



# MINAMATA CONVENTION ON MERCURY



## Mercury Treaty and China's Challenges

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《水俣公约》及中国的限汞挑战

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NRDC  
THE EARTH'S BEST DEFENSE

公约经140多个国家，4年5轮谈判，于2013年10月在日本签署。  
公约具有法律约束力，应对汞对人类健康和环境构成的风险。



Minamata Convention on Mercury  
Adopted October 2013 in Japan  
Negotiated Over 4 Years by 140+ Governments  
Covers Full Life Cycle of Mercury

# Status of Convention

## 公约进展

目前有128个国家签署了《水俣公约》，7个国家（美国、乌拉圭、吉布提、加蓬、圭亚那、摩纳哥和几内亚）批准了该公约。

128 signatures (deadline for signature was October 9, 2014)

7 ratifications as of October 17, 2014 (USA, Uruguay, Djibouti, Gabon, Guyana, Monaco and Guinea) – see [www.mercuryconvention.org](http://www.mercuryconvention.org)

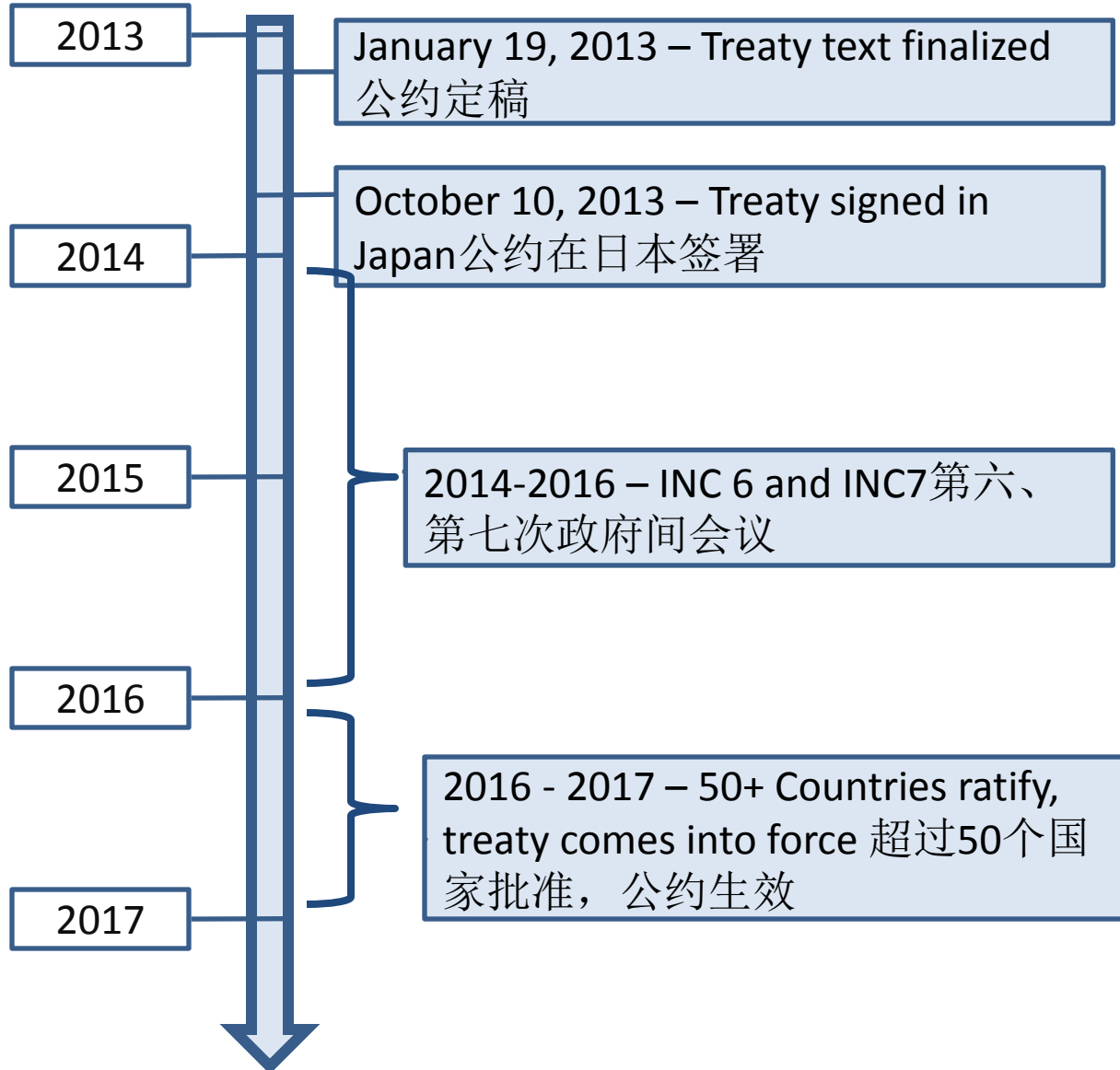
公约规定，超过50个国家批准，即可生效。

我们预计《水俣公约》在2016年左右生效。

Expect 50 ratifications by 2016.



# 公约过渡期时间表



- 《水俣公约》第六次政府间会议(INC6) 将于**11月3-7日**在泰国曼谷召开，讨论全球削减汞使用和汞排放的计划，包括各国履约计划、履约报告的格式和经济援助的安排等议题。

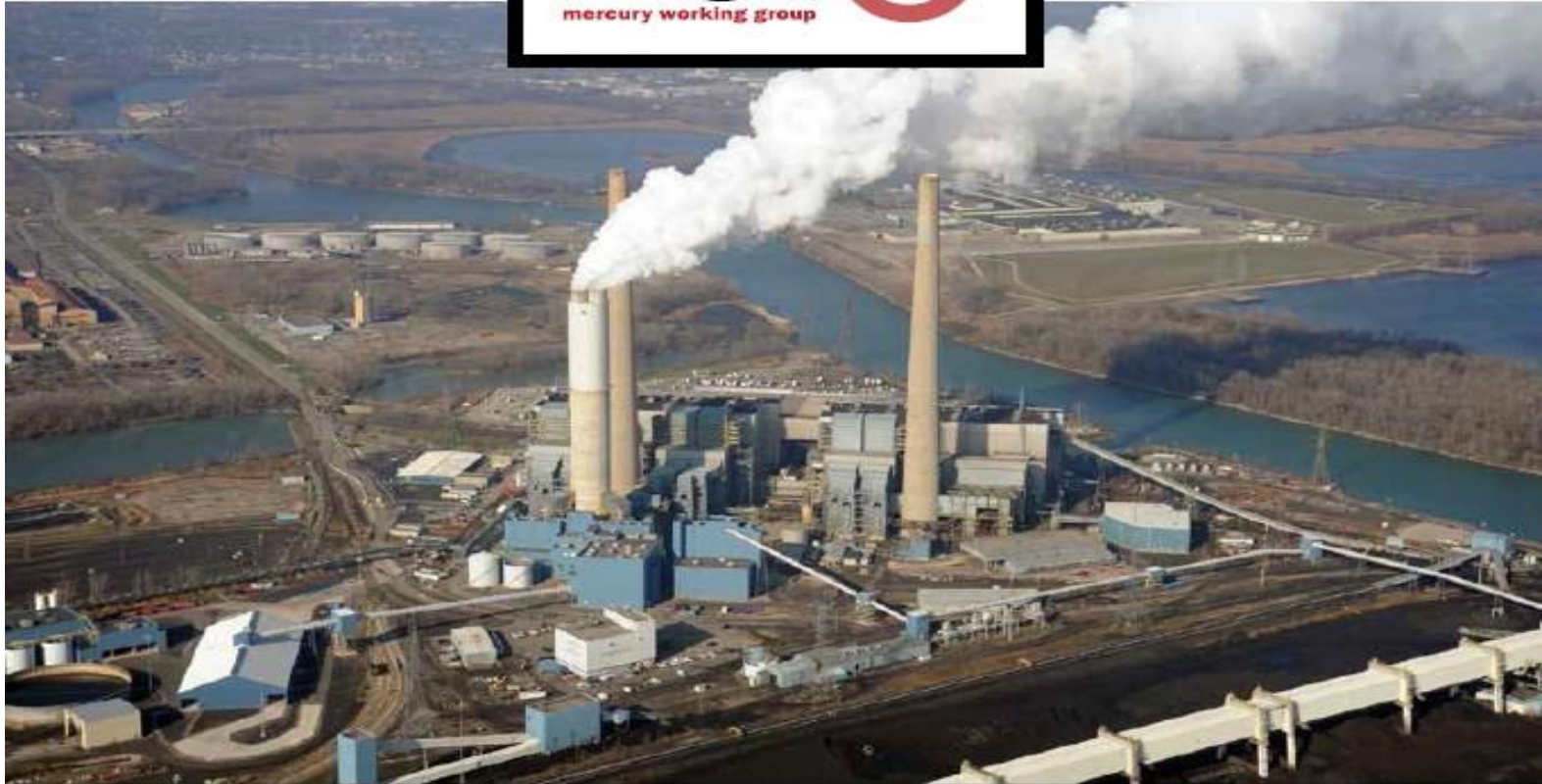
INC6 – Consideration of draft implementation documents (guidance, forms, financial arrangements). Need to be ready when Convention enters into force.



