

Nairobi, 8 November 2006 | Myriam Steinemann

INFRAS

Importance of a sub-regional approach and key factors for developing and improving inventories

Side event “Technical Support to Non-Annex 1-countries when elaborating their National Communications”

Content

- › Country specific approaches for improving activity data and emission factors (Eastern Europe/CIS)
- › Common solutions within a sub-region
- › Importance of sub-regional approach
- › Importance of reliable inventories

Starting point

- › Huge data gaps
- › No appropriate emission factors
- › No time series
- › No documentation of the methodologies and inventories

Country specific approaches in agriculture (enteric fermentation)

Activity data

- › Analysis of endemic cattle and modeling of cattle number dynamics
- › Comparison of national livestock data and FAO data
- › Recalculation of animal population based on different time series (example Albania)

Table 1.3: Recalculated animal populations (1000) for the year 1994			
animals	Population of animals for the year 1994 based on the values founded from the correlations on the year 2005	Population of animals for the year 1994 used in the IPCC methodology on the year 2000	difference
cattle	370	451	21.89%
cows	257	323	25.68%
buffalo	0.802	0.8	-0.25%
sheep	1820	2460	35.16%
goats	933	1194	27.97%
Camels	0	0	0
Horses	88	62	-29.55%

Country specific approaches in agriculture (enteric fermentation)

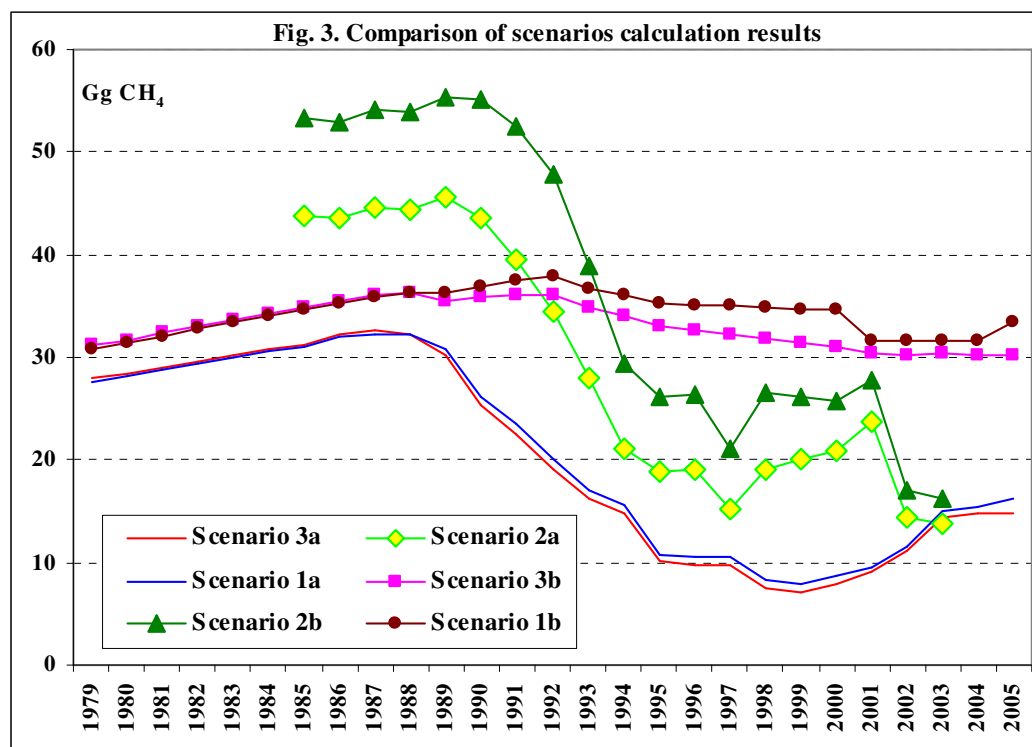
Emission factors

- › Comparison between results of previous inventory with new inventory
- › CH₄-Measurements for representative herds
- › Adoption of default emission factor to national circumstances

