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PROGRESS REPORT ON THE ESTABLISHMENT OF A DATABASE ON GHG EMISSION FACTORS

(Submitted by the Co-Chairs of the Task Force Bureau)

The Panel is invited to consider this progress report, which provides background information relating to the establishment of the Emission Factors Data Base (EFDB), and also details the role and composition of the editorial board that will oversee its operation.

Progress report on Establishment of a Database on GHG Emission Factors

Background

1. The quality of national greenhouse gas (GHG) inventories depends substantially on reliable emission factors. Many countries have indicated that an easily accessible public database on GHG emission factors with supporting scientific information would help improve the quality of GHG inventories in a cost-effective way.
2. Sharing of research information would enable countries to use or develop emission factors that are more applicable to the circumstances in question than the IPCC default emission factors without having to bear the associated research costs. For this reason, many countries have indicated (e.g. in the Expert Group Meeting on National Feedback on the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Havana, Cuba, September 1998) that an easily accessible public database on GHG emission factors with supporting scientific information would help improve the quality of GHG inventories in a cost-effective way.
3. A database on GHG emission factors (EFDB) with supporting scientific information would also support the future review and update of the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* under the IPCC-NGGIP. With this background, the project to establish a database on GHG emission factors was initiated with a scoping meeting held in New Delhi, India, on 24-25 July 2000. The work has progressed in two phases
 - Phase I: Planning, Design and Pilot Testing (and Establishment)
 - Phase II: Dissemination and On-going Maintenance

Accomplishments in Phase I

4. Two expert meetings¹ were held in 2001 - 2002 to facilitate and advance the development and the functionality of the database. A Steering Group established by the TFB has guided and supervised the work. A contractor (SPIRIT²) was chosen to develop the software for the database by a public tender. A prototype database was constructed in accordance with the functional design agreed at the Paris meeting, and was subjected to pilot testing by a number of inventory experts from different countries for 8 weeks, from 11 February to 8 April 2002. The selected reviewers were invited to examine every aspect of the prototype database including the structure and the data input, output procedures.
5. The second expert meeting was held in Bratislava, Slovakia, on 23-24 April 2002. At this meeting, participants considered the comments obtained through the pilot testing and made recommendations to the EFDB Steering Group on how to improve the prototype database. Following these recommendations, it was improved by the SPIRIT and the Technical Support Unit (TSU) in consultation with the EFDB Steering Group (May - September 2002). Finally, the EFDB was installed in the computer located at the IGES in Hayama, Kanagawa, Japan, by the SPIRIT and the IGES, on 23 - 25 September 2002.
6. The EFDB (web version³) was launched on 26 October 2002 at the 8th session of Conference of the Parties to the UNFCCC (COP8). The Co-chair Taka Hiraishi, project co-chair Katarina Mareckova and the TSU presented the project at two side-events and at

¹ Paris, 2-4 July 2001 and Bratislava, 23 - 24 April 2002.

² SPIRIT -informačné systémy, a. s., Dubravská cesta 9, 842 37 Bratislava, Slovakia. (<http://www.spirit.sk>)

³ <http://www.ipcc-nggip.iges.or.jp/EFDB/main.php>

the IPCC booth at COP8. The launching of the EFDB was also announced through the IISD's Climate-L (a world-wide mailing list).

Box – 1: Brief outline of the IPCC Emission Factor Data Base (EFDB)

The EFDB is developed under the work plan endorsed by the TFB. The final responsibility of the system and its data is with the IPCC. The Management Plan for the maintenance of the EFDB is meant to fully recognise this responsibility, through defining a pragmatic and cost-effective management structure to ensure the following:

- a. A sustained availability of the information available in EFDB through
 - i. The Internet;
 - ii. Distribution of the information contained in EFDB on CD-ROMs for users with limited Internet access.
- b. A sustained inflow of new emission factors and other parameters that supports estimation of emissions of greenhouse gases, primarily at national level
- c. Appropriate presentation, publication and dissemination of information on the EFDB and its contents

A goal of the EFDB is to grow towards a recognised library, where users can find emission factors and other parameters with background documentation that can be used for estimating greenhouse gas emissions in national submissions of inventories to the UNFCCC. The responsibility of using this information appropriately will always remain with the national expert using it.

The EFDB shall be open to any relevant proposals on emission factors or other related parameters. Acceptance of such proposals will be subject to assessment by an editorial board using well-defined criteria. This means proposals will not be automatically accepted or rejected but will be checked for possible technical errors by the editorial board prior to publication in the EFDB.

