



Netherlands Commission for  
**Environmental Assessment**

# **Strategic Environmental Assessment (SEA)**

**integrated approach to  
sustainable infrastructure**

Dr Arend Kolhoff, October 2018

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1. What is SEA ?
2. Why SEA?
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4. Added value of SEA?



# What is SEA?

- SEA is a tool to improve strategic planning and decision-making
- SEA **complements** strategic planning:
  - Aims to integrate **environmental** issues into government plans and
  - evaluate their inter-linkages with **economic** and **social** considerations and
  - facilitates a public and governmental **dialogue** on these issues

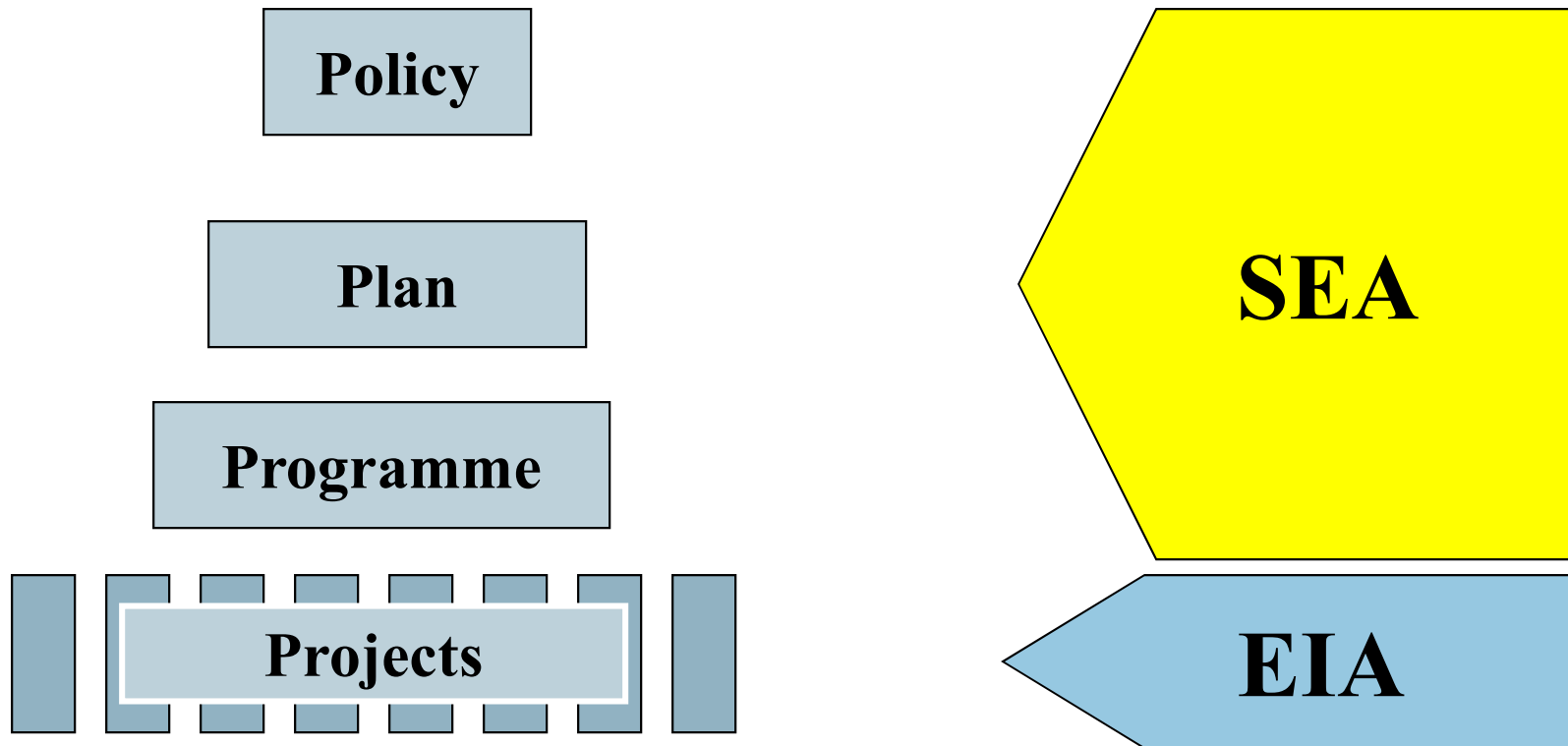


# What is SEA?

**SEA is the tool  
to integrate environment in  
government plans**

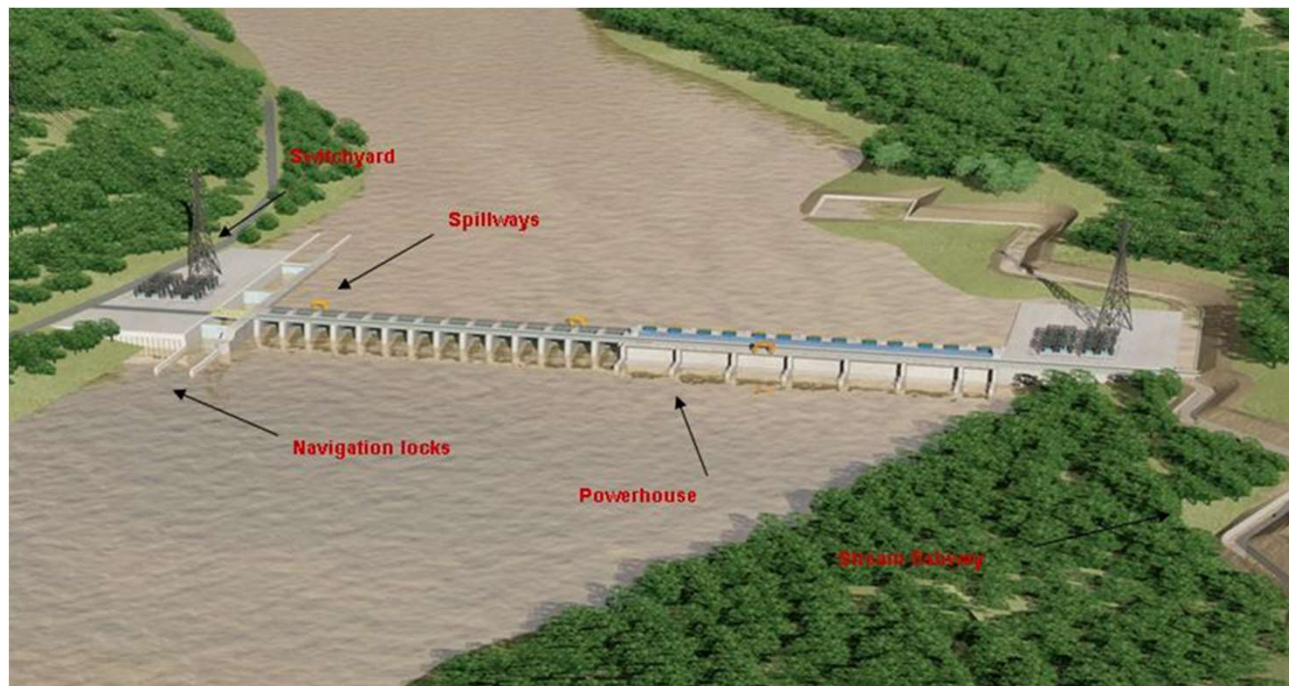


# Government planning supported by SEA & EIA



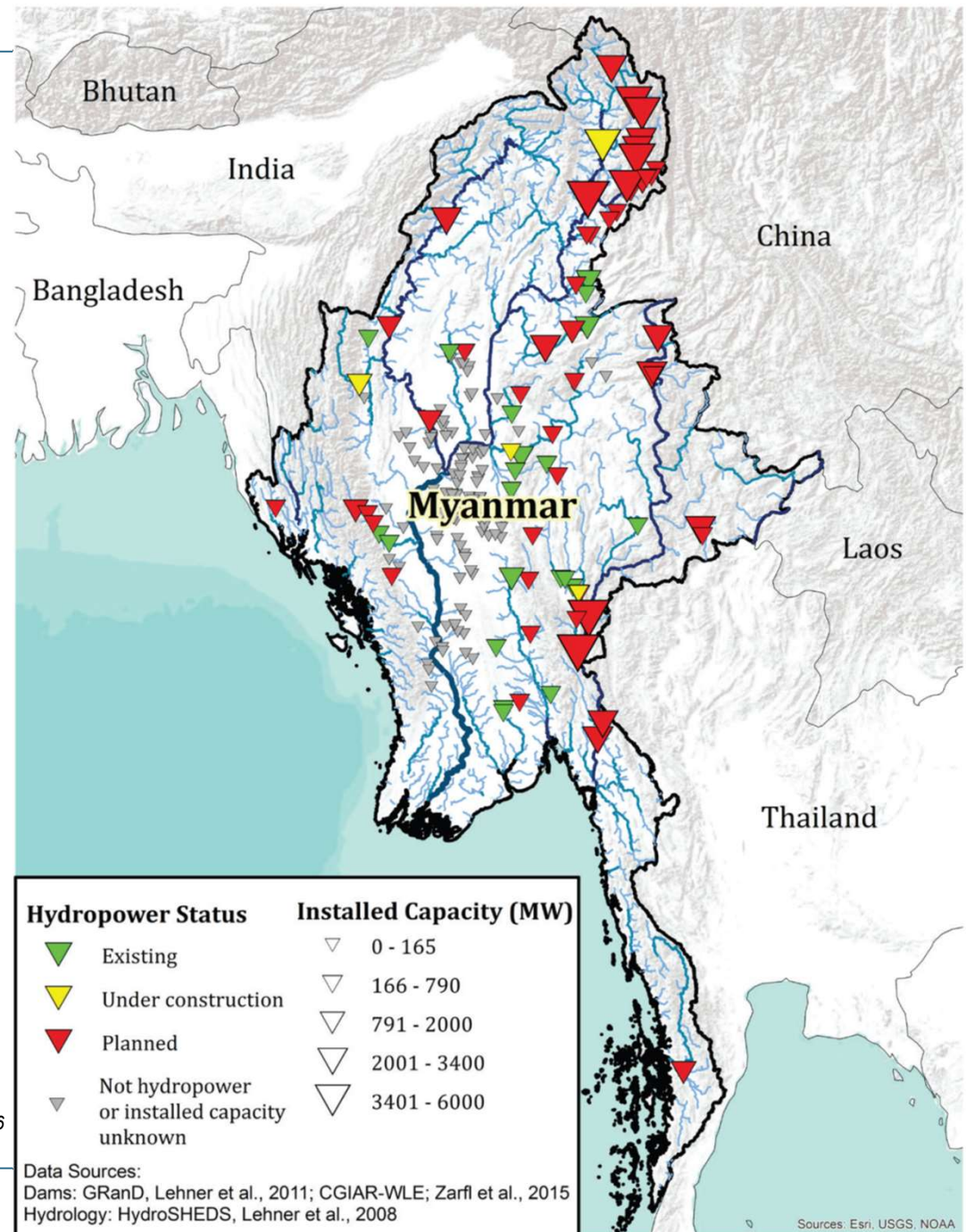
# Lao - Chom Pok HPP (1200MW)