## 过渡期国家行动方案

- Baseline Assessment of Mercury Situation – Supply, Demand, Releases  
进行汞问题基线评估- 供应，需求，排放
- Assessment of New Legal Authorities Needed  
评估新的执法机构
- Planning for Ratification and Early Implementation  
– Includes stakeholder involvement  
规划公约的批准和及早实施-- 包括各利益相关方的参与
- Initiate Mercury Reduction Activities  
启动汞减排行动

# ZMWG Action Challenge 零汞工作组2013.9 发布： 《汞减排行动挑战：政府减少汞污染的建议措施》



**THE ZERO MERCURY WORKING GROUP ACTION CHALLENGE:**

Important Measures Governments Could  
Take by 2015 to Reduce Mercury Pollution

# **SUMMARY OF SHORT-TERM MERCURY REDUCTION RECOMMENDATIONS**

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## **SUPPLY AND TRADE**

### **CHINA**

Issue a mercury export ban (except for environmentally sound disposal).

### **JAPAN**

Issue a mercury export ban (except for environmentally sound disposal).

### **KYRGYZSTAN**

Adopt a plan for phasing out mercury production at the existing primary mercury mine as soon as possible.

### **SINGAPORE**

Issue a mercury export ban (except for environmentally sound disposal).

### **SWITZERLAND**

Issue a mercury export ban (except for environmentally sound disposal).

## **GENERAL PRODUCT PHASEOUT**

### **CANADA**

Finalize requirements phasing out mercury in products.

### **UNITED STATES**

Phase out the use of mercury in products.

## **MEDICAL DEVICE PHASEOUT**

### **INDIA**

Issue phaseout requirements for the production and import/export of mercury fever thermometers and blood pressure cuffs.

### **SOUTH AFRICA**

Issue phaseout requirements for the production and import/export of mercury fever thermometers and blood pressure cuffs.

## **BATTERY PHASEOUT**

### **EUROPEAN UNION**

Issue a phaseout requirement for all mercury button cell battery types.

## **DENTAL AMALGAM PHASEDOWN**

### **EUROPEAN UNION**

Formally propose a mercury phaseout requirement for dental amalgam.

### **LEBANON**

Initiate implementation of a dental amalgam phasedown program.

### **THE PHILIPPINES**

Initiate implementation of a dental amalgam phaseout program.

## **CHLOR-ALKALI SECTOR PHASEOUT**

### **BRAZIL**

Issue a phaseout requirement for mercury cell chlor-alkali plants.

### **EUROPEAN UNION**

Issue a binding phaseout obligation for mercury cell chlor-alkali plants.

### **RUSSIA**

Issue a phaseout requirement for mercury cell chlor-alkali plants.

### **UNITED STATES**

Issue a phaseout requirement for mercury cell chlor-alkali plants.

## **ARTISANAL AND SMALL-SCALE GOLD MINING (ASGM)**

### **BRAZIL**

Develop and implement an ASGM National Action Plan in alignment with Convention requirements.

### **COLOMBIA**

Develop and implement an ASGM National Action Plan in alignment with Convention requirements.

### **CÔTE D'IVOIRE**

Develop and implement an ASGM National Action Plan in alignment with Convention requirements.

### **INDONESIA**

Develop and implement an ASGM National Action Plan in alignment with Convention requirements.

### **TANZANIA**

Develop and implement an ASGM National Action Plan in alignment with Convention requirements.

### **THE PHILIPPINES**

Implement its existing ASGM National Action Plan.

## **EMISSION STANDARDS FOR COAL-FIRED INSTALLATIONS**

### **CHINA**

Issue mercury emission standards for coal-fired industrial boilers.

