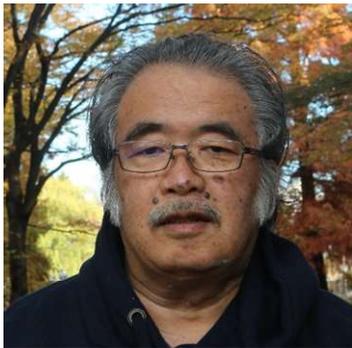


Global Environment and UNEP

24th November 2017

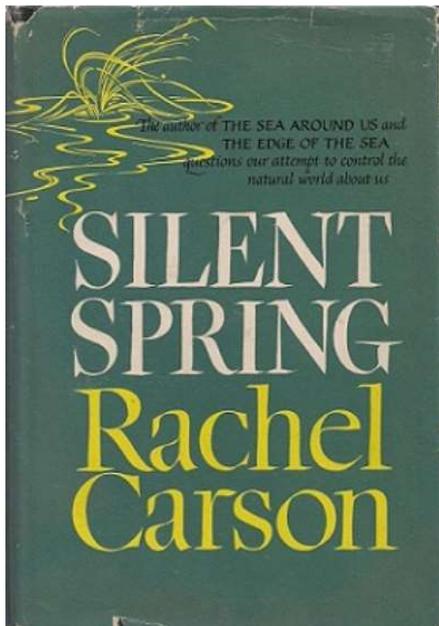


Taka Hiraishi
Senior Advisor
Japan Association for UNEP

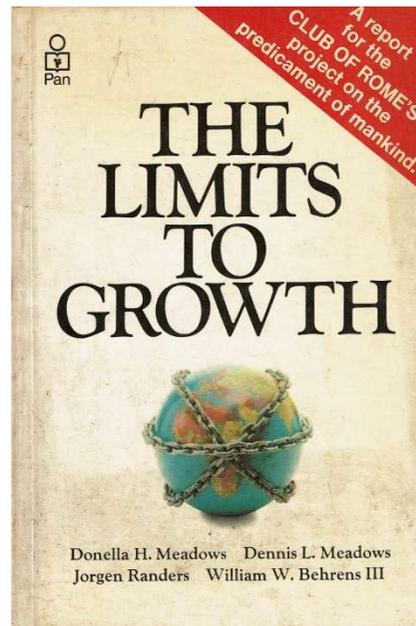
taka.hiraishi@gmail.com
<http://www.j-unep.jp/>

1. Global Environment and UNEP
2. International Environmental Conventions
3. Climate Science and UNFCCC
4. Climate actions

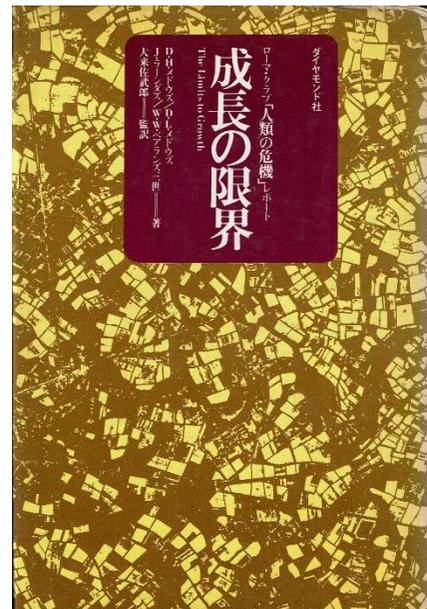
Basic literature (1)



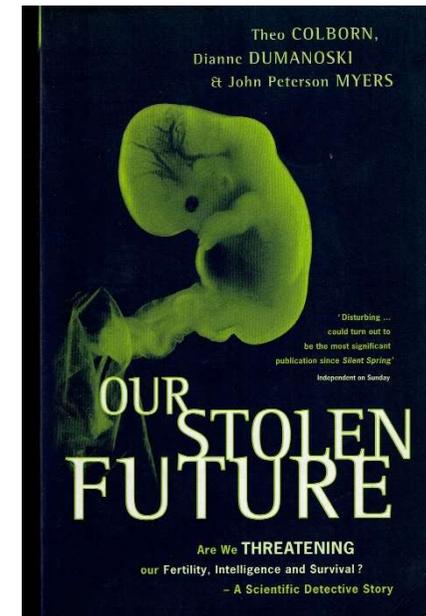
(1964)



(1972)

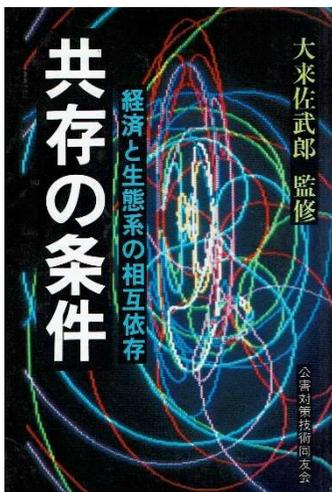


(1972)

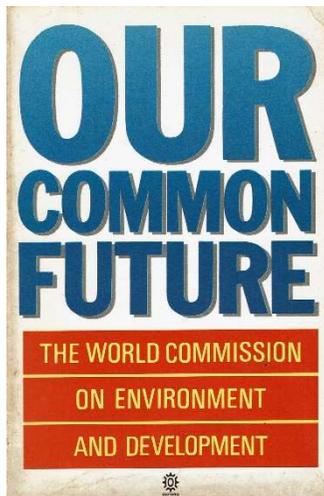


(1996)

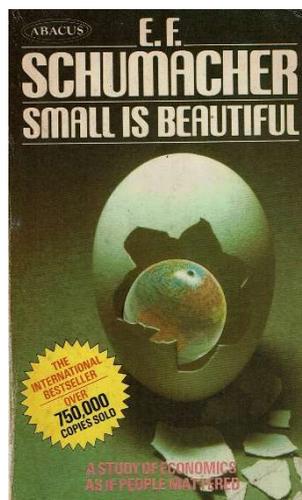
Basic literature (2)



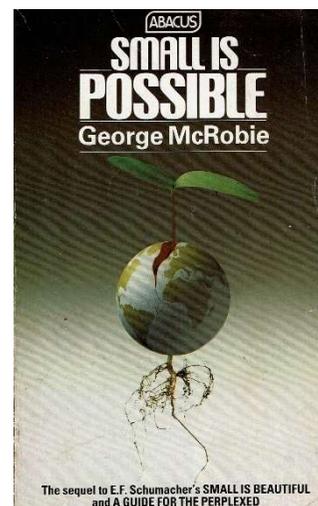
(1982)



(1987)



(1974)



(1981)



(1998)

Basic literature (3)

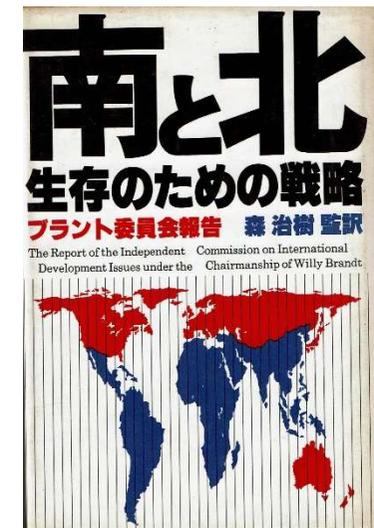
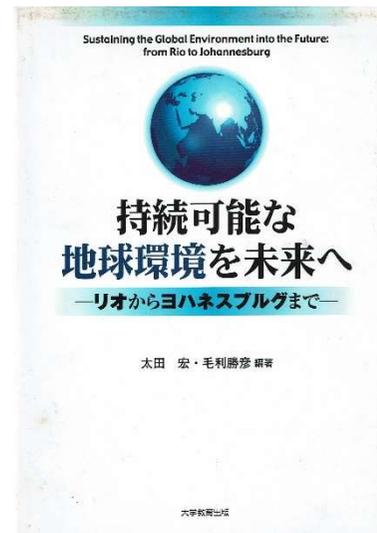
ストックホルム(1972)から、
ナイロビ(1982)、
ブランド委員会(1979)、
ブルントラント委員会(WCED 1987)、
リオデジャネイロ(2002) <agenda21>、
ヨハネスブルク(2012)



ストックホルムから
10年を記念し、
UNEPの特別管理
理事会が開催され
た。



WCED: Our Common
Future. Sustainable
Development のコンセプト
を主唱。



North-South : A
Programme for
Survival は、経済の側
面から開発の在り方
について提言

“Global Environmental problems”

- Environmental problems with global significance:
Climate change, stratospheric ozone layer depletion, loss of biological diversity, environmental contamination by persistent chemicals or trace contaminants.
- Regional, or multi-national environmental problems, with international implications:
Acid rain, forest loss, expansion of desertification, soil degradation, contamination or degradation of internationally shared water bodies (lakes, rivers and coastal marine environment)
- National, subnational or local environmental problems, which are faced with by many countries:
Urban or industry-related pollution, soil contamination or loss, lack of water resources, waste disposal problems.

