: Répartition des émissions brutes de GES directs de la Tunisie par source en 2012 (%)

Emissions Brutes	1994	2000	2010	2011	2012
1 - Energie	54,7%	59,3%	58,6%	58,7%	57,9%
2 - Procédés industriels et utilisation des produits	13,0%	10,8%	11,0%	10,2%	11,7%
3 - Agriculture, Forêt, et Autres Utilisations des Terres	28,4%	24,3%	24,3%	24,6%	23,9%
4 - Déchets	3,9%	5,6%	6,1%	6,6%	6,5%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### Decrease in carbon intensity:

-1.6%/year over period 1994-2012

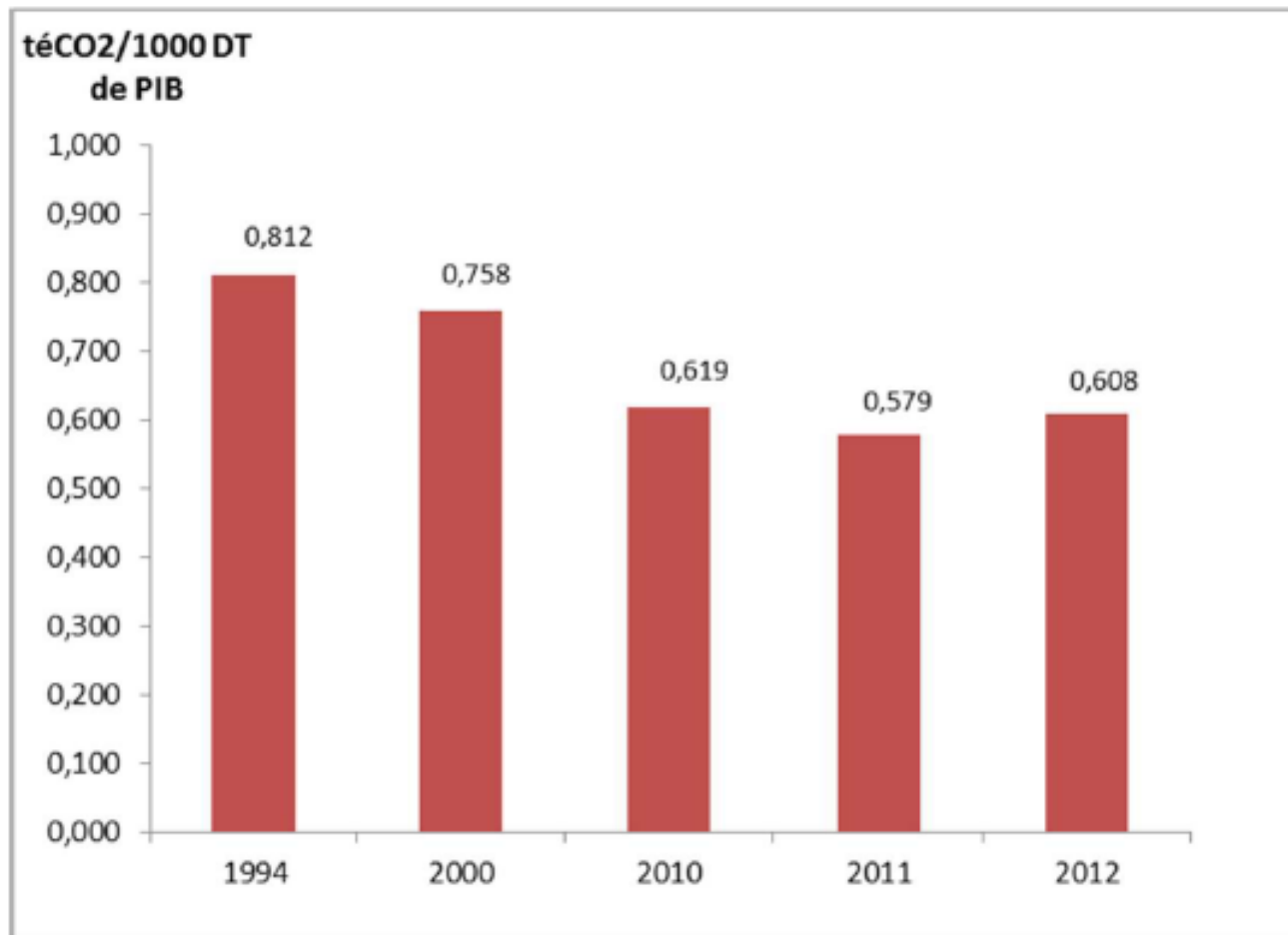


Figure 32: Evolution de l'intensité carbone nette en Tunisie (téCO<sub>2</sub>/1000 DT de PIB)

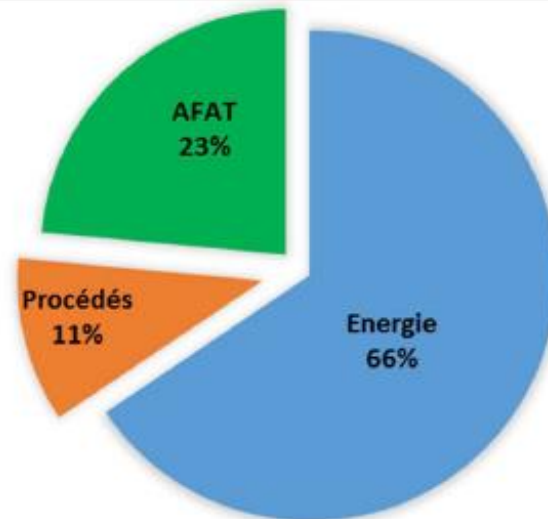


# GHG mitigation expected over the period 2017-2020

Tableau 30: Résultats du plan d'action d'atténuation des GES de la Tunisie –hors déchets- sur le période 2017-2020 (ktéCO2)

	2017	2018	2019	2020	TOTAL (ktéCO2)	TOTAL (%)
<b>Energie</b>	<b>321</b>	<b>890</b>	<b>1 815</b>	<b>3 284</b>	<b>6 310</b>	<b>66%</b>
<i>Efficacité énergétique</i>	292	769	1 371	2 021	4 453	46%
<i>Energie renouvelables</i>	29	121	444	1 262	1 856	19%