### **EUROPEAN UNION**

Issue mercury emission standards for coal-fired power plants.

### **INDIA**

Issue mercury emission standards for coal-fired power plants.

### **SOUTH AFRICA**

Issue mercury emission standards for coal-fired power plants.

## **EMISSION STANDARDS FOR NON-FERROUS METALS PRODUCTION**

### **CHINA**

Develop source control strategies, and take actions as needed to ensure each operating lead and zinc smelter is in compliance with 2010 mercury emission standards.

## **EMISSION STANDARDS FOR OTHER SOURCES**

### **CHINA**

Issue mercury emission standards for municipal waste incinerators and cement production.

### **EUROPEAN UNION**

Limit national annual mercury emissions into the air.



# ZMWG: China's actions and challenges

China Action Challenge 2013	Current Status 2014
<p>颁布汞出口禁令 Mercury export ban</p>	<p>没有采取相关行动。 No formal action taken or underway.</p>
<p>颁布燃煤工业锅炉的汞排放标准 Issue emission standards for coal-fired industrial boilers</p>	<p>《锅炉大气污染物排放标准》 <b>2014,5,30</b> Emission standard issued on May 30, 2014</p>
<p>颁布水泥生产和生活垃圾焚烧的汞排放标准 Issue emission standards for cement plants and municipal waste incinerators</p>	<p>《水泥工业大气污染物排放标准》 <b>2013,12,27</b> Emission standard issued for cement plants issued on December 27, 2013. 《生活垃圾焚烧污染控制标准》 <b>2014,5,30</b> Emission standards for municipal waste incinerators issued on May 30, 2014.</p>
<p>加强执法，确保每个铅锌冶炼厂都符合2010年《铅、锌工业污染物排放标准》中的汞排放标准 Ensure enforcement of 2010 emission standards for lead and zinc smelters</p>	<p>标准的有效实行依然面临重大挑战。现有的监测和检验方法不能保证标准的有效实行，如监测设备尚未到位，一些规范的检测方法尚未公布 Significant challenges remain in enforcing the 2010 standards. Company concerns regarding available monitoring and testing methods have impeded progress in applying the standards.</p>



# 与中国有关的限汞挑战及评估

China related action challenges and global grade

Action challenges	Global Grade	Remarks
<b>Mercury Supply and Trade</b> 汞的供应与贸易	<b>C-</b>	这一等级反映了几个国家正在考虑颁布汞出口禁令（包括加拿大、瑞士和日本），但也反映了其他国家（包括中国）缺乏行动以及在汞的全球供应和贸易中出现令人不安的趋势。
<b>Mercury Emission Standards and Controls</b> 汞污染控制与排放标准	<b>C+</b>	这一等级反映了中国在颁布新的汞排放标准方面采取了重大步骤，但也反映出其他国家缺乏具体的进展，以及中国在执行这些标准时可能面临的挑战。

## Global Grades explanation:

- A. Activity successfully completed 行动成功完成
- B. Significant progress made toward completion and successful conclusion anticipated before the end of 2015. 取得重大进展并逐步完善，预期在 2015 年年底前圆满结束
- C. Some progress made but outlook for completion uncertain. 有一些进展,但完成前景不明朗
- D. No significant progress made thus far 迄今尚未取得的重大进展
- F. No significant progress made thus far and such progress is unlikely before the end of 2015 迄今尚未取得的重大进展，且这种进展不太可能在 2015 年年底之前取得



# 公约第三条：汞的供应和贸易

## Mercury Supply and Trade

### 公约生效后将：

- 禁止建立新汞矿
- 现有汞矿**15**年内关闭，且不得用于小金矿采金。
- 氯碱行业用汞禁止外流
- 所有汞贸易应在公约许可的范围内且要有书面协议

（中国尚未出台针对此条的相关控制对策）

中国和吉尔吉斯斯坦是全球仅有的两个仍在进行工业化汞矿开采的国家。中国官方表示，中国开采的汞绝大多数用于本国使用，很少出口。近年来，在加纳等非洲国家时有截获来自中国的走私汞，当地的小金矿采金需要汞来形成金汞齐从而析出金。

## China Mercury Production 中国汞供应量显著上升

- 2013 Production 1613 MT
  - 817 MT Primary Mercury Mining
  - 796 MT Secondary Recycling (PVC catalyst)
- Over 20% increase from 2012-2013
- In 2014, 27% increase above 2013 over first eight months

