

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Joint sessions of the 26th meeting of the Animals Committee and
20th meeting of the Plants Committee
Dublin (Ireland), 22-24 March 2012

Non-detriment findings

DRAFT GUIDANCE ON THE MAKING OF NON-DETRIMENT FINDINGS

1. This document is submitted by the Chairs of the Animals and Plants Committees on behalf of the Intersessional Working Group on Non-Detriment Findings .
2. According to Articles II, III, and IV of the Convention, Parties shall only allow trade in specimens of species included in Appendices I and II in accordance with its provisions. It is required that an export permit shall only be granted when a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of the species being traded (i.e. non-detriment finding or NDF), which shall be considered an essential requirement for CITES implementation;
3. In Resolution Conf. 10.3 (*Designation and role of the Scientific Authorities*), the Conference of the Parties recommends that:
 - c) *Management Authorities not issue any export or import permit, or certificate of introduction from the sea, for species listed in the Appendices without first obtaining the appropriate Scientific Authority findings or advice [NDF];*and
 - h) *the findings and advice of the Scientific Authority of the country of export be based on the scientific review of available information on the population status, distribution, population trend, harvest and other biological and ecological factors, as appropriate, and trade information relating to the species concerned;*
4. Scientific Authorities of exporting countries, and sometimes also of importing countries, are continually challenged to define whether a particular export will be detrimental to the survival of a species and therefore it is important to have non-legally binding guidelines, methodologies and other documents to assist in making non-detriment findings to improve the implementation of the Convention;
5. NDFs are at the core of the role of CITES in ensuring the sustainability of trade in wild species and safeguarding their resources for the future and they are a valuable tool to help Parties effectively and sustainably manage and trade their wild resources;
6. Parties need support and guidance in making NDFs; however a diversity of methodologies for NDFs exists, including the outputs of the Cancun workshop and the experience of the Parties.

* *The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat or the United Nations Environment Programme concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.*

7. Annex to this document includes a number of options that have been developed either as exercises of making non-detriment findings, or as deeper research on ways to possibly make NDF for different taxa of CITES animals and plants.
8. The Animals and Plants Committees are requested to consider ways to:
 - invite the Parties to explore these options to decide which is more adequate for their needs
 - share the best practices and learnt lessons from the Parties
 - complete the Annex to the present document
 - keep the information on NDFs updated and available to the Parties
 - formulate the draft Decisions, as necessary, to be sent for consideration in the CoP16

DOCUMENTS FROM THE 15TH MEETING OF THE CONFERENCE OF THE PARTIES (DOHA, 2010)

- CoP15 Doc 16.2.2 Report of the Animals and Plants Committees
English: <http://www.cites.org/eng/cop/15/doc/E15-16-02-02.pdf>
Français: <http://www.cites.org/fra/cop/15/doc/F15-16-02-02.pdf>
Español: <http://www.cites.org/esp/cop/15/doc/S15-16-02-02.pdf>
- CoP15 Inf.3. International expert workshop on non-detriment findings – Working group reports
English: <http://www.cites.org/eng/cop/15/inf/E15i-03.pdf>
Français: <http://www.cites.org/fra/cop/15/inf/F15i-03.pdf>
Español: <http://www.cites.org/esp/cop/15/inf/S15i-03.pdf>
- CoP15 Doc. 16.3 Non-detriment findings for timber, medicinal plants and agarwood
English: <http://www.cites.org/eng/cop/15/doc/E15-16-03.pdf>
Français: <http://www.cites.org/fra/cop/15/doc/F15-16-03.pdf>
Español: <http://www.cites.org/esp/cop/15/doc/S15-16-03.pdf> (Annex 2)

LESSONS LEARNED FOR NON-DETRIMENT FINDINGS – 25TH ANIMALS COMMITTEE (GENEVA 2011)

AC25 Inf. 2 - <http://www.cites.org/common/com/AC/25/E25i-02.pdf>

RESULTS AND CASE STUDIES FROM THE INTERNATIONAL EXPERT WORKSHOP ON
NON-DETRIMENT FINDINGS (CANCUN, NOVEMBER 2008)

Global link to the Workshop:

http://www.conabio.gob.mx/institucion/cooperacion_internacional/TallerNDF/taller_ndf.html

