

# **Challenges faced by the Republic of Macedonia with regard to the implementation of the Convention**

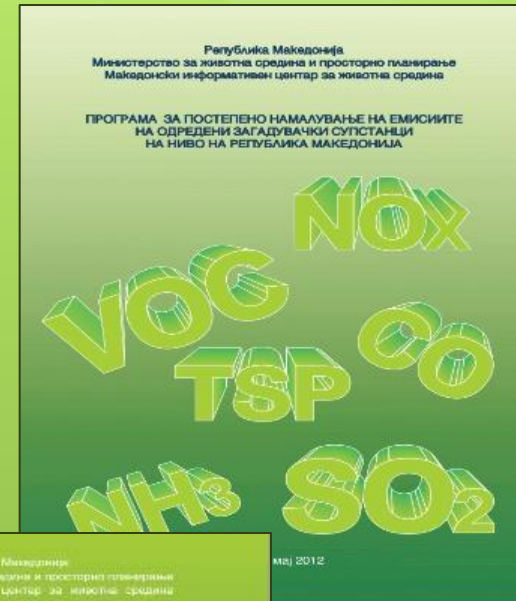
*M.Sc Aleksandra N.Krsteska, MoEPP,  
Republic of Macedonia  
WGSR 51 session, 30.04-03.05.2013*

# Status of transposition and implementation of EU air emissions directives

EU directives		Transposition	Implementation
IPPC	2001/81/EC	96%	Partially implemented Full implementation is planned for 2020
Air emissions	2001/80/EC	100%	Partially implemented Full implementation is planned for 2018
Air emissions	1999/13/EC	90%	Partially implemented Full implementation is planned for 2016
Fuel quality	1999/32/EC	93.5%	Partially implemented Full implementation is planned for 2013

# National programs, policies and strategies

- National Plan for Ambient Air Protection (December 2012);
- National Program for Progressive Reduction of Emission (July 2012)
- 7 from 11 LCP prepared Plans for emission reduction(December 2012);
- Strategy for Energy Development in the Republic of Macedonia by 2030;
- Energy Balance of the Republic of Macedonia for the period 2012 to 2016;
- Strategy for Energy Efficiency Promotion in the Republic of Macedonia by 2020;
- Baseline Study on Renewable Energy Sources in the Republic of Macedonia;
- National Strategy for Transport.



# Emission inventory

To complete inventory we need to improve data gathering, derived NEF, calculate base year and historical data on POPs, gridded emission data

