



Netherlands Commission for
Environmental Assessment

Climate proof planning in Deltas

added value of Strategic Environmental Assessment

Arend Kolhoff, 24 September – Rotterdam

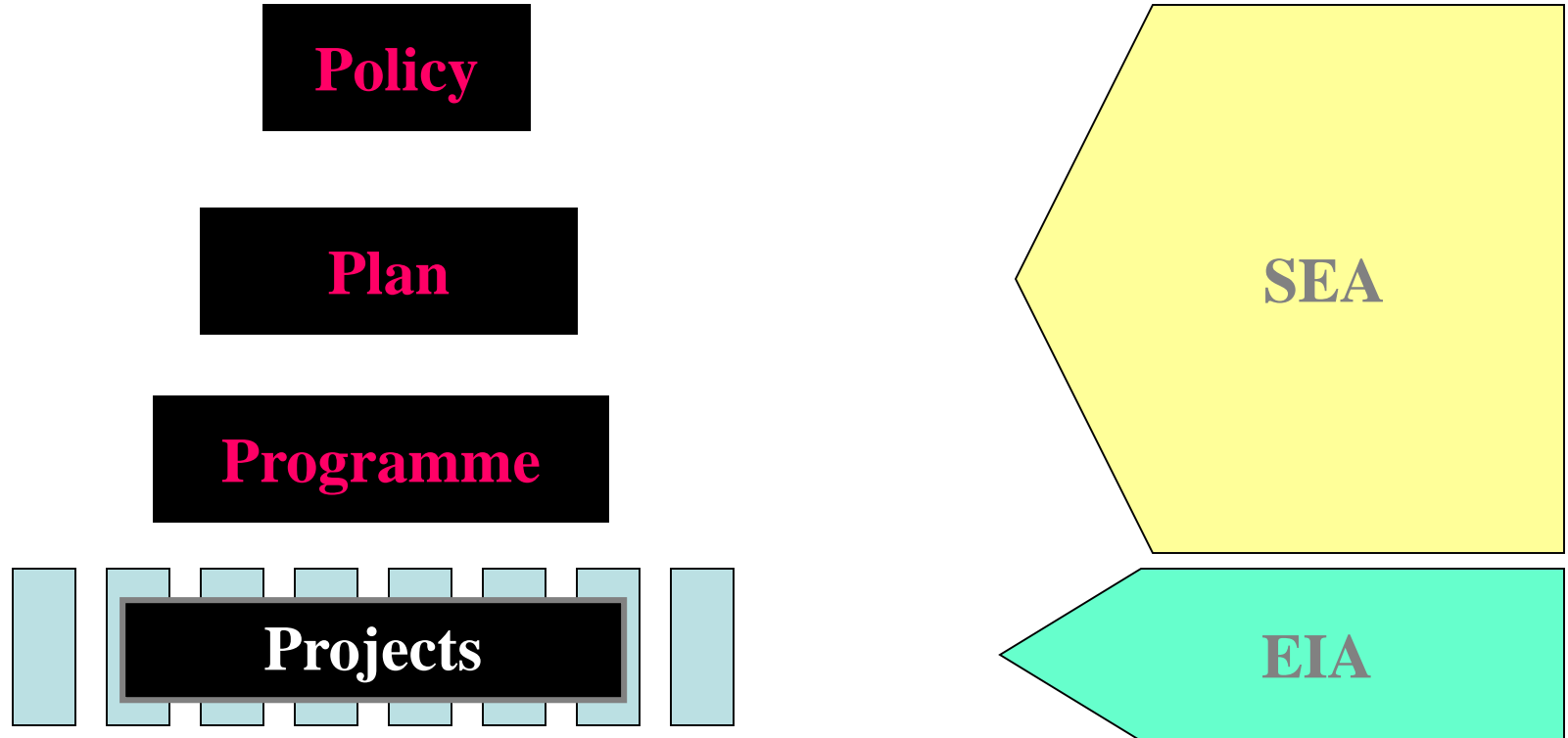
Netherlands Commission for Environmental Assessment

Contents

1. Strategic Environmental Assessment (SEA)
in a nutshell
2. SEA for climate proof planning:
 - Vietnam
 - Georgia
 - Kenya
3. Lessons learned