2013年，中国汞产量1613吨，比2012年增长20%。其中817吨来自初级汞矿开采，796吨来自含汞废料回收利用，如从PVC生产中回收含汞催化剂。

2014年，中国前八个月的汞产量比去年同期增长27%。

--数据来源：中国有色金属工业协会

## China Mercury Demand 中国汞需求量持续下降

- Substantially less than 1600 MT/yr and declining  
“目前中国汞消费量每年在1000吨左右，占世界的50%。”  
– 20140911 MEP 《含汞废物处理处置污染防治可行技术指南（征求意见稿）编制说明》
  - Low mercury PVC catalyst
  - Phase out of mercury in alkaline button cells
  - Lower mercury content in CFLs and other lamps
- 12<sup>th</sup> Year Clean Production Plan goal of 638 MT/yr by end of 2015

由于在 PVC 生产中推广低汞催化剂，淘汰了含汞碱性电池，以及灯具制造业用汞量大幅减少，中国的用汞量逐年下降。

根据《工业清洁生产推行“十二五”规划》，到2015年，中国汞消费量将减至 638 吨/年。如果该计划的目标能够实现，中国的汞需求量将大大降低，远低于 1 6 0 0 吨/年。

# Need for China Mercury Supply and Trade Policy

- Where is excess mercury going?
- Why is mercury production increasing when demand is decreasing?
- Can China phase out its primary mining soon, since mining is worst source of mercury and is only justified for domestic need?
- How can China further discourage illegal exports of mercury, with Hong Kong emerging as a trading hub?

○过剩的汞去哪儿了？

○为什么汞需求量持续下降的同时供应量持续增长？

○中国是否可以尽快关闭汞矿？--汞矿开采是最严重的汞污染源，并且中国已经承诺生产的汞仅用于满足国内需求。

○香港已经成为亚洲汞转运中心，中国如何做才能打击汞的非法转运？

- 由于美国和欧盟这两个传统的汞交易中心已经颁布了汞出口禁令，新的汞交易中心正在向亚洲转移。  
New trading centers are emerging due to export bans in the USA and EU
- 香港汞出口量由 2010 年的31吨递增至2012年的244吨。2013 年有所减少，但也达到了153吨。香港出口的汞大部分到达其他汞贸易集散地（如新加坡和印度）以及小金矿开采盛行的国家。  
香港是中国的一部分，中国履约也应该涵盖香港。

## jual mercury air raksa — Jakarta



**Rp 32.775.000**

Harga

**26 Sep 2012**

Tanggal Terpasang





## Suggestion 1: 推进汞供应和汞贸易政策

- Phase out primary mercury mining as soon as possible
  - Convention requires China to promote measures to reduce mining (Annex B, Part II)  
关闭初级汞矿。《公约》要求中国采取措施，降低汞矿开采（见公约附件 B，第二部分）
- Align mercury production with domestic demand  
汞产量与国内需求量对齐
- China negotiators stressed China mercury production only to meet domestic needs  
中国谈判代表曾强调中国汞供应仅用于满足国内需要
- Adopt export ban for mainland and Hong Kong  
中国内地和香港颁布汞出口禁令



# 建议2：加强配套措施和执法，确保标准实施

## Suggestion2

Strengthening supporting measures and enforcement to ensure standards implementation

例如：**2010年**，中国颁布了铅、锌、铜等行业汞控制标准，**建议加强监管和执行**

- 重点监察汞排放大户
- 对涉汞行业的监管可以同步实现其他重金属（如铅）、颗粒物和其他污染物的减排
- 实现国务院“大气污染防治十措施”与涉汞行业的对接

## Suggestion 3 加快削减汞需求

- Accelerate transition toward non-mercury catalyst for PVC

加快向PVC无汞催化剂过渡

- Set phase out date for mercury medical devices, as required by the Convention

按照《公约》要求，设置逐步淘汰含汞医疗器械的日期

- Adopt legal mechanisms to prevent new mercury products and processes

健全法律机制，防止新的汞产品和汞工艺出现



# 《水俣公约》

## NRDC will attend INC6 in Bangkok

- 自然资源保护协会（NRDC）高级律师 David Lennett 先生将参加此次联合国汞问题政府间谈判委员会第六届会议，见证公约推进的过程。欢迎垂询。
- 联系方式：  
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