Environment-development nexus

- Intrinsic relationships between insufficient development in developing countries, poverty and environmental degradation.
- Not-widely-spoken causes of under-development – corruption, civil war, incompetence of government.

(WFP) “108 Million People In The World Face Severe Food Insecurity – Situation Worsening” (31st March 2017)

<http://www.wfp.org/news/news-release/108-million-people-world-face-severe-food-insecuritysituation-worsening>

Environmental problems, “Kogai” in Japan - MINAMATA Disease Case

- Official recognition (report to local health office) was in 1953, but government’s formal statement on its cause was made only in 1968 – organic mercury was generated in a chemical process using inorganic mercury, emitted to the sea, accumulated in fish stocks, and health damage resulted. Officially recognized patients are more than 7,500.
- Paralysis, body deformation, centric eyesight, etc.
- In the early years, it was called, “weird disease” and there were discrimination cases against patients.
- Prevention may have been difficult, but there were lots of unfortunate incidents.

From Mr. Smith's book, "Minamata"



チフ・水俣病：神経組織が変質、萎縮しはじめる。
まず手足と唇のジンジンする感じおよび進行するしびれ。
運動機能はひどくこなわれ、言葉は不明瞭になり、
視野は狭くなる。発症当初の重症例では
患者は無意識になり不随意運動を示すこともあった。
わけもなく叫んだりもした。死体解剖で脳を見れば、
細胞が脱落し海綿状になってしまっている。
水銀は胎盤によって阻まれず
胎児にまで達することもわかった。
健康そうに見える母の顔にも

メチル水銀が母親から胎児に移る

Serious Air Pollution Problems in Japan

- In 1960s and early 1970s, there were serious air pollution problems in many industrialized cities, such as Yokkaichi, Kitakyushu, Kawasaki, and Osaka.
- Causes were Sulfur Oxides (SO_x), Nitrogen Oxidants (NO_x), Particulates matter (PM <-> PM_{2.5}), Photochemical Oxidants. In a few areas, Lead pollution (from automobile emission) and Carbon Monoxide occurred.
- Air pollution patients, recognized under Environmental Pollution Compensation Law, reached the level of 100 thousands.
- There were strong public movements, some of which led to the prevention of further pollution.
- Especially by strong air control regulations (on both stationary and mobile sources), many air pollution control technologies were developed and widely introduced, such as Flue Gas Desulfurization or Denitrifications.
- In early 1970s, removal of Lead from gasoline was introduced, which was extremely unique in the world.

Success Stories

Kitakyushu in 1960s and current air quality

<http://www.city.kitakyushu.lg.jp/kankyoku/file_0264.html>



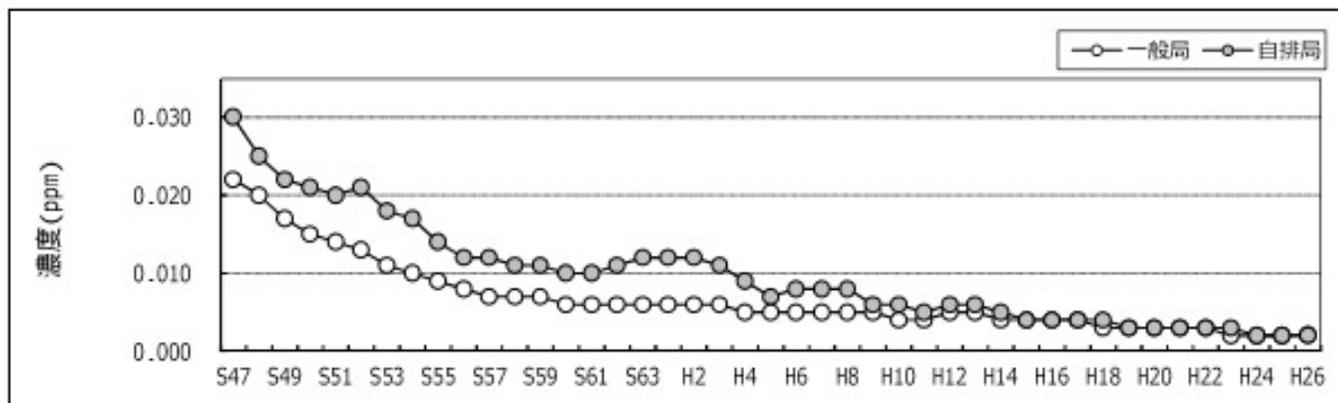
【1960年代】煙に覆われた空、多数のぜん息患者が現われた



【2010年代】清々とした青空

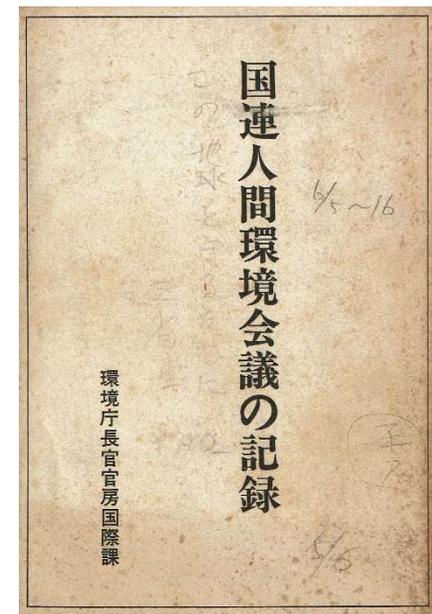
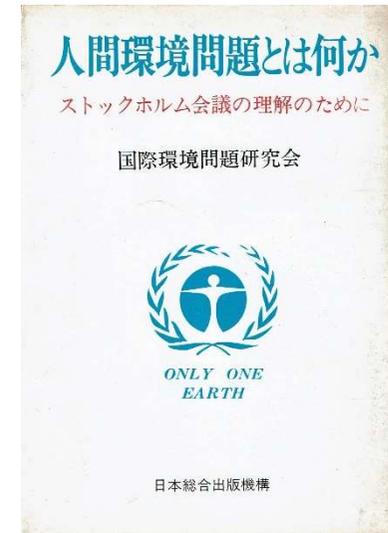
Ambient SO2 Concentration (National Monitoring Station)

図 4 - 1 二酸化硫黄の環境基準達成率の推移



1972 United Nations Conference on the Human Environment

- From 5th June 1972, **United Nations Conference on the Human Environment** was held in Stockholm, which adopted **Human Environment Declaration, and Action Plan comprising of 109 recommendations.**
- Originally, Sweden and other developed countries proposed an UN Conference on Environmental Pollution, but developing countries argued poverty and insufficient development are more problematic. Thus, the conference was called, “. . . on the Human Development”.
- 5th June was named, “World Environment Day”. The month of June is “Environment Month” in Japan.



Establishment of UNEP

- By UN General Assembly resolution 2994 (XXVII) in December 1972, United Nations Environment Programme was established, composed of;
 - A Small Secretariat to be established in Nairobi, Kenya
 - Environment Fund (US\$ 100 million per 5 years)
 - Environmental Co-ordination Board (responsible for coordination of activities within UN System. UNEP Executive Director is its Chairman.)
- UNEP is not a UN Specialized Agency, but is a “programme” of the UN Headquarters, like UNICEF, UNHCR, or UNDP that have coordinating function over the UN system.
- As a result of the United Nations Conference on Sustainable Development, “Rio+20” (in 2002) in Rio in June 2012, 58 member Governing Council of UNEP was changed to United Nations Environment Assembly (UNEA) , which are represented by all the UN member States. The first session of UNEA was held in June 2014. It will be held every two years, but UNEA-3 will be held in December 2017.

