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**Economic and environmental questions: transport of
dangerous goods**

Work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Report of the Secretary-General

Summary

In accordance with Economic and Social Council resolution 645 G (XXIII), the Secretary-General reports biennially to the Council on the work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals, and of its two subcommittees.

The present report concerns the work of the Committee of Experts during the biennium 2009-2010 and the implementation of Economic and Social Council resolution 2009/19.

In accordance with that resolution, the secretariat has published the sixteenth revised edition of the *Recommendations on the Transport of Dangerous Goods: Model Regulations*, the fifth revised edition of the *Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria* and the third revised edition of the *Globally Harmonized System of Classification and Labelling of Chemicals*.

All the main legal instruments and codes governing the international transport of dangerous goods by sea, air, road, rail or inland waterway have been amended accordingly, with effect from 1 January 2011, and many Governments have also transposed the provisions of the Model Regulations into their own legislation for domestic traffic for application from 2011.

* E/2011/100.



Many Governments and international organizations have revised or taken steps to revise existing national and international legislation in order to implement the Globally Harmonized System as soon as possible.

The Committee adopted amendments to the Model Regulations and the *Manual of Tests and Criteria*, which consist mainly of new or revised provisions that concern the security of transport of high consequence radioactive material; listing and classification of dangerous goods and related packing and test methods; transport of dangerous goods packed in limited and excepted quantities; transport in packages and cargo transport units containing substances presenting a risk of asphyxiation when used for cooling or conditioning purposes; the use of salvage pressure receptacles and the use, design, construction, inspection, testing and handling of flexible bulk containers; and the use of electronic data interchange for documentation purposes.

The Committee also adopted amendments to the Globally Harmonized System that include various new or revised provisions concerning, inter alia, new hazard categories for chemically unstable gases and non-flammable aerosols; the further rationalization of precautionary statements; and the further clarification of some of the criteria to avoid differences in their interpretation.

The Committee adopted a programme of work for the biennium 2011-2012; sessions for the Subcommittee of Experts on the Transport of Dangerous Goods, for the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals and for the Committee have been planned for the period 2011-2012 in accordance with Economic and Social Council resolution 1999/65.

The Committee is recommending a draft resolution on its work for adoption by the Economic and Social Council.

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I. Draft resolution for adoption by the Economic and Social Council

1. The Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals recommends to the Economic and Social Council the adoption of the following draft resolution:

Work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

The Economic and Social Council,

Recalling its resolutions 1999/65 of 26 October 1999 and 2009/19 of 29 July 2009,

Having considered the report of the Secretary-General on the work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals during the biennium 2009-2010,¹

A. Work of the Committee regarding the transport of dangerous goods

Recognizing the importance of the work of the Committee for the harmonization of codes and regulations relating to the transport of dangerous goods,

Bearing in mind the need to maintain safety standards at all times and to facilitate trade, as well as the importance of this to the various organizations responsible for modal regulations, while meeting the growing concern for the protection of life, property and the environment through the safe and secure transport of dangerous goods,

Noting the ever-increasing volume of dangerous goods being introduced into worldwide commerce, and the rapid expansion of technology and innovation,

Recalling that, while the major international instruments governing the transport of dangerous goods by the various modes of transport and many national regulations are now better harmonized with the Model Regulations annexed to the Committee's recommendations on the transport of dangerous goods, further work on harmonizing these instruments is necessary to enhance safety and to facilitate trade, and recalling also that uneven progress in the updating of national inland transport legislation in some countries of the world continues to present serious challenges to international multimodal transport,

Noting with concern that, despite the recommendations contained in chapter 5.5 of the Model Regulations annexed to the Recommendations on the Transport of Dangerous Goods, intended to alert workers involved in opening and unloading transport units containing general cargo that has been fumigated prior to shipment for phytosanitary purposes and who may be unfamiliar with the substantial

¹ E/2011/91.

risks of asphyxiation, intoxication and death when such units have not been ventilated, accidents during such operations are still reported in port areas and inland container depots,

1. *Expresses its appreciation* for the work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals with respect to matters relating to the transport of dangerous goods, including their security in transport;

2. *Requests* the Secretary-General:

(a) To circulate the new and amended recommendations on the transport of dangerous goods² to the Governments of Member States, the specialized agencies, the International Atomic Energy Agency and other international organizations concerned;

(b) To publish the seventeenth revised edition of the *Recommendations on the Transport of Dangerous Goods: Model Regulations*³ and amendment 1 to the fifth revised edition of the *Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria*⁴ in all the official languages of the United Nations, in the most cost-effective manner, no later than the end of 2011;

(c) To make those publications available on the website of the Economic Commission for Europe,⁵ which provides secretariat services to the Committee, and to make them available also on CD-ROM;

3. *Invites* all Governments, the regional commissions, the specialized agencies, the International Atomic Energy Agency and the other international organizations concerned to transmit to the secretariat of the Committee their views on the Committee's work, together with any comments that they may wish to make on the recommendations on the transport of dangerous goods;

4. *Invites* all interested Governments, the regional commissions, the specialized agencies and the international organizations concerned to take into account the recommendations of the Committee when developing or updating appropriate codes and regulations;

5. *Invites* in particular the Governments of Member States and the International Labour Organization to draw the attention of authorities and other entities concerned with workplace safety to the warning, marking, documentation and training provisions contained in chapter 5.5 of the *Recommendations on the Transport of Dangerous Goods: Model Regulations*, concerning fumigated cargo transport units, and to take appropriate steps to ensure their implementation and workers' awareness;

6. *Requests* the Committee to study, in consultation with the International Maritime Organization, the International Civil Aviation Organization, the regional commissions and the intergovernmental organizations concerned, the possibilities of improving the implementation of the Model Regulations on the transport of dangerous goods in all countries for the purposes of ensuring a high level of safety

² ST/SG/AC.10/38/Add.1 and Add.2.