Country specific approaches in waste

Activity data

- › Data from different data sources (combination of statistics with expert interviews, field visits)
- › Cooperation with statistical services
- › Improvement of activity data through comparison of top-down and bottom-up approach (example Armenia)



Country specific approaches in waste Emission factors

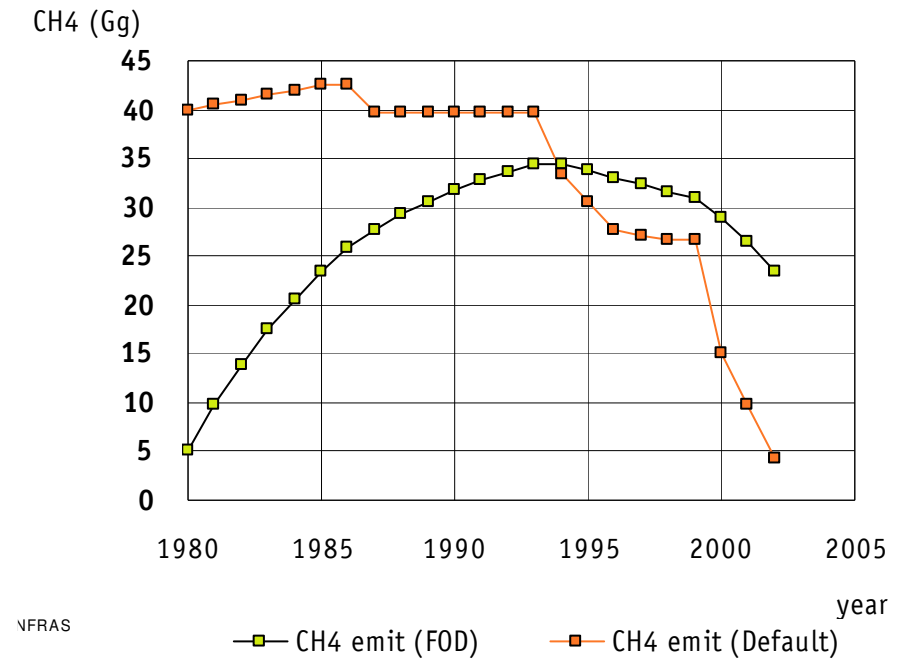
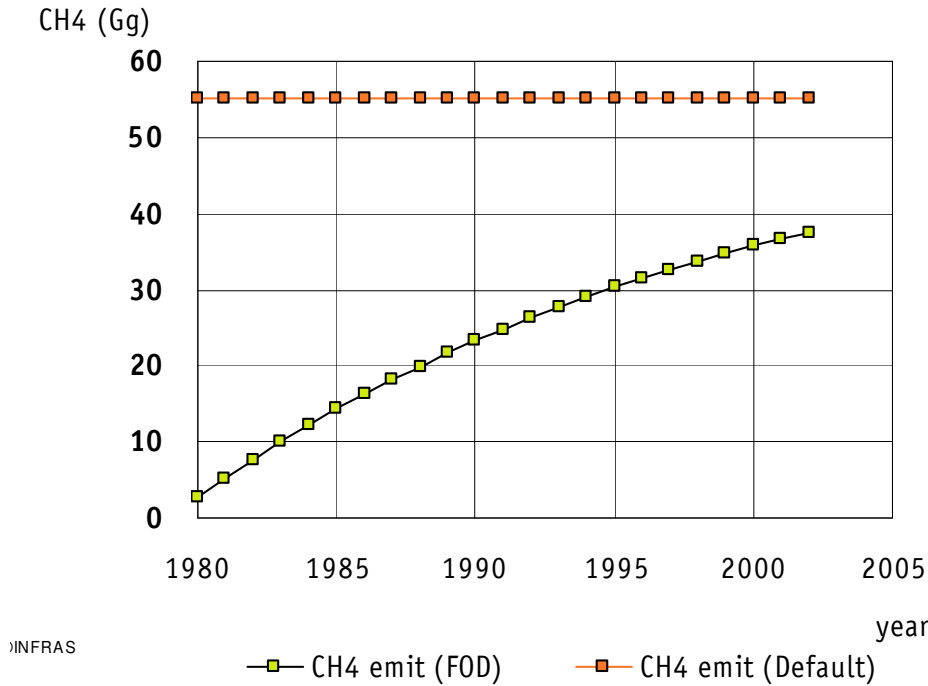
- › Analysis of characteristics of waste disposal sites
- › Analysis of country specific waste studies and scientific papers
- › Direct measurements of landfill gas
- › Comparison of Tier 1 and Tier 2 results
- › Waste composition survey in different seasons and years
(example Moldova)