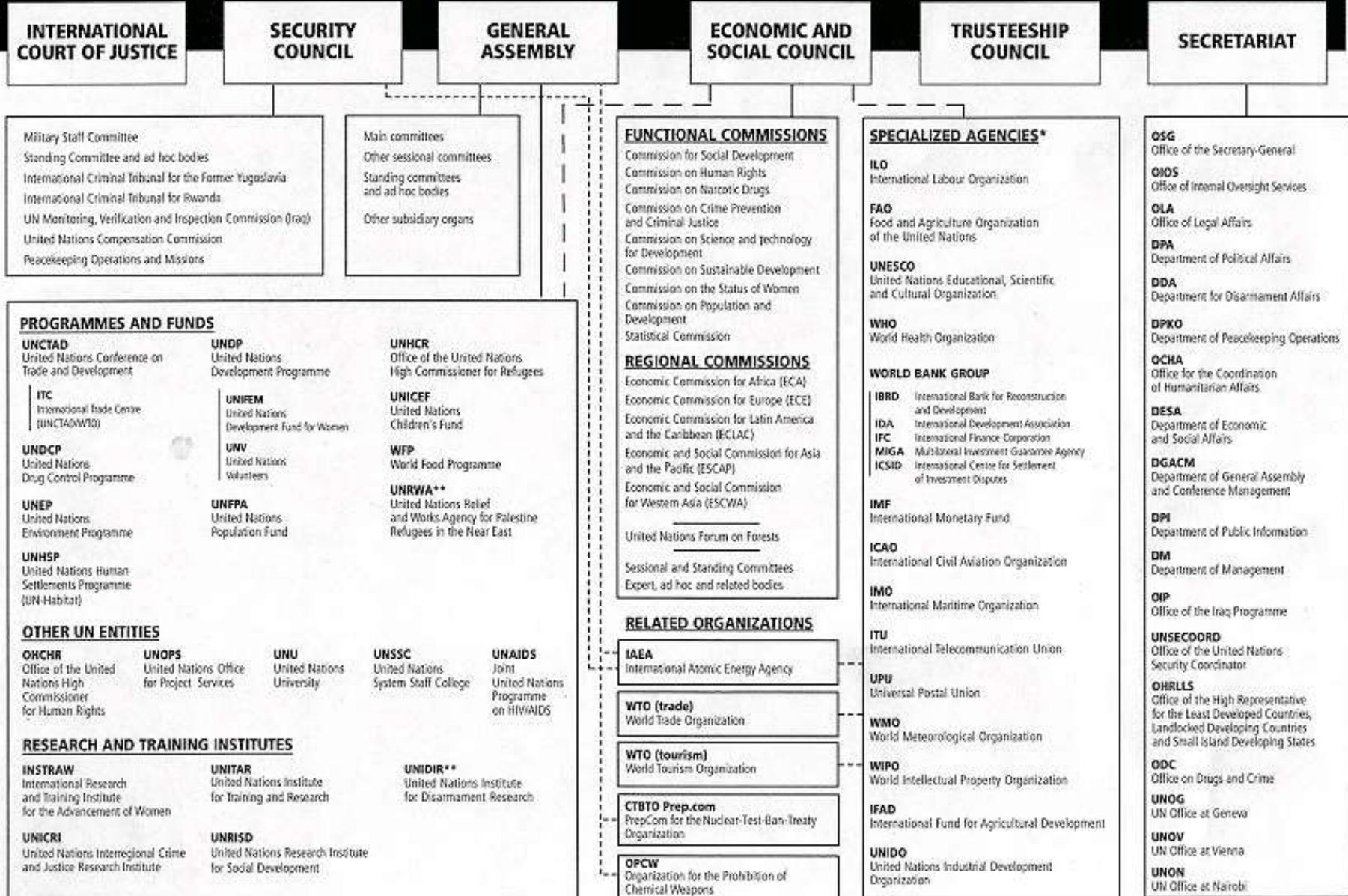


UNEP Headquarters
(The most beautiful UN site!)



The UNITED NATIONS system

PRINCIPAL ORGANS OF THE UNITED NATIONS



* Necessary cooperation existing with the United Nations and each other through the secretariat.

International developments in environment and development

- 1972, June: United Nations on the Human Development
- 1982, June: Special Session of UNEP Governing Council
- 1987, April: World Commission on Environment and Development – Report - Our Common Future. “Sustainable Development”
- 1992, June: United Nations Conference on Environment and Development – Agenda 21 (in Rio de Janeiro).
- 1993 – annually: UN Commission on Sustainable Development
- 1997, June: United Nations General Assembly Special Session of RIO+5
- 2000. September: Millennium Development Goals (MDGs)
- 2002, August-September, World Summit on Sustainable Development (in Johannesburg)
- 2012, June: United Nations Conference on Sustainable Development (Rio+20) (in Rio de Janeiro)
- 2015, September: 2030 Agenda for Sustainable Development Goals

Mission and Mandate of UNEP

Mission

- “To provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.”

(将来世代を害することなく生活の質を向上するために、環境対策のリーダーシップを提供、パートナーシップを促進する。)

Mandate

- "to be the leading global environmental authority that sets the global environmental agenda, that promotes the coherent implementation of the environmental dimensions of sustainable development within the United Nations system and that serves as an authoritative advocate for the global environment“

(全世界環境アジェンダを設定する主な地球環境権威となる。)

Leadership by UNEP Executive Directors

- UNEP Executive Director (UN Under-Secretary-General) chairs the UN Environmental Management Group and fulfil UN System-wide coordination.
 - <http://www.unemg.org/>
- In addition, they played central leadership role in many important international negotiation forums
 - Maurice Strong (Canada)
 - Mostafa Kamal Tolba (Egypt)
 - Elizabeth Dowdeswell (Canada)
 - Kraus Toepfer (Germany)
 - Achim Steiner (Germany. Later he became UNDP Administrator in April 2017.)
 - Erik Solheim (Norway. Elected by UNGA in 2016.)

<http://www.unep.org/about/executivedirector/multimedia/videos/unep-chief-erik-solheim>

Major Achievements of UNEP

- Development of fundamental legal principles, such as on Shared Natural Resources.
- Production and dissemination of environmental Assessments, including, Global Environment Outlook (1-5), sub-regional assessments, sectoral assessments, and early warnings, and promotion of public awareness.
 - Central role in development of international law, such as;
 - Washington Convention on Protection of Endangered Wild Species.
 - Basel Convention on Transfrontier movements of hazardous wastes,
 - Vienna Convention on Protection of Stratospheric Ozone Layer (and its Protocols.)
 - Desertification Convention.
 - Hazardous Chemicals Control Conventions (Rotterdam on PICs, Stockholm on POPs.)
 - Biological Diversity Convention and its Protocols.
- International negotiation forums, such as those on;
- Environmental economics, investment, insurance, trade, environmental technology.
- Promotion of regional environmental cooperation.

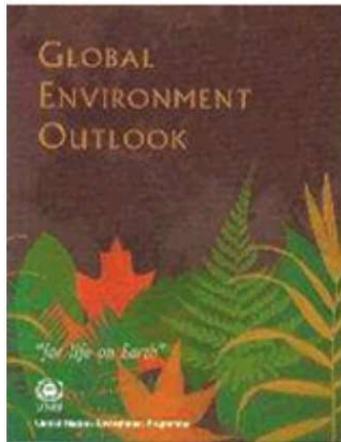
Priority Areas of UNEP

- Climate change
- Disasters and conflicts
- Ecosystem management
- Environmental governance
- Chemicals and waste
- Resource efficiency
- Environment under review

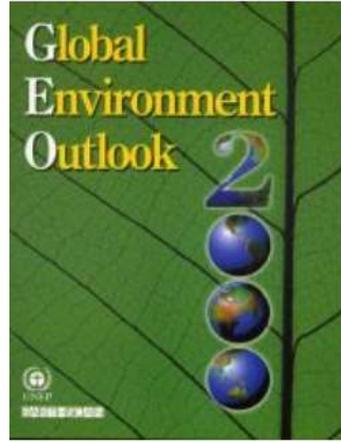


Assesment Report (1)

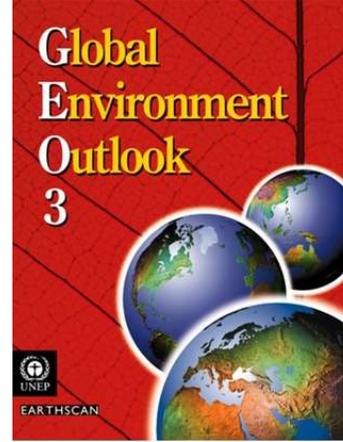
GEO: Global Environment Outlook



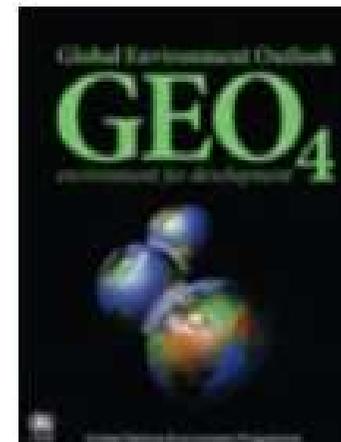
(1997)