Link to main documents and Working Groups globally, as well as related “Activities post-workshop”:

http://www.conabio.gob.mx/institucion/cooperacion_internacional/TallerNDF/wfunctioning.html

| WORKING GROUP | | CO-CHAIRS |
|---------------|---------------------------------------|---|
| 1 | Trees | Rafael María Navarro Cerrillo – Spain |
| | | James Grogan – USA |
| 2 | Perennials | Greg Leach – Australia |
| | | Adrienne Sinclair – Canada, in coord. with Andrea White |
| 3 | Succulents and Cycads | John Donaldson – South Africa |
| | | Patricia Dávila – Mexico |

| WORKING GROUP | | CO-CHAIRS |
|---------------|---|--|
| 4 | Geophytes and Epiphytes | Noel McGough – United Kingdom |
| | | Beatrice Khayota – Kenya |
| 5 | Mammals | Rodrigo Medellín – Mexico |
| | | Alisson Rosser – United Kingdom |
| | | Holly Dublin – IUCN-SSC, South Africa |
| 6 | Birds | Rod Hay – New Zealand |
| | | Phillip McGowan – United Kingdom |
| 7 | Reptiles and Amphibians | Peter Paul van Dijk – IUCN Turtle and Tortoises SG |
| | | Thomasina Oldfield – TRAFFIC Research and Analysis Program |
| | | Charlie Manolis – Wildlife Management International |
| 8 | Fishes | Glenn Sant – TRAFFIC Global Marine Program Leader |
| | | Marcelo Vasconcelos - Brazil |
| 9 | Aquatic Invertebrates | Vincent Fleming – United Kingdom |
| | | Glynnis Roberts – USA |

Links to specific Working Groups:

Working Group 1 Trees (WG1)

http://www.conabio.gob.mx/institucion/cooperacion_internacional/TallerNDF/wg1.html

- [WG1-M](#) Members
- [WG1-SR](#) Summary Report
- [WG1-FR](#) Full Report and [WG1-FR Annexes](#) (Presentation).

| CASE STUDIES | | Country | Doc (Annexes) | Summary | Presentation |
|--------------|--|------------------------|-------------------------|---------------------------|---------------------------|
| 1 | <i>Gonystylus bancanus</i> (Ramin) | Malaysia | WG1-CS1 | WG1-CS1-S | WG1-CS1-P |
| 2 | <i>Pericopsis elata</i> (Afromosia) | Cameroon | WG1-CS2 | WG1-CS2-S | WG1-CS2-P |
| 3 | <i>Aquilaria malaccensis</i> (Agarwood) | Malaysia | WG1-CS3 | WG1-CS3-S | WG1-CS3-P |
| 4 | <i>Swietenia macrophylla</i> (Mahogany) | Peru, Colombia, Brazil | WG1-CS4 | WG1-CS4-S | WG1-CS4-P |
| 5 | <i>Caesalpinia echinata</i> (Brasilwood) | Brazil | WG1-CS5 | WG1-CS5-S | WG1-CS5-P |
| 6 | <i>Taxus</i> (Yew) | Canada | WG1-CS6 | WG1-CS6-S | WG1-CS6-P |
| 7 | <i>Guaiacum sanctum</i> (Guayacan) | Mexico | WG1-CS7 | WG1-CS7-S | WG1-CS7-P |
| 8 | <i>Prunus africana</i> (African cherry) | --- | WG1-CS8 | WG1-CS8-S | WG1-CS8-P |
| 9 | <i>Prunus africana</i> (African cherry) | Cameroon | WG1-CS9 | WG1-CS9-S | --- |
| E | <i>Swietenia macrophylla</i> (Mahogany) | Mexico | --- | --- | WG1-CSE-P |

Working Group 2 Perennials (WG2)