Waste stream	1986	1993	1996*	1999 Summer	2001 Spring	2003 Autumn	Autumn 2004 – Summer 2005 (annual average)
Paper, cartoon	26.5	25.0	15.0	4.8	5.8	6.2	7.0
Textile	5.5	5.0	2.9	0.6	1.9	1.3	4.7
Metals	2.1	3.0	1.9	0.9	2.2	2.1	4.0
Bones	0.0	0.0	0.0	0.5	0.0	0.6	0.0
Leather	1.9	3.0	2.0	1.0	0.6	0.7	1.1
Glass	4.5	7.0	3.5	1.6	4.6	3.8	7.1
Wood	2.9	3.0	2.1	1.0	0.8	1.1	3.5**
Plastics	1.8	5.0	6.2	8.1	6.3	4.6	12.1
Food	37.5	35.0	45.6	53.5	44.9	56.5	56.1
Minerals	17.3	14.0	20.8	28.0	32.9	23.1	4.4

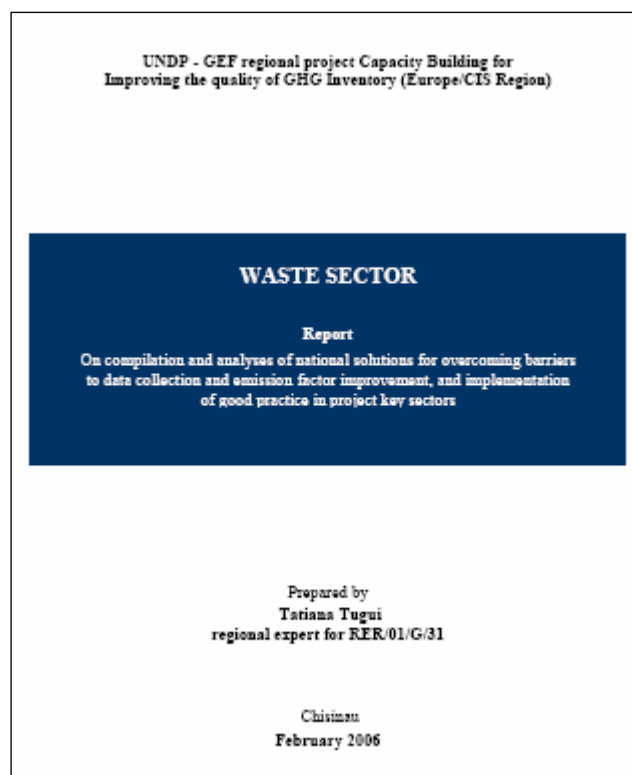
Common solutions

- › Adoption of a strategy mix when dealing with data gaps
- › Application of the same emission factors in countries with similar living and climate conditions (e.g. DOC and DOCf in the waste sector)
- › Tools for comparing Tier 1 and Tier 2 approaches applied in various countries
- › Development of sectoral reports with overview on all methodological issues
- › Database with regional experts per sector