Different values of emission factors for a particular source category can be accepted at the same time, even if those values are contributed by the same provider. A provider might make several measurements and obtained different results, or the data provider has collected scientific literature and is merely reporting the various results of different researchers for the same emission parameter. In either case, "properties" field of the data in the EFDB must clearly differentiate between the values reported. This process will thus facilitate the distribution of alternative values for emission parameters from which end users can then make informed choices about the most appropriate applications.

Commencement of Phase II

7. The database population will be the main challenge for the second phase of the project. The database includes at present IPCC default emission factors and parameters, and emission factors from the European CORINAIR database. The modalities and procedures to manage and populate the database are given in Appendix 1⁴.

⁴ As approved by the Task Force Bureau at its 9th Session (TFB9) on 25 – 27 November 2002 in Hayama, Japan.

8. The EFDB will be open to any relevant proposals on emission factors or other related parameters, but all proposals must be traceable and all data providers will be registered in the database. An EFDB Editorial Board has been established with an objective of ensuring all emission factors and other parameters contained in the EFDB are scientifically sound according to the criteria⁵ endorsed by the Task Force Bureau (TFB) on the IPCC-NGGIP. The EFDB Editorial Board assumes the responsibility to assess whether the proposed new emission factors or other parameters are acceptable or not, but it will not evaluate the quality of the data already published by the IPCC and/or in the open literature. It would determine whether the newly submitted data are scientifically sound and documentation is sufficient.
9. A letter to call for nominations for the Editorial Board members was sent out on 18 September 2002. Nominations of 64 experts from 27 governments were received. The TFB9 agreed on a short list of the Editorial Board members as shown in Appendix 2. Subsequently, the IPCC Bureau XXVIII also agreed that the list may be augmented with additional members (Sector Experts) to fulfil expertise required for the task of Editorial Board.
10. The Editorial Board will consist of the following members:
 - a. Two experts as Editorial Co-ordinators for each of the sectors:
 - i. Energy
 - ii. Industrial Processes
 - iii. Agriculture
 - iv. Land-Use Change and Forestry
 - v. Waste
 - b. Three to five additional experts as Sector Experts for each of the sectors above.
 - c. Two Board Co-chairs who will have overall responsibility of assessment of emission factors for the EFDB. They will also be responsible for assessment of emission factors and other parameters in Solvent and Other Product Use and any other source category not covered by the experts listed above.
 - d. A representative of the TSU to represent data and system management.
11. The first meeting of the EFDB Editorial Board was held on 28-30 January 2003 in Hayama, Japan, with participation of the EFDB Editorial Board members and the EFDB Steering Group, to consider the criteria to be used in assessment of proposals by data providers. These criteria will ensure the integrity and scientific soundness of the EFDB, consistency in the assessment as well as finding good strategies for population of the database. The conclusions of this meeting will be forwarded to the TFB for its consideration and endorsement at its 10th session in July 2003.

