International Environmental Agreements

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- United Nations Convention on Desertification (UNCCD) (1994)
- [United Nations Framework on Climate Change (UNFCCC) (1992)]
- Conventions for Chemicals Control (Rotterdam Convention (1998) and Stockholm Convention (2001))
- Minamata Convention on Mercury (2013)
- Marine Pollution Conventions
- ...
- (There are more than 200 MEAs, including regional, or bilateral.)

Before talking of environmental agreements --- (1)

Vienna Convention on the law of treaties (with annex). Concluded at Vienna on 23 May 1969

- Article 12. CONSENT TO BE BOUND BY A TREATY EXPRESSED BY SIGNATURE
- Article 14. CONSENT TO BE BOUND BY A TREATY EXPRESSED BY RATIFICATION, ACCEPTANCE OR APPROVAL
- Article 18. OBLIGATION NOT TO DEFEAT THE OBJECT AND PURPOSE OF A TREATY PRIOR TO ITS ENTRY INTO FORCE

https://treaties.un.org/doc/Publication/UNTS/Volume%201155/volume-1155-I-18232-English.pdf

Ref: Vienna Convention on Diplomatic Relations, 1961

http://legal.un.org/ilc/texts/instruments/english/conventions/9 1 1961.pdf

Before talking of environmental agreements --- (2)

There are various types of environmental agreements!

- Most of them are inspirational/encouraging/ advocating, and contain registration or reporting.
- Many are meant to facilitate inter-national/ regional/oligo-national environmental actions.
- Some contain legal obligations, such as restrictions on international trade.

Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)

After negotiations in 1960s, the Convention was adopted in Ramsar, Iran, in 1971.

https://www.ramsar.org/

http://www.env.go.jp/nature/ramsar/conv/treaty/RamsarConventionText JP.pdf

- It requires, inter alia, its Parties to "designate suitable wetlands within its territory for inclusion in a List of Wetlands of International Importancer", and to "formulate and implement their planning so as to promote the conservation of the wetlands included in the List, and as far as possible the wise use of wetlands in their territory".
- Currently there are 169 Parties, 2,271 wetlands designated, covering 219 million hectars.
- It took effect for Japan on 17th October 1980.

Convention website;

http://www.ramsar.org/

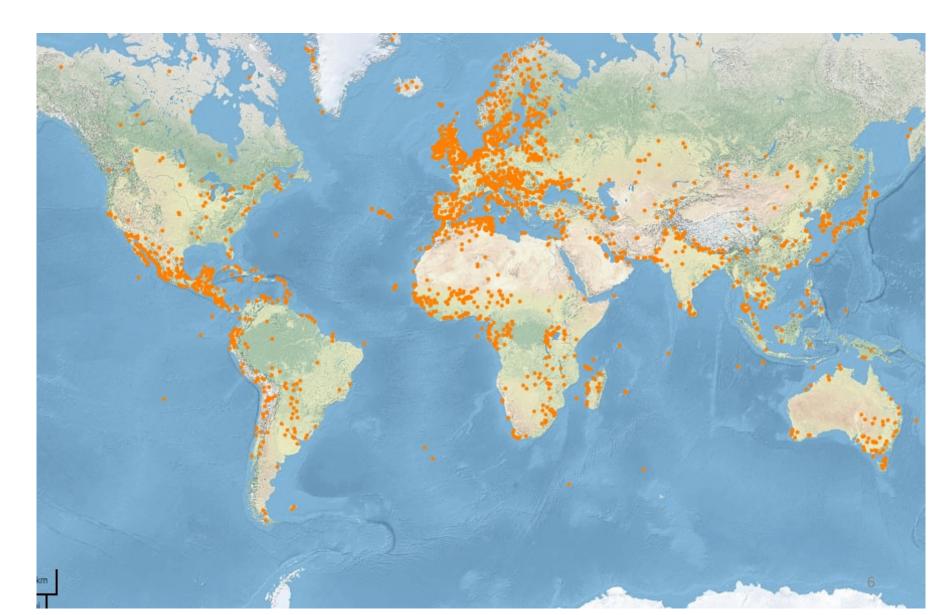
Convention text, as amended in 1987 is;

https://www.ramsar.org/sites/default/files/documents/library/current_convention_text_e_.pdf

History of the Convention;

http://www.ramsar.org/sites/default/files/documents/pdf/lib/Matthews-history.pdf

Ramsar Sites



Japan's Wetlands registered Under Ramsar Convention

- 湿地の保全のみならずワイズユース(Wise use=賢明な利用)を進めていくことを目的。その手段として、交流・能力養成・学習・参加・普及啓発(Communication, Capacity building, Education, Participation and Awareness=CEPA)を重視。
- 日本の条約湿地は、2017年3月現在、50ヶ所、14万8,002ヘクタール

http://www.env.go.jp/nature/ramsar/conv/RamsarSites_in_Japan_popup.html



Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora - <u>CITES</u>

After 10 years of negotiation in IUCN, the text was adopted in March, 1973 in Washington, DC, and took effect in July 1975. Japan became a Party on 4th November 1980.

https://cites.org/eng/disc/what.php

http://www.mofa.go.jp/mofaj/gaiko/kankyo/jyoyaku/wasntn.html

To protect endangered species, the Convention stipulates **prohibition of commercial trade** in Appendix I, **regulations of trade without consent of exporting country**, **national controls** on capture and exploitation of Appendix III.