- [WG2-M](#) Members
- [WG2-SR](#) Summary Report
- [WG2-FR](#) Full Report and [WG2-FR Annex](#)
- [WG2-P](#) Presentation

| CASE STUDIES | | Country | Doc (Annexes) | Summary | Presentation |
|--------------|---|----------------|---------------------------------|---------------------------|---------------------------|
| 1 | <i>Cibotium barometz</i> (Golden hair dog fern) | China | WG2-CS1 | WG2-CS1-S | WG2-CS1-P |
| 2 | <i>Pelargonium sidoides</i> (Kalwerbossie) | Lesotho | WG2-CS2 | WG2-CS2-S | WG2-CS2-P |
| 3 | <i>Nardostachys grandiflora</i> (Jatamansi) | --- | WG2-CS3 | WG2-CS3-S | WG2-CS3-P |
| 4 | ISSC-MAP | --- | WG2-CS4 (Annex) | WG2-CS4-S | WG2-CS4-P |
| 5 | <i>Panax quinquefolius</i> (American ginseng) | Canada | WG2-CS5 | WG2-CS5-S | WG2-CS5-P |
| 6 | <i>Panax quinquefolius</i> (American ginseng) | USA and Canada | WG2-CS6 | WG2-CS6-S | WG2-CS6-P |
| 7 | <i>Tillandsia xerographica</i> | Guatemala | WG2-CS7 | WG2-CS7-S | WG2-CS7-P |

Working Group 3 Succulents and Cycads (WG3)

- [WG3-M](#) Members
- [WG3-SR](#) Summary Report
- [WG3-FR](#) Full Report
- [WG3-P](#) Presentation

| CASE STUDIES | | Country | Doc (Annexes) | Summary | Presentation |
|--------------|-------------------------------------|-----------------|-----------------------------------|---------------------------|---------------------------|
| 1 | <i>Aloes</i> | East Africa | WG3-CS1 (addenda) | WG3-CS1-S | ----- |
| 2 | <i>Ceratozamia mirandae</i> (Cycad) | Mexico | WG3-CS2 | WG3-CS2-S | WG3-CS2-P |
| 3 | <i>Dioon edule</i> (Cycad) | Mexico | WG3-CS3 | WG3-CS3-S | WG3-CS3-P |
| 4 | <i>Encephalartos</i> | South Africa | WG3-CS4 | WG3-CS4-S | WG3-CS4-P |
| 5 | <i>Cycas circinalis</i> (Sago-palm) | India | WG3-CS5 | WG3-CS5-S | WG3-CS5-P |
| 6 | <i>Hoodia gordonii</i> | Southern Africa | WG3-CS6 (addenda) | WG3-CS6-S | WG3-CS6-P |
| 7 | <i>Carnegiea gigantea</i> (Sahuaro) | Mexico | WG3-CS7 | WG3-CS7-S | WG3-CS7-P |

Working Group 4 Geophytes and Epiphytes (WG4)

- [WG4-M](#) Members
- [WG4-SR](#) Summary Report
- [WG4-FR Geophytes](#) Full Report
- [WG4-FR Epiphytes](#) Full Report
- [WG4-P](#) Presentation WG4 Full Reports above were also shown during presentation

| CASE STUDIES | | Country | Doc (Annexes) | Summary | Presentation |
|--------------|---|----------|-------------------------|---------------------------|---------------------------|
| 1 | Rare orchid species | --- | WG4-CS1 | WG4-CS1-S | --- |
| 2 | <i>Galanthus woronowii</i> (Snowdrop) | Georgia | WG4-CS2 | WG4-CS2-S | WG4-CS2-P |
| 3 | Orchid species | Ecuador | WG4-CS3 | WG4-CS3-S | WG4-CS3-P |
| 4 | <i>Vanda coerulea</i> (Blue banda) | Thailand | WG4-CS4 | WG4-CS4-S | WG4-CS4-P |
| 5 | <i>Ansellia</i> (Leopard orchid) | Kenya | WG4-CS5 | WG4-CS5-S | WG4-CS5-P |
| 6 | <i>Galanthus elwesii</i> (Population modelling) | Turkey | WG4-CS6 | WG4-CS6-S | WG4-CS6-P |
| 7 | <i>Galanthus elwesii</i> (NDF development) | Turkey | WG4-CS7 | WG4-CS7-S | WG4-CS7-P |

Working Group 5 Mammals (WG5)