<b>Procédés</b>	<b>0</b>	<b>296</b>	<b>343</b>	<b>406</b>	<b>1 045</b>	<b>11%</b>
<b>AFAT</b>	<b>24</b>	<b>399</b>	<b>745</b>	<b>1 097</b>	<b>2 265</b>	<b>24%</b>
<i>Forêts et Utilil. Terres</i>	24	260	474	688	1 446	15%
<i>Agriculture</i>	0	139	271	409	819	8%
<b>TOTAL</b>	<b>344</b>	<b>1 585</b>	<b>2 902</b>	<b>4 787</b>	<b>9 618</b>	<b>100%</b>

≈15% of the 2012 net emissions



## ❑ 6 main NAMAs identified:

### ✓ 3 NAMAs under development:

- *Buildings*
- *Tunisian Solar Plan*
- *Cement sector*

### ✓ 3 NAMAs under initiation

- *Wastewater treatment*
- *Solid Wastes*
- *Forests*

## ❑ Other NAMA ideas under identification (e.g. Transport in the city of Sfax...)

# MRV Systems

- ❑ MRV related to mitigation:
  - Almost completed for the ongoing NAMAs:  
Under testing procedures for Buildings, TSP, and Cement
  - Under Upgrading/Integration process for Energy:  
SIM2E + EnerInfo (ANME)
- ❑ National Inventory System:
  - System Design and institutional arrangements finalized
- ❑ National MRV System: planned development as a part of UGP\* tasks