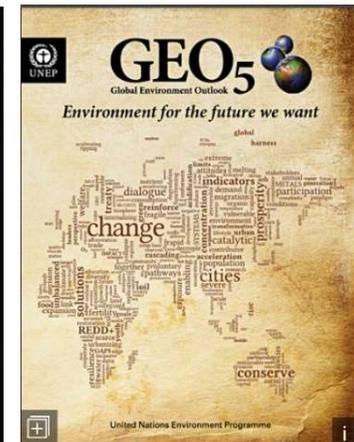
(1999)



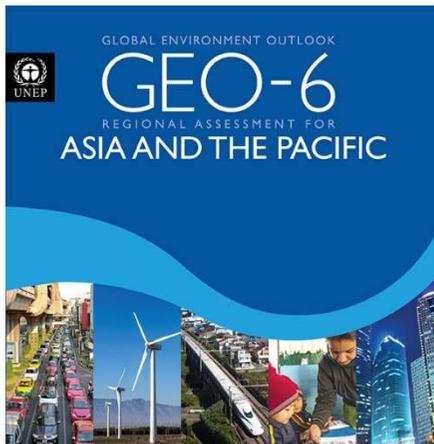
(2002)



(2007)



(2012)



Regional summaries of GEO6 were issued by May 2016.

<https://wedocs.unep.org/bitstream/handle/20.500.11822/7644/-Summary_of_the_sixth_global_Environment_Outlook_GEO-6_Regional_assessments_Key_findings_and_policy_messages_UNEP_EA2_INF_17-2016GEO-6_summary_en.p.pdf?sequence=3&isAllowed=y>
<<http://www.unep.org/geo/assessments/regional-assessments/regional-assessment-asia-and-pacific>>

Assessment Report (2) Mercury

- **Provided useful background information for the negotiation of the Minamata Agreement**
- **Global Mercury Assessment 2013: Sources, emissions, releases, and environmental transport**

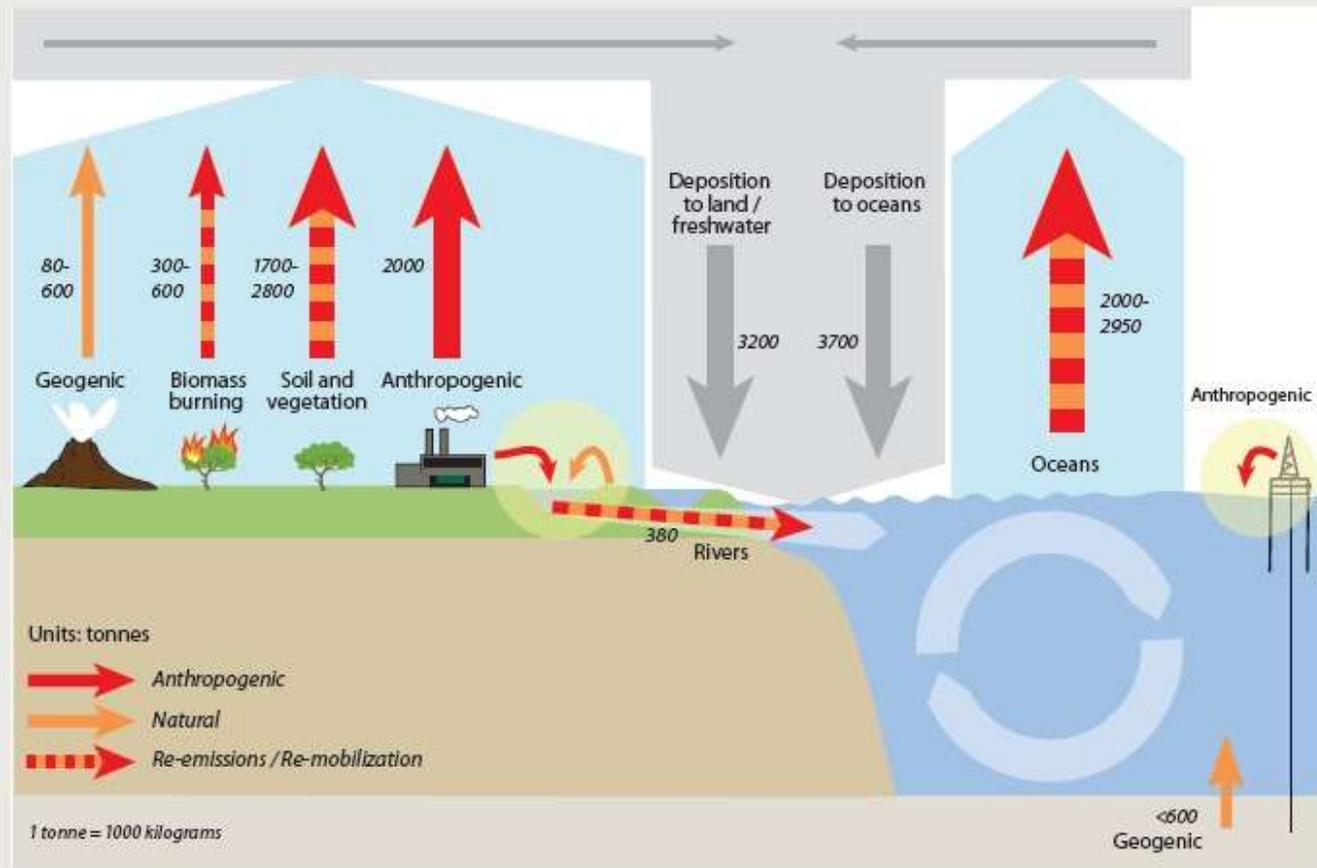
<http://wedocs.unep.org/bitstream/handle/20.500.11822/7984/-Global%20Mercury%20Assessment-201367.pdf?sequence=3&isAllowed=y>

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

Global mercury cycling

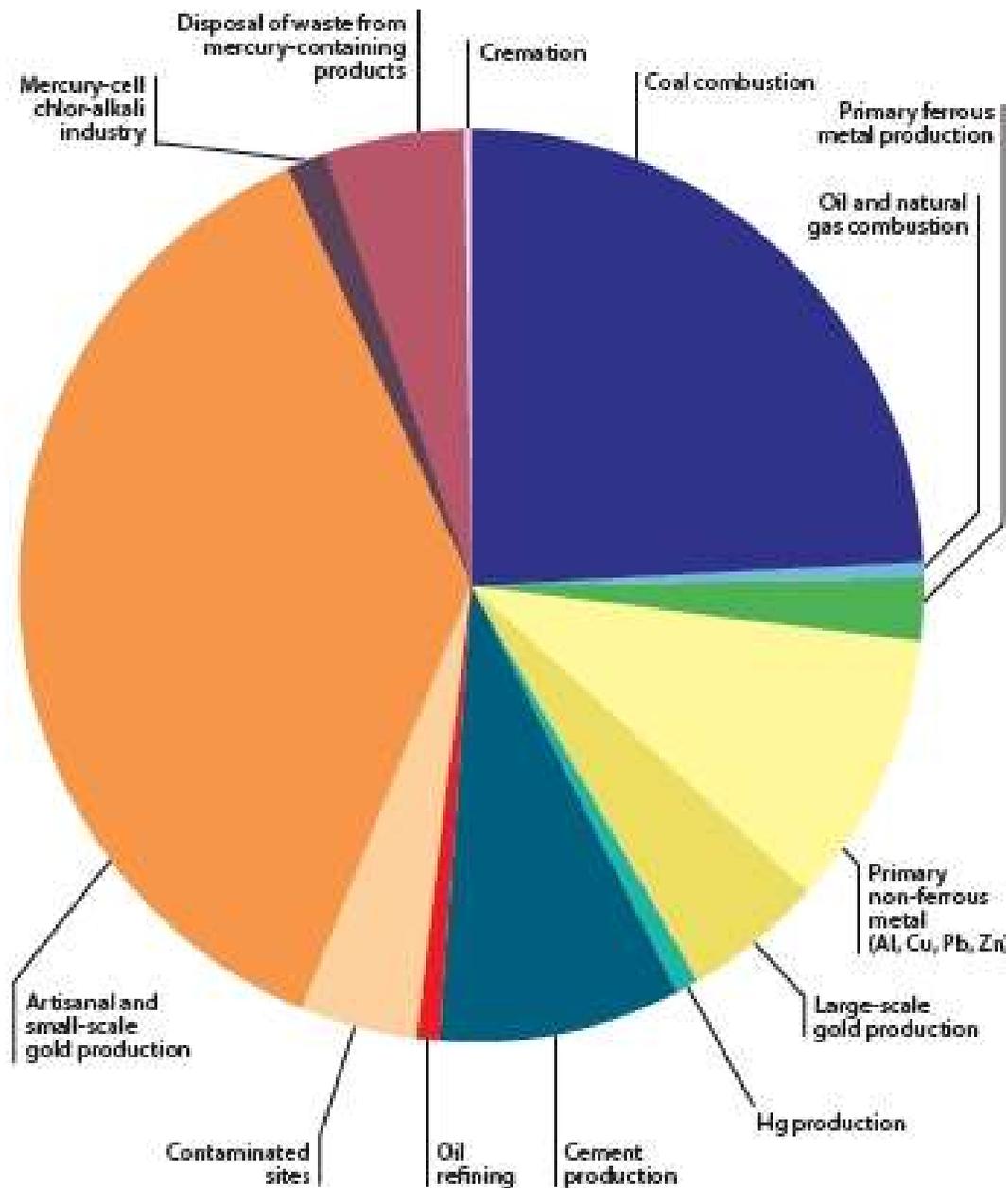
Mercury is released to the environment from natural sources and processes and as a result of human activities. Once it has entered the environment, mercury cycles between air, land, and water until it is eventually removed from the system through burial in deep ocean sediments or lake sediments and