- Appendix I shall include all species threatened with extinction which are or may be affected by trade. Trade in specimens of these species must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional circumstances. (- 980 species)
- Appendix II shall include:;(a) all species which although not necessarily now threatened with extinction
 may become so unless trade in specimens of such species is subject to strict regulation in order to avoid
 utilization incompatible with their survival; and (b) other species which must be subject to regulation in
 order that trade in specimens of certain species referred to in sub-paragraph (a) of this paragraph may be
 brought under effective control. (- 34 thousand species)
- Appendix III shall include all species which any Party identifies as being subject to regulation within its
 jurisdiction for the purpose of preventing or restricting exploitation, and as needing the co-operation of
 other Parties in the control of trade. (- 160 species)

Appendices:

- https://cites.org/eng/app/appendices.php
- https://cites.org/gallery/species/index.html

附属書: http://www.trafficj.org/aboutcites/summary.html

CITES Website: https://cites.org/

CITES Appendices

http://www.trafficj.org/aboutcites/summary.html

	掲載基準	主な掲載種	規制の内容
附属書I	今すでに絶滅する危険性 がある生き物	ジャイアントパンダ、トラ、ゴリラ、オランウータン、シロナガスクジラ、タンチョウ、ウミガメ科の全種など約1000種の動植物。	商業のための輸出入は禁止される。学 術的な研究のための輸出入などは、輸出 国と輸入国の政府が発行する許可書が 必要となる。
附属書II	国同士の取り引きを制限しないと、将来、絶滅の危険性が高くなるおそれがある生き物	タテガミオオカミ、カバ、ウミイグアナ、トモエガモ、ケープペンギン、野生のサボテン科の全種、野生のラン科の全種など、約34,000種の動植物(ただしサボテン科 とラン科の植物は附属書Iのものもある)。	輸出入には、輸出国の政府が発行する <mark>許可書が必要と</mark> なる。
附属書III	その生き物が生息する国が、自国の生き物を守るために、国際的な協力を求めている生き物	ボッワナのアードウルフ、カナダのセイウチ、南アフリカのミダノアワビ、ボリビアのオオバマホガニーなど約300種の動植物。	輸出入する場合には、輸出国の政府が発行する <mark>許可書が必要と</mark> なる。

Topics: https://cites.org/eng/disc/species.php

Vienna Convention on Protection of Stratospheric Ozone Layer (1985) (1)

- Since 1970s, it has been recognized that certain compounds, such as Chlorofluorocarbons, remain in the atmosphere for long time and when they reach stratosphere, they deplete ozone layer.
- Depletion of stratospheric ozone layer might cause increase of eye cataracts, skin cancer, or impacts on ecology.
- Detection of Antarctic Ozone Hole accelerated negotiations of the Convention.