**EIA legally required**



# Hydropower development Myanmar

**SEA voluntary  
executed**



# EIA

# SEA

Proces	Linear	Iterative
Screening	Private & public projects	Public plans
Scoping	Combination of local issues & technical checklists	Combination of pol. agenda, stakeholder discussion & exp. judg.
Public participation	Often include general public	Focus on inter-ministerial & representative bodies
Assessment	More quantitative & primary data gathering	More qualitative & use of available data
Review	Focus on quality of information	Quality of information & stakeholder process
Decision-making	Comparison against standards	Comparison of alternat. against policy objectives
Monitoring	Focus on permit conditions	Focus on plan implementation





# EIA

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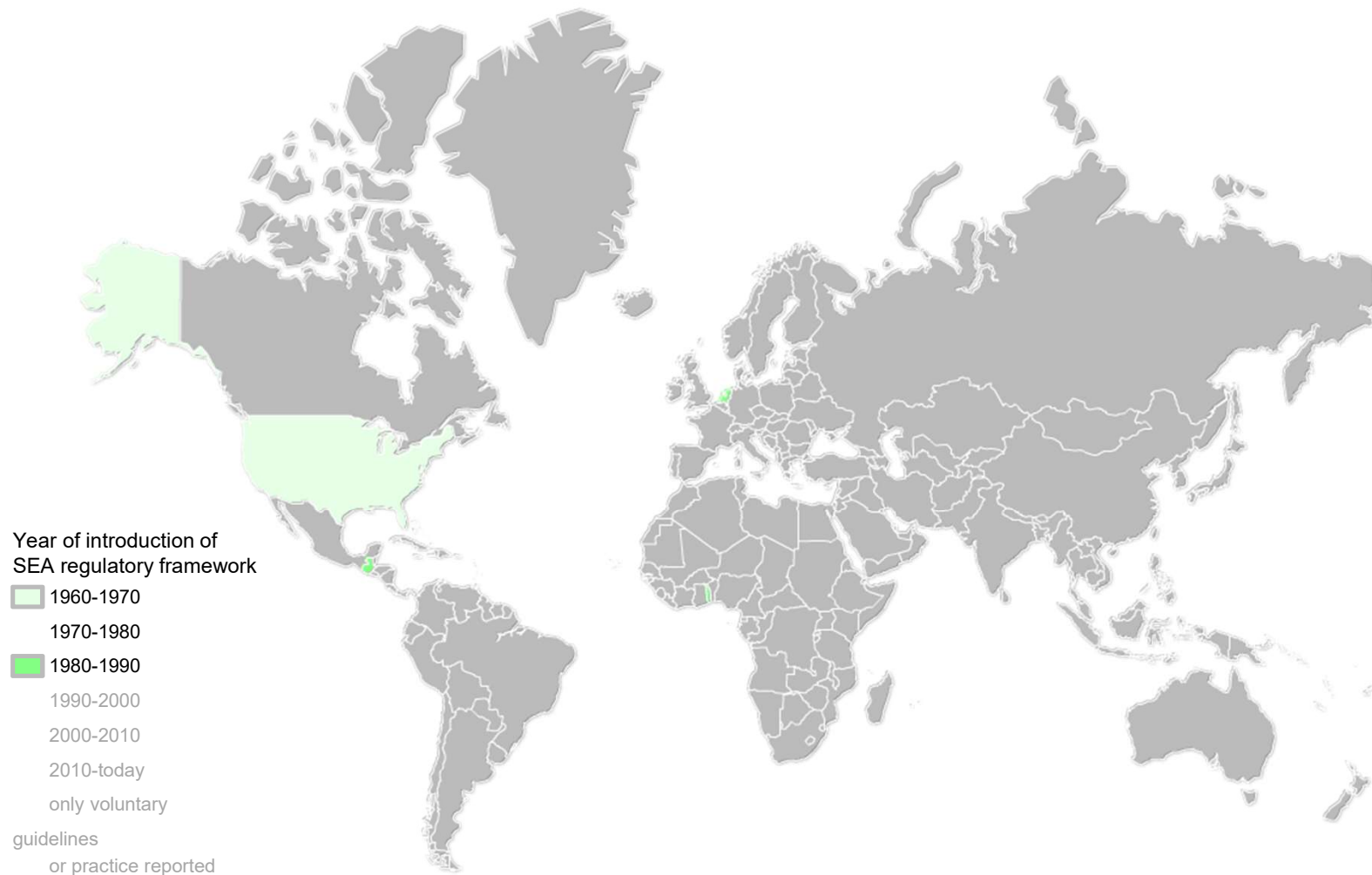
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# SEA tool – legal status



