

Best Practice and Inventory 'Tools'

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Introduction

- Common challenges
- Best practice examples (and QA/QC)
- Uncertainties
- Key Categories
- Advanced outputs and review



Common challenges

- Transparency!
- Will others be able to understand my work?
- So what can we do?



Colour coding

- Input data, linked cells, calculations, assumptions
EFs...

2008	2009	2010	2011	2012	2013	2014
84	86	87	89	89	89	89
0.16	0.16	0.16	0.16	0.16	0.16	0.16
1.4	1.4	1.4	1.4	1.4	1.4	1.4
1.25	1.25	1.25	1.25	1.25	1.25	1.25
0	0	0	0	0	0	0
1535221	1580515	1586421	1608935	1614766	1620398	1624286
0.005	0.005	0.005	0.005	0.005	0.005	0.005
1.5714286	1.571428571	1.5714286	1.5714286	1.5714286	1.571429	1.571429
0	0	0	0	0	0	0
12062	12418	12465	12642	12687	12732	12762



Documentation

- Make notes as you work! References, assumptions, methods etc.
- Collate information that can be used for reporting
- Log the information – provide evidence of QA

Issues Log						
1	OFFICIAL					
2	Copy and Paste this sheet into your own personal version of the model being Reviewed					
3	Regenerate Issues Log					
4						
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Use of Uncertainties

- Talk to your data providers
- You can use expert opinion for country specific data
- Feed into improvements plan and to prioritise uncertain data / parameters

Activity Uncertainty	% uncertainty			Total	Reference
	Completeness	Accuracy	Other (e.g. Geographical scaling)		
Waste generation rate				0.0%	
Population statistics				0.0%	
Fraction to SWDS (MSWf)				0.0%	
Methane recovered / flared				0.0%	
				0.0%	



Key Category Analysis

- Prioritise improvements
- Developing T2/3 methods
- Build into your improvement plan



KCA Example

- UK development of biological waste treatment (IPCC 2006)
- Will this category be a key category?
- Is a Tier 1 method appropriate?
- What about future years?



KCA Example (old CRF codes!)

Category	Gas	1990	1990 (abs)	2018	2018 (abs)	Trend assessment	Contribution to trend (%)	Cumulative total contribution	KC?
1.A.3. Transport	CO2	114437.72	114437.72	102241.09	102241.09	0.04	15.99	15.99	*
1.A.2. Manufacturing Industries	CO2	104737.30	104737.30	41363.25	41363.25	0.03	12.76	28.75	*
6.A. Solid Waste Disposal on Land	CH4	51232.81	51232.81	10261.97	10261.97	0.03	11.47	40.22	*
1.A.4. Other Sectors	CO2	107971.17	107971.17	83972.33	83972.33	0.02	8.53	48.75	*
2.F. Consumption of Halocarbons a HFCs		10.32	10.32	15967.65	15967.65	0.02	8.37	57.12	*
2.B. Chemical Industry	N2O	23687.34	23687.34	0.00	0.00	0.02	7.79	64.92	*
1.B.1. Solid Fuels	CH4	21788.37	21788.37	1638.45	1638.45	0.01	6.31	71.23	*
2.E. Production of Halocarbons and HFCs		11373.73	11373.73	0.00	0.00	0.01	3.74	74.97	*
1.A.1. Energy Industries	CO2	235515.96	235515.96	154353.34	154353.34	0.01	3.49	78.46	*
5.A. Forest Land	CO2	-15901.55	15901.55	-15616.45	15616.45	0.01	3.26	81.72	*
4.D. Agricultural Soils ⁽¹⁾	N2O	32403.88	32403.88	26251.57	26251.57	0.01	3.11	84.83	*
4.A. Enteric Fermentation	CH4	22639.52	22639.52	18120.95	18120.95	0.00	2.06	86.89	*
2.A. Mineral Products	CO2	10504.66	10504.66	4099.59	4099.59	0.00	1.31	88.19	*
5.E. Settlements	CO2	6893.22	6893.22	6661.51	6661.51	0.00	1.23	89.42	*
5.C. Grassland	CO2	-6300.72	6300.72	-6735.85	6735.85	0.00	1.00	90.43	*
1.A.5. Other	CO2	5284.82	5284.82	1526.96	1526.96	0.00	0.94	91.36	*
1.B.2. Oil and Natural Gas	CH4	12332.28	12332.28	5954.14	5954.14	0.00	0.93	92.30	*
5.B. Cropland	CO2	15783.60	15783.60	8298.56	8298.56	0.00	0.84	93.14	*
2.C. Metal Production	CO2	2340.71	2340.71	0.00	0.00	0.00	0.77	93.91	*
5.G. Other	CO2	59.16	59.16	-1347.81	1347.81	0.00	0.73	94.63	*
1.B.2. Oil and Natural Gas	CO2	5777.92	5777.92	2570.33	2570.33	0.00	0.55	95.19	*
6.D. Other	CH4	5.48	5.48	902.75	902.75	0.00	0.47	95.66	



KCA Example

- For 2012 the category was well below key category level
- BUT for 2018 projection it is estimated to be close to a key category
- This information is included in the improvement programme (how can we move towards a Tier 2/3 method?)



- Use inventory data to critically review that data and implications on emissions...



Thank you

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