EIA supports DM private / public projects

SEA supports government plans

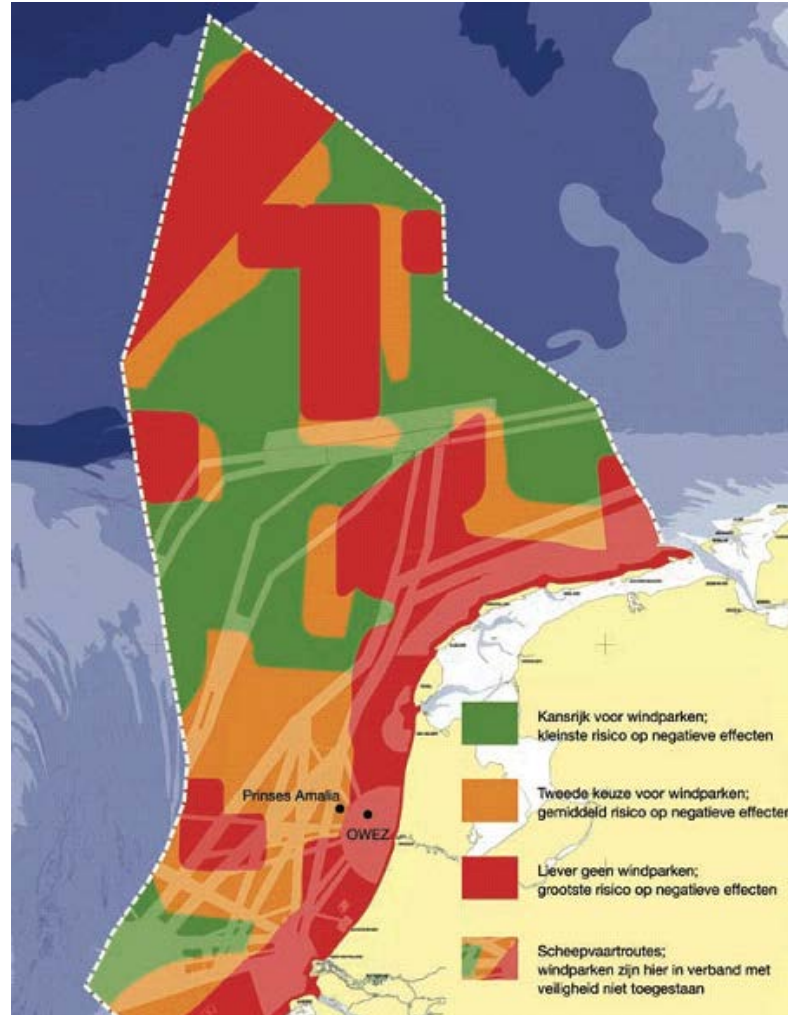


Off shore wind farm 200MW

EIA required



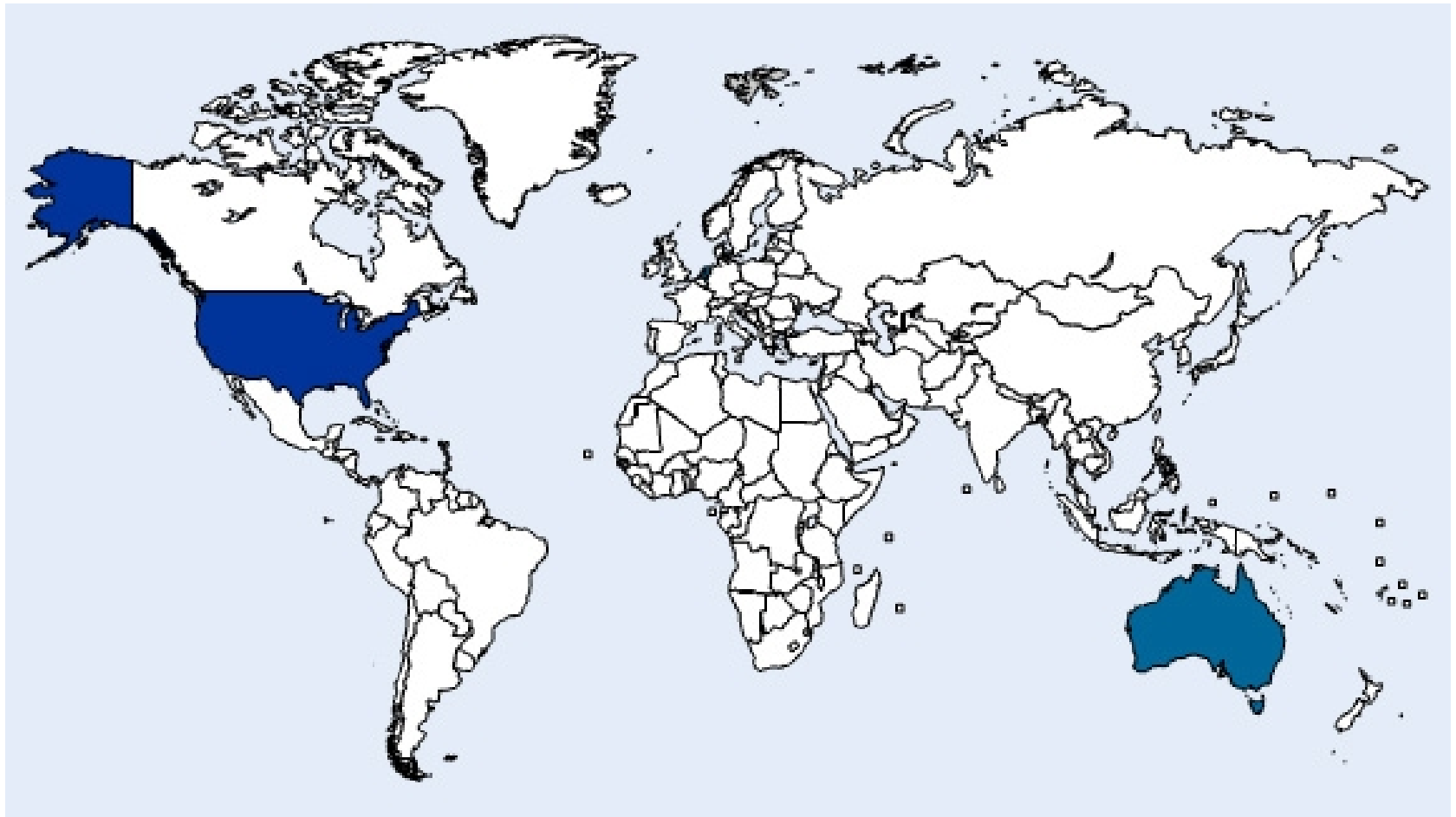
SEA: Site selection off shore wind farms