- [WG5-M](#) Members
- [WG5-SR](#) Summary Report
- [WG5-FR](#) Full Report
- [WG5-P](#) Presentation

| CASE STUDIES | | Country | Doc (Annexes) | Summary | Presentation |
|--------------|--|-----------------|------------------------------------|---------------------------|---------------------------------|
| 1 | <i>Panthera leo</i> (Lion) | Tanzania | WG5-CS1 (Annex) | WG5-CS1-S | WG5-CS1-P |
| 2 | <i>Tursiops aduncus</i> (Indo-Pacific bottlenosed dolphin) | Solomon Islands | WG5-CS2 | WG5-CS2-S | WG5-CS2-P |
| 3 | <i>Ursus arctos horribilis</i> (Grizzly bear) | Canada | WG5-CS3 | WG5-CS3-S | WG5-CS3-P |
| 4 | <i>Panthera pardus</i> (Leopard) | South Africa | WG5-CS4 | WG5-CS4-S | WG5-CS4-P |
| 5 | <i>Macaca fascicularis</i> (Crab-eating monkey) | China | WG5-CS5 | WG5-CS5-S | WG5-CS5&6-P |
| 6 | <i>Macaca mulatta</i> (Rhesus monkey) | China | WG5-CS6 | WG5-CS6-S | |

| CASE STUDIES | | Country | Doc (Annexes) | Summary | Presentation |
|--------------|--|-----------|--|---------------------------|---------------------------|
| 7 | <i>Monodon monoceros</i> (Narwhal) | Greenland | WG5-CS7 (Annex1, Annex2) | WG5-CS7-S | WG5-CS7-P |
| 8 | <i>Vicugna vicugna</i> | Peru | WG5-CS8 | WG5-CS8-S | WG5-CS8-P |

Working Group 6 Birds (WG6)

- [WG6-M](#) Members
- [WG6-SR](#) Summary Report
- [WG6-FR](#) Full Report
- [WG6-P](#) Presentation

| CASE STUDIES | | Country | Doc (Annexes) | Summary | Presentation |
|--------------|--|-------------------------|--|---------------------------|--|
| 1 | <i>Psittacus erithacus</i> (African grey parrot) | Guinea | WG6-CS1 | WG6-CS1-S | WG6-CS1-P |
| 2 | <i>Amazona auropalliata</i> (Yellow nape amazon) | Nicaragua | WG6-CS2 | WG6-CS2-S | WG6-CS2-P |
| 3 | <i>Platycercus eximius</i> (1- Eastern rosella) and <i>Cacatua galerita</i> (2-Sulphur-crested cockatoo) | New Zealand | WG6-CS3-A WG6-CS3-B | WG6-CS3-S | WG6-CS3-P1 WG6-CS3-P2 |
| 4 | <i>Cacatua sulphurea</i> (Yellow-crested cockatoo) | Indonesia | WG6-CS4 | WG6-CS4-S | WG6-CS4-P |
| 5 | <i>Falco cherrug</i> (Saker falcon) | United Arab Emirates | WG6-CS5 | WG6-CS5-S | WG6-CS5-P |
| 6 | Parrots in Mexico | Mexico | WG6-CS6 | --- | WG6-CS6-P |
| E | Collecting data NDF Parrots | --- | --- | --- | WG&-CSE-P |

Working Group 7 Reptiles and Amphibians (WG7)

- [WG7-M](#) Members
- [WG7-SR](#) Summary Report
- [WG7-FR](#) Full Report
- [WG7-P](#) Presentation

| CASE STUDIES | | Country | Doc (Annexes) | Summary | Presentation |
|--------------|---|-----------|-------------------------|---------------------------|---------------------------------|
| 1 | <i>Crocodylus niloticus</i> (Nile crocodile) | Kenia | WG7-CS1 | WG7-CS1-S | WG7-CS1-P |
| 2 | <i>Cuora amboinensis</i> (Southeast Asian box turtle) | Indonesia | WG7-CS2 | WG7-CS2-S | WG7-CS2&6-P |
| 3 | <i>Malacochersus tornieri</i> (Pancake tortoise) | Kenia | WG7-CS3 | WG7-CS3-S | WG7-CS3-P |

| CASE STUDIES | | Country | Doc (Annexes) | Summary | Presentation |
|--------------|---|-----------|------------------------------------|---------------------------|---------------------------------|
| 4 | <i>Ptyas mucosus</i> (Oriental rat snake) | Indonesia | WG7-CS4 | WG7-CS4-S | WG7-CS4-P |
| 5 | <i>Uromastyx</i> (Lizards) | Israel | WG7-CS5 (Annex) | WG7-CS5-S | WG7-CS5-P |
| 6 | <i>Cuora amboinensis</i> (Southeast asian box turtle) | Malaysia | WG7-CS6 | WG7-CS6-S | WG7-CS2&6-P |

