

# Is ISO14001 Effective?

Jessica Crosthwaite

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# Overview

## **Global and local trends in ISO14001 adoption**

- Largest voluntary environmental management system.

## **Fact based research into the effectiveness of ISO14001**

- Studies of environmental data across 138 countries and 10,000 facilities.
- ISO14001 is reduces some environmental footprint aspects.
- ISO14001 does not reduce reportable environmental incidents.

## **Best practice in implementing ISO14001 in environmental regulation**

- Holistic approach.

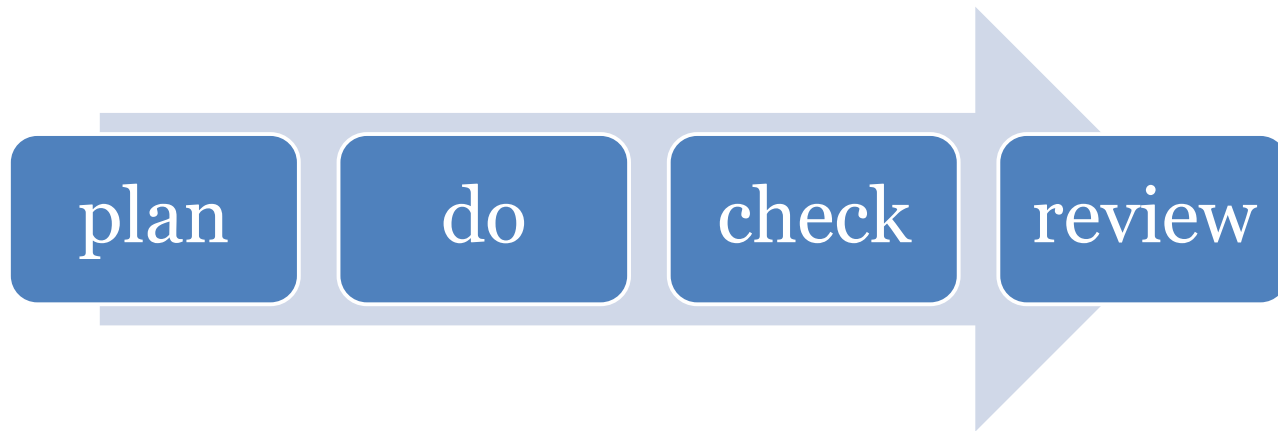
## **Australian environmental regulation and ISO14001 – case study**

- Australian national and state regulation rarely requires ISO14001.
- Incentive mechanisms.
- Environmental prosecution are not impacted by ISO14001 certification.

# What is ISO14001

Certified framework for environmental management

- Established in 1996 by the International Organisation for Standardisation.
- Mining, manufacturing, government, financial services, transport...
- Independently certified by a consultant.



## “Toothless Tiger”

- Organisations can receive ISO14001 certification even if:
  - They have an environmental permit breach.
  - They do not improve their environmental performance.