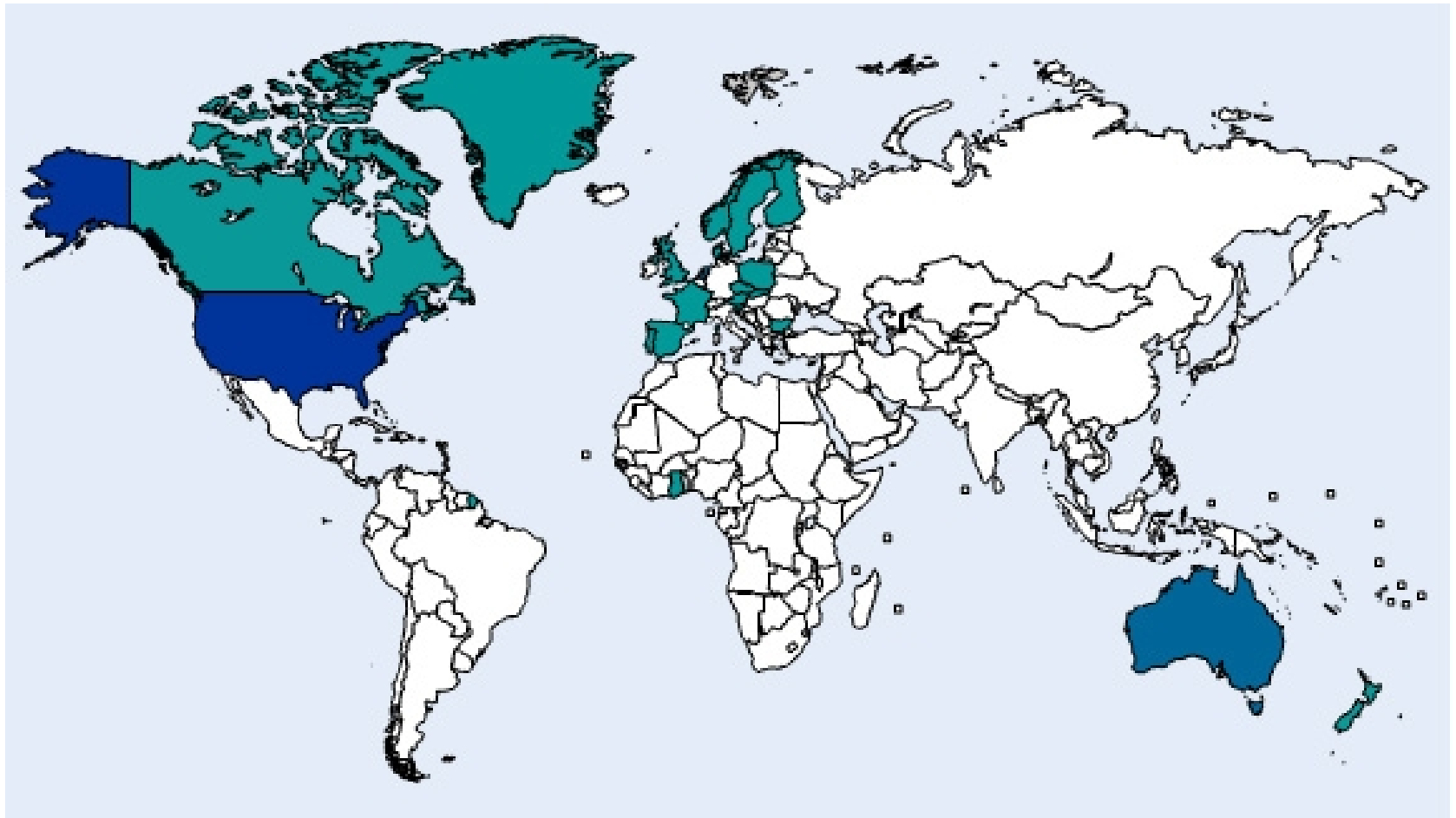
What is the objective of SEA?

- SEA is a tool to improve government planning and decision-making
- SEA complements planning and:
 - Aims to **integrate** environmental, incl. climate change issues into government plans and
 - Evaluate their inter-linkages with **economic** and **social** considerations
 - Facilitates a public and governmental **debate** on these issues