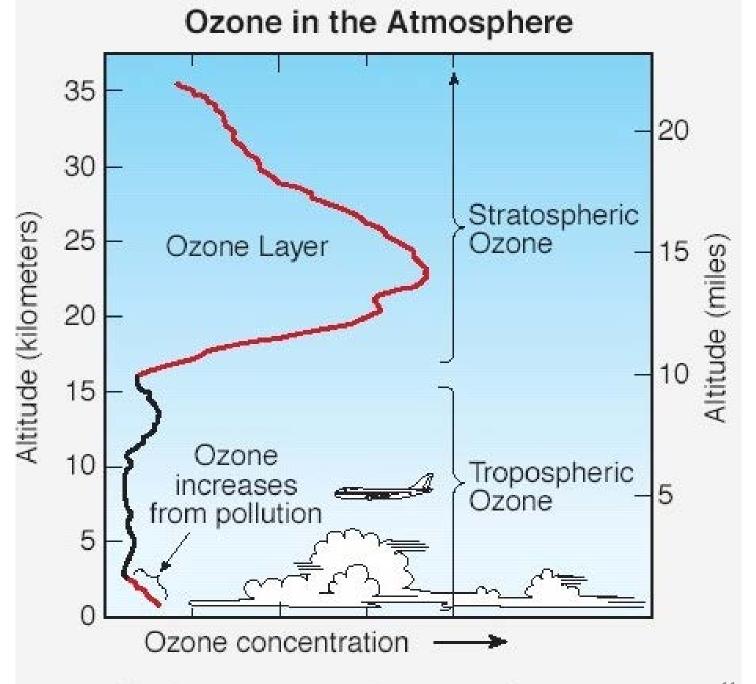
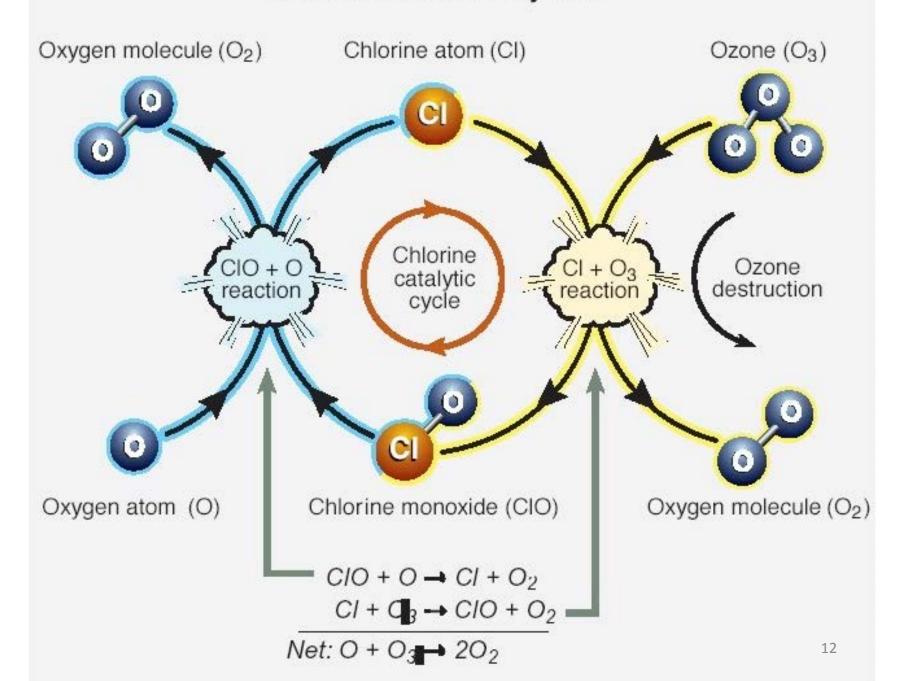
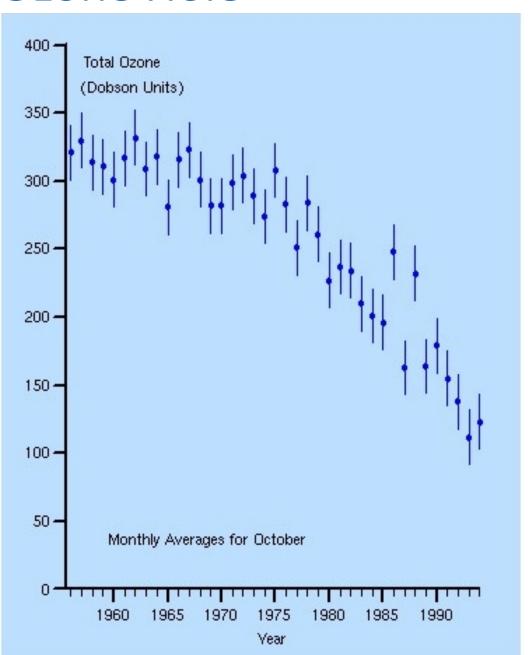


Figure Q1-2. Atmospheric ozone. Ozone is present

Ozone Destruction Cycle 1

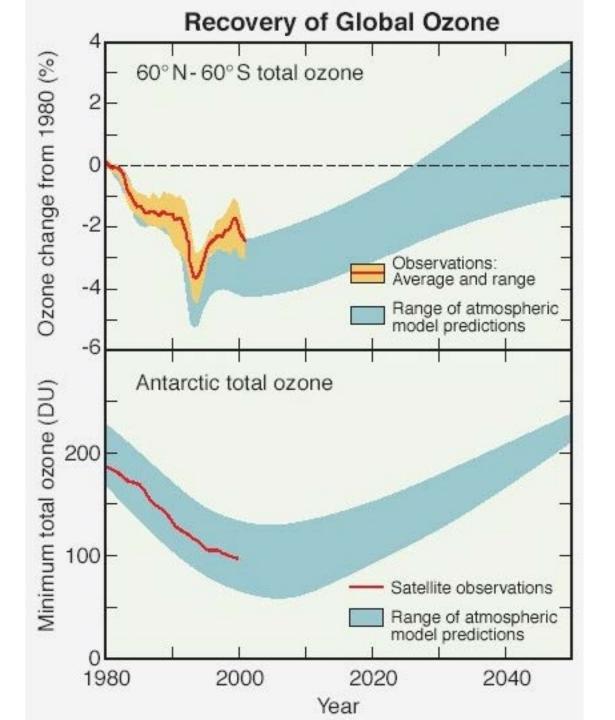


Antarctic Ozone Hole



Vienna Convention for the Protection of the Ozone Layer (2)

- Adopted on 22nd March 1985.
- The purposes are to promote cooperation by means of systematic observations, research and information exchange on the effects of human activities on the stratospheric ozone layer and to adopt legislative or administrative measures against activities likely to have adverse effects on the ozone layer.
- Montreal Protocol on Substances that Deplete the Ozone Layer (September 1986) and its later amendments stipulate detailed international requirements for the Parties, including, controls on production and consumption, and international trade in the controlled substances listed in the Annexes of the Protocol. (Ozone Depleting Substances – ODS)
- http://www.ozone.unep.org/sites/ozone/files/Publications/Handbooks/VC-Handbook-2016-English.pdf
- http://www.mofa.go.jp/mofaj/gaiko/kankyo/jyoyaku/ozone.html



Vienna Convention for the Protection of the Ozone Layer (3)

