



# Road Map for the Development of Alternatives to DDT

*Developing Alternatives to DDT*

*Side Event - Conferences of the Parties of the BRS Conventions*

*Geneva, Switzerland*

*5 May 2015*



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# Mandate

## Decision SC-6/1 on DDT (2013) – The COP:

2. *Concludes* that countries that are relying on DDT for disease vector control may need to continue such use **until locally safe, effective, affordable and environmentally sound alternatives are available** for a sustainable transition away from DDT;

11. *Invites* UNEP, in consultation with the WHO, the DDT expert group and the Secretariat, to **prepare a road map for the development of alternatives to DDT**, in line with paragraph 2 above, and to present it to the COP at its 7<sup>th</sup> meeting.

UNEP Chemicals Branch developed the Road Map with the **financial support of the Government of Switzerland.**



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# Objective

... of the Road Map is to make locally safe, effective, affordable and environmentally sound alternatives available for a sustainable transition away from DDT.

The Road Map:

- **Provides a framework for action**, aiming to coordinate efforts and establish synergies among actors and projects;
- **Does not set a specific phase-out date**; rather, it promotes the development of alternatives, assesses progress regularly, and decides on the phase-out only when locally safe, effective, affordable and environmentally sound alternatives are available.





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# Structure and Activities (1/4)

The Road Map consists of three elements:

## 1) Establish management and reporting procedures

- Adopt a budget, generate funding, establish coordination and implementation mechanisms, prepare progress reports, *etc.*;
- Assess and monitor DDT-relevant issues (production and use, exposure of humans and the environment, insecticide resistance, alternatives, *etc.*);
- Regularly assess continued need for DDT and – ultimately – prepare recommendations when locally safe, effective, affordable and environmentally sound alternatives are available;





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# Structure and Activities (2/4)

## 2) Implement the Road Map

- **Strengthen the base of knowledge for policy formulation and decision-making**
  - Prepare guidance and trainings; develop decision support tools;
  - Establish and coordinate information sharing mechanisms;
  - Undertake country-specific assessments;
- **Strengthen national and local capacities**
  - Implement new and existing projects, organize webinars and workshops;





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# Structure and Activities (3/4)

## 2) Implement the Road Map

*(Element (2) cont'd)*

- **Develop and deploy chemical alternatives**
  - Implement tiered process for selection of new active ingredients and formulations; screening, data mining;
  - Pilot testing, small-scale and large-scale field trials;
  - Specifications for quality control and trade; regulatory approval, commercial development and deployment;
- **Upscale application of non-chemical alternatives**
  - Compile lessons learned and good practices;
  - Undertake pilot studies;
  - Undertake activities to scale up the development and deployment of non-chemical alternatives;



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# Structure and Activities (4/4)

## 3) Eliminate stockpiles and waste

- Update national inventories;
- Collect obsolete stocks;
- Repackage and dispose obsolete stocks.



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# Key Actors

- **Parties:** key implementing actors and target group of the Road Map;
- **UNEP Chemicals Branch:** proposed to lead coordination; leads Global Alliance; implements GEF projects;
- **WHO:** evaluates alternatives (WHOPES ); leads Vector Control Advisory Group; provides recommendations to the COP; executes GEF projects;
- **Regional Centers:** provide local capacity and expertise;
- **Global Alliance:** offers expertise; platform for information exchange;
- **DDT expert group:** regularly assesses continued need for DDT;
- **Industry/private sector:** develops chemical alternatives to DDT (IVCC);
- **Civil society:** supports capacity-building, awareness-raising, *etc.*;
- **Academia:** provides training, including for IVM; conducts research;
- **Donors:** to provide funding for coordination and implementation.