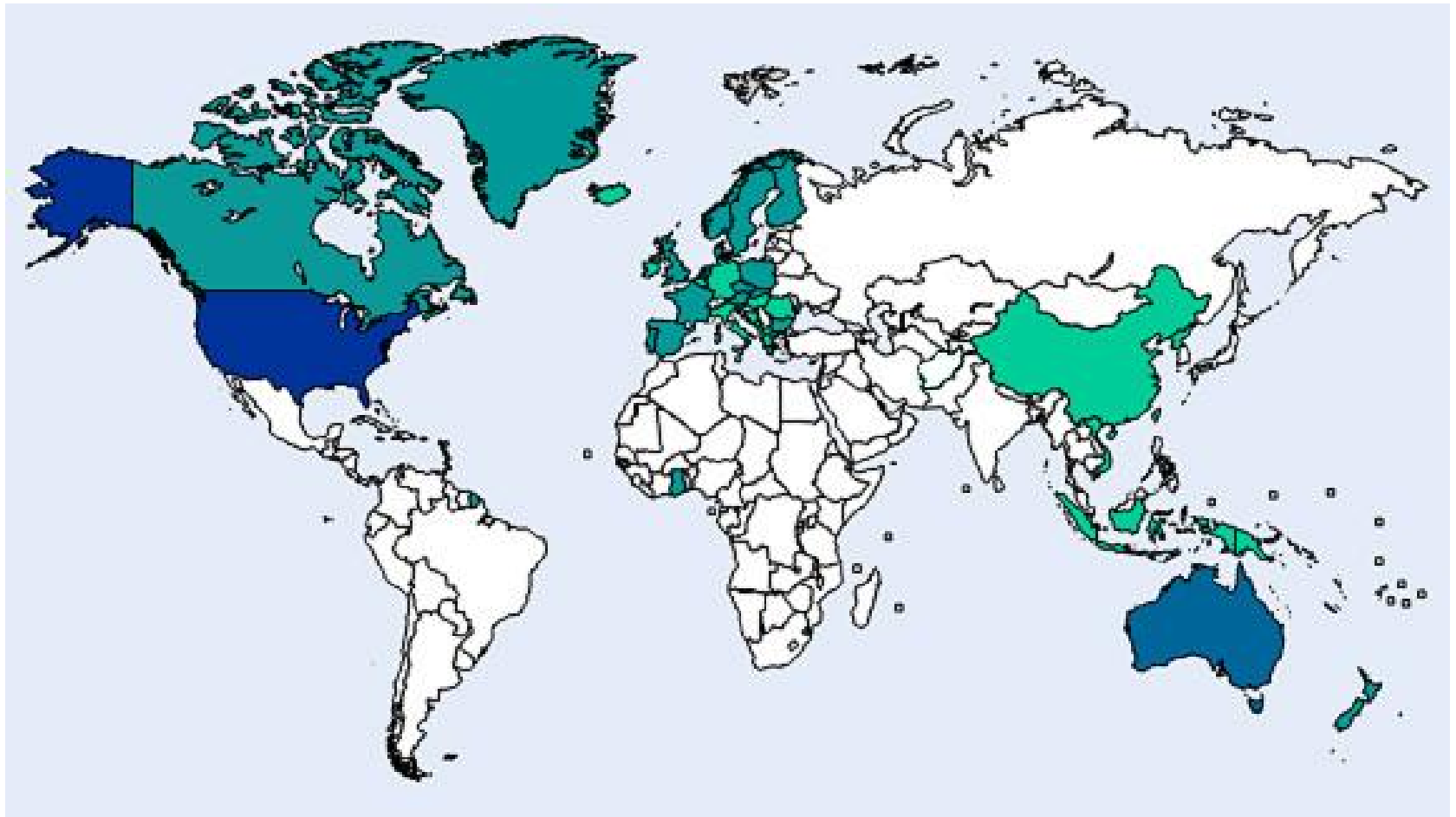
Where is SEA used? before 1990



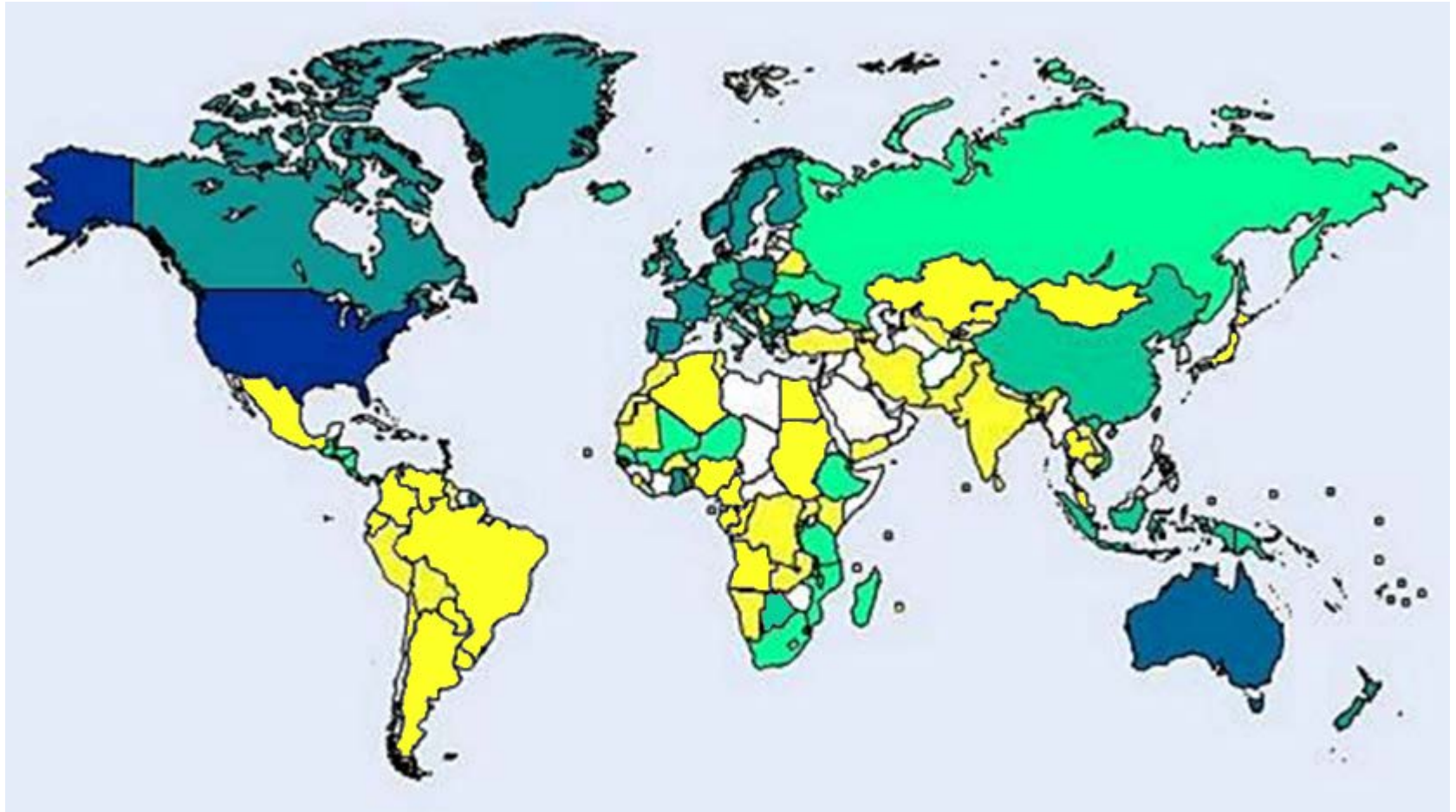
SEA legislation implemented 1990-1999



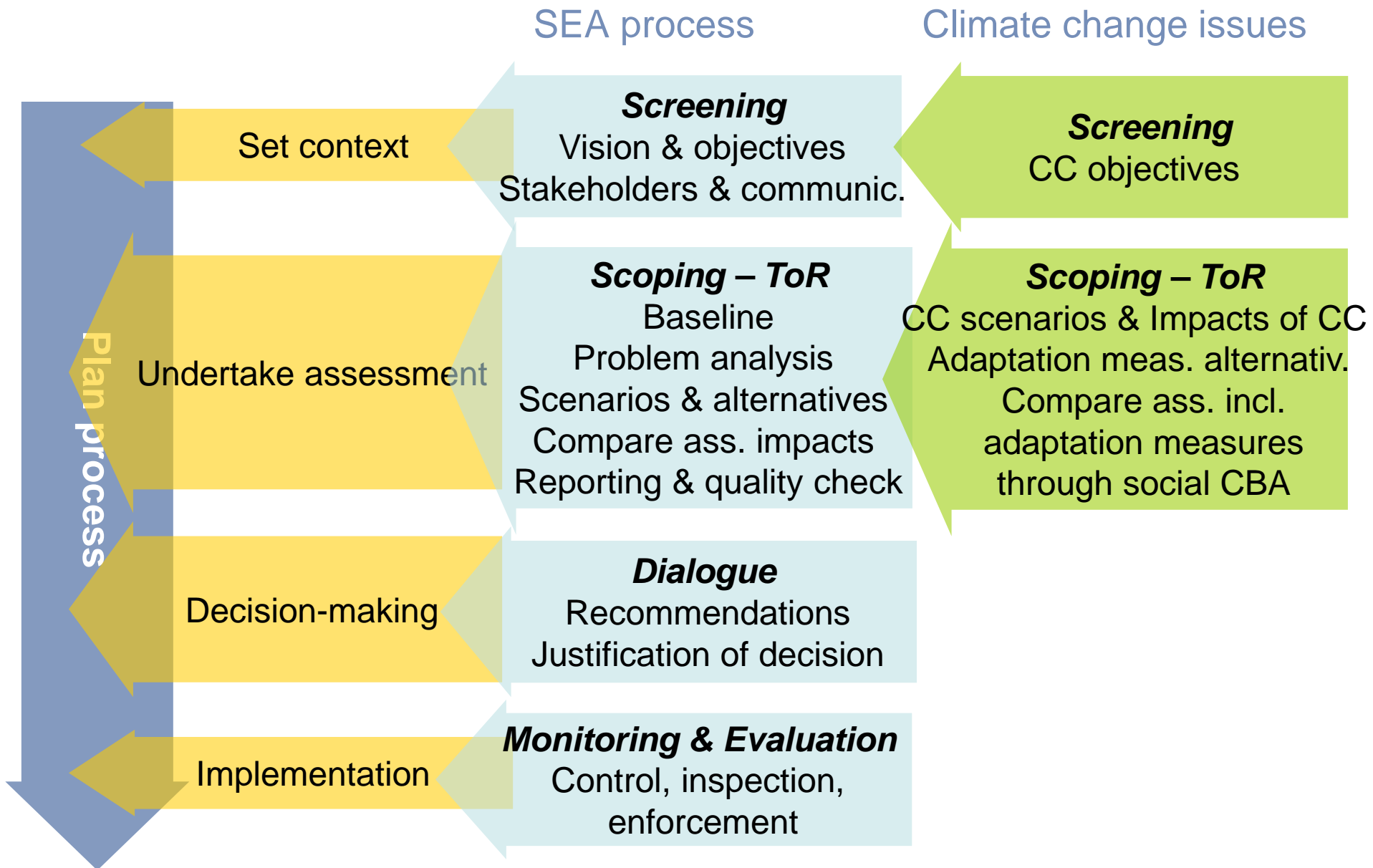