- To support the control actions for ODS in developing countries, a Multilateral Fund is established.
- CFC, HCFC, and Bromine-containing compounds deplete stratospheric ozone layer. They are also climate warming compounds, but they are not subjected to UNFCCC provisions (to avoid duplicated international legislative) actions which was adopted in 1992.
- As control actions on ODS advance, many non-ODS substitutes (some are strong warming gases) have been introduced. After a few years debates on this question, a Kigali Amendment to the Montreal Protocol was agreed upon in October 2016, which contains abatement schedules for HFC, and others (non-ODS). It will enter into force on 1 January 2019.
- http://www.unep.org/africa/news/kigali-amendment-montreal-protocol-another-global-commitment-stop-climate-change
- http://ozone.unep.org/

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1)

- Adopted in March 1989. Took effect in May 1992 (December 1993 for Japan). 186 Parties.
- Export of those hazardous wastes as specified under the Convention requires written consent of the importing contry.
- http://www.mofa.go.jp/mofaj/gaiko/kankyo/jyoyaku/b asel.html
- http://www.env.go.jp/recycle/yugai/pdf/gaiyou_H28.p df
- http://www.basel.int/Portals/4/Basel%20Convention/d ocs/text/BaselConventionText-e.pdf
- http://www.basel.int/Portals/4/Basel%20Convention/docs/convention/bc_glance.pdf

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (2) (Case of Japan in 2015)

- Exports from Japan: Lead scraps, lead batteries, coal ash, lead ash, zinc ash, copper sludge, copper sludge, etc, for the purpose of recovery of metal, and reuse. Main importing countries were; Korea, Hong Kong, and Belgium.
- Imports into Japan: Electronic part scrap, metal-containing sludge, battery scraps (of Ni-Cd, NiH, Lilon) for the purpose of metal recovery and reuse. Main exporting countries were; Taiwan, Hong Kong, Thailand, Singapore, and the Philippines.
- http://www.env.go.jp/press/102357.html

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (3)

- Technical issues involved.
 - Difference of legal definitions of "Wastes" among countries, legal framework over wastes, and their "treatment", "disposal", and their implementation.
 - Difficulties in actual decision-making and implementation of control actions on transboundary movements of wastes (avoidance of dumping export of wastes), where environmentally sound treatment and disposal might not be realistic.

United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (UNCCD)

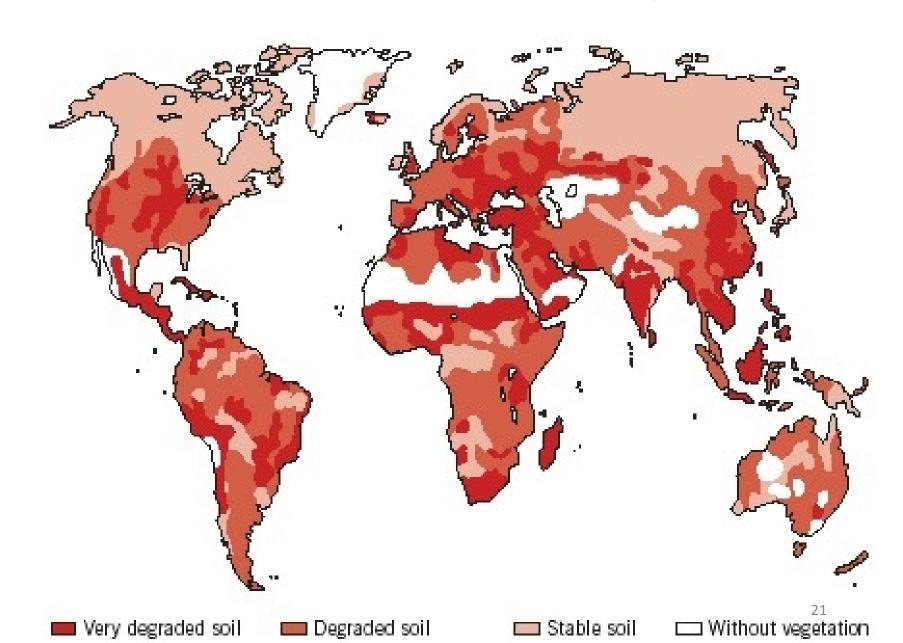
- Based on fundamental agreements reached at the UN Desertification Conference (Nairobi, June 1992), <u>UNCCD</u> was adopted in June 1994 in Paris. Japan accepted it in September 1998)
- UNCCD is the sole legally binding international agreement linking environment and development to sustainable land management, in arid, semi-arid and dry sub-humid areas.