# BURs challenging issues

- ❑ Use of IPCC2006 was not an issue, but challenging factors were related to the **ways/resources** (financial, capacities, time) to **improve the quality** of the inventory (teams, AD and EF, Tier upgrading, Uncertainty assessment, etc.),
- ❑ Need for sustainable and formalized Organizational/ Institutional framework to facilitate BUR preparation, and participation to ICA process
- ❑ Need for sustainable/formalized MRV system, which will facilitate and quicken BUR preparation:
  - ✓ *Quantification of impacts and progress of GHG policies and measures*
  - ✓ *Quantification of financial supports received in relation with CC*

# Need assessment in one glance

- ❑ Investments Mitigation: 2.6 bil. US\$ (2017-2020)
- ❑ Capacity development : 80 MUS\$ (2017-2020)
- ❑ Detailed description of the Technology Transfer needs in the BUR2

Tableau 54: Besoins agrégés de financement du plan d'action d'atténuation des GES 2017-2020 de la Tunisie  
(Million US\$)

Millions US\$	2017	2018	2019	2020	TOTAL
<b>Energie</b>	<b>106,3</b>	<b>239,8</b>	<b>520,7</b>	<b>1 063,1</b>	<b>1 929,9</b>
<i>EE</i>	78,0	103,9	137,2	148,2	467,2
<i>ER</i>	28,3	135,9	383,6	914,9	1 462,6
<b>Procédés</b>	<b>3,4</b>	<b>14,0</b>	<b>24,0</b>	<b>36,0</b>	<b>77,4</b>
<b>AFAT</b>	<b>5,3</b>	<b>45,7</b>	<b>49,4</b>	<b>53,2</b>	<b>153,5</b>
<i>Agriculture</i>		28,4	32,1	35,9	96,4
<i>Forêts</i>	5,3	17,3	17,3	17,3	57,1
<b>Déchets</b>	<b>0,0</b>	<b>145,4</b>	<b>136,9</b>	<b>201,6</b>	<b>483,9</b>
<i>Solides</i>		118,2	107,5	167,7	393,4
<i>Assainissement</i>		27,2	29,4	33,9	90,5
<b>TOTAL</b>	<b>114,9</b>	<b>444,9</b>	<b>731,0</b>	<b>1 353,8</b>	<b>2 644,7</b>

# Part II: Experience and lessons learned in participating in the ICA process

# Participation to ICA Process

- BUR1: First FSV Workshop (May 2016)
- BUR2: Side-Event ICA process (May 2017)
- Very fruitful ICA review process (BUR1 & BUR2):
  - ✓ Gave us a vision on how our BURs were seen by outsiders
- Results and recommendations of ICA/BUR1 were fairly reflected in BUR2, while recurring resource gaps did not allow for a complete/full consideration of the recommendations
- ICA review/BUR2 added great value in relation with Transparency and completeness requirements + capacity building needs

# Lessons from the ICA process

- ❖ ICA/BUR1 recommendations fully taken into account and reflected in the preparation of BUR2:
  - More precision/details/descriptions during the daily works and preparation of technical outputs (Circumstances, Inventory, Mitigation, etc.)
  - Reflected through better transparency/descriptions in the Content/reporting/Methods of BUR2
- ❖ ICA/BUR2 mainly emphasized on (i) Transparency issues, (ii) MRV development, (iii) Importance of Institutional arrangements, (iv) Technology transfer assessments
  - All of these were reflected in the TTE “Identification of capacity-building needs” Section
- ❖ The TTE recommendations reflected in a realistic way the existing gaps in Tunisia. Many activities launched by Tunisia later-on were meant to address these gaps



# Part III: Response to questions received

# Concise responses to questions received

- ❑ Tunisia has been able to design a robust and sustainable national inventory system, but the institutionalization process is not in place. Dedicated financial and human resources are the main obstacles to operationalize the system
- ❑ Specific financial resources, capacity development and relevant data collection efforts are needed for the Recalculation of time series of GHG inventories from 1994 (or 2000) onwards, using IPCC2006
- ❑ Many sectoral/NAMA-related MRV systems have progressed, but Nationally-Integrated MRV system is not yet in place. Dedicated financial/human resources and capacity development are needed to complete such an important transparency tool



شكرا  
**Thanks**