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.



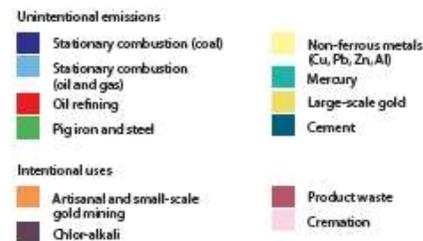
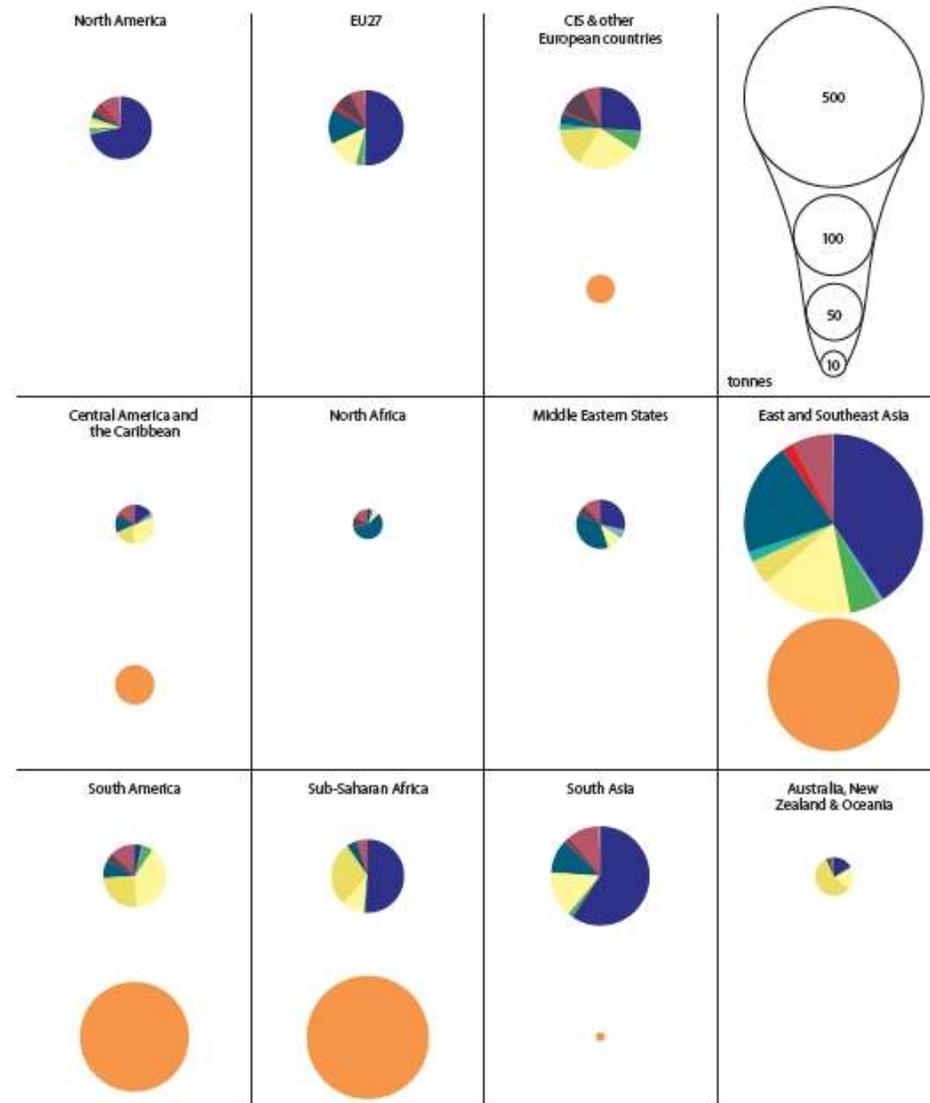
Global mercury budgets, based on models, illustrate the main environmental compartments and pathways that are of importance in the global mercury cycle, and the ways in which natural and anthropogenic releases to air land and water move between these compartments. Emissions to air arise from natural 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.

Not only emission amount but sources also differ between regions.



Estimates of 2010 anthropogenic mercury emissions to air from different main sectors in different regions. ASGM is shown separately to highlight its geographic distribution and better allow regional comparisons to be made for other sectors.

“Towards a Pollution-free Planet”

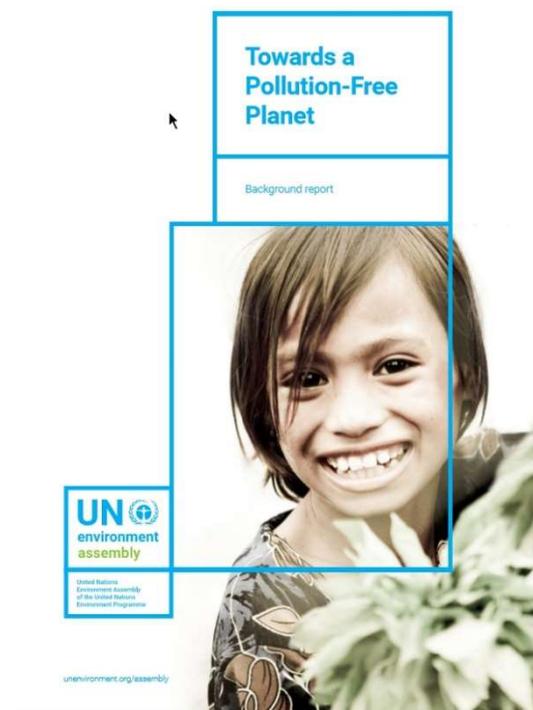
- a publication for UNEA3 -

- UNEA3 will be held from 4th to 7th December in Nairobi, focusing on “Pollution”.