³ ST/SG/AC.10/1/Rev.17.

⁴ ST/SG/AC.10/11/Rev.5/Amend.1.

⁵ www.unece.org/trans/danger/danger.html.

and eliminating technical barriers to international trade, including through the further harmonization of international agreements or conventions governing the international transport of dangerous goods;

7. *Invites* all Governments, as well as the regional commissions and organizations concerned, the International Maritime Organization and the International Civil Aviation Organization to provide feedback to the Committee regarding differences between the provisions of national, regional or international legal instruments and those of the Model Regulations, in order to enable the Committee to develop cooperative guidelines for enhancing consistency between these requirements and reducing unnecessary impediments; to identify existing substantive and international, regional and national differences, with the aim of reducing those differences in modal treatment to the greatest extent practical and ensuring that where differences are necessary they do not pose impediments to the safe and efficient transport of dangerous goods; and to undertake an editorial review of the Model Regulations and various modal instruments with the aim of improving clarity, user friendliness and ease of translation;

B. Work of the Committee regarding the Globally Harmonized System of Classification and Labelling of Chemicals

Bearing in mind that in paragraph 23 (c) of the Plan of Implementation of the World Summit on Sustainable Development (“Johannesburg Plan of Implementation”),⁶ countries were encouraged to implement the Globally Harmonized System of Classification and Labelling of Chemicals as soon as possible with a view to having the system fully operational by 2008,

Bearing in mind also that the General Assembly, in its resolution 57/253 of 20 December 2002, endorsed the Johannesburg Plan of Implementation and requested the Economic and Social Council to implement the provisions of the Plan relevant to its mandate and, in particular, to promote the implementation of Agenda 21 by strengthening system-wide coordination,

Noting with satisfaction:

(a) That the Economic Commission for Europe and all United Nations programmes and specialized agencies concerned with chemical safety in the field of transport or of the environment, in particular the United Nations Environment Programme, the International Maritime Organization and the International Civil Aviation Organization, have already taken appropriate steps to amend or update their legal instruments in order to give effect to the Globally Harmonized System of Classification and Labelling of Chemicals or are considering amending them as soon as possible;

(b) That the International Labour Organization, the Food and Agriculture Organization of the United Nations and the World Health Organization are also taking appropriate steps to adapt their existing chemical safety recommendations, codes and guidelines to the Globally Harmonized System, in particular in the areas

⁶ *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum), chap. I, resolution 2, annex.

of occupational health and safety, pesticide management and the prevention and treatment of poisoning;

(c) That the Globally Harmonized System has already been in force in Mauritius since 2004;⁷

(d) That New Zealand, where the first edition of the Globally Harmonized System has been in force since 2001, is updating its national legislation in accordance with the provisions of its third revised edition;⁷

(e) That in the European Union, the first adaptation to technical progress to the so-called “Classification, Labelling and Packaging Regulation”,⁸ implementing the Globally Harmonized System in its member States and in the European Economic Area, entered into force on 25 September 2009⁹ and that a second adaptation, intended to bring the Classification, Labelling and Packaging Regulation in line with the provisions of the third revised edition of the Globally Harmonized System, is expected to be published within the first half of 2011;⁷

(f) That national legislation implementing the Globally Harmonized System in Serbia entered into force on September 2010;⁷

(g) That in the United States of America, the Department of Labor of the Occupational Safety and Health Administration published on 30 September 2009 a proposed rule to modify its existing Hazard Communication Standard to conform with the third revised edition of the Globally Harmonized System;⁷

(h) That implementation of the Globally Harmonized System has started in the Republic of Korea, Singapore and Viet Nam;⁷

(i) That other Member States (e.g., Australia, Brazil, Canada, China, Japan, Malaysia, the Russian Federation, South Africa and Switzerland) participating in the activities of the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals are actively preparing revisions of national legislation, or have developed or already issued standards applicable to chemicals in implementation of the Globally Harmonized System;⁷

(j) That a number of United Nations programmes and specialized agencies and regional organizations, in particular the United Nations Institute for Training and Research, the International Labour Organization, the World Health Organization, the Economic Commission for Europe, the Asia-Pacific Economic Cooperation and the Organization for Economic Cooperation and Development, Governments, the European Union and non-governmental organizations

⁷ Information on implementation of the Globally Harmonized System of Classification and Labelling of Chemicals by country and through international legal instruments, recommendations, codes and guidelines is available on the website of the Economic Commission for Europe at www.unece.org/trans/danger/publi/ghs/implementation_e.html.

⁸ Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing directives 67/548/EEC and 1999/45/EC, and amending regulation (EC) No. 1907/2006 (*Official Journal of the European Union*, L 353 of 31 December 2008). The Regulation entered into force on 20 January 2009.