SEA legislation implemented 2000-2008



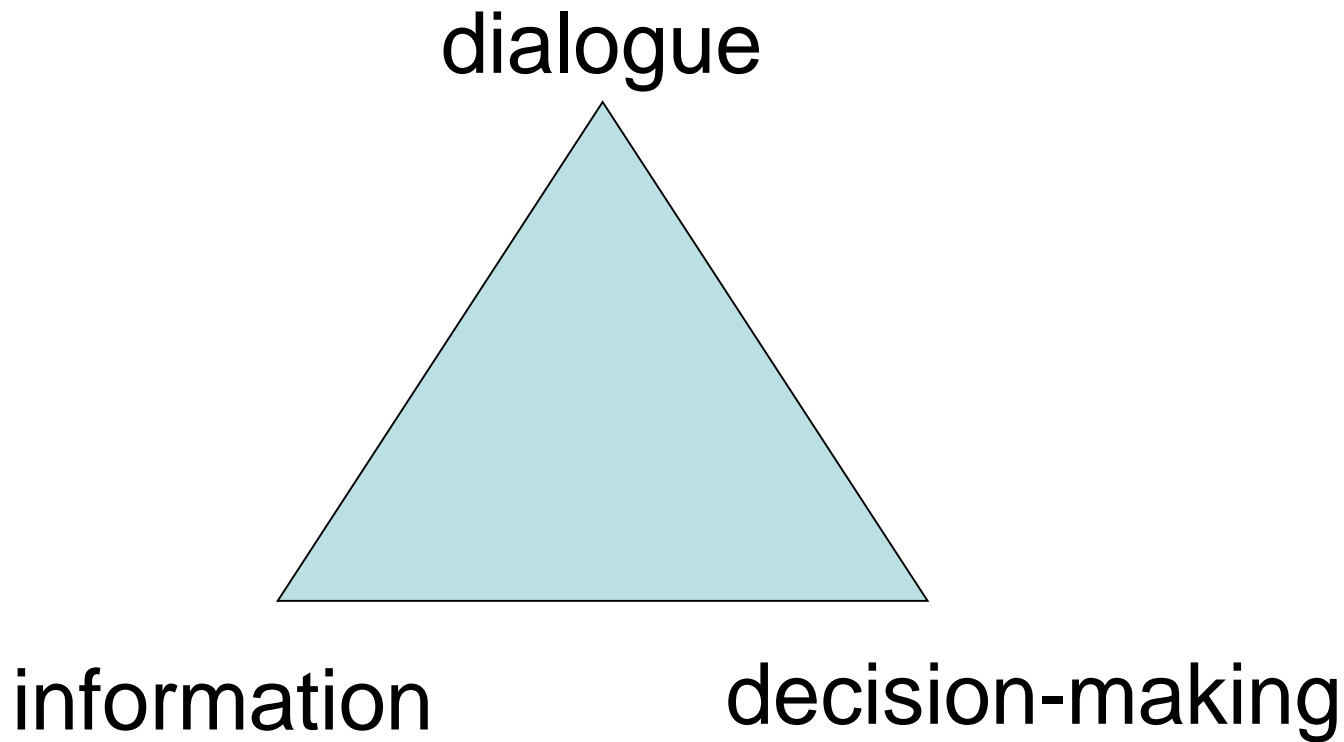
Legal basis ~ 60, SEA reported nearly all countries



How Climate change is included in SEA



What are key elements of SEA?