Others: BRS Secretariat, POPs Review Committee, Regional Centres, UN-Habitat, Roll Back Malaria Partnership, GEF-implementing agencies, Global Coordination Group of the POPs Global Monitoring Plan, *etc.*





# 7<sup>th</sup> COP of the Stockholm Convention

## The key elements of the Road Map:

- Working document UNEP/POPS/COP.7/5

## The full Road Map:

- Information document UNEP/POPS/COP.7/INF/6

## UNEP's progress report 'Global Alliance':

- Information document UNEP/POPS/COP.7/INF/7





# Initial Situation Analysis on DDT – Status 2015

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# Initial Situation Analysis on DDT – Status 2015

## Sources of information:

- 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> national reports, initial and updated NIPs
- DDT register, DDT questionnaires, DDT information system
- Reports of the DDT expert group
- GEF projects
- A survey conducted by UNEP Chemicals Branch
- WHOPES' 10 Year Assessment
- Global Monitoring Plan on POPs
- Others

## Key challenge:

Lack of data; incomplete inventories; inaccurate reporting



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# Initial Situation Analysis on DDT – Status 2015: Production (1/2)

Country	Start of production	End of production	Quantity (1,000 tonnes)
India	1955	Ongoing	239
DPR Korea	1960	> 2010?	21
China	1952	2007	467
Mexico	1959	2004	>93
Bangladesh	1966	1992	8
Indonesia	1986	1991	23
Brazil	1962	1982	76
Azerbaijan	1958	1980	481
Poland	1947	1980	79
USA	1944	1973	1,383
Serbia	1947	1960	2
<b>Total</b>			<b>2,793</b>