Future Development

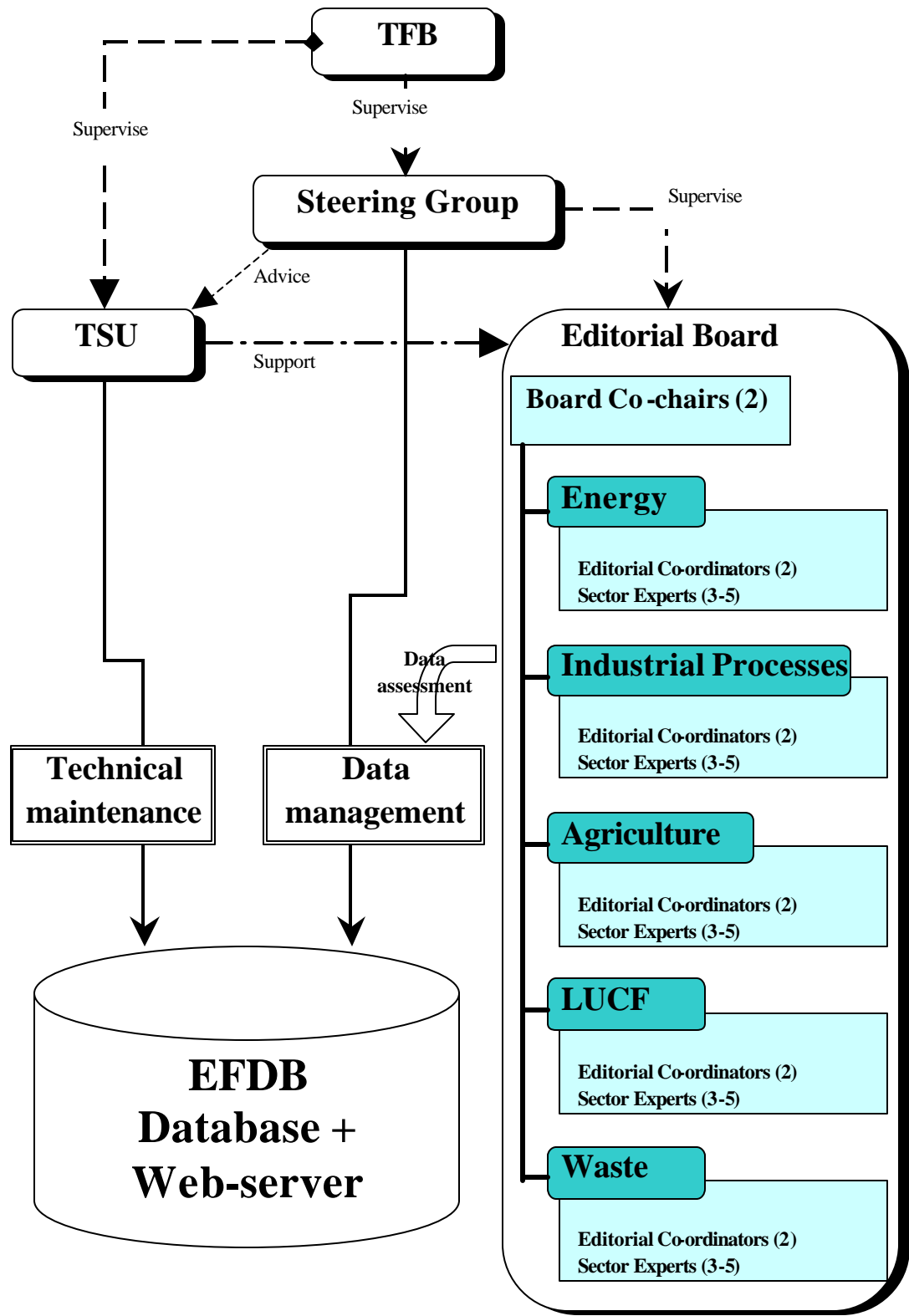
12. The following items have also been agreed by TFB 9 as next steps of the project:
 - Finalisation of CDROM version and its release at SB18.
 - Contract with a database developer to continue the development and improvement of the database base on feedback from the user.
 - Finalisation of EFDB User Manual (Version 1.00) to be submitted to the TFB by e-mail in due course for endorsement.

⁵ Well-defined criteria should be developed by the Steering Group or at an expert meeting involving the Steering Group as well as the Editorial Board.

13. Progress on the development has been considered at all TFB sessions between 2001 and 2002 and at IPCC Bureau XXVII, held on 6 – 8 August 2002 and IPCC Bureau XXVIII, held on 10-11 December 2002, both in Geneva.

Appendix 1: Modalities and Procedures to Manage and Populate the Database

Management structure for the EFDB until 10th session of the TFB



Appendix 2: Slate of EFDB Editorial Board members

As of 20 November 2002, the Technical Support Unit (TSU) has received nominations of 64 experts from 27 governments for EFDB Editorial Board members.

The TFB, at its 9th session in Hayama, Japan, on 25-26 November 2002, agreed upon the short list of the EFDB Editorial Board members. The list may be augmented with additional members (Sector Experts) in order to fulfil expertise required for the task of Editorial Board.

Board Co-chairs	Tinus Pulles (The Netherlands)				
	Katarina Mareckova (Slovakia)				
	Energy	Industrial Processes	Agriculture	LUCF	Waste
Editorial Co-ordinators	Pavel Fott (Czech)	William Agyemang-Bonsu (Ghana)	Joe Mangino (US)	Pascal Boeckx (Belgium)	Carlos Lopez (Cuba)
	Timothy Simmons (UK)	Jos Olivier (The Netherlands)	Li Xu (China)	Nagmeldin Goutbi (Sudan)	Elizabeth Scheehle (US)
Sector Experts	Dario Gomez (Argentina)	L. R. Meija (Dominican Rep.)	Keith Lassey (NZ)	Anders Lindroth (Sweden)	Robert Gregory (UK)
	Azhari F. M. Ahamed (Qatar)	Hideaki Nakane (Japan)	Lima Magda (Brazil)	Michael Gytarsky (Russia)	Sonia Maria Manso Vieira (Brazil)
	Micheal Strogies (Germany)	Kristina Saarinen (Finland)	Ian Galbally (Australia)	Xiaoquan Zhang (China)	
			Anna A. Romanovskaya (Russia)		