SEA

Socio economic Master plan 2010-'20

An Giang province, Vietnam

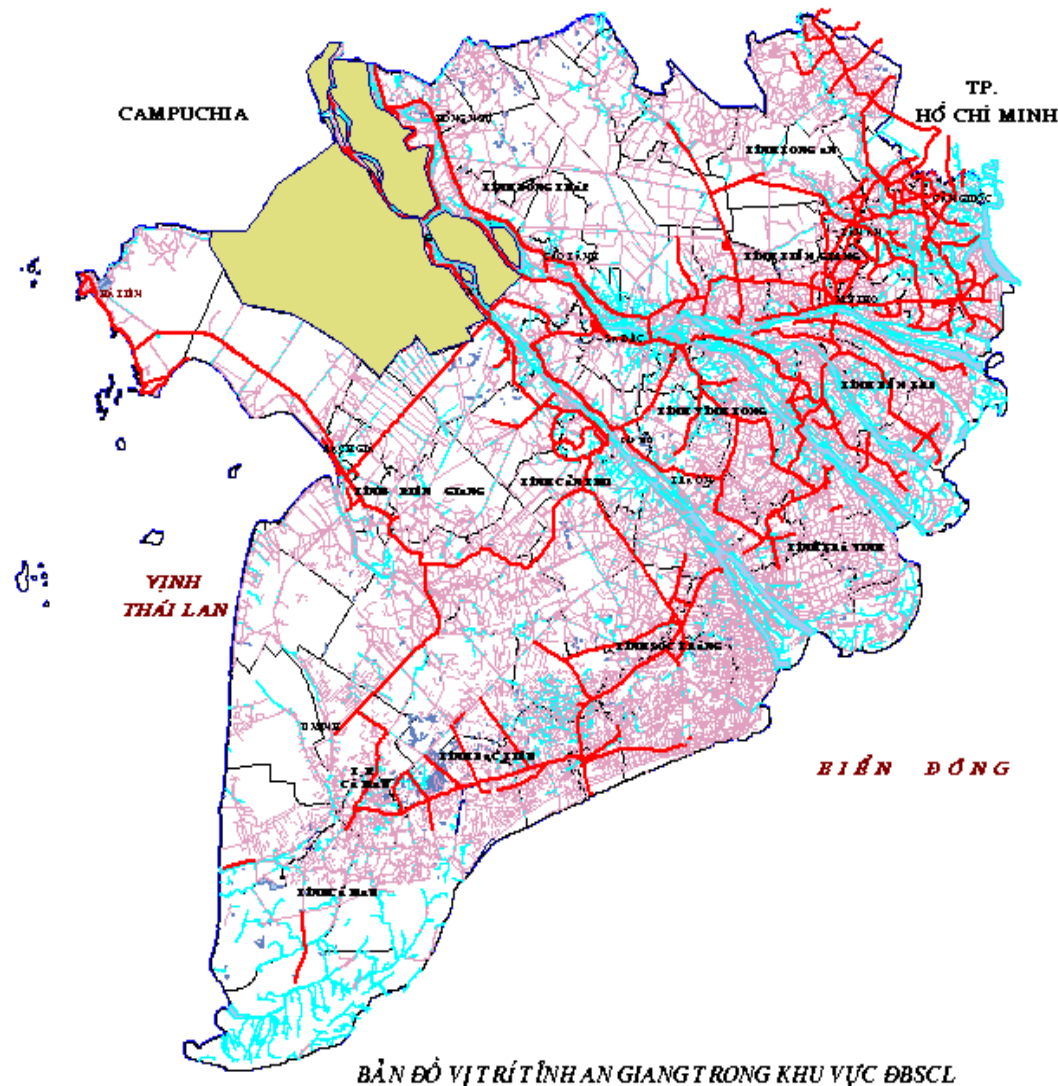
Request by: Governor of An Giang Province:

- Develop a climate proof Master plan 2010-'20 (> 2050)
- Starting point:
 - Draft Master plan 2010-2020
 - Provincial climate change plan (2010)
 - Obligation to execute SEA for MP
- SEA
 - Used to link CC action plan to new Master plan
 - Dialogue between all departments

An Giang province

Characteristics

- 2.2 M. inhabitants
- Gateway to the Mekong delta
- 2nd largest rice producer
- 1st fish producer