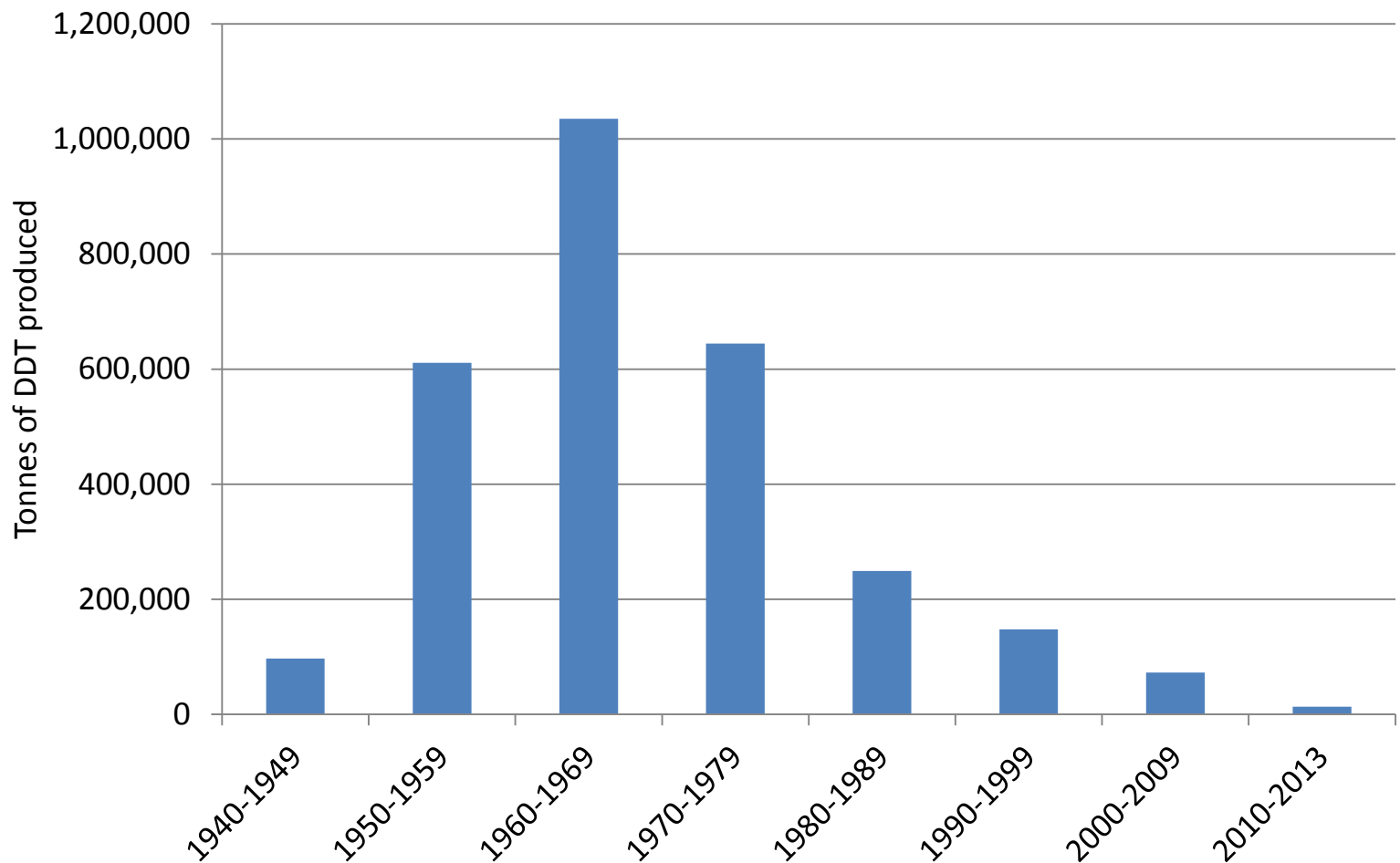


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# Initial Situation Analysis on DDT – Status 2015: Production (1/2)



Total production in 2010-2013: 13,620 tonnes

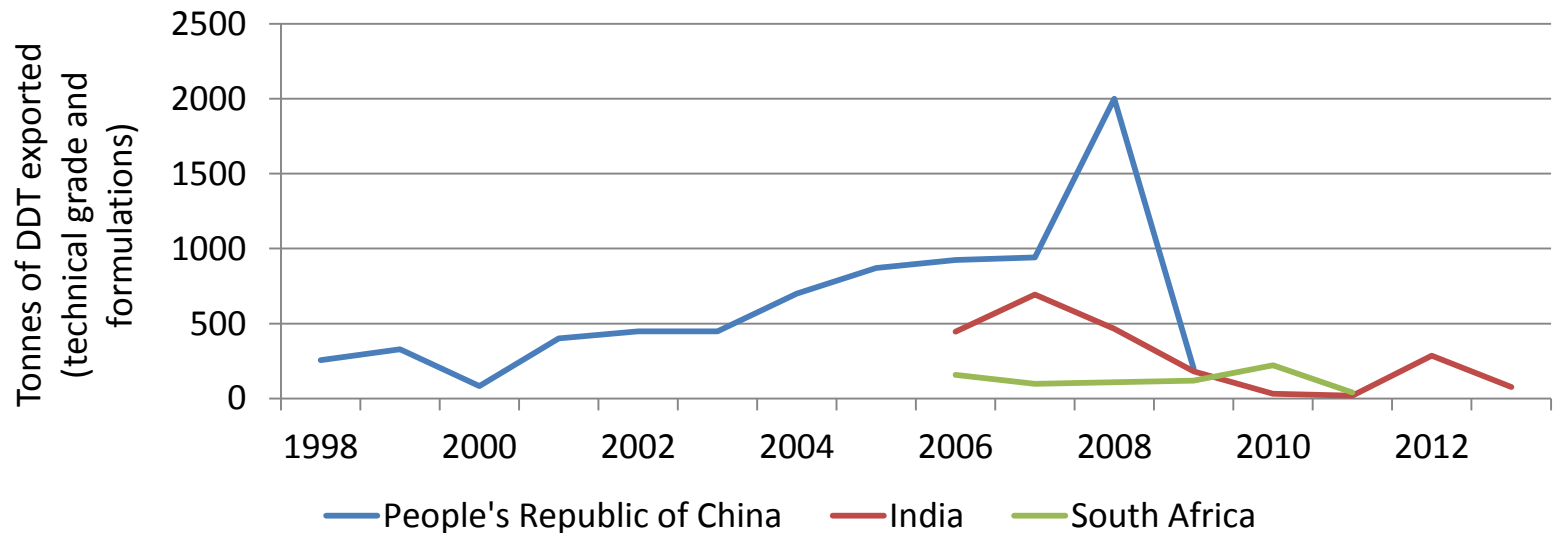


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# Initial Situation Analysis on DDT – Status 2015: Trade



- Trade information scarce
- Lack of data for India and South Africa before 2006
- China and India reduced exports significantly after 2008
- Only India continued to export DDT after 2011

India export to country	Quantity (tonnes) (75 % active ingredient)	
	2012/2013	2013/2014
Botswana	30	-
Myanmar	12	-
Namibia	77	-
South Africa	44	41
Zimbabwe	219	61
<b>Total</b>	<b>382</b>	<b>102</b>