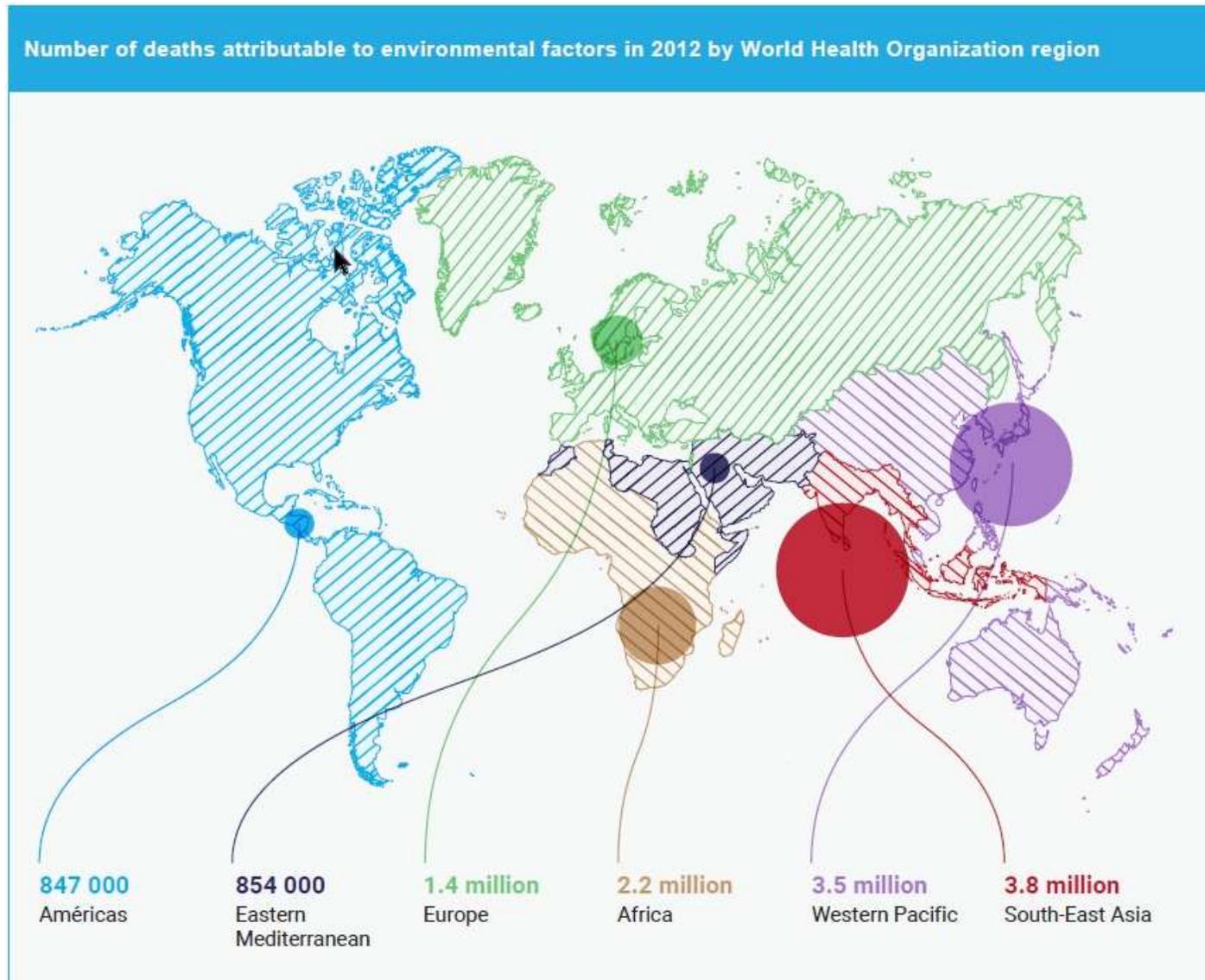
“**Pollution** is not a new phenomenon. Nor is action to counter it. A substantial framework of international conventions and national laws has been constructed to tackle some of the harms and worst excesses. Notable successes include the ongoing repair of the ozone layer and the phasing out of numerous banned pesticides and chemicals.”

- It overviews “Pollution”; Air pollution, Land and soil pollution, Freshwater pollution, Marine and coastal pollution, and Cross-cutting sources of pollution; Chemicals and Waste.
- Economic impacts and countermeasures and policies, including preventive ones, are reviewed.

http://wedocs.unep.org/bitstream/handle/20.500.11822/21800/UNEA_towardspollution_long%20version_Web.pdf?sequence=1&isAllowed=y



Number of deaths attributable to environmental factors in 2012 by World Health Organization region



Source: Prüss-Ustün et al. 2016

Other Major Publications of UNEP

- <https://www.unenvironment.org/resources?title=&topic=All&tag=All&type=50®ion=All&country=All>

Such as;

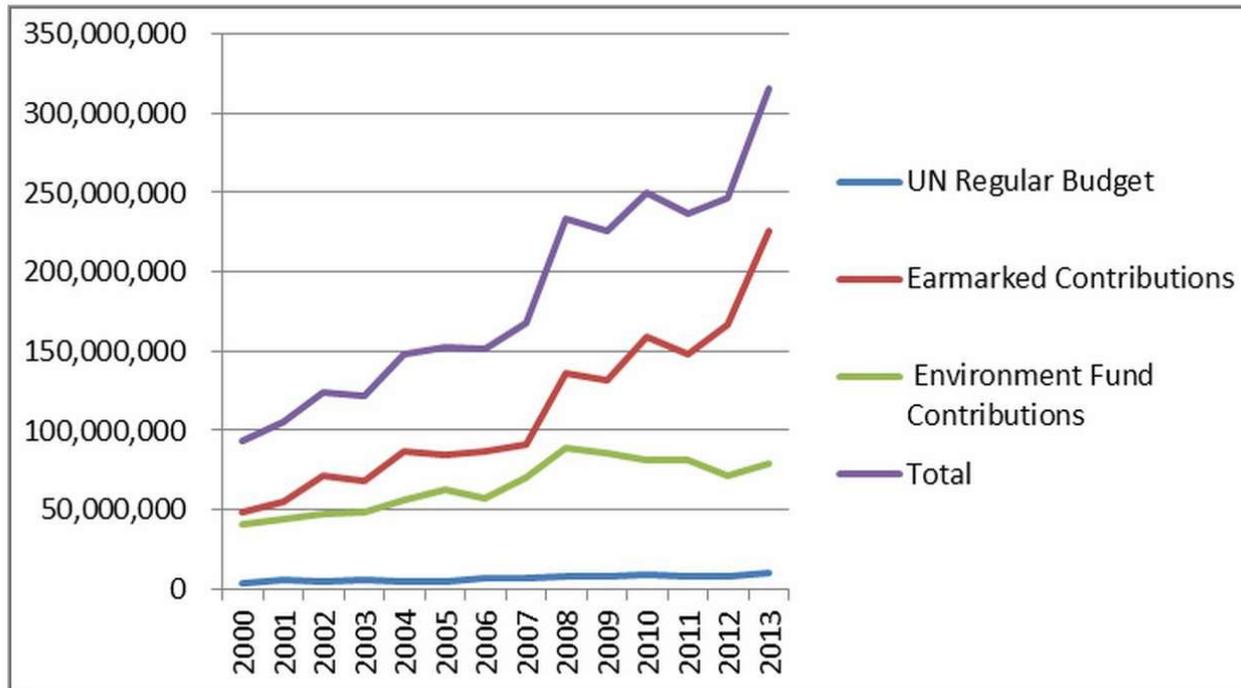
- **The Emissions Gap Report 2017.**
- **The Adaptation Gap Report 2017**

Periodical Publication, OUR PLANET: Japanese version has been produced by the Associates of the Earth. This has been succeeded by the Japan Association for UNEP.

<http://ourplanet.jp/> <http://ourplanet.jp/our-planet>

Financial Resources of UNEP

“Table 1: UNEP contributions 2000-2013 by source of funding”



- Skeltal Funding (Only core personnel, expenditures for UNEA (conference costs and travel supports for developing country delegates) is provided from the UN Regular Budget. (Blue line)
- Voluntary contributions to the Environment Fund finance larger part of UNEP Programme Activities. (Red line.), but are not sufficient.
- The rest of UNEP activities are funded by ear-marked contributions (Violet line).

<https://wedocs.unep.org/bitstream/handle/20.500.11822/20742/Resource%20Doc%20-%20Environment%20Fund%20Contributions%202013-2017.pdf?sequence=1&isAllowed=y>

TOP 15 ENVIRONMENT FUND CONTRIBUTIONS



TOP 15 EARMARKED CONTRIBUTIONS



(2016-2017 pledge) <<http://www.unep.org/about/funding/our-funding/overview/secure>>

Structure of UNEP Secretariat

<http://wedocs.unep.org/bitstream/handle/20.500.11822/22217/UNEnvironment-Organigramme.pdf?sequence=1&isAllowed=y>