Investments planned draft Master plan

Agriculture

- > irrig. area 2→3 crops
- clean agriculture

Aquaculture

- applic. of int. standards

Urban areas

- extension

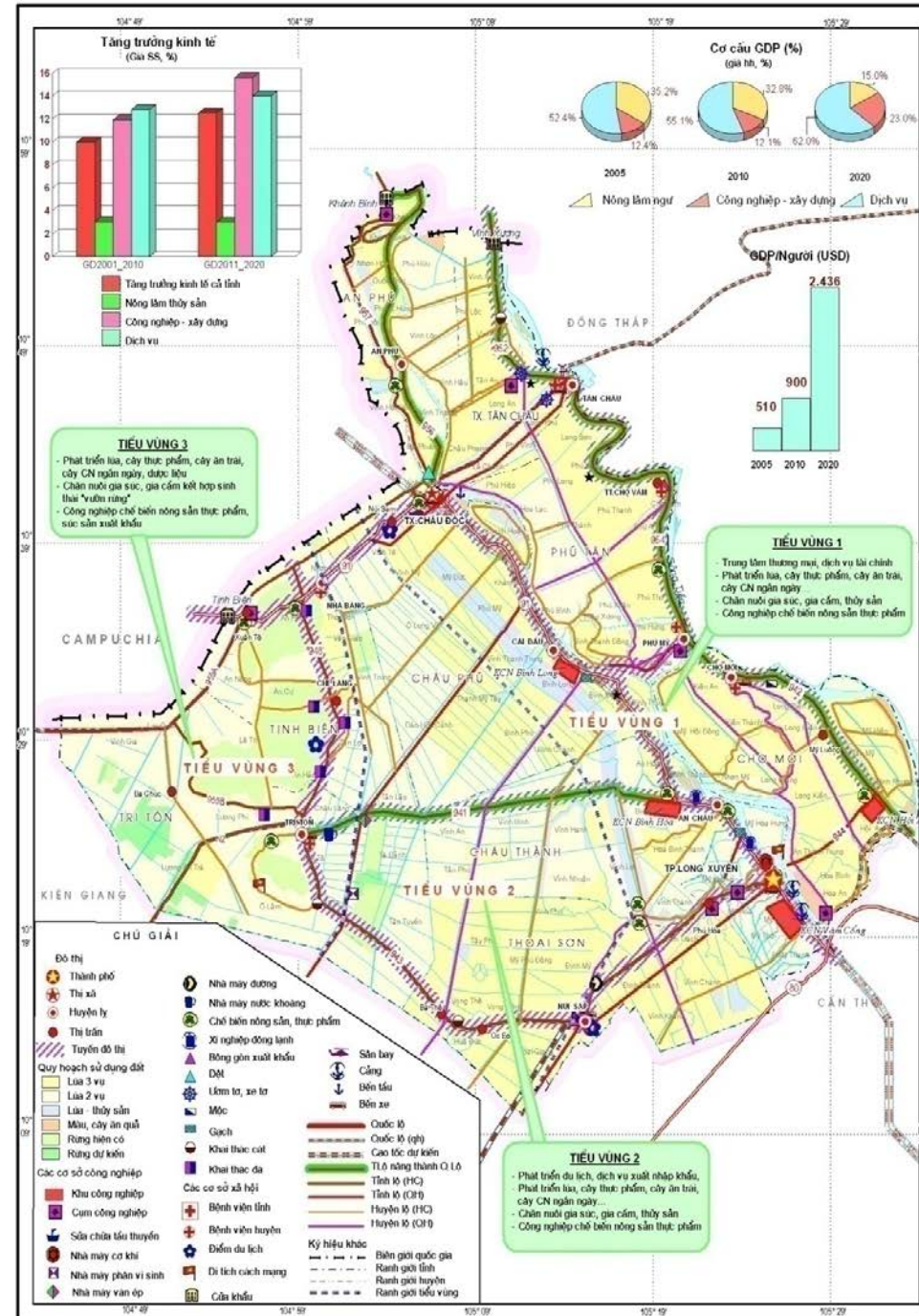
Industry

- 4 new zones ~1000 ha

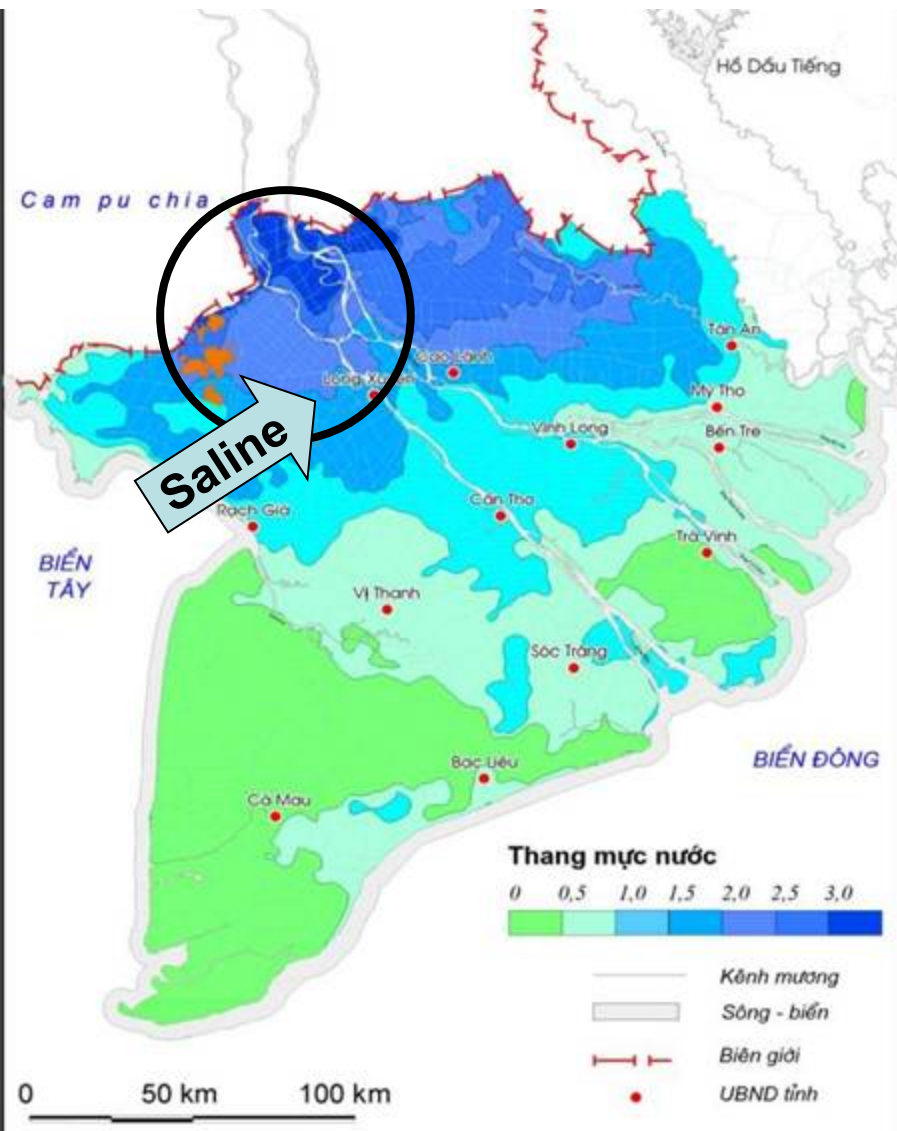
Infrastructure

- 1 int. seaport, 1 airport
- new prov. nat. roads
- int. railway

ĐIỀU CHỈNH QUY HOẠCH TỔNG THỂ PHÁT TRIỂN KINH TẾ - XÃ HỘI TỈNH AN GIANG ĐẾN NĂM 2020



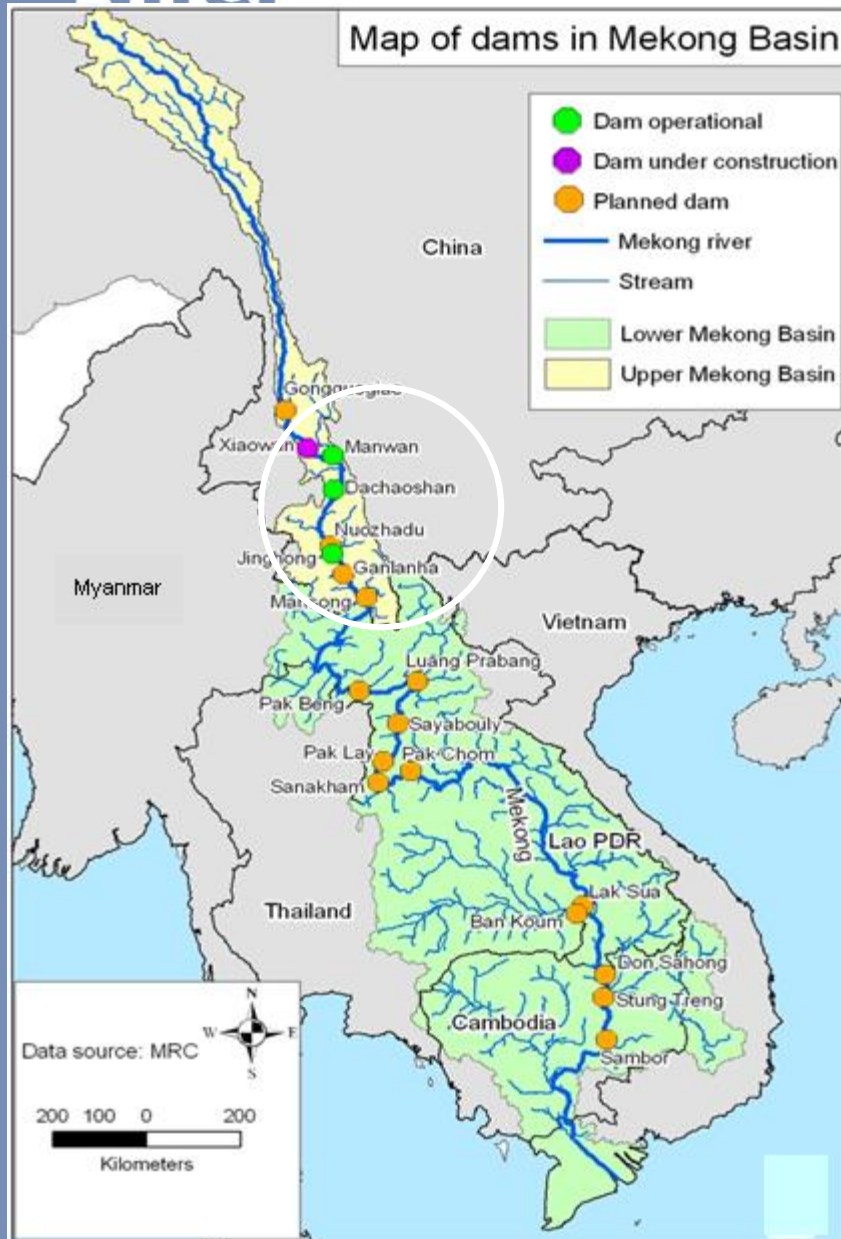
Climate change impacts (CC action plan)



Main impacts:

- Flooding
- Drought
- Temperature rise