Global Landscapes Forum 2017: 19-20 December in Bonn

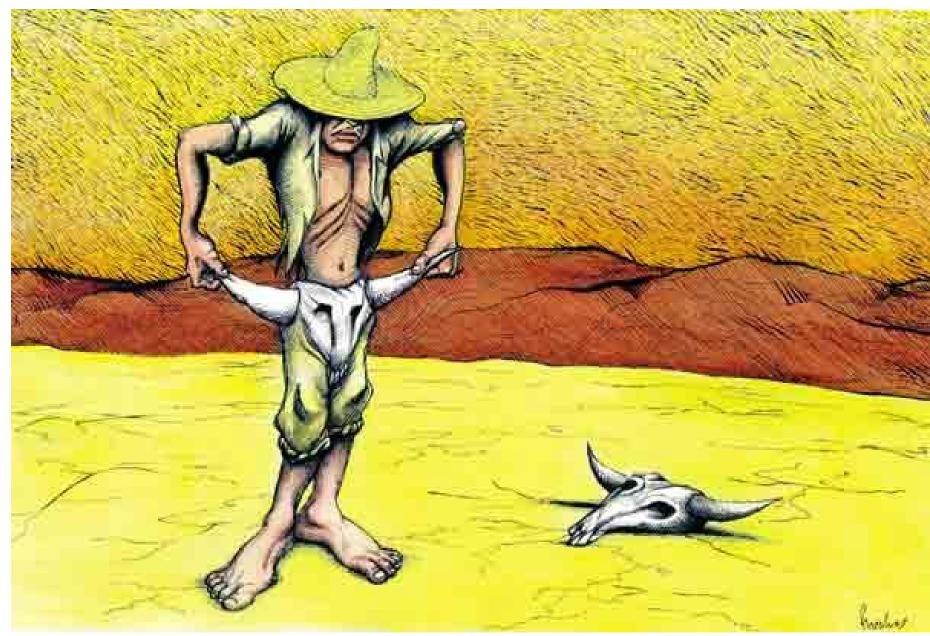
• http://www2.unccd.int/global-landscapes-forum-2017-19-20-december-bonn

http://www.mofa.go.jp/mofaj/gaiko/kankyo/sabaku/
http://www2.unccd.int/

State of desertification and soil degradation



砂漠化防止対策の困難さ



Chemicals Management Conventions

- From 1970s, there were many reports on serious environmental contamination problems by hazardous chemicals. Together with WHO's central role in health assessment, FAO's actions on pesticides and insecticides, OECD initiated a Special Programme on Chemicals Management on systematic and efficient chemicals management and international aspects of chemicals control, including prevention of chemical risks associated with international trade in chemicals.
- Outputs from the Special Programme included agreements on "Mutual Acceptance of Data", "Good Laboratory Practice" and responsibilities and decision making between exporting and importing countries, such as "Prior Informed Consent" principles, and international assessment programmes for industrial chemicals these led to the Rotterdam Convention (of PIC), and Stockholm Convention on POPs (Persistent Organic Pollutants).
- UNEP functions as the secretariat for these two conventions, as well as the Basel Convention, and these three chemicals-related conventions are implemented with high-level of coordination.

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PIC - Rotterdam Convention

- ROTTERDAM CONVENTION ON THE PRIOR INFORMED CONSENT PROCEDURE FOR CERTAIN HAZARDOUS CHEMICALS AND PESTICIDES IN INTERNATIONAL TRADE
- Adopted in September 1998, took effect in February 2004. It became effective to Japan in September 2004.
- Currently, 39 chemical substances are controlled by the Rotterdam Convention.
- Parties shall inform the Secretariat whether they agree to import the PIC chemicals, and the Secretariat inform all the Parties of such agreement. (PIC Circular). Exporting Country authorities shall provide such information to its own exporters, and require them to implement relevant regulations under the Convention.

http://www.pic.int/

http://www.pic.int/Portals/5/download.aspx?d=UNEP-FAO-RC-CONVTEXT-2015.English.pdf

<u>Stockholm Convention</u> on Persistent Organic Pollutants (POPs)

- Adopted in May 2001, took effect in May 2004. 178 countries, including Japan and EU, are the Parties.
- POPs (currently 28) are those chemicals, that are toxic, environmentally non-degradable and bio-accumulative, and therefore hazardous to human health and environment. E.g., PCBs, DDTs, Polychlorodioxines

http://chm.pops.int/TheConvention/ThePOPs/ListingofPOPs/tabid/2509/Default.aspx

 The Convention requires the Parties to adopt and implement concrete chemicals control actions, including prohibition of production of POPs.

Convention on Biological Diversity (1992)

- On 22nd May 1992, text agreed in NY. Opened for Signature in June at UNCED. Japan accepted it in May 1993. Took effect in December 1993. 194 Parties as at December 2016. USA is not a Party.
- The Convention provides for fundamental issues, and detailed rules and recommendations are referred to by Protocols, and COP decisions. https://www.cbd.int/programmes/default.shtml
- It deals with not only biodiversity conservation, but also equal access to biological resources and sharing benefits arising from use of biological resources.
- In October 2010, CBD COP-10 was held in Nagoya, and the Aichi Biodiversity Targets and the Nagoya Protocol on Access and Benefitsharing were adopted.

https://www.cbd.int/sp/targets/

http://www.mofa.go.jp/mofaj/files/000236482.pdf

https://www.cbd.int/doc/legal/cbd-en.pdf https://www.cbd.int/convention/

CBD COP10 の主要な成果

- 新戦略計画・愛知目標(ポスト2010年目標(2011~2020年))
- 遺伝資源のアクセスと利益配分(ABS)に関する名古 屋議定書
- 資源動員戦略(資金)
- 持続可能な利用 -ブッシュミート(食用の野生鳥獣等)の適正な利用、アジスアベバ原則・ガイドラインの実施、SATOYAMAイニシアティブの推進などを含む決定
- バイオ燃料と生物多様性
- 海洋と沿岸の生物多様性
- 気候変動と生物多様性

Global Assessment of Biodiversity

Millennium Ecosystem Assessment (2001-2005)
 http://millenniumassessment.org/en/index.html

- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) http://www.ipbes.net/
- 環境省ウェブサイト:

http://www.biodic.go.jp/biodiversity/activity/policy/ipbes/index.html

Global Biodiversity Outlook 4

- http://www.env. go.jp/nature/upl ode/upfile/gbo4 /gbo4-jp-lr1.pdf
- 邦訳

地球規模生物多様性概況第4版 Global Biodiversity Outlook 4

生物多様性戦略計画 2011-2020 の実施に向けた進捗に関する中間評価











Minamata Convention on Mercury (2013)

- Adopted in Kumamoto, on 10th October, 2013. Took effect on 18th August 2017.
- The Convention provides for; "a ban on new mercury mines, the phase-out of existing ones, the phase out and phase down of mercury use in a number of products and processes, control measures on emissions to air and on releases to land and water, and the regulation of the informal sector of artisanal and smallscale gold mining."