# SEA tool – legal status

11

Year of introduction of  
SEA regulatory framework

1960-1970

1970-1980

1980-1990

1990-2000

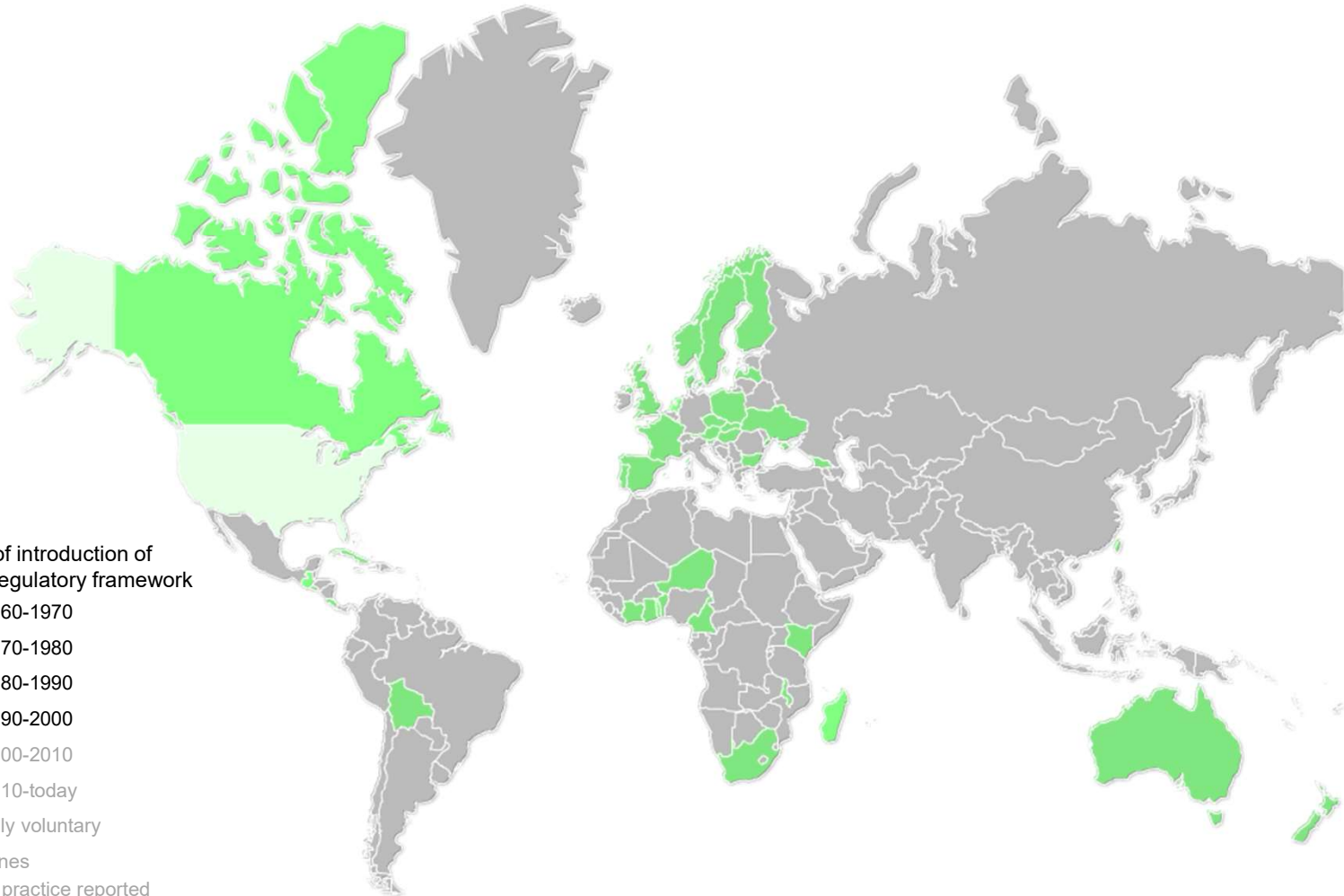
2000-2010

2010-today

only voluntary

guidelines

or practice reported



# SEA tool – legal status

12

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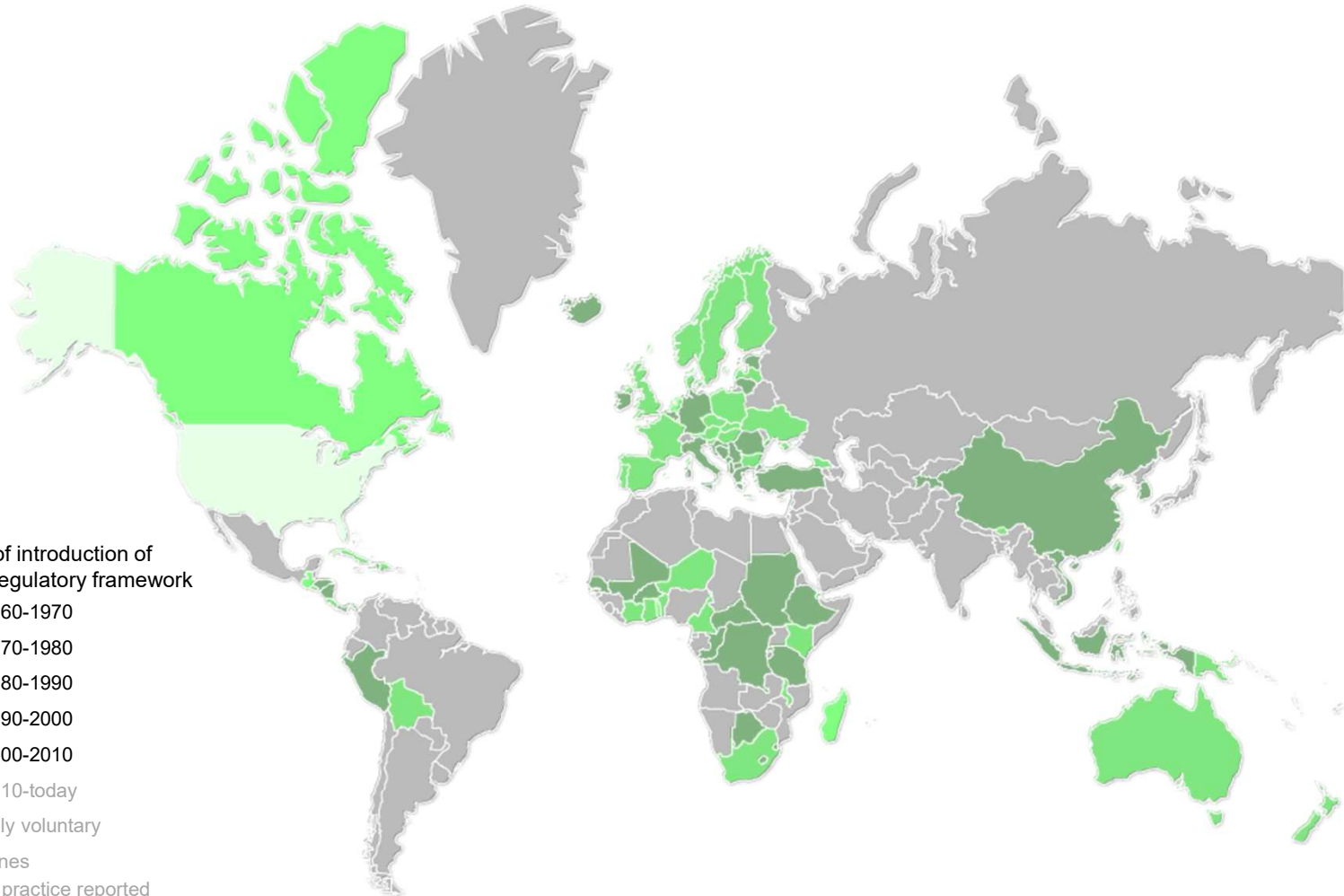
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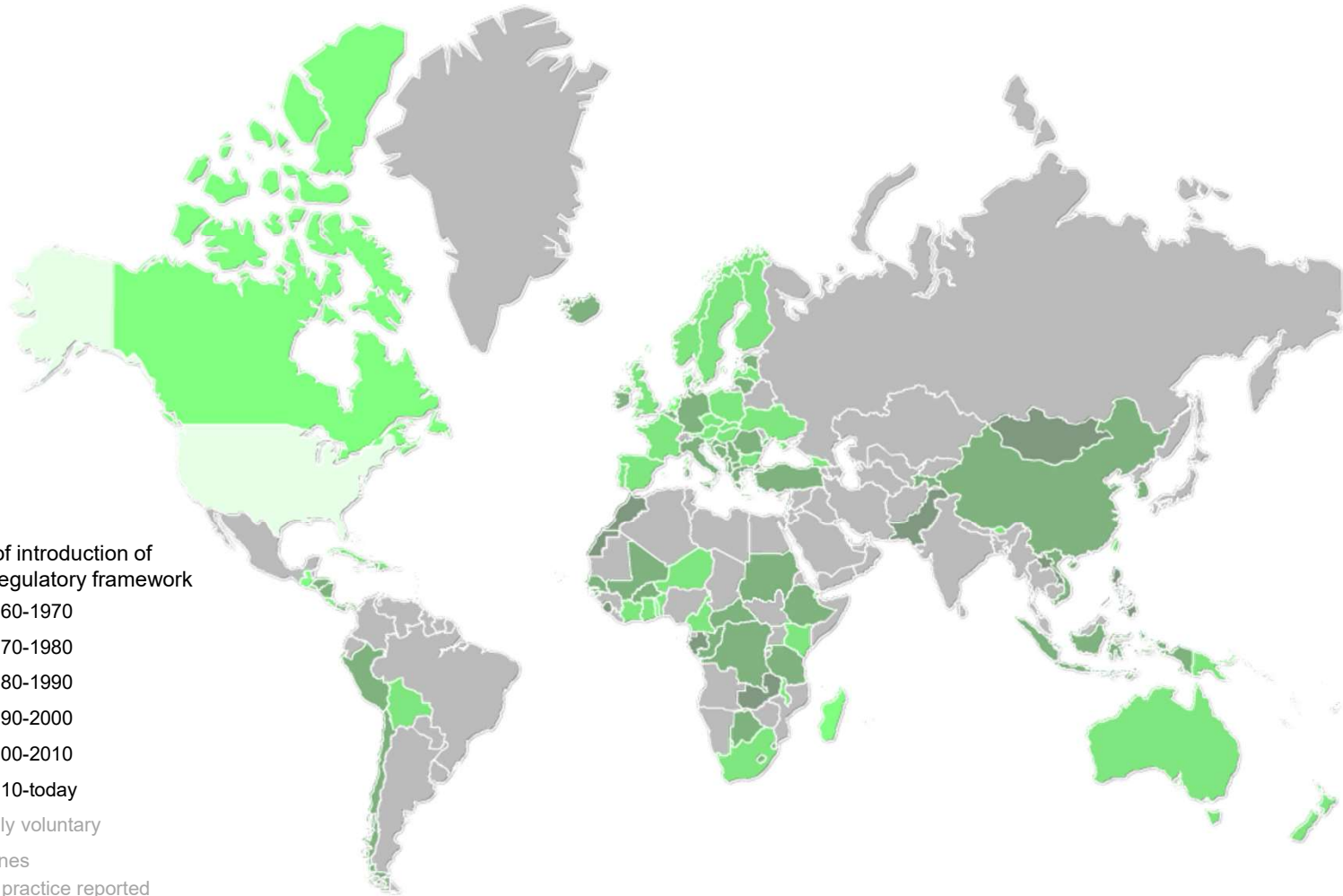
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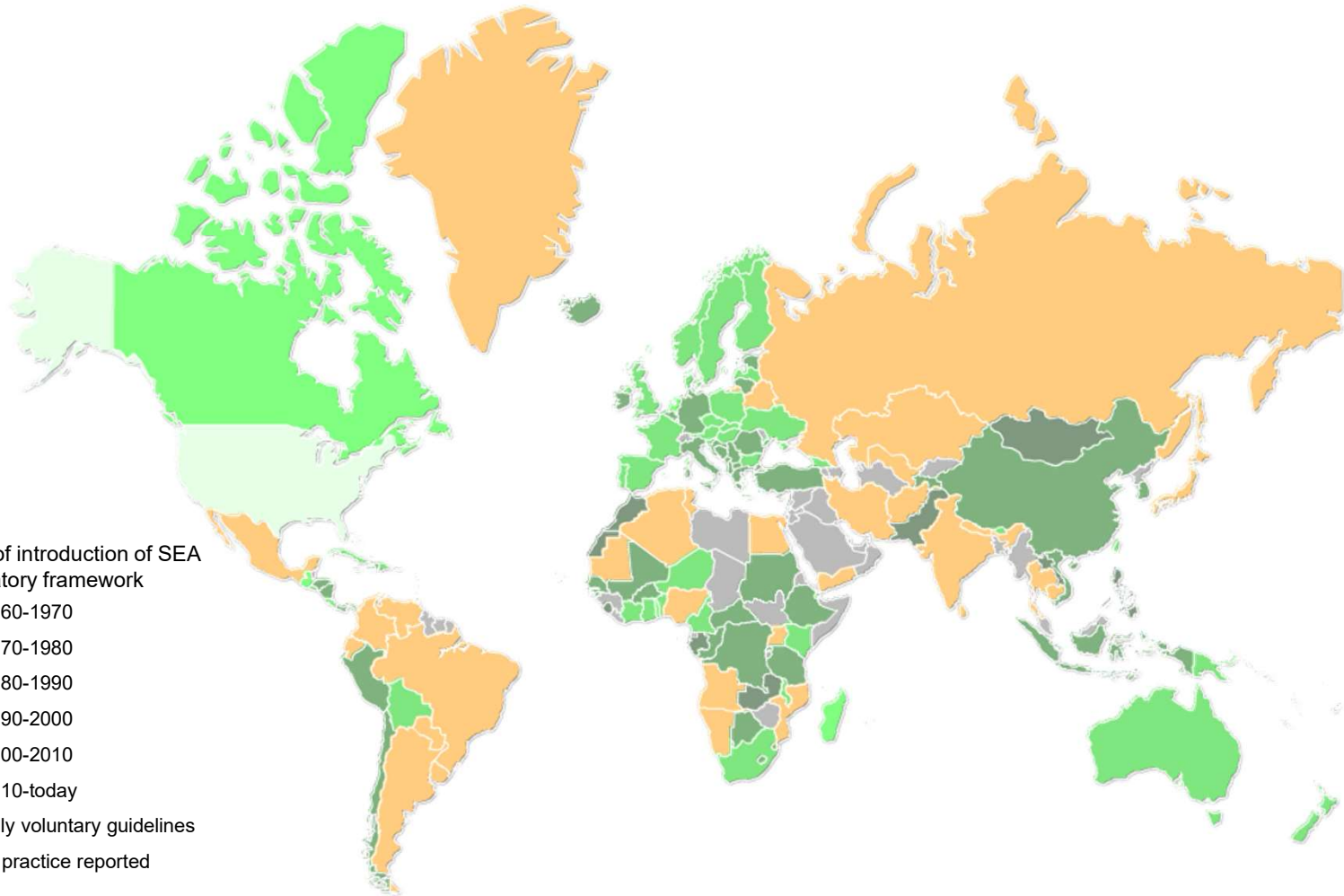
or practice reported