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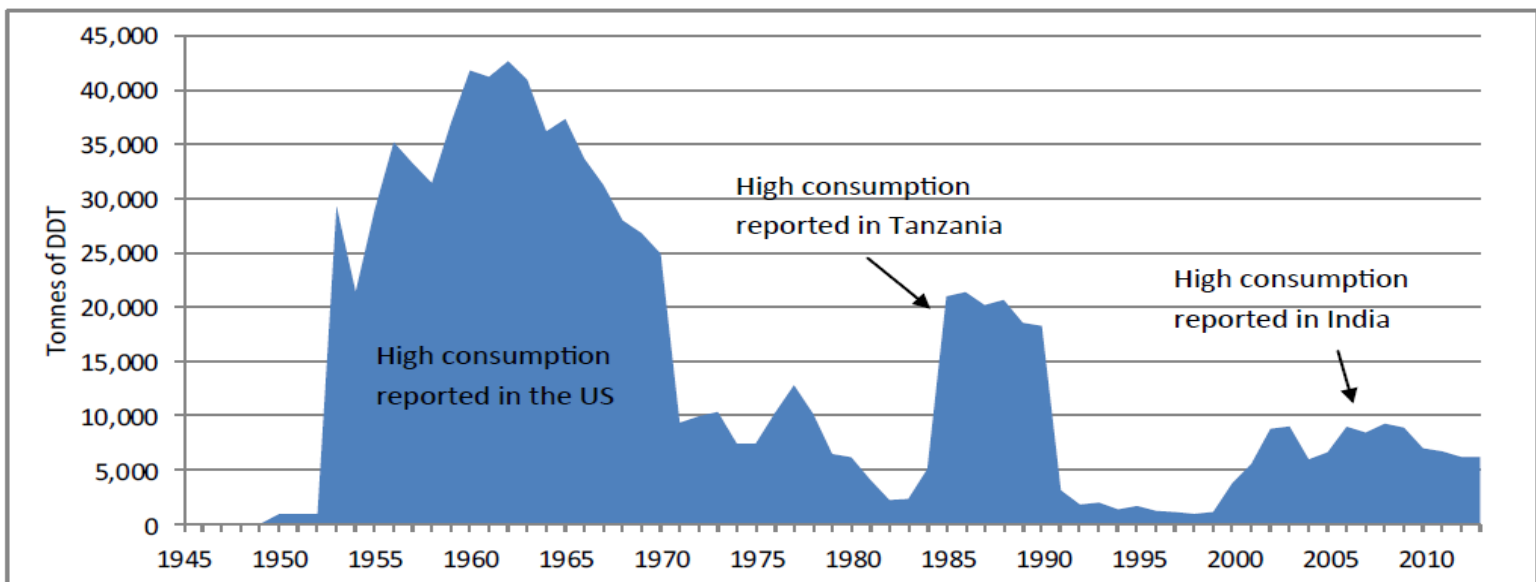
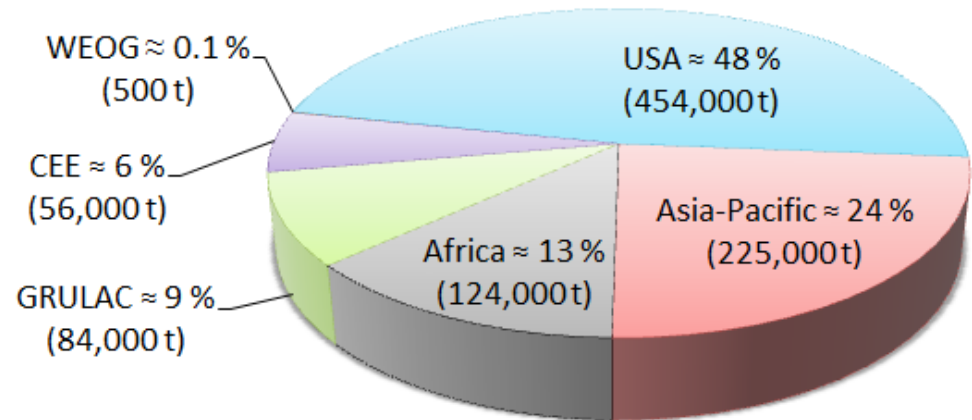


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# Initial Situation Analysis on DDT – Status 2015: Consumption (1/2)

According to available data, *ca.* 1.1 million t of DDT were used in agriculture and disease vector control.