⁹ Commission Regulation (EC) No. 790/2009 of 10 August 2009, amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No. 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (*Official Journal of the European Union*, L 235 of 10 August 2009).

representing the chemical industry, have organized or contributed to multiple workshops, seminars and other capacity-building activities at the international, regional, subregional and national levels in order to raise administration, health sector and industry awareness and to prepare for or support the implementation of the Globally Harmonized System;

Aware that effective implementation will require further cooperation between the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals and the international bodies concerned, continued efforts by the Governments of Member States, cooperation with the industry and other stakeholders, and significant support for capacity-building activities in countries with economies in transition and developing countries,

Recalling the particular significance of the United Nations Institute for Training and Research, the International Labour Organization and the Organization for Economic Cooperation and Development Global Partnership for Capacity-building to Implement the Globally Harmonized System of Classification and Labelling of Chemicals for building capacities at all levels,

1. *Commends* the Secretary-General for the publication of the third revised edition of the *Globally Harmonized System of Classification and Labelling of Chemicals* in the six official languages of the United Nations, in book form¹⁰ and on CD-ROM, and its availability together with related information material on the website of the Economic Commission for Europe,⁵ which provides secretariat services to the Committee;

2. *Expresses its deep appreciation* to the Committee, the Economic Commission for Europe, United Nations programmes, specialized agencies and other organizations concerned for their fruitful cooperation and their commitment to the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals;

3. *Requests* the Secretary-General:

(a) To circulate the amendments¹¹ to the third revised edition of the *Globally Harmonized System of Classification and Labelling of Chemicals* to the Governments of Member States, the specialized agencies and other international organizations concerned;

(b) To publish the fourth revised edition¹² of the *Globally Harmonized System of Classification and Labelling of Chemicals* in all the official languages of the United Nations in the most cost-effective manner no later than the end of 2011 and to make it available on CD-ROM and on the website of the Economic Commission for Europe;

(c) To continue to make information on the implementation of the Globally Harmonized System available on the website of the Economic Commission for Europe;⁷

4. *Invites* Governments that have not yet done so to take the necessary steps, through appropriate national procedures and/or legislation, to implement the

¹⁰ United Nations publication, Sales No. E.09.II.E.10 and corrigenda.

¹¹ ST/SG/AC.10/38/Add.3.

¹² ST/SG/AC.10/30/Rev.4.

Globally Harmonized System of Classification and Labelling of Chemicals as soon as possible;

5. *Reiterates its invitation* to the regional commissions, United Nations programmes, the specialized agencies and other organizations concerned to promote the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals and, where relevant, to amend their respective legal international instruments addressing transport safety, workplace safety, consumer protection or the protection of the environment so as to give effect to the Globally Harmonized System through such instruments;

6. *Invites* Governments, the regional commissions, United Nations programmes, the specialized agencies and other organizations concerned to provide feedback to the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals on the steps taken for the implementation of the Globally Harmonized System in all relevant sectors, through international, regional or national legal instruments, recommendations, codes and guidelines, including, when applicable, information about the transitional periods for its implementation;

7. *Encourages* Governments, the regional commissions, United Nations programmes, the specialized agencies and other relevant international organizations and non-governmental organizations, in particular those representing industry, to strengthen their support for the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals by providing financial contributions and/or technical assistance for capacity-building activities in developing countries and countries with economies in transition;

C. Programme of work of the Committee

Taking note of the programme of work of the Committee for the biennium 2011-2012 as contained in paragraphs 48 and 49 of the report of the Secretary-General,¹

Noting the relatively poor level of participation of experts from developing countries and countries with economies in transition in the work of the Committee and the need to promote their wider participation in its work,

1. *Decides* to approve the programme of work of the Committee;

2. *Stresses* the importance of the participation of experts from developing countries and from countries with economies in transition in the work of the Committee, calls, in that regard, for voluntary contributions to facilitate their participation, including through support for travel and daily subsistence, and invites Member States and international organizations in a position to do so to contribute;

3. *Requests* the Secretary-General to submit a report to the Economic and Social Council in 2013 on the implementation of the present resolution, the recommendations on the transport of dangerous goods and the Globally Harmonized System of Classification and Labelling of Chemicals.

II. Implementation of Economic and Social Council resolution 2009/19

A. Publications

2. As requested by the Economic and Social Council in its resolution 2009/19, the Secretary-General prepared the sixteenth revised edition of the *Recommendations on the Transport of Dangerous Goods: Model Regulations*.¹³ The edition was published for official circulation and sale in Arabic (180 copies), Chinese (105 copies), English (3,245 copies), French (590 copies), Russian (195 copies) and Spanish (280 copies).

3. The fifth revised edition of the *Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria*¹⁴ was published for official circulation and sale in Arabic (170 copies), Chinese (100 copies), English (2,585 copies), French (710 copies), Russian (225 copies) and Spanish (305 copies).

4. The third revised edition of the *Globally Harmonized System of Classification and Labelling of Chemicals*¹⁵ was published for official circulation and sale in Arabic (190 copies), Chinese (100 copies), English (2,305 copies), French (570 copies), Russian (195 copies) and Spanish (270 copies).

5. Combined versions of the *Model Regulations*, the *Manual of Tests and Criteria* and the *Globally Harmonized System of Classification and Labelling of Chemicals* were also made available on a CD-ROM containing the English, French and Spanish versions.

6. *The Model Regulations*, the *Manual of Tests and Criteria* and the *Globally Harmonized System* are available online in all languages on the website of the Economic Commission for Europe.⁵

B. Implementation of the Recommendations on the Transport of Dangerous Goods: Model Regulations

7. In its resolution 2009/19, the Economic and Social Council invited all interested Governments, the regional commissions, the specialized agencies and the international organizations concerned, when developing or updating appropriate codes and regulations, to take into account the recommendations of the Committee.

8. The provisions of the sixteenth revised edition of the *Model Regulations*¹³ have been incorporated into the following international instruments:

(a) International Maritime Organization (IMO): International Maritime Dangerous Goods Code, amendment 35-10 (mandatory application for the 159 contracting parties to the International Convention for the Safety of Life at Sea from 1 January 2012, with the possibility of application on a voluntary basis from 1 January 2011);

¹³ United Nations publication, Sales No. E.09.VIII.2 and corrigendum.