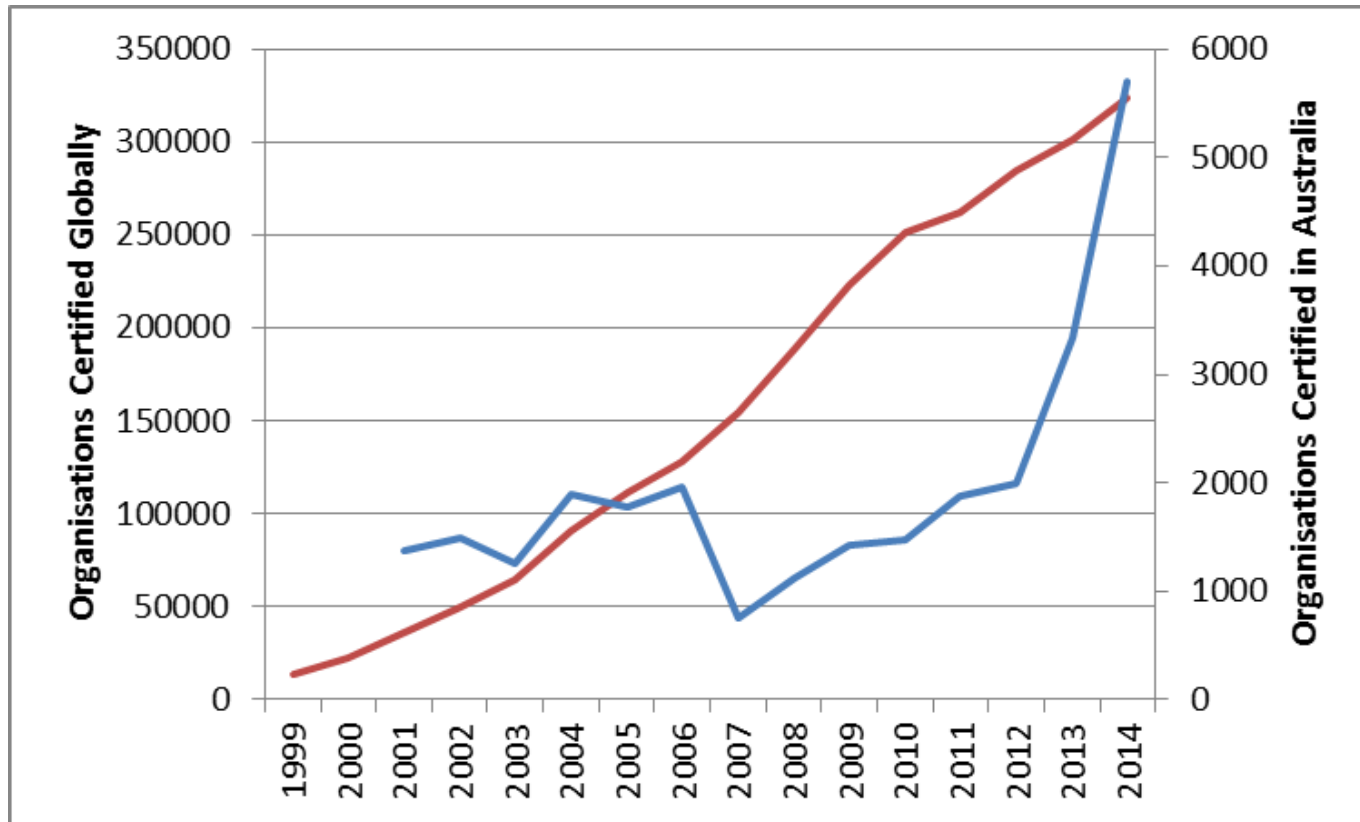
# Agenda

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1. Global and Australian Trends in ISO14001 Certification
2. Effectiveness of ISO14001
3. Best Practice Regulation & Australian Case Study

# Trends in ISO14001

## Largest Environmental Management System Globally



**Estimated average yearly renewal cost of \$10,000, the industry is estimated at \$3.5 Billion in 2014.**



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# Overview - Effectiveness of ISO14001

Examined 7 studies across 138 countries and over 10,000 organisations

## ISO14001 is effective in:

- Reducing natural resource usage, fuels, power, water, air pollution
- Improving poor performing organisations

## Most effective implementation methods ISO14001:

- Integrated into the daily operation of a facility
- Environmental targets into organisations KPI
- Implemented as a long term solution – organisations will see best impacts over time

## ISO14001 is not

- More effective than other environmental management systems
- Effective in reducing environmental incidents or permit violations
- As effective in organisations with a high level of environmental performance

# Case Study - Effectiveness of ISO14001

(Darnall & Kim, 2012) – International study of ISO14001 effectiveness



- Survey data across 4178 facilities
- No EMS
- Non Certified EMS
- Certified ISO14001

## ISO14001 site at a facility level

- Natural resource use
- Waste water effluent
- Solid waste generation
- Air pollutants reduction



# Case Study - Effectiveness of ISO14001

(Arimura, et al., 2008)– Japanese study of ISO14001 effectiveness

**Study of 792 facilities, 44% ISO certified. Use facility data from the OECD**

## **ISO14001**

increased probability of

- reducing natural resources by 34%
- reducing waste water by 17%
- reducing waste generation by 35%

### Key Take Away

**ISO 14001 or EMS systems** are excellent in **improving environmental foot print** across a variety of environmental aspects.



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# Australian Law & Regulation

ISO14001 is commonly adopted as a soft regulation tool

## **ISO14001**

Encourages environmental improvement where hard limits don't exist.

Works effectively in **soft regulatory** areas such as:

- natural resources use, fuel & water
- waste water
- waste generation and recycling
- record keeping
- power use

**Low cost/ free** for regulators to encourage.

Cannot replace traditional regulation, emissions trading schemes or industry based standards.



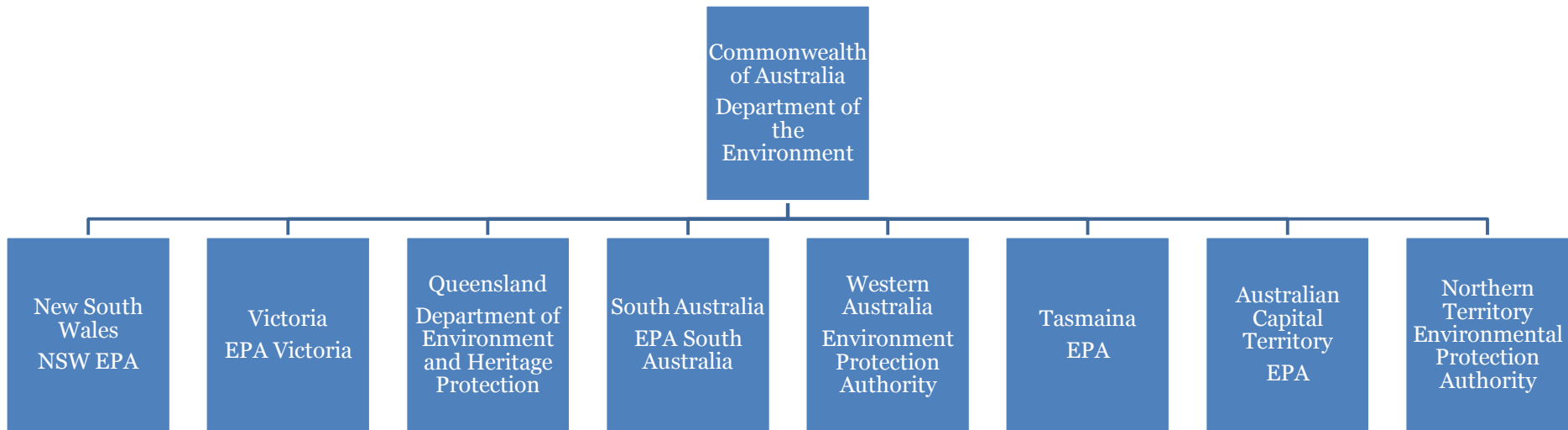
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# Australian and State Regulation