# SEA tool – legal status

14

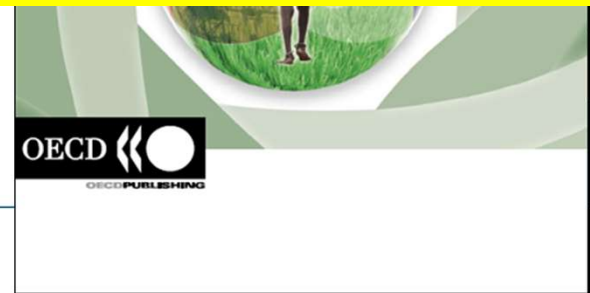
Year of introduction of SEA  
regulatory framework



# SEA – legal status

**CoP–Convention on Biodiversity**  
**November 2018, Egypt**

*Adopt SEA decision-support tool for mainstreaming  
of biodiversity in the mining, **energy and  
infrastructure** sectors*

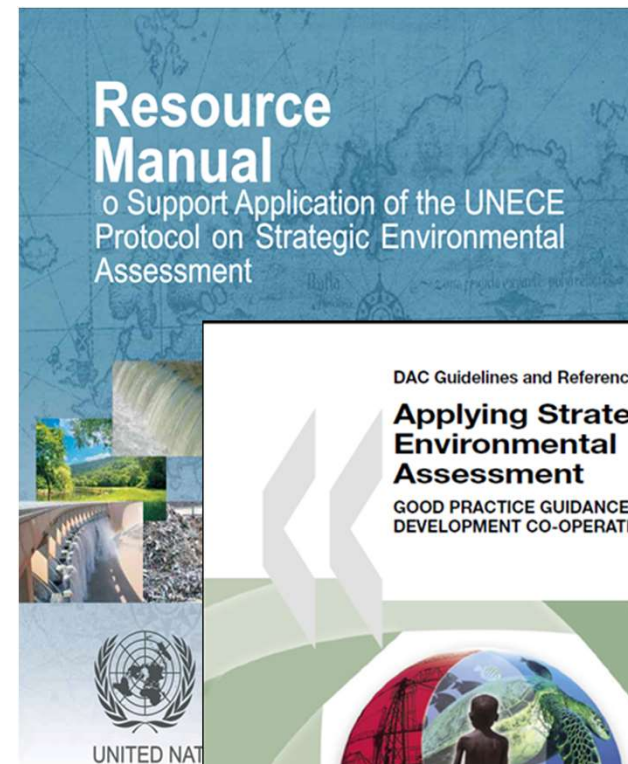




# SEA – legal status

## Status

- Fully adopted ~45
- Partially adopted ~94
- Nothing ~58
- Unknown ~ 7