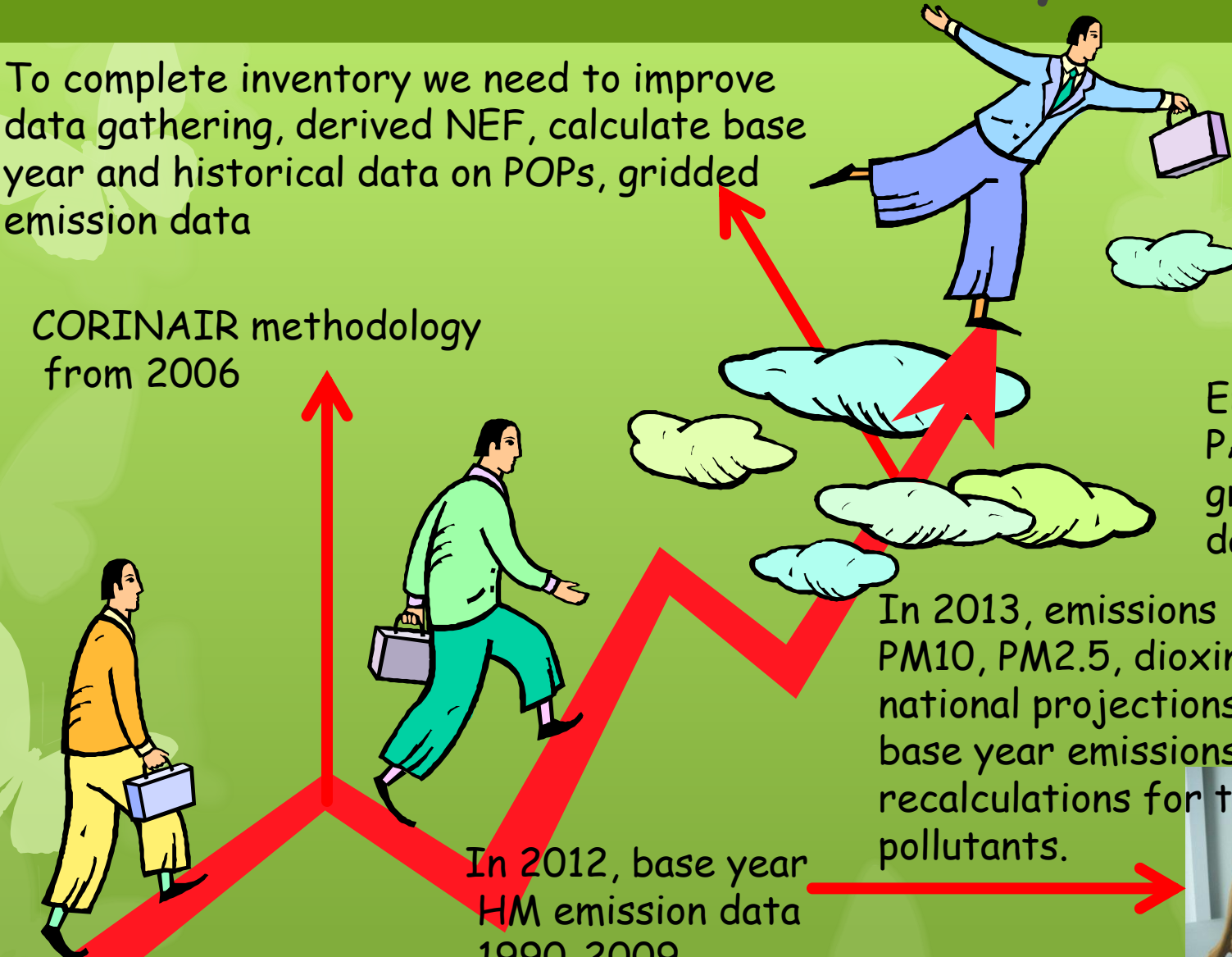
CORINAIR methodology from 2006

Emissions on PCB, PAH and HCB, gridded emission data-2014

In 2013, emissions PM10, PM2.5, dioxins and furans, national projections 2015 and 2020 base year emissions and recalculations for the basic pollutants.

In 2012, base year HM emission data 1990-2009

Reported since 2001



# Inclusion of RM in Annex II of the Gothenburg protocol

**Background:** Instrument for ratification of the Gothenburg protocol sent in 2010; Figures for Annex II in 2011, still not Annex II country.

**Problem:** Emissions in 1990 are lower than 2010 (not in compliance with the aim of the protocol).

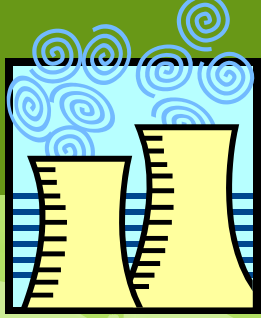
**Why?** low reliability of the old data, lot of peaks in emissions because of the transition period incompleteness of the emission inventories, IIASA using models, national data derived from the measurements and statistical data.

**What was done?** NERP was sent to IIASA, experts participate in TAEIX mission on implementation on NEC directive, meeting with IIASA representative, rechecked NEC for SO<sub>2</sub> and base year NMVOC emissions.

**Plan to do:** Rechecked the 1990 emission data, and try to improve the inventory especially regarding ammonia, sent national data to IIASA, change the Rulebook on NEC.

**What to do?** Resend new figures (if differ with current). If the 1990 are still lower than 2010 NEC? How to continue (from legal aspect)? Can we dedicate our work on the national emission projections, and adoption of the amendments of the New Gothenburg protocol?





# ELV and BAT



- Rulebook on **limit values** for allowed levels of emissions and type of pollutants in exhaust gases and fumes emitted by the stationary sources in air entered into force in **January this year**.
- Power plants, heating plants and some installations from the sector metallurgy do not comply with limit values on NO<sub>x</sub>, TSP or SO<sub>2</sub> set down in the require more substantive investments in order to implement BAT and to comply with ELVs.
- The IPPC issued license **146 A and B**, 40 A the rest are B permits.
- One new Power plant has A permit and for the two old ones the permits are not issued yet.
- Time limit for implementation of all Adjustment plans Permits is **1-st of April 2014 (LoE)**
- Five companies from the sector metallurgy required postponement of the deadline. **(2019)**



# Implementation of old protocols



- Republic of Macedonia has ratified old protocols at the end of 2010.
- (1990) on NO<sub>x</sub>, VOC, SO<sub>2</sub>, TSP, NH<sub>3</sub> and CO has been calculated and reported on 08.02.2013.
- Starting from year 2000, more effective measures were undertaken - as the introduction of unleaded petrol, use of heavy fuel with content of 1% sulfur, introduction of some BAT, introduction of ISO/CEN emission measurement standards, and other emission reduction measures.
- Specific measures implemented in the last 10 years, have led to emission reduction of SO<sub>2</sub> and NO<sub>x</sub>



- Emission data on base year 1987 on the Protocol on nitrogen oxides and 1980 on Protocol on sulfur has not been calculated.
- High uncertainty of the figures is expected because of the lack of reliable data for those years. (independence from Yugoslavia in year 1991, transition period reflected in the industry)
- Aim of the protocols out of date
- Need to rely only on uncertain recalculated data

# Conclusions



- **Institutional capacities are limited** to a very small team;
- Not established **national inventory** system lack of: personnel, finance for the scientific work, sector experts, country specific EF and data, especially in the agriculture sector and traffic SNAP sector. Need to improve POPs inventory;
- **Main problems to implement BAT and comply with ELV:** need of big investment to replace old technology and use of low quality raw materials (for example use of coal with 0,7 % content of sulfur and heavy oil).
- **Need to resolve problem with the NEC**
- **Substantial actions** towards implementation of the Protocols requirements were **taken** but lot of work still need to be done;
- **Expert support and financial support is needed** to further implement protocol requirements in particular to improve recalculations, projections and POPs inventory.
- Regional problems could be discuss on **practical trainings** organized by the UNECE where air emission experts and could share their experience;





Thank you for you attention