¹⁴ Ibid., Sales No. E.09.VIII.3.

¹⁵ Ibid., Sales No. E.09.II.E.10 and corrigenda.

(b) International Civil Aviation Organization (ICAO): 2011-2012 edition of the Technical Instructions for the Safe Transport of Dangerous Goods by Air (mandatory application for the 190 contracting parties to the Convention on International Civil Aviation from 1 January 2011);

(c) International Air Transport Association: Dangerous Goods Regulations 2011 (fifty-second) edition (applicable from 1 January 2011);

(d) Economic Commission for Europe: European Agreement concerning the International Carriage of Dangerous Goods by Road (applicable from 1 January 2011, 47 contracting parties);

(e) Economic Commission for Europe: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (applicable from 1 January 2011, 16 contracting parties);

(f) Intergovernmental Organization for International Carriage by Rail: Regulations concerning the International Carriage of Dangerous Goods by Rail (appendix C to the Convention concerning International Carriage by Rail) (applicable from 1 January 2011, 44 contracting parties).

9. In the member States of the European Union, the provisions of the European Agreement concerning the International Carriage of Dangerous Goods by Road, the Regulations concerning the International Carriage of Dangerous Goods by Rail and the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways will also apply to domestic traffic from 1 January 2011.¹⁶

10. The Common Market of the South (MERCOSUR) countries (Argentina, Brazil, Paraguay and Uruguay) are applying an agreement on the inland transportation of dangerous goods (Acuerdo sobre Transporte de Mercancías Peligrosas en el MERCOSUR) based on the seventh revised edition¹⁷ of the *Model Regulations*, the Regulations concerning the International Carriage of Dangerous Goods by Rail and the European Agreement concerning the International Carriage of Dangerous Goods by Road, which is being updated on the basis of the twelfth revised edition.¹⁸

11. The Andean Community (Plurinational State of Bolivia, Colombia, Ecuador and Peru) have developed draft regulations based on the thirteenth revised edition of the *Model Regulations*,¹⁹ the European Agreement concerning the International Carriage of Dangerous Goods by Road (2005) and the Regulations concerning the International Carriage of Dangerous Goods by Rail (2005), which are still under consideration.

12. In 1997, the Economic and Social Commission for Asia and the Pacific published the *Guidelines for the Establishment of National and Regional Systems for Inland Transportation of Dangerous Goods*,²⁰ recommending the implementation of the recommendations on the transport of dangerous goods. The transport ministers of the Association of Southeast Asian Nations (ASEAN) signed, on 20 September 2002,

¹⁶ Commission Directive 2010/61/EU of 2 September 2010, adapting for the first time the annexes to Directive 2008/68/EC of the European Parliament and of the Council on the inland transport of dangerous goods to scientific and technical progress (Official Journal of the European Union, L 233 of 3 September 2010).

¹⁷ United Nations publication, Sales No. E.91.VIII.2.

¹⁸ Ibid., Sales No. E.01.VIII.4.

¹⁹ Ibid., Sales No. E.03.II.E.25 and corrigendum.

²⁰ Ibid., Sales No. E.98.II.F.49.

Protocol No. 9 to the ASEAN Framework Agreement on the Facilitation of Goods in Transit. The Protocol provides for the simplification of procedures and requirements for the transit transport of dangerous goods in ASEAN countries, using the Model Regulations and the European Agreement concerning the International Carriage of Dangerous Goods by Road.

13. In 1999, the Central African Economic and Monetary Community (Cameroon, the Central African Republic, Chad, the Congo, Equatorial Guinea and the Gabon) adopted regulations concerning the transport of dangerous goods by road that are partly based on old provisions of the European Agreement concerning the International Carriage of Dangerous Goods by Road but that are not fully in line with the Model Regulations.

14. With respect to domestic inland transport of dangerous goods in individual countries, except as described above, implementation of the recommendations on the transport of dangerous goods may vary considerably depending on the national procedures for enacting law or updating regulations. For example, the regulations applicable in the United States of America (Title 49 of the Code of Federal Regulations) are normally updated on a yearly basis and they have been updated to reflect the sixteenth revised edition of the *Model Regulations*,¹³ with very few exceptions. The Canadian regulations are based on the fourteenth revised edition²¹ but consignees are authorized to use the classification and shipping names of the latest edition. The *Australian Code for the Transport of Dangerous Goods by Road and Rail* (seventh edition) is also based on the fourteenth revised edition of the *Model Regulations*. The twelfth revised edition¹⁸ of the *Model Regulations* has been adopted as a national standard in Malaysia and has been implemented through national legislation in Brazil and Thailand.

15. Although international transport of dangerous goods is facilitated by the harmonization of the major international conventions and agreements concerning the transport of dangerous goods with the Model Regulations, and their simultaneous updating, the fact that certain national regulations applicable to inland transport are not brought into line simultaneously, or completely, is still causing problems in international trade, in particular in the case of multimodal transport. For that reason, the Committee has maintained in its draft programme of work an item on global harmonization of regulations on the transport of dangerous goods with the Model Regulations.

C. Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals

16. The World Summit on Sustainable Development in 2002 in Johannesburg, in paragraph 23 (c) of its Plan of Implementation,⁶ encouraged countries to implement the Globally Harmonized System of Classification and Labelling of Chemicals as soon as possible with a view to having the system fully operational by 2008.