Management Staff

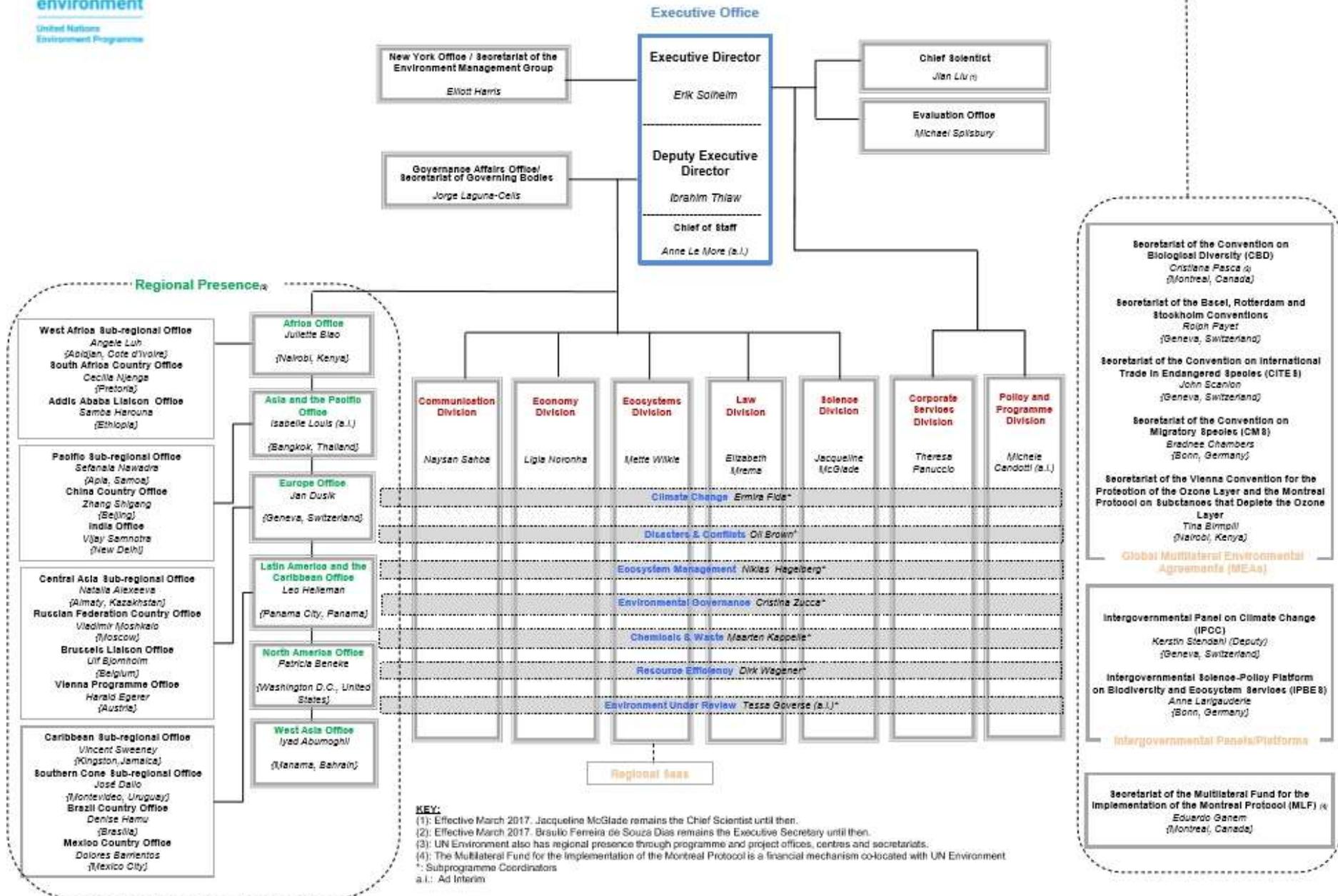
<https://www.unenvironment.org/people/leadership>

• Headquarters

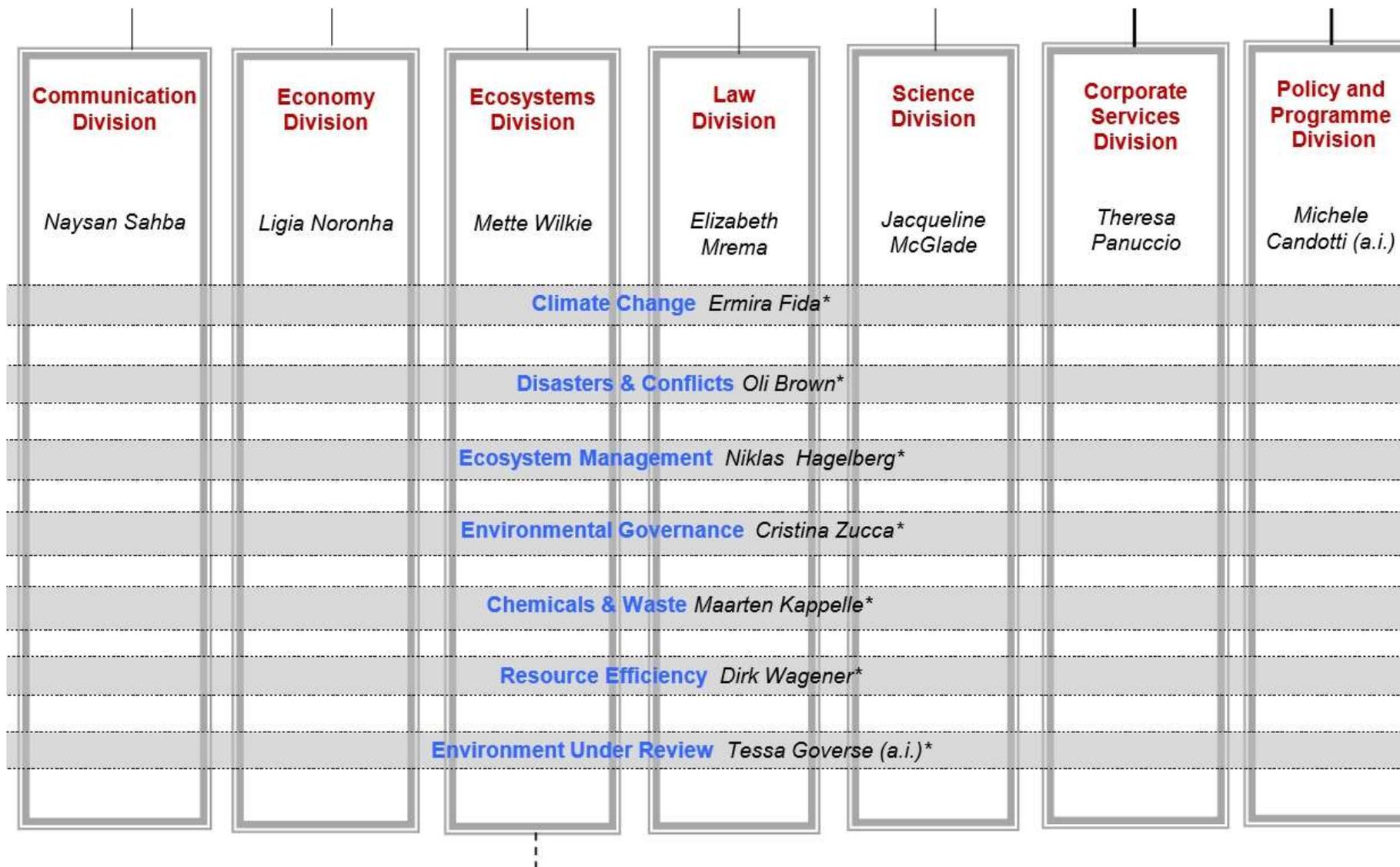
- | | |
|---|------------------------|
| • Communications and Public Information (DCPI) | Communication Division |
| • Early Warning and Assessment (DEWA) | Science Division |
| • Environmental Law and Conventions (DELCO) | Law Division |
| • Environmental Policy Implementation (DEPI) | Ecosystems Division |
| • Technology, Industry and Economics (DTIE) | Economy Division |
| • | (在パリ。大阪のIETCはこの下。) |

• UNEP Collaborating Centres

- [Basel Agency for Sustainable Energy \(BASE\)](#)
- [BCA Centre for Sustainable Buildings \(CSB\)](#)
- [Frankfurt School of Finance and Management](#)
- [Global Efficient Lighting Centre \(GELC\)](#)
- [Global Reporting Initiative \(GRI\)](#)
- [Global Resource Information Database \(GRID\)](#)
- [UNEP Collaborating Centre on Water and Environment \(UCC-Water\)](#)
- [UNEP DTU Partnership](#)
- [UNEP World Conservation Monitoring Centre \(WCMC\)](#)
- [UNEP International Ecosystem Management Partnership \(UNEP-IEMP\)](#)



本部組織



External offices.