# Why SEA?

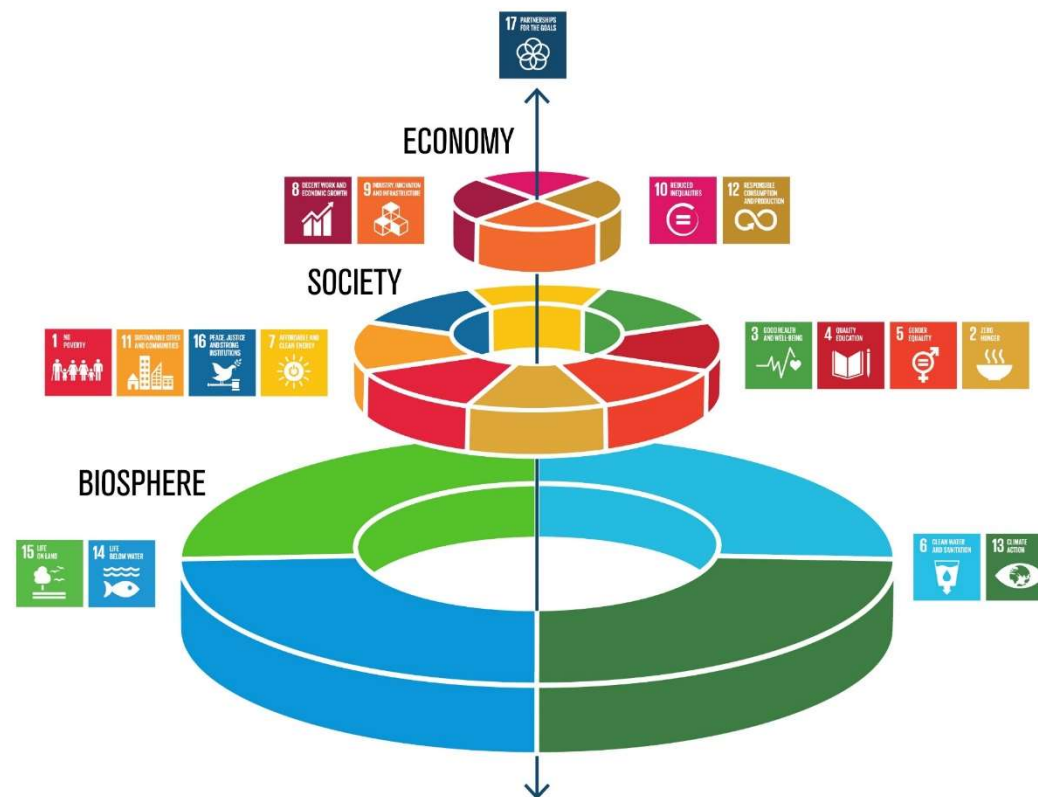




**To maintain the environmental resource  
base for development**

# Why SEA?

- SEA contributes to achieve the 17 SDGs



Graphics by Jochen Lohmann/Reuter

- Maintain environmental resource base for development

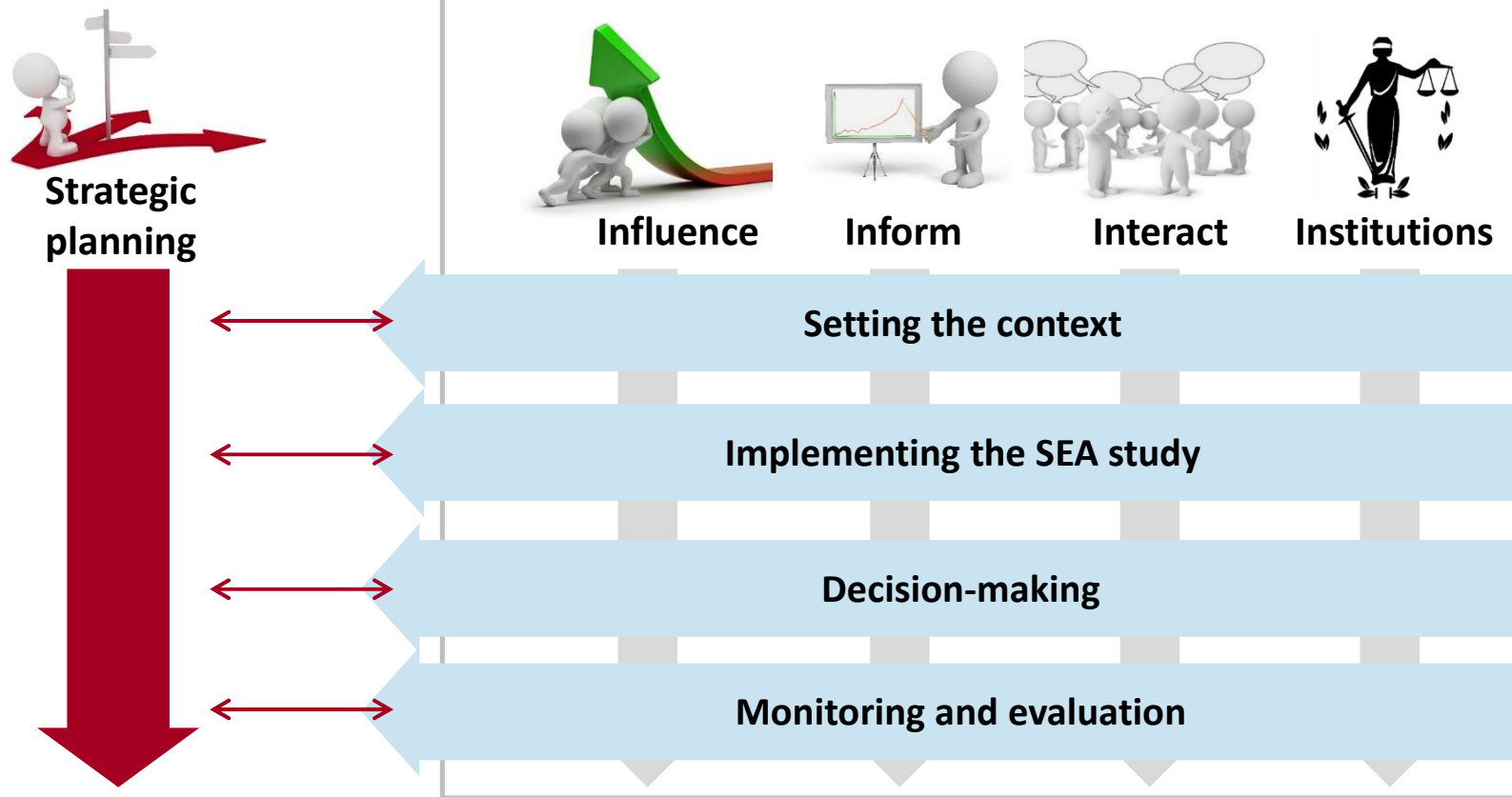


# How to do SEA?

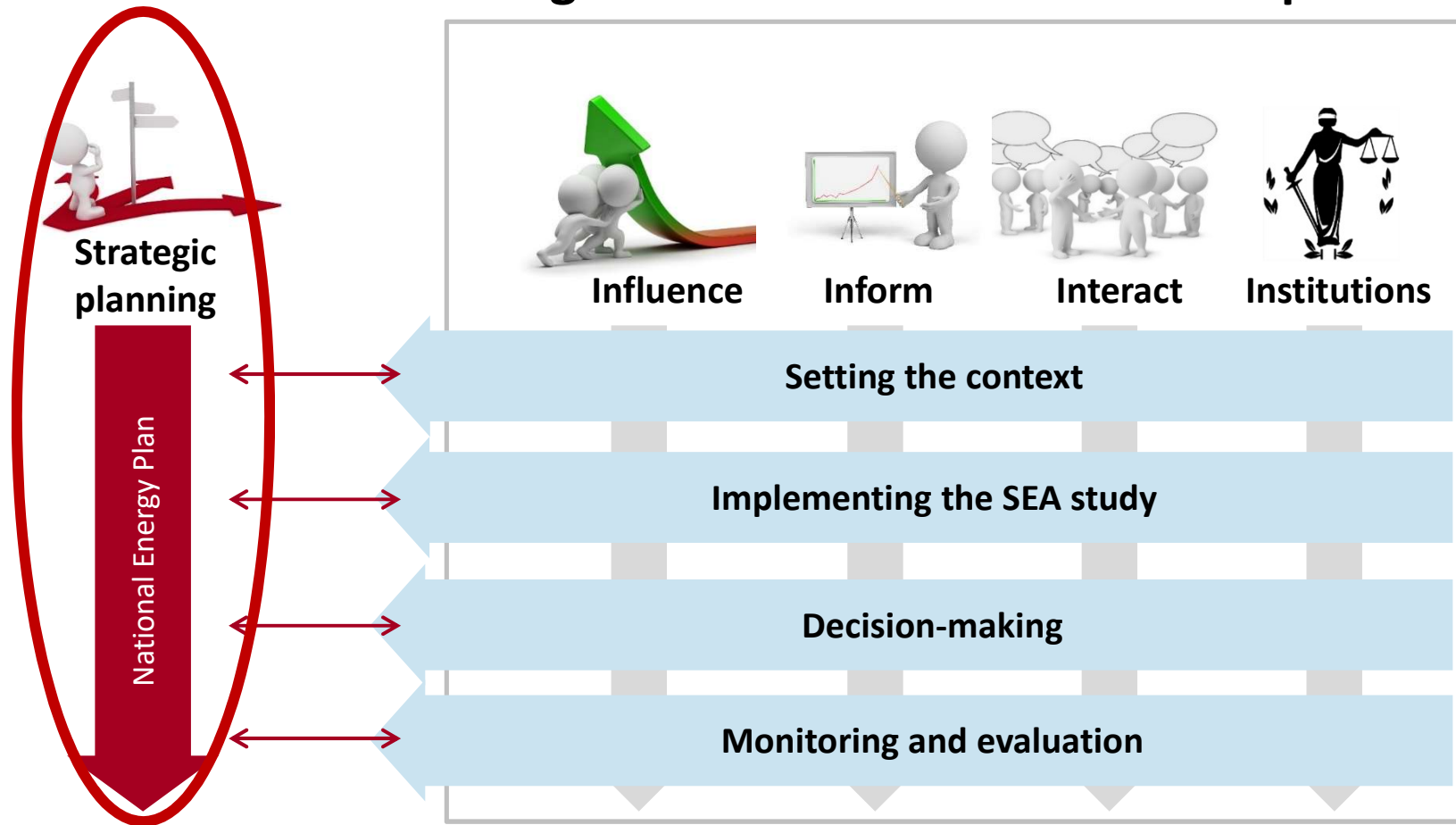


# How to do SEA?

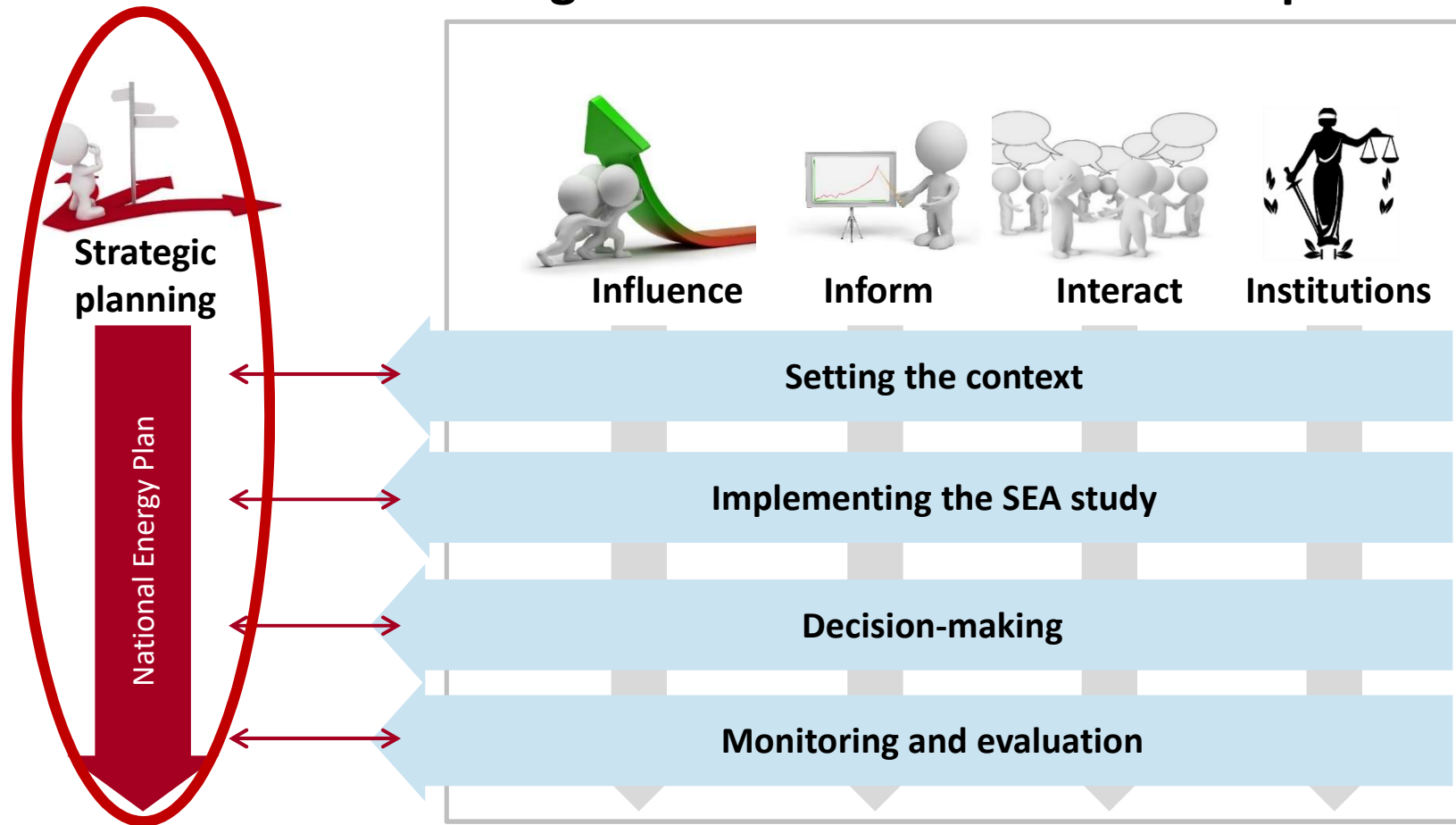
## Strategic Environmental Assessment process