17. Since the Globally Harmonized System addresses several sectors (transport, consumers, occupational health and safety and the environment), its effective implementation requires significant efforts from Member States to amend many

²¹ Ibid., Sales No. E.05.VIII.I and corrigendum.

existing legal texts concerning chemical safety in each sector or to enact new legislation.

18. In the transport sector, the Model Regulations have already been updated to reflect the relevant provisions of the third revised edition of the *Globally Harmonized System*. All the major international instruments listed in paragraph 8 above have also been amended accordingly for effective application in 2011, as have all national regulations that are based on those instruments or that are regularly updated on the basis of the Model Regulations.

19. In the other sectors, the situation is more complex, because implementation requires the amendment or revision of a considerable number of different legal texts and guidelines for application.

20. Legal instruments or national standards implementing the Globally Harmonized System (or allowing its application) in one or several sectors have already entered into force in the following countries: Brazil (2009), China (2010), Ecuador (2009), Japan (2006), New Zealand (2001), Mauritius (2004), the Republic of Korea (2006), Serbia (2010), Singapore (2008), Switzerland (2009), Uruguay (2009) and Viet Nam (2009) as well as in the 27 countries members of the European Union and the 3 countries members of the European Economic Area (January 2009).

21. Among the countries which have already implemented the system, New Zealand and the member States of the European Union started in 2010 the work to update their legal instruments in accordance with the provisions of the third revised edition of the *Globally Harmonized System*. It is expected that the revised legal instruments will be adopted before the end of 2011.

22. Other countries, in particular all those which participate (either as full members or as observers) in the meetings of the Subcommittee of Experts of the Globally Harmonized System of Classification and Labelling of Chemicals (see also paras. 29-31 below) such as: Australia, Canada, Chile, Malaysia, the Philippines, the Russian Federation, Thailand or the United States, continue to work on the revision and amendment of their legal texts, standards and guidelines to achieve implementation of the Globally Harmonized System as soon as possible. In particular Australia and the United States had already released for public comment (in 2009 and 2010, respectively) drafts of their relevant regulations for implementation of the Globally Harmonized System at the workplace.

23. In order to monitor the status of implementation of the Globally Harmonized System, the secretariat has placed on its website⁷ all the information it has collected from countries. The website provides the possibility for Government administrations to update this information or to submit new information for the various sectors concerned. **All countries are therefore invited to provide such information, as indicated in paragraph 6 of part B of the draft resolution contained in paragraph 1 above.**

24. Direct technical advice and expertise have been provided to stakeholders by some Member States and by the secretariat.

25. In particular, the secretariat was invited to provide information about the Globally Harmonized System, its status of implementation and the work of the Committee of Experts and its two subcommittees, at the following events organized

by other international organizations, industry associations, private institutions or governmental bodies:

(a) National congress on the Globally Harmonized System, organized by the Chemical Industry National Association in Mexico (Mexico City, September 2009);²²

(b) Seminar on the Globally Harmonized System (one-day event) organized by the Singapore Chemical Industry Council, and follow-up meeting with the National Implementation Task Force and the Singapore Chemical Industry Council Regulatory Affairs Committee on Globally Harmonized System implementation issues (half-day event) (Singapore, May 2010);

(c) Several seminars and conferences on issues related to the implementation of the Globally Harmonized System, organized by private institutions and industry associations involved in the management of chemicals, held in Australia (May 2010), Belgium (January 2010), the Netherlands (March 2009) and Spain (March, September and November 2009);

(d) United Nations Environment Programme (UNEP) scoping meeting for the study of stakeholder needs for information of chemicals in products (Geneva, December 2009) and World Trade Organization open-ended meeting of the Negotiating Group on Market Access for non-agricultural products (Geneva, July 2010);

(e) Second National Workshop on Hazard Communication, organized by the United Nations Institute for Training and Research (UNITAR) in Uruguay (Montevideo, April 2009).

26. With the logistic, technical or financial support of several Member States, international organizations (International Labour Organization (ILO), UNEP, World Health Organization (WHO), Basel Convention Secretariat and Regional Coordination Center in the African Region), intergovernmental organizations (Commonwealth of Independent States (CIS) and the European Union), governmental agencies and the private sector, several additional capacity-building and training activities were carried out, in particular:

(a) Within the framework of the UNITAR/ILO Global Capacity-building Programme on the Globally Harmonized System and the World Summit on Sustainable Development Global Partnership for Capacity-building to Implement the Globally Harmonized System:

(i) Projects to support implementation of the Globally Harmonized System in Cambodia and Uruguay; sectoral implementation plans in Viet Nam; situation and gap analysis evaluation and development of strategies for the implementation of the Globally Harmonized System by sector in the Lao People's Democratic Republic; situation and gap analysis evaluation as well as completion of the comprehensibility testing report in Jamaica;

(ii) Globally Harmonized System project activities (e.g., legal implementation and development of enforcement mechanisms, strengthening capacities for implementation of the Strategic Approach to International Chemicals Management (SAICM) and supporting Globally Harmonized System capacity-building) funded under the SAICM Quick Start Programme Trust Fund

²² Participation through audioconference.

approved for Zambia in 2008, the Gambia in 2009 and Barbados, Bahrain, Chile, the Congo, Madagascar, Togo and Central and Eastern European countries in 2010.