Application of Tools to compare different methods



Sectoral reports



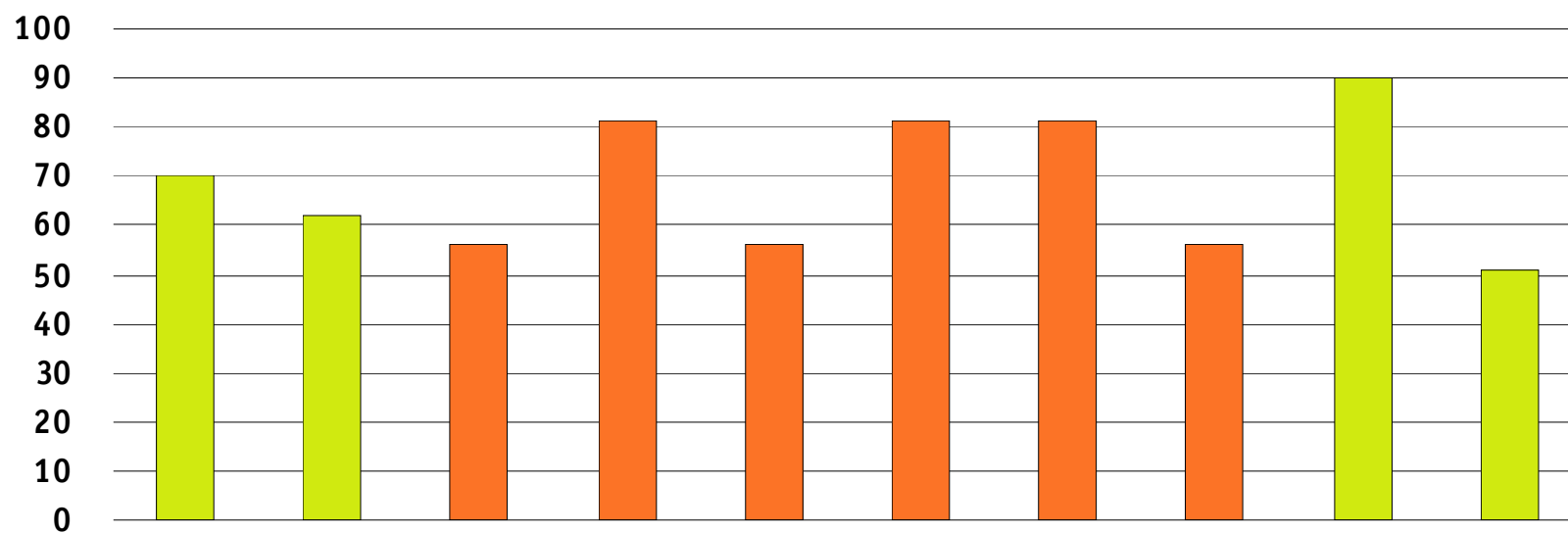
CONTENT

SUMMARY.....	2
METHODOLOGICAL ISSUES.....	3
ACTIVITY DATA.....	6
EMISSION FACTORS.....	8
EVALUATION OF PROGRESS IN ALL COUNTRIES, COMPARED TO INC.....	15
UNCERTAINTIES ASSESSMENT.....	20
RECOMMENDATIONS TO BE DISSEMINATED IN THE RE- GION.....	20
Collection of activity data	20
Selection of more appropriate emission factors	20
REFERENCES.....	21
ABBREVIATIONS.....	22