# Strategic Environmental Assessment process

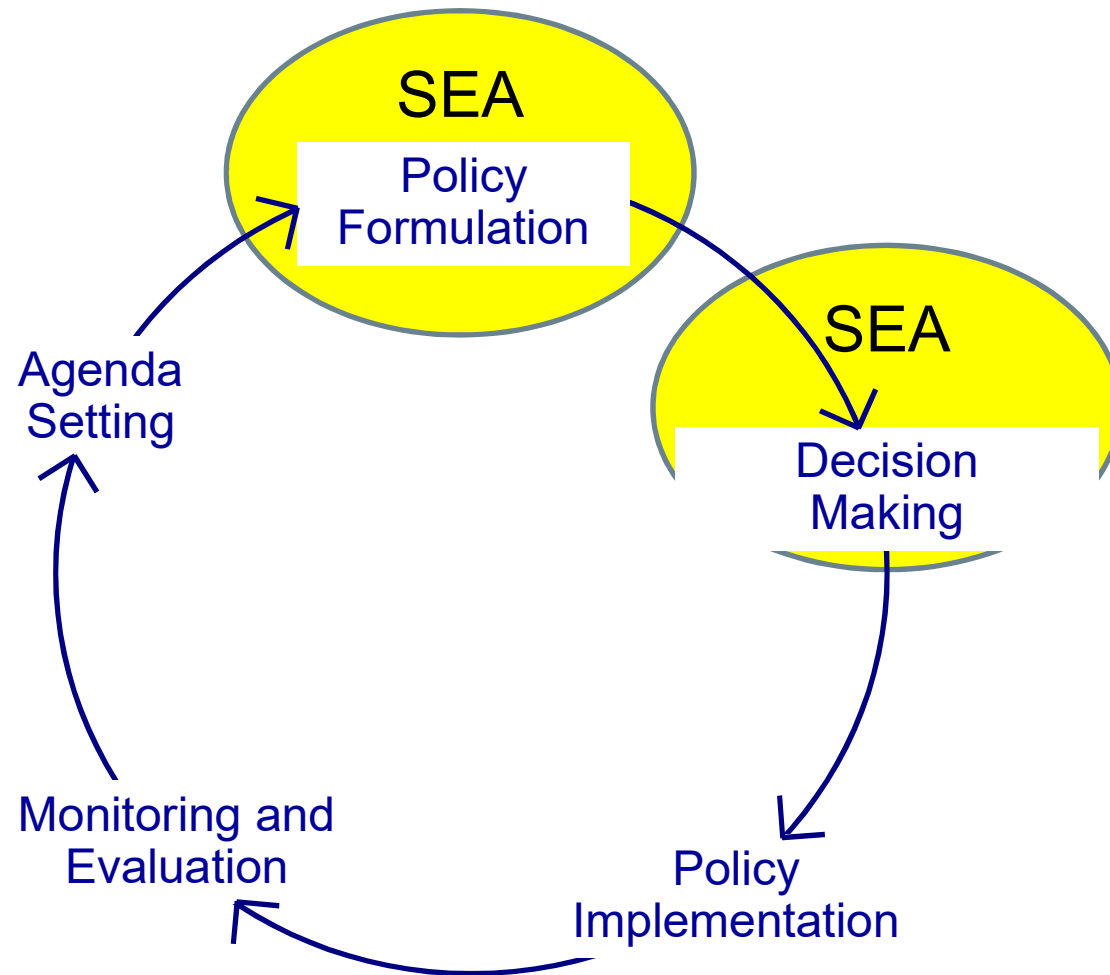


# Strategic Environmental Assessment process





# Strategic planning cycle



# Strategic planning

## SEA supports where you want to go?

### Energy plan A

- Solar
- Wind
- Geo-thermal
- Marine
- Bio-gas
- Bio-fuels
- Hydro-power
- olar
- Wind

### Energy plan B

- Oil
- Coal
- Natural gas
- Wood fuel
- Charcoal
- Nuclear



# Which plans & programmes?

	Sector	Multi-sector	All sectors
<b>National</b>	<ul style="list-style-type: none"><li>- Energy plan</li><li>- Agricultural development plan</li><li>- Oil &amp; gas development plan</li></ul>	<ul style="list-style-type: none"><li>- Economic corridors</li><li>- Marine plan</li></ul>	<ul style="list-style-type: none"><li>- National 5 yr development plan</li><li>- Climate change action plan</li></ul>
<b>Regional</b>	<ul style="list-style-type: none"><li>- Road development plan</li></ul>	<ul style="list-style-type: none"><li>- Water development plan</li></ul>	<ul style="list-style-type: none"><li>- Regional spatial plan</li></ul>
<b>Local</b>	<ul style="list-style-type: none"><li>- Waste management plan</li></ul>	<ul style="list-style-type: none"><li>- Drinking water plan</li></ul>	<ul style="list-style-type: none"><li>- Urban development plan</li></ul>