### Total Historic Consumption of DDT



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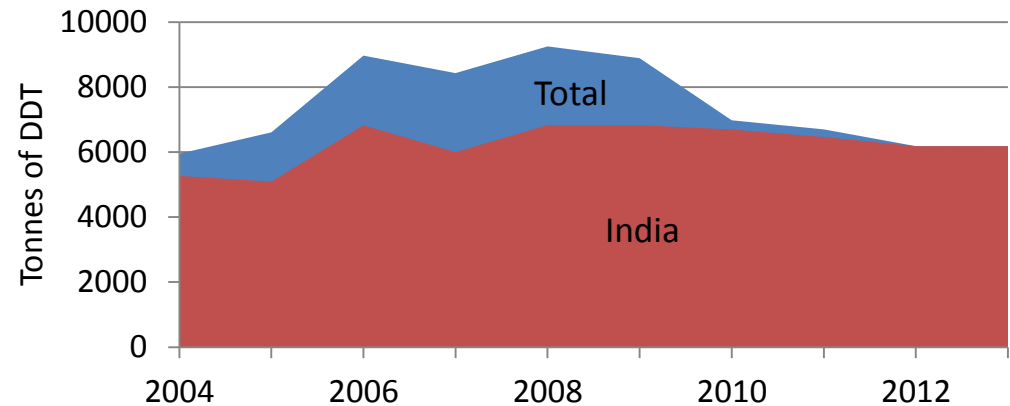


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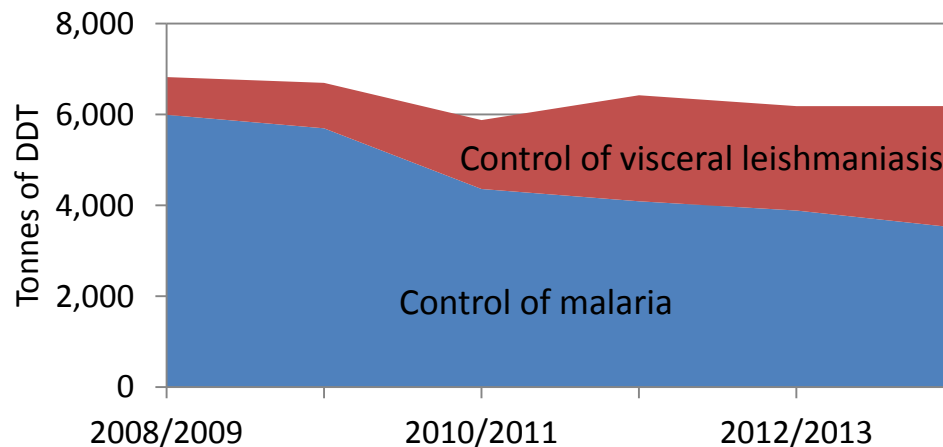
# Initial Situation Analysis on DDT – Status 2015: Consumption (2/2)

- India: 86 % of global use in 2003-2007; only current user
- 2009-2011: 7 Parties reported use of DDT (6 African)

### Global consumption of DDT



### Consumption of DDT in India



- India used 6,183 tonnes in 2013/2014
- Increasing use for visceral leishmaniasis (> 40 % in 2013/2014)





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# Initial Situation Analysis on DDT – Status 2015: Stockpiles

- In total, 76 countries reported stockpiles
- No reasonable estimate of total stockpiles possible
- Average: 741 tonnes; median: 32 tonnes (highly skewed)
- Some countries seem to have successfully reduced their stockpiles (*e.g.*, Mauritius and South Africa)

## DDT stockpiles during the reporting cycle 2009-2011

Country	Active ingredient	Quantity (in tonnes)
Gambia	75 %	14
India	50 %	2,046
Jordan	75 %	25
Mauritius	75 %	5
South Africa	75 %	36
Swaziland	n.a.	n.a.
<b>Total</b>		<b>2,126</b>



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# Initial Situation Analysis on DDT – Status 2015: Monitoring (1/3)

- Stockholm Convention's Global Monitoring Plan on POPs (GMP);
- UNEP and WHO jointly implement surveys on POPs in human milk;
- Data for DDT available since 2001;
- Relatively high concentrations detected (recently), exceeding the WHO 'safety level' of 2,000 ng *per* gram lipid.