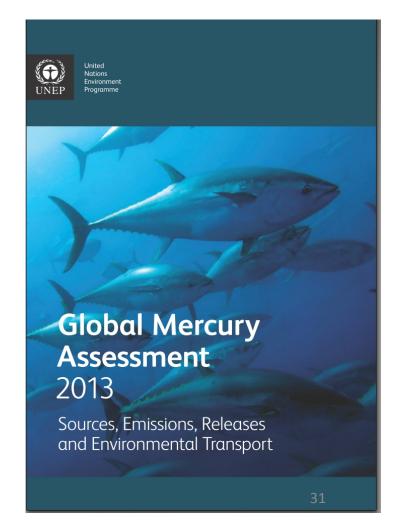
http://mercuryconvention.org/Convention/tabid/3426/language/en-US/Default.aspx

http://www.env.go.jp/chemi/tmms/convention/treaty_outline.pdf

Global Mercury Assessment 2013 (UNEP)

 "Global Mercury Assessment 2013: Sources, emissions, releases, and environmental transport" was an important background report for the negoatiation.

wed=y

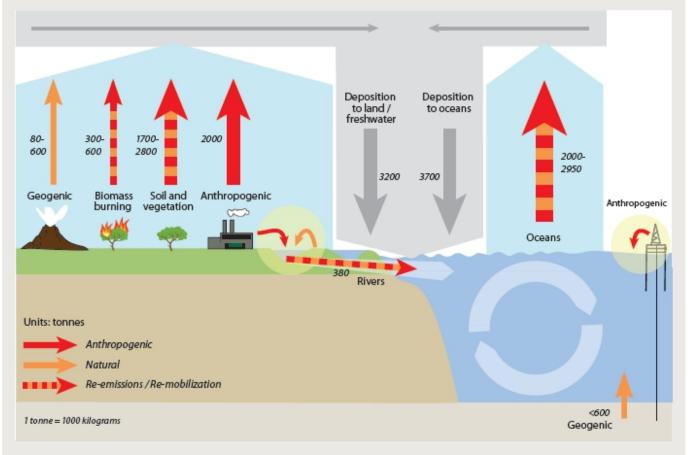


Large amount of Mercury exists in various sectors of nature, especially in higher food chain.

Global mercury cycling

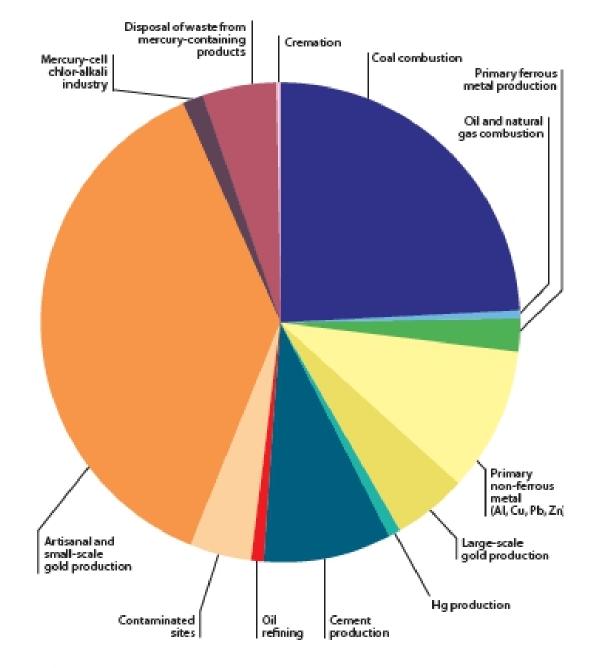
Mercury is released to the environment from natural sources and processes and as a result of human activities. Once it has entered the environment, mercury cycles between air, land, and water until it is eventually removed from the system through burial in deep ocean sediments or lake sediments and

through entrapment in stable mineral compounds. Methylmercury, the most toxic and bioaccumulative form of mercury, which presents the greatest health risk to humans and wildlife, is mainly formed in aquatic environments through natural microbial processes.



Global mercury budgets, based on models, illustrate the main environmental compartments and pathways that are of importance in the global mercury cycle, and the ways in which natural and anthropogenic releases to air land and water move between these compartments. Emissions to air arise from natural sources and anthropogenic sources, as well as re-emissions of mercury previously deposited from air onto soils, surface waters, and vegetation.

Emission sources of Mercury



Relative contributions to estimated emissions to air from anthropogenic sources in 2010.