(iii) Several activities related to the project on strengthening national and regional capacities to implement the Globally Harmonized System in ASEAN were conducted in Malaysia, the Philippines and Thailand. Activities in China and Indonesia will follow;

(iv) Training and awareness-raising events:

- National workshops and/or training courses in the Gambia, Jamaica, Uruguay, Viet Nam and Zambia
- “Globally Harmonized System day” during the regional symposium on sound management of chemicals in Arab States (Damascus, October 2009)
- Globally Harmonized System stocktaking workshop for South-East, East and Central Asia (Beijing, September 2010)
- Globally Harmonized System workshop to test the training materials developed under the UNITAR/Basel Convention agreement, on the development of Globally Harmonized System training modules in the context of Africa (Ibadan, Nigeria, July 2009)
- Seminar on a national strategy to implement the Globally Harmonized System (Minsk, March 2010)
- Workshop on the implementation of the Globally Harmonized System, classification, labelling and packaging and registration, evaluation and authorization of chemicals (Tunisia, May 2010)
- Globally Harmonized System presentations during the Occupational Safety and Health Branch Annual Conference (Hong Kong, China, February 2010)
- Third international conference of the CIS countries on the regulation of chemical product safety, United Nations Recommendations, Globally Harmonized System of Classification and Labelling of Chemicals and European regulations (Baku, September 2010)

(v) Development of resource materials:

- Release in September 2010 of the revised Comprehensibility Testing Package and the updated version of the guidance document entitled “Developing a national Globally Harmonized System implementation strategy
- Completion of the Globally Harmonized System basic training course (“Introductory Globally Harmonized System training course”) and pilot testing activities conducted in Australia, Jamaica, Uruguay and Zambia
- Continuing work on the development of an advanced training course (“Classifying chemicals according to the Globally Harmonized System, and Globally Harmonized System labels and safety data sheets”) addressing the technical aspects of the Globally Harmonized System in more detail, focusing on classification of physical, health and environmental hazards

(vi) Fourteenth and fifteenth and seventeenth meetings of the Capacity-building Programme advisory group, which were held back-to-back with those of the Subcommittee;

(b) Asia-Pacific Economic Cooperation: meetings of the Chemical Dialogue and follow-up meetings of various working groups where Globally Harmonized System implementation issues are under consideration (Singapore: February, July and August 2009 and Japan: March and September 2010);

(c) WHO/ILO/UNEP International Programme on Chemical Safety:

(i) Continuous review and update of the International Chemical Safety Cards to include Globally Harmonized System classification and labelling. Since 2006, all newly prepared or updated cards include classifications according to the Globally Harmonized System;

(ii) Release in 2009 of a revised version of the *WHO Recommended Classification of Pesticides by Hazard*, incorporating for the first time the principles of the Globally Harmonized System for classification and labelling;

(d) Inter-Organization Programme for the Sound Management of Chemicals: release of a guidance document to assist countries with the transition phase for implementation of the Globally Harmonized System.

27. The Subcommittee of Experts on the Globally Harmonized System has also continued its cooperation with treaty bodies that administer certain international conventions dealing with specific aspects of chemical safety in order to facilitate the implementation of the Globally Harmonized System through such conventions (Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal; Montreal Protocol on Substances that Deplete the Ozone Layer; Stockholm Convention on Persistent Organic Pollutants; Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; and Convention on the Transboundary Effects of Industrial Accidents (see also para. 46 below)).

III. Work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals during the biennium 2009-2010

A. Meetings held

28. The following meetings were held during the biennium 2009-2010:

(a) Subcommittee of Experts on the Transport of Dangerous Goods: thirty-fifth session, 22 to 26 June 2009 (ST/SG/AC.10/C.3/70); thirty-sixth session, 30 November to 9 December 2009 (ST/SG/AC.10/C.3/72); thirty-seventh session, 21 to 30 June 2009 (ST/SG/AC.10/C.3/74, Corr.1 and Add.1); and thirty-eighth session, 29 November to 7 December 2010 (ST/SG/AC.10/C.3/76);

(b) Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals: seventeenth session, 29 and 30 June 2009 (ST/SG/AC.10/C.4/34); eighteenth session, 9 to 11 December 2009

(ST/SG/AC.10/C.4/36); nineteenth session, 30 June to 2 July 2010 (ST/SG/AC.10/C.4/38); and twentieth session, 7 to 9 December 2010 (ST/SG/AC.10/C.4/40 and Corr.1);

(c) Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals: fifth session, 10 December 2010 (ST/SG/AC.10/38 and Add.1-3 and Add.1/Corr.1).

29. The following 29 countries participated in the work of the Committee as full members of the Subcommittee of Experts on the Transport of Dangerous Goods or the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals or of both Subcommittees: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Denmark,²³ Finland, France, Germany, Ireland,²⁴ Italy, Japan, Kenya, the Netherlands, Norway, Poland, Portugal, Qatar,²³ the Republic of Korea, the Russian Federation, Serbia,²³ South Africa, Spain, Sweden, Switzerland,²⁴ the United Kingdom of Great Britain and Northern Ireland and the United States.

30. India, Mexico and Morocco, full members of the Subcommittee of Experts on the Transport of Dangerous Goods, Greece, New Zealand, Nigeria, Senegal, Ukraine and Zambia, full members of the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals, and the Czech Republic and the Islamic Republic of Iran, full members of both Subcommittees, did not participate.

31. The Governments of Bulgaria,²³ Chile,²⁴ the Gambia,²³ Ireland,²⁴ Malaysia,²³ Romania, Slovakia,²⁴ Switzerland,²³ and Thailand,²³ were represented by observers. The European Union and the Council of Europe, seven specialized agencies and intergovernmental organizations and 46 non-governmental organizations also participated.

32. Liaison was maintained with the international bodies or organizations responsible for individual modes of transport, in particular the Economic Commission for Europe, ICAO, IMO and the Intergovernmental Organization for International Carriage by Rail.