Working Group 8 Fishes (WG8)

- [WG8-M](#) Members
- [WG8-SR](#) Summary Report
- [WG8-FR](#) Full Report
- [WG8-P](#) Presentation

| CASE STUDIES | | Country | Doc (Annexes) | Summary | Presentation |
|--------------|--|-----------|------------------------------------|-----------------------------|---------------------------|
| 1 | <i>Arapaima</i> | Brazil | WG8-CS1* | WG8-CS1-S** | --- |
| 2 | <i>Anguilla anguilla</i> (European eel) | Sweden | WG8-CS2 (Annex) | WG8-CS2-S | --- |
| 3 | <i>Cheilinus undulates</i> (Napoleon fish) | Indonesia | WG8-CS3 | WG8-CS3-S | --- |
| 4 | <i>Hippocampus</i> spp (Seahorses) | --- | WG8-CS4 | WG8-CS4-S | WG8-CS4-P |
| 5 | Sturgeons | --- | WG8-CS5 (Annex) | WG8-CS5-S | --- |

Working Group 9 Aquatic Invertebrates (WG9)

- [WG9-M](#) Members
- [WG9-SR](#) Summary Report
- [WG9-FR](#) Full Report and [WG9-FR Annex](#)
- [WG9-P](#) Presentation

| CASE STUDIES | | Country | Doc (Annexes) | Summary | Presentation |
|--------------|---|-----------|------------------------------------|---------------------------|---------------------------|
| 1 | Black coral (Anthipatharia) | Hawaii | WG9-CS1 (Annex) | WG9-CS1-S | WG9-CS1-P |
| 2 | Tridacnidae (Giant clams) | Palau | WG9-CS2 | WG9-CS2-S | WG9-CS2-P |
| 3 | <i>Strombus gigas</i> (Queen conch) | Colombia | WG9-CS3 (Annex) | WG9-CS3-S | WG9-CS3-P |
| 4 | Queensland coral fishery | Australia | WG9-CS4 (Annex) | WG9-CS4-S | WG9-CS4-P |
| 5 | Stony corals (Scleractinia) | Indonesia | WG9-CS5 (Annex) | WG9-CS5-S | WG9-CS5-P |

DOCUMENTS FROM WORKSHOPS ON NDF

- [Taller anual de Coordinación y Capacitación de Expertos CITES "Dictámenes de Extracción no Perjudicial". Lima, Perú, 13-15 Septiembre 2010](#)

www.minam.gob.pe

Presentations to the Workshop: [Taller Dictámenes - MINAM](#); [CITES y los DEnP](#); [Análisis Doc UICN](#); [DEnP Informes y Resultados CdP15](#); [Resultados Taller Cancun](#); [Especies CITES Exportaciones - MINAM](#); [DENP Caoba](#); [DEnP Taricayas](#); [DEnP – SIG](#); - [Aplicacion de orientaciones para DEnP](#); [Grupos de trabajo](#); [Proximos pasos Taller Dictámenes](#)

Working Groups:

[Evaluacion Sajino](#)

[Evaluacion Vicuña](#)

[Trabajo Grupal Caoba](#)

[Trabajo Grupal Paiche](#)

[Trabajo Grupal Palo Santo](#)

[Trabajo Grupal Pecaris](#)

[Trabajo Grupal Vicuña](#)

Main findings of the workshop can be also consulted in the answer of Peru to the Notification to the Parties 2011/004, included in the Annex to Doc. [PC19 Doc. 10.2 \(Rev.1\)](#).