水銀に関する水俣条約の主要規定

(環境省資料のサマリー)

水銀供給源と貿易(3条)

- 鉱山からの水銀の産出について、新規鉱山開発は各締約国での条約発効後に禁止。
- 既存の鉱山からの産出は各締約国での条約発効から15年以内に禁止。
- 水銀の貿易(金属水銀が対象)について、水銀の輸出は、1)条約上で認められた用途、2)環境上適正な保管(第10条)に限定。(水銀廃棄物の 貿易については第11条で規定)
- 水銀の輸出に当たっては、輸入国の書面による事前同意が必要。

水銀添加製品(4条・6条)

- 電池、スイッチ・リレー、一定含有量以上の一般照明用蛍光ランプ、石鹸、化粧品、殺虫剤、血圧計、体温計などの水銀含有製品(附属書A、一部例外あり)について、2020年までに製造、輸出、輸入を原則禁止。(年限については、第6条に基づき、国によって必要な場合、最大10年間まで延長可)
- 歯科用アマルガムについて、使用等を削減。O
- 禁止された水銀含有製品の製品中への組み込みの抑制、水銀を利用した新製品の製造・販売の抑制、事務局へ附属書AIC掲載する水銀含有製品の 情報の提案などを行う。
- 締約国会議(COP)は条約発効後5年以内に附属書Aのレビューを実施。

水銀又は水銀化合物を使用する製造プロセス(5条・6条)

- **塩素アルカリ工業及びアセトアルデヒド製造施設を対象に、製造プロセスにおける水銀の使用を禁止**。(それぞれ2025年、2018年まで。ただし、 年限については、国によって必要な場合、最大10年間まで延長可。)
- 塩化ビニルモノマー、ポリウレタンなどの製造プロセスでの水銀使用を削減。
- 上記対象プロセス(附属書Bに記載)の既存施設での対策及び新規施設での水銀利用禁止、新規のプロセスにおける水銀利用の抑制、事務局 へ附属書Bに掲載するプロセスの提案などを行う。
- COPは、条約発効後5年以内に附属書Bのレビューの実施。

人力小規模金採掘(ASGM)(7条)

- 使用・環境中への放出を削減、可能であれば廃絶のため行動。
- 国内のASGMがわずかでない(more than insignificant)と判断する締約国は、国家行動計画を策定・実施するとともに、3年ごとにレビューを実施。

大気への排出(8条)

- 石炭火力発電所、石炭焚産業用ボイラー、非鉄金属精錬施設、廃棄物焼却施設、セメント生産施設(附属書D)を対象に、排出削減対策を実施。
- 新設施設:各締約国での条約発効から5年以内にBAT(利用可能な最良の技術)/BEP(環境のための最良の慣行)を義務付け。
- 既存施設:各締約国での条約発効から10年以内に①排出管理目標、②排出限度値、③BAT/BEP、④水銀の排出管理に効果のある複数汚染物質管理戦略、⑤代替的措置から1つ以上を実施。
- 各国が自国内の対象排出源の排出インベントリを作成。
- COPで、BAT/BEP等に関するガイダンスを採択。

水・土壌への放出(9条)、暫定的保管、水銀廃棄物、汚染地(10~12条)、資金・技術支援(13・14条)、など。

IMO-based Conventions on Marine Pollution

廃棄物の海洋投棄の規制に関する条約(London Dumping Convention) (1972) (有機ハロゲン、水銀、カドミウム、持続性プラスチックの浮遊物、廃油、放射性物質、生物兵器・化学兵器)及びこれらを含有する廃棄物その他の物の投機禁止など。

http://www.imo.org/en/OurWork/Environment/LCLP/Documents/LC1972.pdf

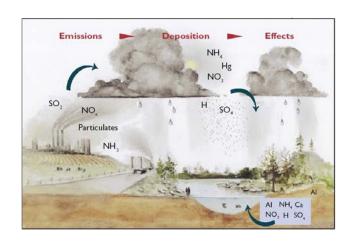
船舶からの汚染の抑制に関する条約(Marpol Convention 73/78)

http://www.mar.ist.utl.pt/mventura/Projecto-Navios-I/IMO-Conventions%20(copies)/MARPOL.pdf