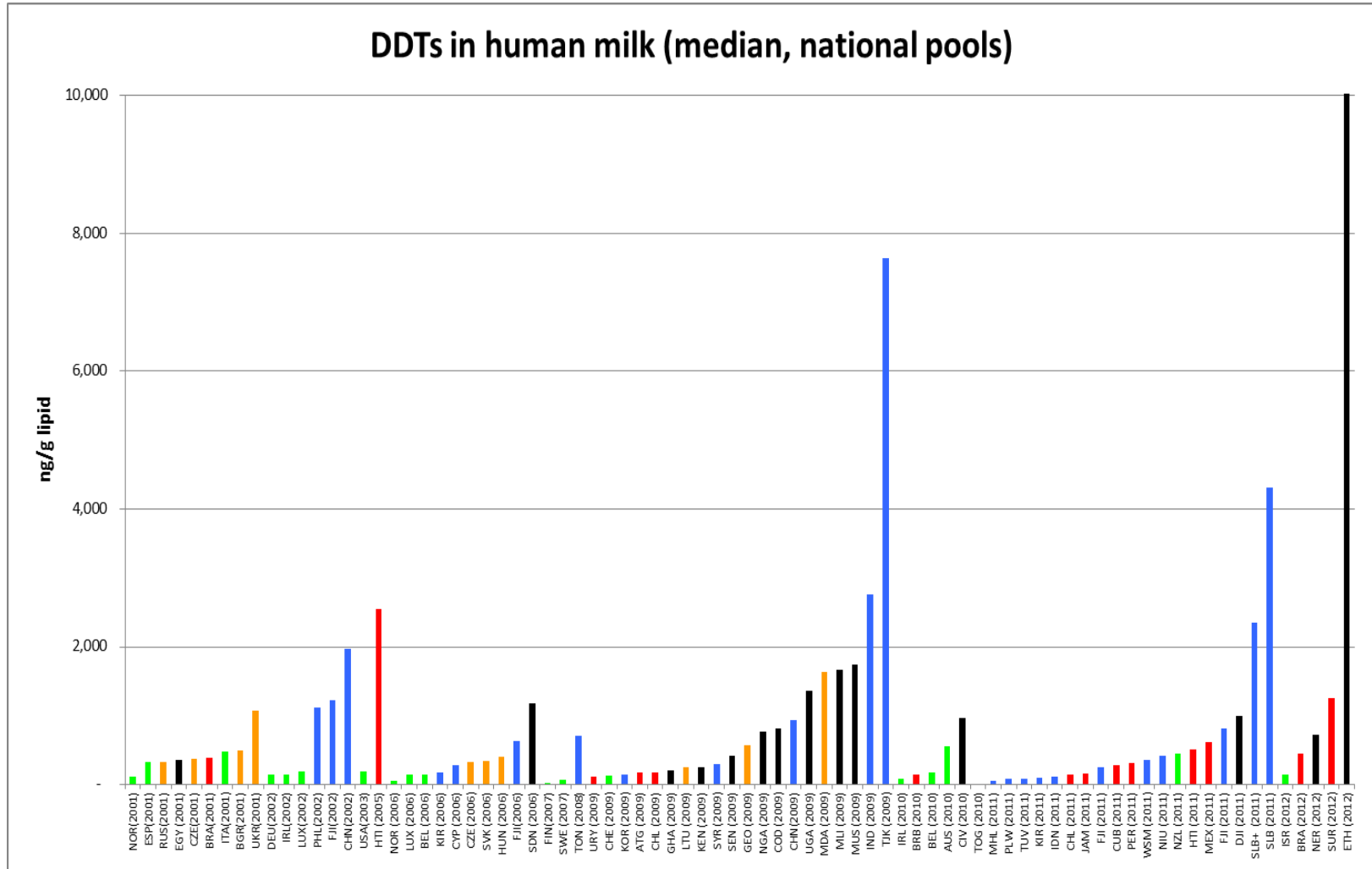
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# Initial Situation Analysis on DDT – Status 2015: Monitoring (2/3)