- [Taller de Fomento de Capacidades sobre Dictámenes de Extracción No Perjudicial para Centroamérica y República Dominicana 15-17 de Noviembre de 2010, Santo Domingo, República Dominicana](#)

<http://www.sica.int/ccad/DENP.aspx>

Results of the workshop: [Informe de Resultados del Taller](#)

Presentations to the Workshop: [La CITES y los DeNP](#), [Procesos DeNP EEUU](#), [UICN Lista de Verificación](#), [Resultados del taller de Cancún](#)

Working Groups:

1. FAUNA

[Historia de vida del caracol](#)

[Generalidades del *Strombus gigas*](#)

[Análisis comparativo para *Strombus gigas*](#)

[Evaluación de riesgo *Strombus gigas*](#)

[Experiencia de formulación DeNP's, *S. gigas* Honduras](#)

2. FLORA

[Generalidades antecedentes *Swietenia macrophylla* en la CITES](#)

[Historia de la *Swietenia macrophylla* en la CITES](#)

[Experiencias de manejo de la caoba en Guatemala](#)

[Análisis de riesgo de la información disponible para DeNP's caoba](#)

[Análisis de la aplicabilidad de los resultados del taller Internacional DeNP's Caoba](#)

- [Workshop to prepare Non-Detriment Finding reports for black bear *Ursus americanus*, and grizzly bear *Ursus arctos*. November 26-28, 2010, Ottawa \(Ontario, Canada\). The Canadian Scientific Authority has already prepared standing NDF reports for several species, including bobcat, grey wolf, polar bear, lynx, American ginseng and goldenseal. And is currently working on standing NDF reports for cougar, northern river otter, black bear, grizzly bear and sandhill crane \(<http://www.ec.gc.ca/cites/default.asp?lang=En&n=2942DC30-1>\).](#)
- [Proceeding of the Capacity Building Workshop on Non Detriment Findings and Review of Significant Trade on Plant Species \(January 09-11, 2011, Katmandu, Nepal\). Published as PC19 Inf 11 \(Rev 1\)](#)
<http://www.cites.org/common/com/PC/19/E19i-11.pdf>
- Proceeding of the Workshop for Agarwood-producing species in Kuwait (3-6, October, 2011).
- Proceeding of the Workshop for Agarwood-producing species in Indonesia (22-24, November, 2011).
-

IUCN GUIDANCE

- [Rosser, A.R. and Haywood, M.J. \(Compilers\). \(2002\). Guidance for CITES Scientific Authorities: Checklist to assist in making non-detriment findings for Appendix II exports. IUCN, Gland, Switzerland and Cambridge, UK. xi + 146pp.](#)
- http://data.iucn.org/themes/ssc/our_work/wildlife_trade/citescop13/CITES/guidance.htm#guide
- **Checklist to assist in making non-detriment findings for Appendix II exports Compiled by A. Rosser and M. Haywood**
- Français: [Fiche d'évaluation pour aider à émettre un avis de commerce non préjudiciable pour les exportations de spécimens de l'Annexe II](#)
- Español: [Listado de apoyo para la elaboracion de dictámenes de no-perjudicial para las exportaciones del Apendice II](#)
- **To view the entire publication in PDF format, click on the above cover page image. To view specific sections of the publication, [click here](#).**
- http://data.iucn.org/themes/ssc/our_work/wildlife_trade/citescop13/CITES/CITES-guidance-Annex1.pdf (Spanish and French versions)
- **The following are links to specific sections of the publication:**
- [Preliminary Pages \(Cover, Contents, Acknowledgements, List of Workshop Participants\)](#) (338 KB)
- [PART I: Introduction and rationale](#) (116 KB)
- [PART II: Presentations made by Scientific Authority staff from producer and consumer Parties](#) (141 KB)
- [PART III: Technical considerations in making non-detriment findings](#) (88KB)

- [PART IV: Guidelines to assist the Parties in making non-detriment findings](#) (4,681 KB)
- [ANNEX I: French and Spanish translations of the Checklist to assist Scientific Authorities in making Non-detriment Findings](#) (1,262 KB)
- [ANNEX II: Background Documents Text of the Convention](#) (245 KB)
- [References](#) (345 KB)

OTHER USEFUL SPECIALIZED SOURCES OF INFORMATION

- For sharks and rays (Class Elasmobranchii) is suggested to consult the bilingual publication:

Sharks: conservation, fishing and international trade

<http://www.cites.org/common/com/AC/24/EF24i-05.pdf>

Tiburones: conservación, pesca y comercio internacional

<http://www.cites.org/esp/com/AC/24/S24i-05.pdf>