Examined the ISO14001 / EMS policies of 9 environmental regulators



# Australian and State Regulation

Incentives for ISO14001 vary across states.

	<b>ISO14001 incentives</b>			
<b>Agency</b>	<b>Mandated use</b>	<b>Permit fee reduction</b>	<b>Relaxed regulation</b>	<b>Longer permit renewals</b>
<b>Commonwealth</b>	No	No	No	No
<b>NSW</b>	Rarely	Yes	No	No
<b>Victoria</b>	No	No	No	No
<b>Tasmania</b>	No	Yes	No	No
<b>Western Australia</b>	No	No	Yes	No
<b>South Australia</b>	No	50%	Yes	Yes
<b>Queensland</b>	No	20%	No	No



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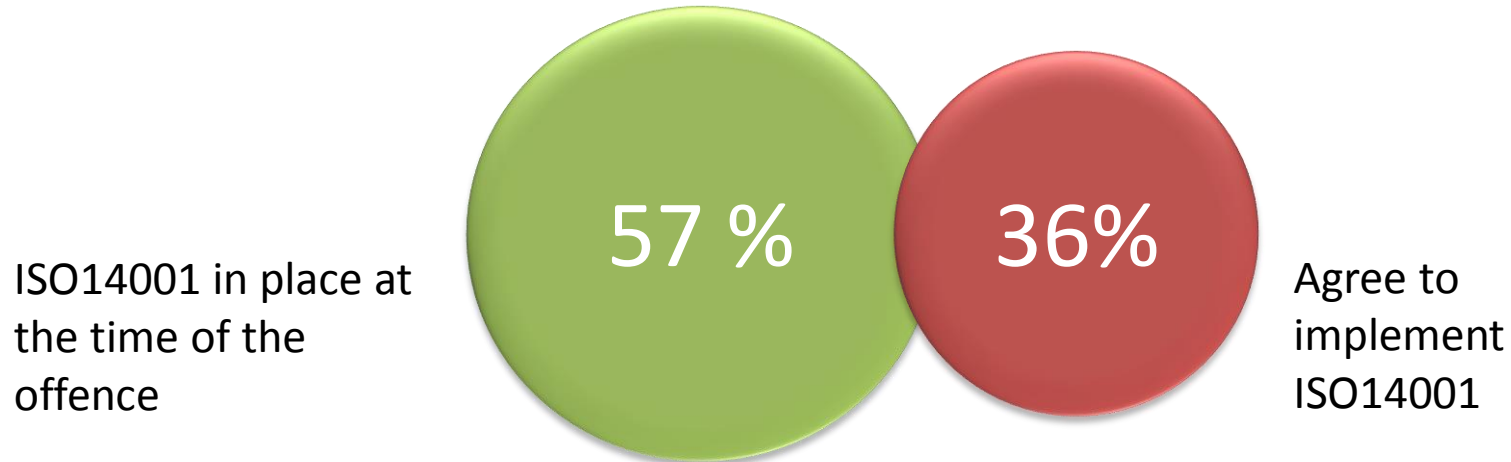
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# NSW Case study

ISO14001 does not impact environmental prosecution outcomes.

- 14 proceedings mentioning ISO14001 in the NSWLEC were examined.



	Fine (\$AUD)		
Implemented ISO14001	54687.5	± 22453	at 95%
Agreed to implement ISO14001	57900	± 28401	at 95%



# Review

## **Global and local trends in ISO14001 adoption**

- Largest voluntary environmental management system globally.

## **Fact based research into the effectiveness of ISO14001**

- ISO14001 is can be effective at reducing natural resource use, limited in other areas.

## **Best practice in implementing ISO14001 in environmental regulation**

- Important tool, best used along side other regulations.

## **Australian environmental regulation and ISO14001 – case study**

- Voluntary system, with many state offering incentives.
- Prosecution outcomes are not impacted by ISO14001 certification.

## **Key Take Away**

ISO 14001 or EMS systems improve environmental footprint across a variety of environmental aspects.