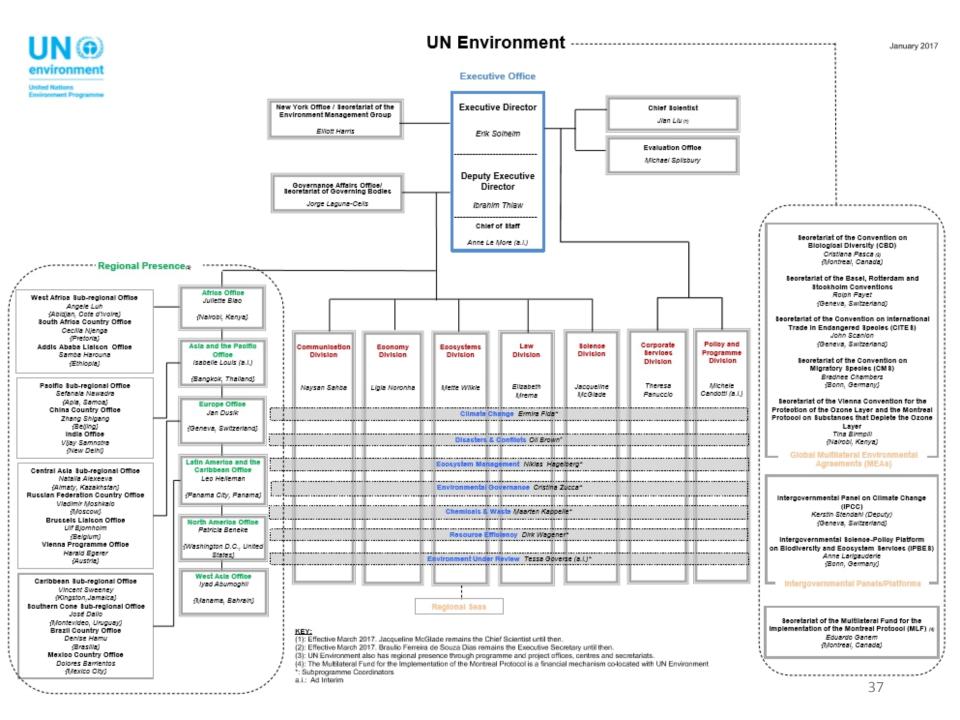
• バラスト水管理条約(BWM) (2004)

UN ECE Convention on Long-range Transboundary Air Pollution (LRTAP, 1979)

- In 1970s impacts on ecology and human health by transboundary air pollution became subject of concerns within UNECE (Economic Commission for Europe).
- There were many scientific research reports, in particular, OECD's report containing estimation of movement of air pollutants (Sox and NOx) among OECD countries, which led to the adoption of LRTAP.
- Later, European countries agreed on a 30% Club, promising to reduce SOx emissions by 30%.



- In east Asia, similar transfrontier air pollution issue has been discussed, for instance in the context of acid rain or PM2.5 levels. Ref: EANET
- http://www.eanet.asia/jpn/profile/index.ht
 ml.
- http://www.eanet.asia/research/list.html



Secretariat of the Convention on Biological Diversity (CBD)

(Montreal, Canada)

Beoretariat of the Basel, Rotterdam and Stockholm Conventions Ro(oh Paye! (Geneva, Sw/tzerland)

Sepretariat of the Convention on International Trade in Endangered Species (CITES)

John Scanlon (Geneva, Switzerland)

Secretariat of the Convention on Migratory Species (CMS)

Bradnee Chambers (Bonn, Germany)

Secretariat of the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer

> Tina Birmpili (Nairobi, Kenya)

Taka Hiraishi

- •Born in Tokyo on 3rd December 1944.
- •B.Sc. (1966) and M.Sc. for Industrial Chemistry (1968) from Tokyo University.
- •Joined Ministry of Labour (Occupational Health and Safety Department) in April 1968.
- •Moved to the newly-established **Environment Agency** in 1971 and, till 1996, worked in the fields of offensive odour, acid rain, ozone layer, hazardous wastes, hazardous chemicals and water pollution, except the overseas posting shown below.
- •1987-1989: Director, Water Pollution Control Division, Environment Agency (current Ministry of the Environment) (1987-89) Overseas posting:
- •1975-1978: Environment Attache (liaison with UNEP) and Second Secretary for bilateral technical co-operation (for Kenya, Uganda and Malawi) at the Embassy of Japan in Kenya.
- •1980-1982: Principal Administrator (A-4, information exchange on chemicals control policies, including chemicals management policies in developing countries), Chemicals Division, Environment Directorate, **OECD Secretariat**.
- •1989-1998: Worked for UNEP as (consecutively);
 - > Co-ordinator of Support Measures, Programme Bureau (D-1),
 - >Officer-in-Charge, Environmental Law and Institutions Centre,
 - > Deputy Director of Policy Division,
 - > Deputy Director of Environment Programme Division,
 - >Assistant Executive Director for Environmental Information and Assessment (D-2).
 - ➤ (President, UNEP Staff Association (in 1996))

More recently,

- •1999-2006: Visiting Principal Researcher, National Institute for Environmental Studies, Japan.
- •1999-2015: Member, IPCC Bureau and Co-chair, IPCC Inventories Task Force Bureau
- •1999-2015: Senior Consultant, and Member, Board of Directors, Institute for Global Environmental Strategies (IGES), Japan (Part-time),
- •February-April 2001: Special Advisor to the Minister of the Environment, Japan (Chair of Communique Drafting Group for G-7 Environment Ministers).
- •2002-2010: Special Advisor to the Minister of the Environment, Japan. (on OECD sustainable development activities, Part-time)
- •2005-2009: Specially assigned Professor (Risk Management and Global Environmental Issues), Osaka University, Japan (Part-time)
- •Vising Lecturer for Tokyo Institute of Technologies, Sophia University, Gakushuin University, Osaka University, Atomi University.
- •2001-: Contributed to the work of the Ministry of the Environment in Japan for CDM, J-VER, JCM, adaptation and "co-benefits"
- •2002-2011: UNFCCC, member of CGE (Consultative Group on non-Annex-I national communications).
- •2004-2008: UNFCCC, member of EGTT (Expert Group on Technology Transfer)

Currently:

- •Counsellor, Institute for Global Environmental Strategies (IGES), Japan (Volunteer),
- •Member, Board of Directors, Japan Association for UNEP (NPO) (Volunteer)