33. The Committee paid special attention to the coordination of its own activities with those of other international organizations whose activities impinge on the field of transport of dangerous goods or of classification and labelling of chemicals, such as the International Atomic Energy Agency (IAEA), ILO, WHO, UNITAR and the Organization for Economic Cooperation and Development, to ensure that their work would complement, rather than duplicate or clash with, its own activities and recommendations.

34. Secretariat services were provided by the secretariat of the Economic Commission for Europe.

²³ Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals only.

²⁴ Subcommittee of Experts on the Transport of Dangerous Goods only.

B. Work of the Subcommittee of Experts on the Transport of Dangerous Goods

35. During the biennium 2009-2010, the Subcommittee discussed various questions related to its terms of reference in accordance with the programme of work laid out in document E/2009/55, para. 46 (a).

36. On the basis of that work, the Committee adopted amendments² to the sixteenth revised edition of the *Recommendations on the Transport of Dangerous Goods: Model Regulations* and to the fifth revised edition of the *Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria* consisting mainly of new or revised provisions concerning:

- (a) High consequence dangerous goods of Class 7;
- (b) The listing and classification of some existing and new dangerous substances and articles (including medical wastes and medical devices or equipment; chemicals under pressure; krill meal; mercury contained in manufactured articles, and electronic storage systems such as lithium batteries and ultracapacitors), related packing and test methods, and the revision of some packing and tank requirements;
- (c) The transport of dangerous goods packed in limited and in excepted quantities;
- (d) New provisions applicable to packages and cargo transport units containing substances presenting a risk of asphyxiation when used for cooling or conditioning purposes;
- (e) New requirements for the use of salvage pressure receptacles and the use, design, construction, inspection, testing and handling of flexible bulk containers;
- (f) The use of electronic data interchange for documentation purposes.

37. The Subcommittee updated guiding principles intended to explain the rationale behind the provisions contained in the Model Regulations and to guide regulators when assigning transport requirements to specific dangerous goods. It considered that this work should be continued in the biennium 2011-2012.

38. The Subcommittee considered the issue of possible further measures to facilitate global harmonization of regulations on the transport of dangerous goods with the Model Regulations (see also para. 15 above). It agreed that additional efforts should be made to improve harmonization at the worldwide level. **In order to assess the problem more precisely, Governments and international organizations concerned are invited to provide feedback by drawing attention to requirements in their national, regional, or international instruments that deviate from the Model Regulations.**

39. The Committee noted with concern that accidents of asphyxiation, intoxication or death of transport workers are still reported in port areas and inland container depots when such workers open or unload freight containers or other transport cargo units which have been fumigated prior to shipment for phytosanitary purposes but have not been properly ventilated before unloading. The Committee recalled that adequate provisions intended to alert workers before such operations are carried out are contained in chapter 5.5 of the *Recommendations on the Transport of Dangerous*

Goods, Model Regulations. **Therefore, Governments and the International Labour Organization are invited to draw the attention of authorities and other entities concerned with workplace safety to the warning, marking, documentation and training provisions contained in chapter 5.5 and to take appropriate steps to ensure their implementation and workers' awareness.**

40. Acting as the focal point for physical hazards as regards the development and updating of the Globally Harmonized System, the Subcommittee prepared proposals for new criteria, which were endorsed by the Subcommittee of Experts on the Globally Harmonized System and the Committee (see subpara. 43 (a) below). Work initiated as regards substances which when in contact with water emit toxic gases, and oxidizing solids, desensitized explosives and corrosivity criteria should be pursued in the biennium 2011-2012 (see also para. 44 below).

41. **The action recommended by the Committee to be taken by the Economic and Social Council with respect to the work of the Subcommittee of Experts on the Transport of Dangerous Goods is reflected in part A, paragraphs 1 to 7, of the draft resolution contained in paragraph 1 of the present report.**

C. Work of the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals

42. During the biennium 2009-2010, the Subcommittee discussed various questions related to its terms of reference in accordance with its programme of work laid out in document E/2009/55, paragraph 46 (b).

43. On the basis of that work, the Committee adopted amendments¹¹ to the third revised edition of the *Globally Harmonized System of Classification and Labelling of Chemicals* intended to update, clarify or to complement the System concerning, in particular, the following:

(a) Introduction of classification and labelling criteria for chemically unstable gases and gas mixtures (including the related test method to determine their chemical instability, to be included in the *Manual of Tests and Criteria*);

(b) Introduction of a new subcategory for non-flammable aerosols and consequential amendments thereto;

(c) Special labelling arrangements for substances of mixtures classified as corrosive to metals but not corrosive to skin or eyes;

(d) Miscellaneous amendments intended to further clarify the criteria for gases under pressure; acute toxicity; germ cell mutagenicity; carcinogenicity; reproductive toxicity; and aquatic toxicity;

(e) Further rationalization of the precautionary statements.

44. The Subcommittee considered that the work in the following areas should be continued in the biennium 2011-2012: classification of desensitized explosives and oxidizing solids; issues related to dust explosion hazards; corrosivity criteria (consideration of pitting corrosion and suitability of tests C.1 for solids); further alignment of the criteria in the Globally Harmonized System with that of the Model Regulations; editorial revision of the chapters addressing skin corrosion/irritation; assessment of water-activated toxicity; implementation issues; further improvement

of annexes 1, 2 and 3 of the Globally Harmonized System; and development of additional guidance for the labelling of small packagings.