# SEA for Delta plans (N = 6)

## Delta Alliance deltas and countries

AK1



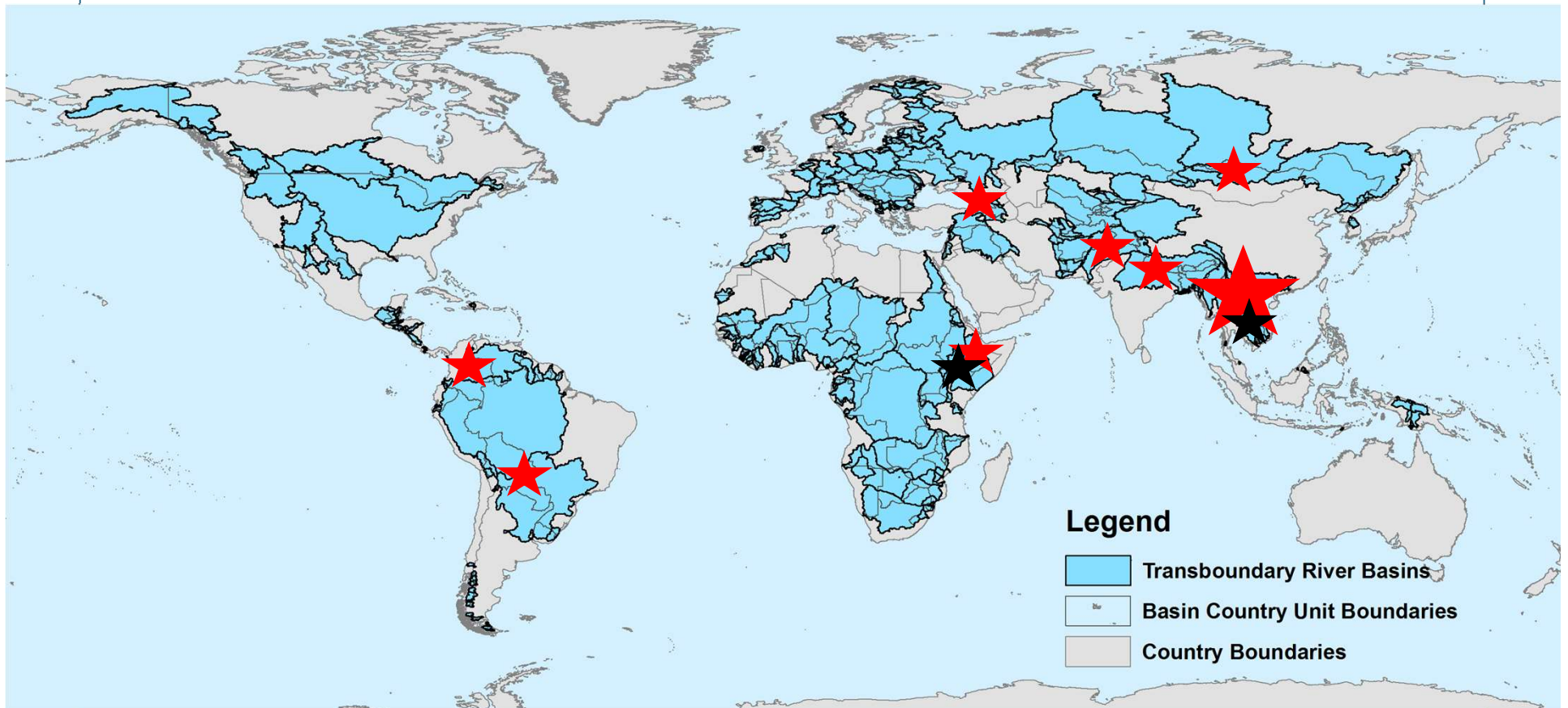
## Slide 28

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**AK1**

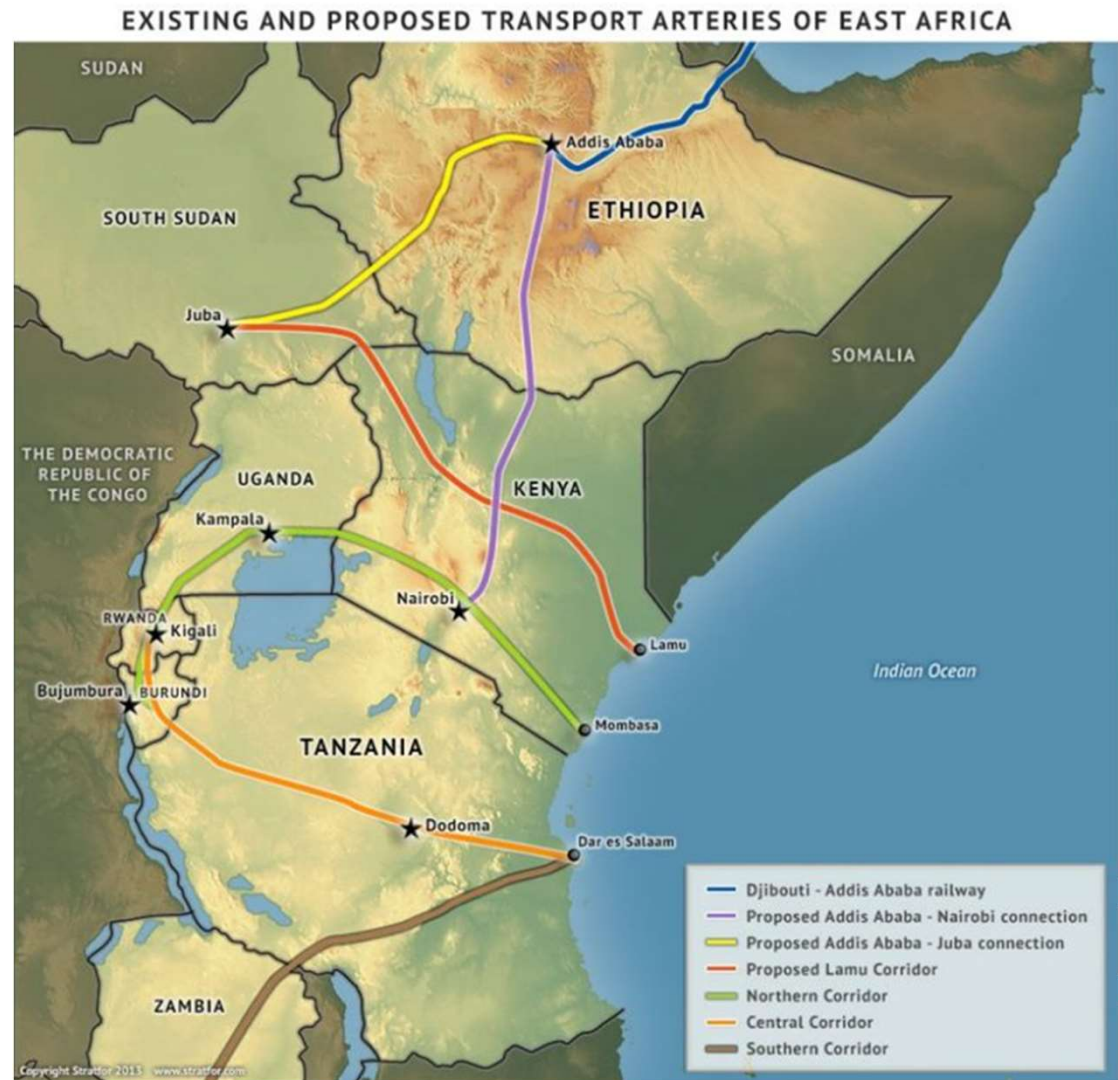
Arend Kolhoff, 10/16/2018

# SEA hydro-power planning ( $N > 10$ )



# SEA for economic corridors

- LAPSSET
- SACOTT
- Northern



# Strategic Environmental Assessment process



**Strategic  
planning**



**Influence**



**Inform**



**Interact**



**Institutions**

**Setting the context**

**Implementing the SEA study**

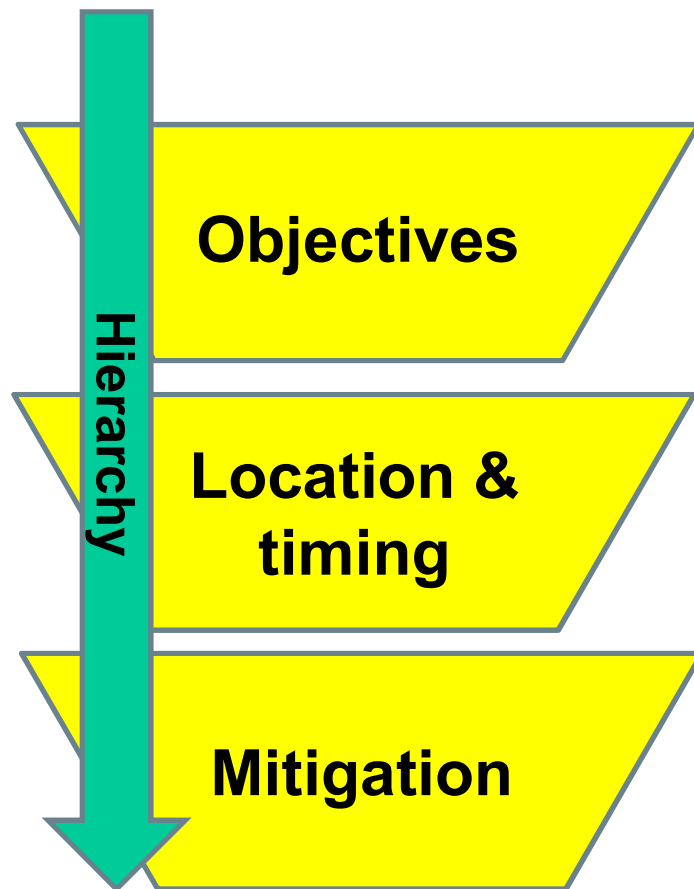
**Decision-making**

**Monitoring and evaluation**





# Information: Alternatives



## National Energy plan

- Fuel mix
- Central / de-central
- Int. dependency
- Location of facilities
- Timing of facilities
- High tech facilities
- Carbon storage