Sectoral reports: example agriculture

EF Dairy cattle

kg/head



Default



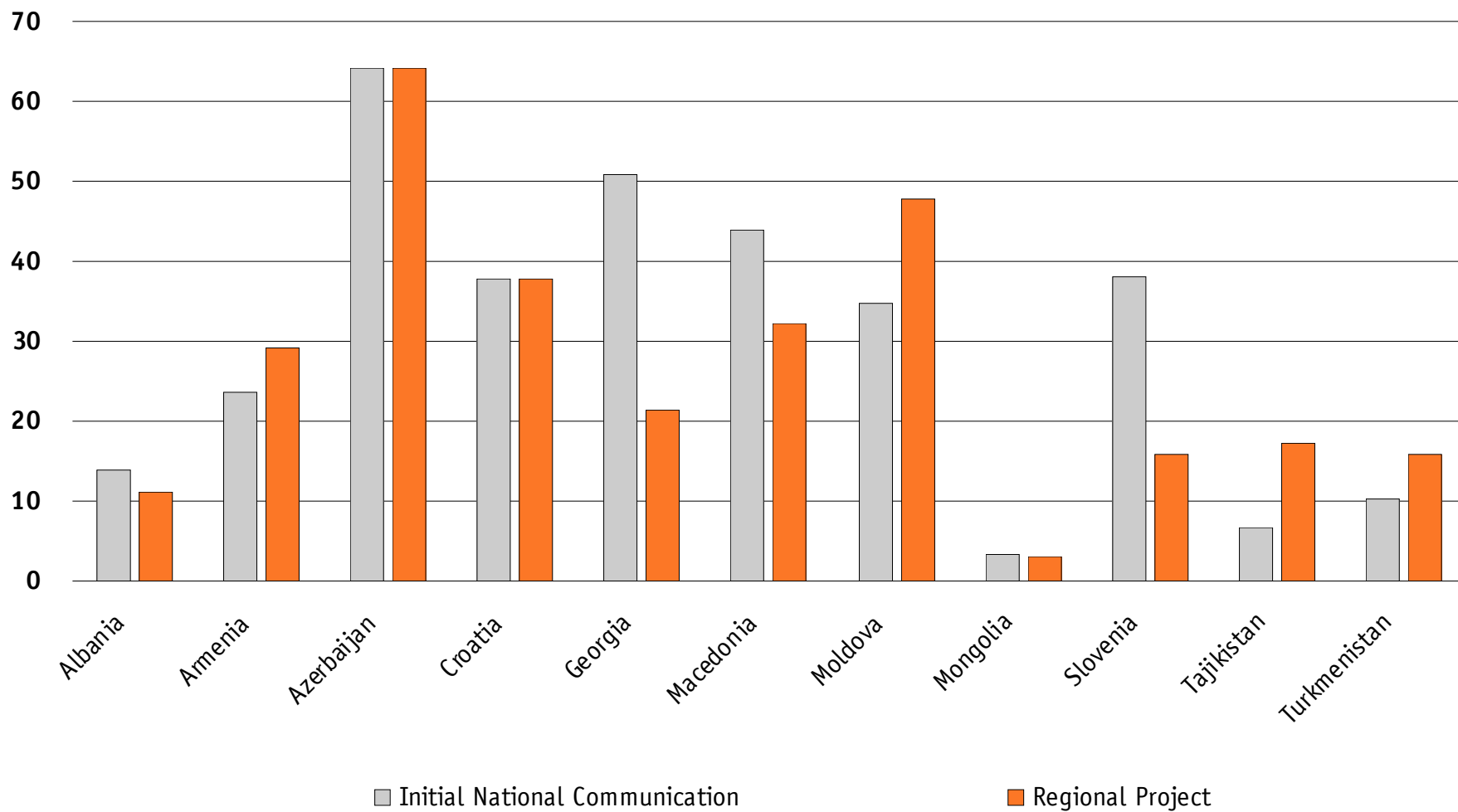
Calculated

Progress comparing to FNC (waste sector)

	Activity data		Emission factors		
	Population	MSW	MCF	DOC	DOCf
Albania			+		
Armenia	+		+	+	+
Azerbaijan					
Croatia		+	+	+	+
Georgia			+	+	+
Macedonia			+		
Moldova		+	+	+	+
Mongolia		+	+	+	
Slovenia		+	+	+	+
Tajikistan	+	+	+		
Turkmenistan			+		
Uzbekistan			+	+	

Progress comparing to INC (waste sector)

Gg CH₄ (1990)



Importance of a sub-regional approach

- › Inventory systems strengthened through regional cooperation and exchange
- › Sub-regional workshop approach successful in more or less homogenous regions with common background
- › Information exchange crucial for development of sustainable inventory system
- › Focus on key categories, priorities and milestones of common interest as a key element (synergies in expert pooling, training, awareness)
- › Involvement of regional experts for specific tasks as an important strategic element (widening knowledge network in the region)
- › Countries with difficult circumstances can benefit from results achieved in other countries

Importance of reliable inventories

- › Compliance with international conventions and protocols
- › Robust inventories and credible data are a basis for climate policies and projects
- › Benefits from establishing sustainable in-country system is a starting point -> Facilitates assessment of co-benefits
- › Improved projections/scenarios can lead to better abatement strategies and mitigation assessment
- › GHG inventories and CDM methodology development, benefit from enhanced availability, accessibility, comparability and reliability of activity data.