- [African Ministerial Conference on the Environment \(AMCEN\)](#)
- [Bamako Convention](#)
- [Basel Convention](#)
- [Carpathian Convention](#)
- [Climate and Clean Air Coalition \(CCAC\)](#)
- [Convention on Biological Diversity \(CBD\)](#)
- [Climate Technology Centre and Network \(CTCN\)](#)
- [Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\)](#)
- [Convention of Migratory Species \(CMS\)](#)
- [Global Programme of Action for the Protection of the Marine Environment from Land-based Activities \(GPA\)](#)
- [Intergovernmental Science–Policy Platform on Biodiversity and Ecosystems Services \(IPBES\)](#)
- [Minamata Convention](#)
- [Multilateral Fund Secretariat for the Implementation of the Montreal Protocol \(MFS\)](#)
- [Ozone Secretariat](#)
- [Rotterdam Convention](#)
- [Stockholm convention](#)
- [Strategic Approach to International Chemicals Management \(SAICM\)](#)
- [Tehran Convention](#)
- [10-Year Framework of Programmes on Sustainable Consumption and Production \(10YFP\)](#)

IN RELATION TO JAPAN;

- International Environmental Technology Center (IETC) and its Collaboration Center in IGES.
- IGES also participates in the UNEP FI (Financial Initiative), and serves as one of its support centers.
- IGES supports, in particular, regional activities of GEO preparation.
- Japan strongly support and is an instrumental member of the UNEP NOWPAP (North Western Pacific Action Programme).

Japan Association for UNEP



2015年4月一般社団法人として活動を開始。
代表理事：鈴木基之 東大名誉教授

協会ウェブサイト: <http://www.j-unep.jp/>

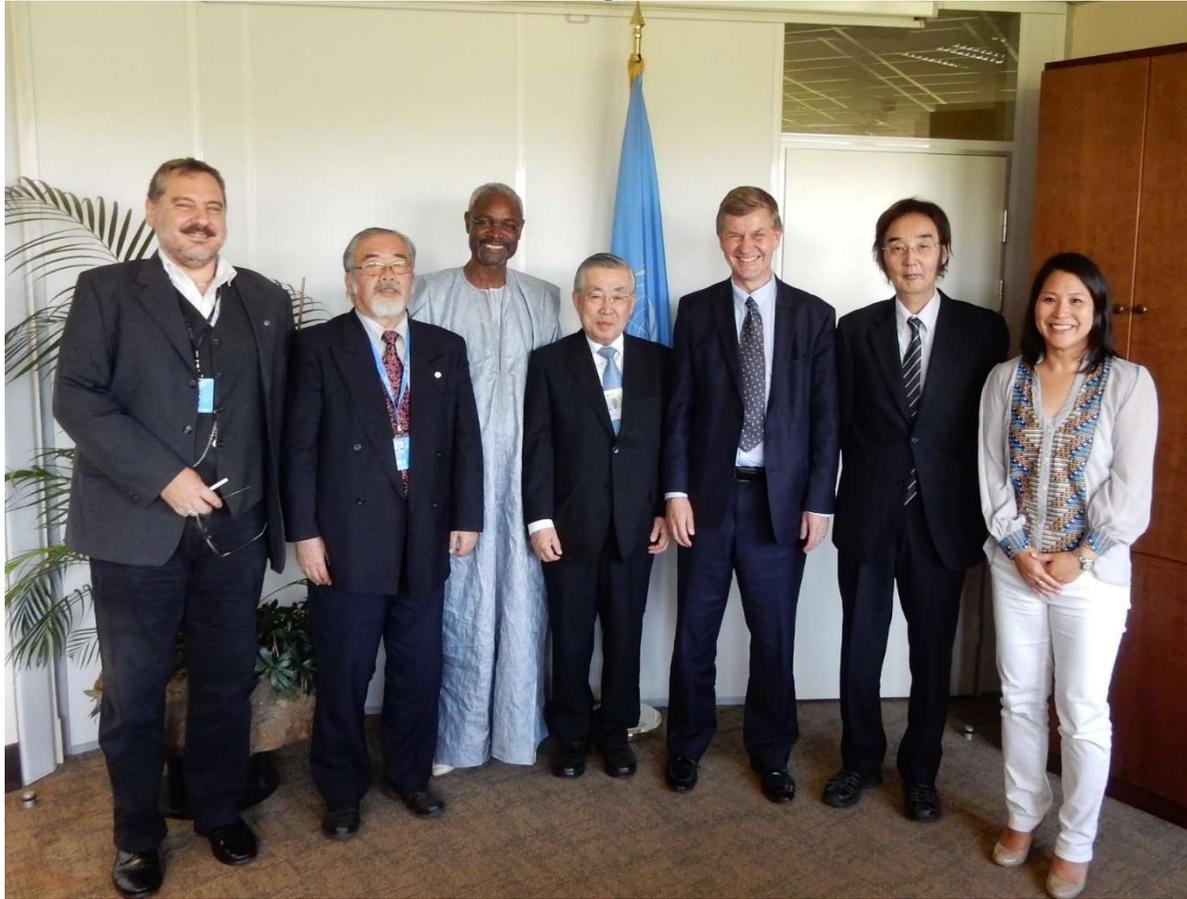
UNEP出版物サマリーページ:

<http://www.j-unep.jp/publications>

日本UNEP協会 - Google Play の Android アプリ

<https://play.google.com/store/apps/details?id=jp.co.tegaraashi.Appcooking322>

In December 2016, a team of JAU visited UNEP Headquarters



2016年12月、於 ナイロビ。
(UNEP側) Erik Solheim 事務局長、Ibrahim Thiaw 事務局次長、
Jorge Laguna-Celis 理事会等書記など

(協会側) 鈴木代表理事、宮内理事、平石理事

UNEP and JAU Signed Collaboration Agreement on 5th September 2017

AGREEMENT
between
The United Nations Environment Programme
and
Japan Association for the United Nations Environment Programme

Whereas the **United Nations Environment Programme** is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system and serves as an authoritative advocate for the global environment;

Whereas **Japan Association for the United Nations Environment Programme** is a non-governmental organization (NGO) established in Japan for the purposes of advancing environmental protection and mainstreaming environmental sustainability into national, regional and global sustainable development strategies through supporting and upholding the United Nations Environment Programme's mandate and objectives at the national level;

Whereas the United Nations Environment Programme and the Japan Association for the United Nations Environment Programme (hereinafter collectively referred to as "the Parties") share common goals and objectives with regard to the conservation, protection, enhancement and support of nature and natural resources, including biological diversity worldwide, and wish to collaborate to further these common goals and objectives within their respective mandates and governing rules and regulations;

Whereas the Parties recognize the value and contributions that can be made by the Japan Association for the United Nations Environment Programme in furthering their common objectives, taking into consideration the strengths with respect to local knowledge, credibility and acceptance within the community to promote a better environment;

Whereas the Parties intend to conclude this Agreement with the aim of defining the partnership between them to enhance the wise and sustainable management of the environment, and to consolidate and develop their cooperation and their effectiveness to achieve their common goals and objectives in the field of environment.

NOW THEREFORE, the United Nations Environment Programme AND Japan Association for the United Nations Environment Programme HAVE AGREED TO COOPERATE UNDER THIS AGREEMENT AS FOLLOWS: +

Article 1 - Interpretation

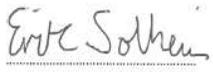
1. This Agreement spells out the terms and conditions of the collaboration between the Japan Association for the United Nations Environment Programme and the United Nations Environment Programme and relevant procedures.
2. Japan Association for the United Nations Environment Programme is a legally distinct entity from the United Nations Environment Programme; it is neither part of the United Nations Environment Programme's structure nor under the control of the United Nations Environment Programme. Japan Association for the United Nations Environment Programme was established under practices and legislation existing in Japan on the operation of NGOs and not-for-profit organisations.

IN WITNESS WHEREOF, THE DULY AUTHORIZED REPRESENTATIVES OF THE PARTIES AFFIX THEIR SIGNATURES BELOW.

For the United Nations Environment Programme

For the Japan Association for the United Nations Environment Programme

.....



Name: Erik Solheim
Title: Executive Director
Date: 5 September 2017



Name: Motoyuki Suzuki
Title: Chairman, Board of Directors
Date: 5 September 2017

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■ 日本UNEPフォーラムの定期的な開催



■ UNEP公式機関誌「Our Planet」日本語版の発行



<<http://ourplanet.jp/our-planet>>

■ 環境講座の開催と、企業会員の勉強会への講師派遣



■ UNEPロゴマーク事業の展開



日本UNEP協会が、NGO 地球友の会の活動の大部分を継承。

■ UNEPインフォメーションコーナー(地球環境情報展)

東京ビッグサイト、幕張メッセ、埼玉県環境科学国際センター、
ひょうご環境体験館、エコパルなごや、エコハウス138(一宮)



日本UNEP協会が、NGO 地球友の会の活動の大部分を継承。

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)