45. The Subcommittee kept under review progress made in the implementation of the Globally Harmonized System on the basis of reports submitted by its members and participating intergovernmental and non-governmental organizations.⁷

46. The Subcommittee continued to cooperate with treaty bodies established under international conventions concerning chemical safety to promote the implementation of the Globally Harmonized System through such conventions (see also para. 27 above).

47. The action recommended by the Committee to be taken by the Economic and Social Council with respect to the work of the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals is reflected in part B, paragraphs 1 to 7, of the draft resolution contained in paragraph 1 of the present report.

IV. Programme of work and schedule of meetings for the biennium 2011-2012

48. The Committee agreed that the programme of work for the biennium 2011-2012 should be as follows:

- (a) Subcommittee of Experts on the Transport of Dangerous Goods:
 - (i) Explosives and related matters (including review of test series 8; screening test for substances that may have explosive properties; DDT test and criteria for flash composition; additional criteria for Division 1.4 classification);
 - (ii) Listing, classification and packing (including classification of Class 3 viscous liquids in Packing Group III);
 - (iii) Electric storage systems (including testing of lithium batteries, lithium-ion capacitors, waste or damaged/defective lithium batteries, packagings for large batteries);
 - (iv) Miscellaneous proposals of amendments to the Model Regulations (including packagings with a capacity exceeding 450 litres; dimensions and shape of labels or marks; and transitional arrangements for portable tanks intended for the transport of liquids);
 - (v) Electronic data interchange;
 - (vi) Cooperation with IAEA;
 - (vii) Global harmonization of transport of dangerous goods regulations with the Model Regulations;
 - (viii) Guiding principles for the Model Regulations (updating);
 - (ix) Issues relating to the Subcommittee of Experts on the Globally Harmonized System (including corrosivity criteria; criteria for water reactivity, improvement of test O.1 for oxidizing solids; interpretation of the concept of “known experience”);

(b) Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals:

- (i) Explosives and related matters (including classification of desensitized explosives);
- (ii) Corrosion of metals (pitting corrosion and suitability of tests C.1 for solids);
- (iii) Water activated toxicity (work on test method N.5 and assessment of water activated toxicity);
- (iv) Classification of oxidizing solids;
- (v) Editorial revision of chapters 3.2 and 3.3 (skin/corrosion irritation);
- (vi) Issues related to the application of Globally Harmonized System criteria to the classification of substances and mixtures;
- (vii) Dust explosion hazards;
- (viii) Aspiration hazards (viscosity criterion for classification of mixtures);
- (ix) Further alignment of corrosivity criteria in Class 8 of the Model Regulations with the criteria of the Globally Harmonized System;
- (x) Hazard communication issues (including the revision of section 9 of annex 4; further improvement of annexes 1, 2 and 3; development of guidance for labelling of small packagings; consideration of issues related to the adoption of the hazard class “corrosive to metals” in the supply/use sector and their possible solutions);
- (xi) Implementation issues (including those related to the classification and labelling of mixtures; the possible development of a global list of chemicals classified according to the Globally Harmonized System; alignment of annexes 9 and 10 with the criteria in chapter 4.1);
- (xii) Continue the activities to facilitate the coordinated implementation of the Globally Harmonized System in countries;
- (xiii) Development of guidance on the application of the criteria, as needed (including development of examples of classification and labelling and guidance to address the needs of IMO as regards the information to be included in the safety data sheet);
- (xiv) Strengthen and increase cooperation with United Nations programmes and specialized agencies and regional, governmental and intergovernmental organizations, as well as non-governmental organizations responsible for the administration of international agreements and conventions dealing with the management of chemicals, so as to give effect to the Globally Harmonized System through such instruments;
- (xv) Review reports on training and capacity-building activities;
- (xvi) Provide assistance to United Nations programmes and specialized agencies involved in training and capacity-building activities, such as UNITAR, ILO, the Food and Agriculture Organization of the United Nations and the WHO/International Programme on Chemical Safety, through the

development of guidance materials, advice with respect to their training programmes and identification of available expertise and resources.

49. Bearing in mind that, in accordance with Economic and Social Council resolution 1999/65, the maximum number of meeting days allocated to the Committee and its subsidiary bodies is 38 (76 meetings), the Committee agreed that the schedule of meetings for the period 2011-2012 should be as follows:

2011

20-24 June 2011: Subcommittee of Experts on the Transport of Dangerous Goods, thirty-ninth session (10 meetings)

27-29 June 2011: Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals, twenty-first session (6 meetings)

28 November-7 December (morning) 2011: Subcommittee of Experts on the Transport of Dangerous Goods, fortieth session (15 meetings)

7 (afternoon)-9 December 2011: Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals, twenty-second session (5 meetings)

Total: Subcommittee of Experts on the Transport of Dangerous Goods: 25 meetings; Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals: 11 meetings

2012

25 June-4 (morning) July 2012: Subcommittee of Experts on the Transport of Dangerous Goods, forty-first session (15 meetings)

4 (afternoon)-6 July 2012: Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals, twenty-third session (5 meetings)

3 November-11 December 2012: Subcommittee of Experts on the Transport of Dangerous Goods, forty-second session (14 meetings)

12-14 (morning) December 2012: Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals, twenty-fourth session (5 meetings)

14 (afternoon) December 2012: Committee, sixth session (1 meeting)

Total: Subcommittee of Experts on the Transport of Dangerous Goods: 29 meetings; Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals: 10 meetings; Committee: 1 meeting

50. **Action recommended by the Committee to be taken by the Economic and Social Council with respect to its programme of work is reflected in part C, paragraphs 1 to 3, of the draft resolution contained in paragraph 1 of the present report.**