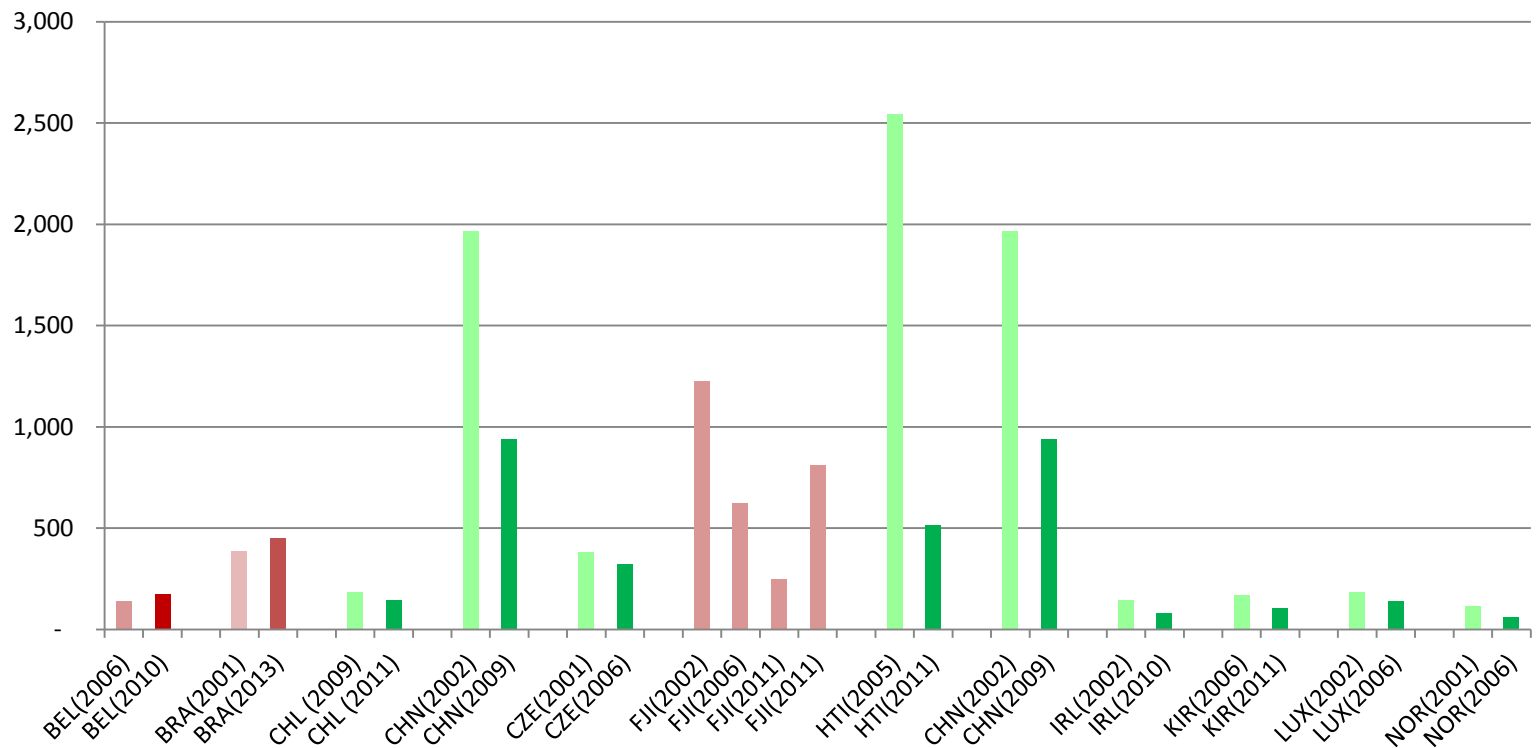


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# Initial Situation Analysis on DDT – Status 2015: Monitoring (3/3)

- Results for countries where more than one result is available
- Green bars: more recent sample lower concentrations than previous

DDTs in human milk (ng/g lipid)



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# DDT Initial Situation Analysis on DDT – Some Findings

- Data are limited in several areas (esp. stockpiles and waste), in particular for the period before the entry into force of the Convention;
- Production of DDT totals 2.9 million tonnes and is still ongoing;
- The USA consumed relatively large amounts of DDT during the 1950s and 1960s, making it the largest user of DDT;
- Current production levels are very low in historic comparison;
- India is reportedly the only current producer, user and exporter;
- Use of DDT for control of visceral leishmaniasis is increasing;
- There are relatively high concentrations of DDT in human milk ;
- The identification and elimination of obsolete DDT stockpiles and wastes needs to become a priority.



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# Thank you for your attention!

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