## Strategic Environmental Assessment process



**Strategic  
planning**



National Energy Plan



**Influence**



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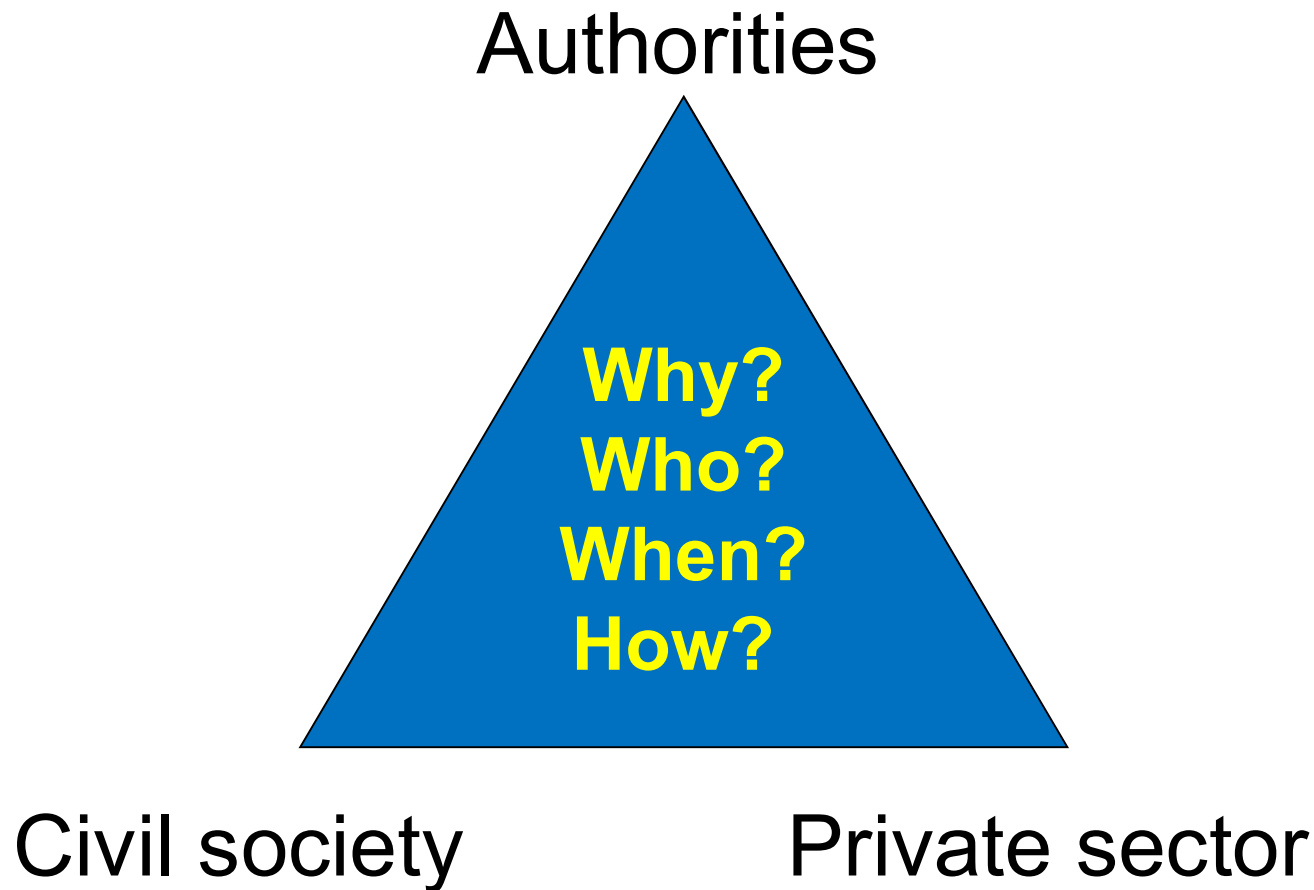
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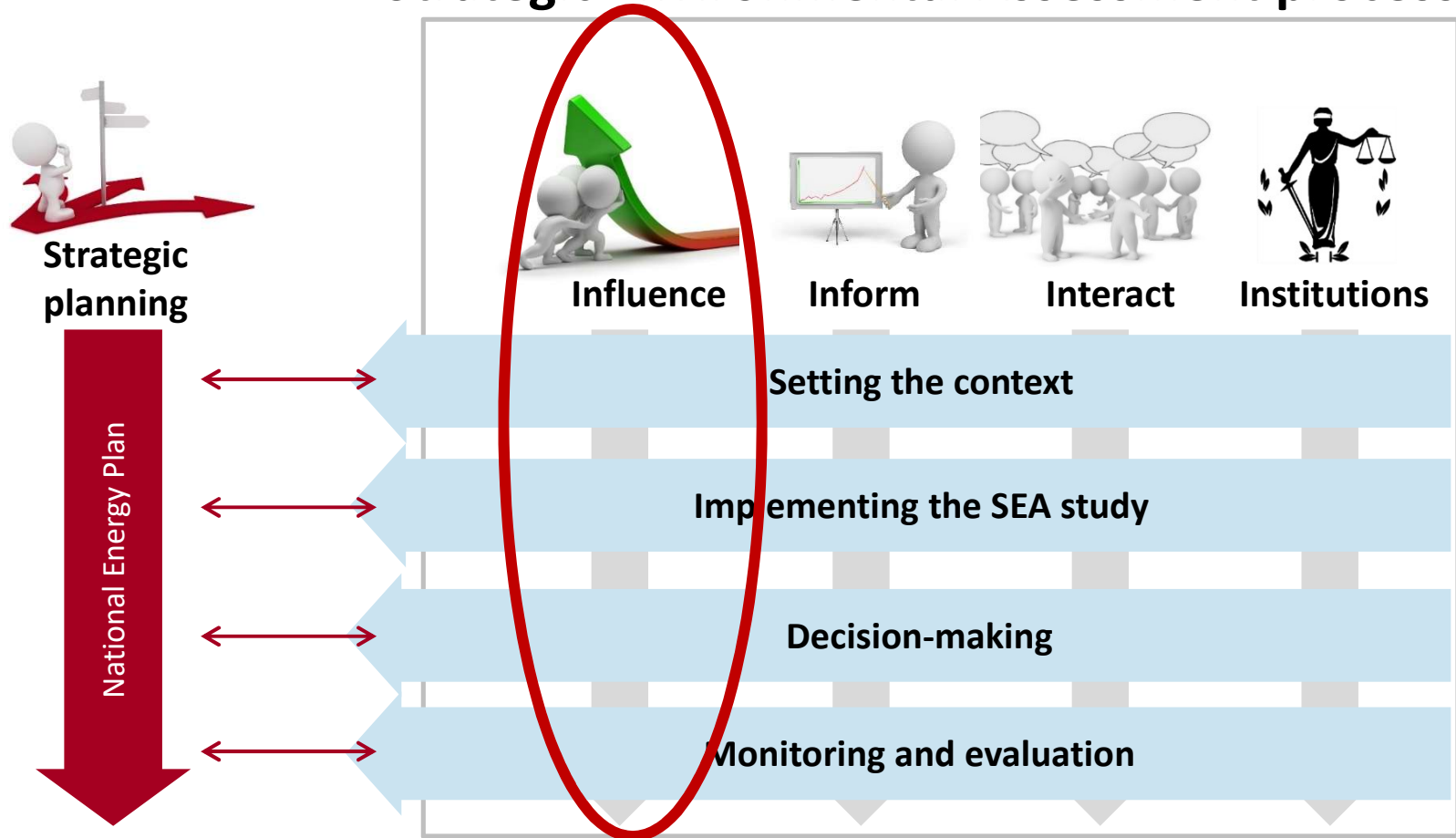
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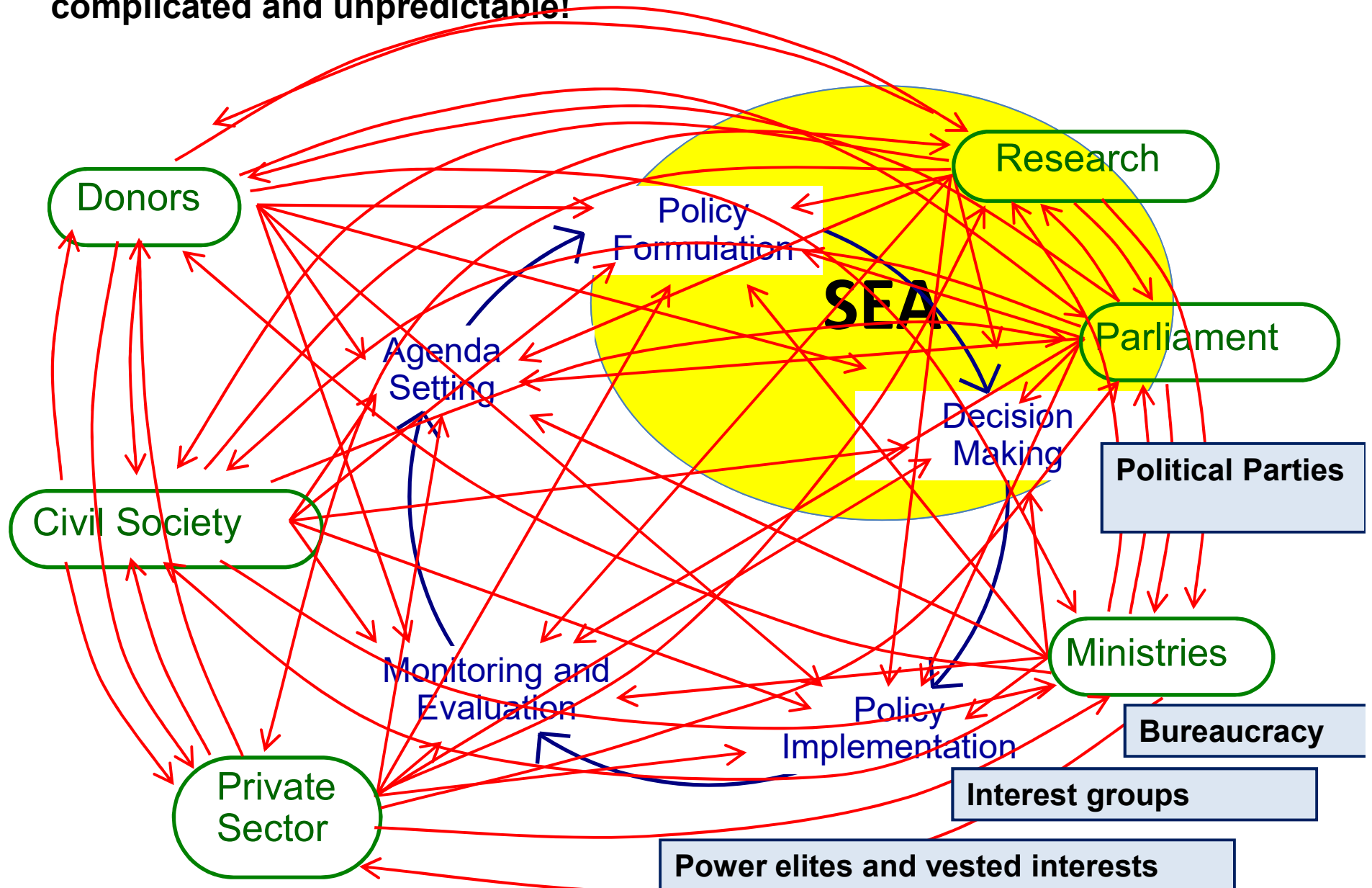
# Interact through dialogue



# Strategic Environmental Assessment process



But in reality planning processes are more complicated and unpredictable!



# Strategic Environmental Assessment process



**Strategic  
planning**



**Influence**



**Inform**



**Interact**



**Institutions**

**Setting the context**

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# Institutions – Roles and mandates

- SEA is the responsibility of the owner of the plan
  - Inter-ministerial steering committee
  - Sector ministry
- The authority responsible for environment has an advisory role



# Benefits of SEA?





# Benefits of SEA

CEO-Shell:

“I support SEA because it helps us in working at the most acceptable locations”

“A good SEA saves us time”



# Benefits of SEA





**Thank you for your attention!**

**[www.eia.nl](http://www.eia.nl)**