- Salt intrusion

Impacts described in CC action plan (2010) but NOT linked to planned investments!



Impact of dams on Mekong delta

Main impacts:

- Peak flow in wet season decreases
- Flow in dry season more stable
- Sediment discharge decreases, negative impact e.g. fish production

→ **Combined CC & Mekong imp. considered in SEA new MP**

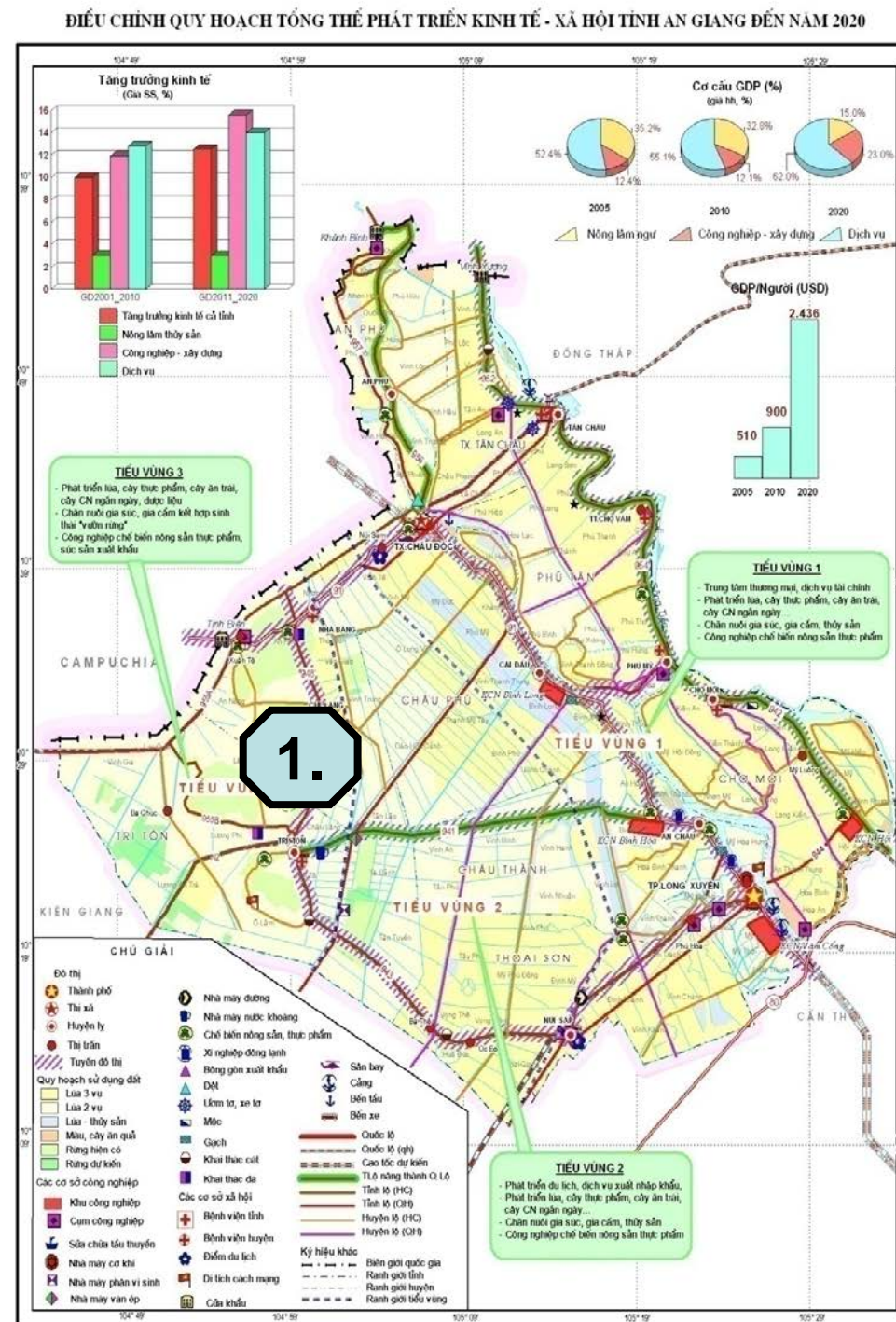


Investments planned Master plan 2020

Climate change
adaptation measures:

1. drinking water basins
2. construction of sluices
and canals
3. develop dike system

→ Focus on grey
adaptation



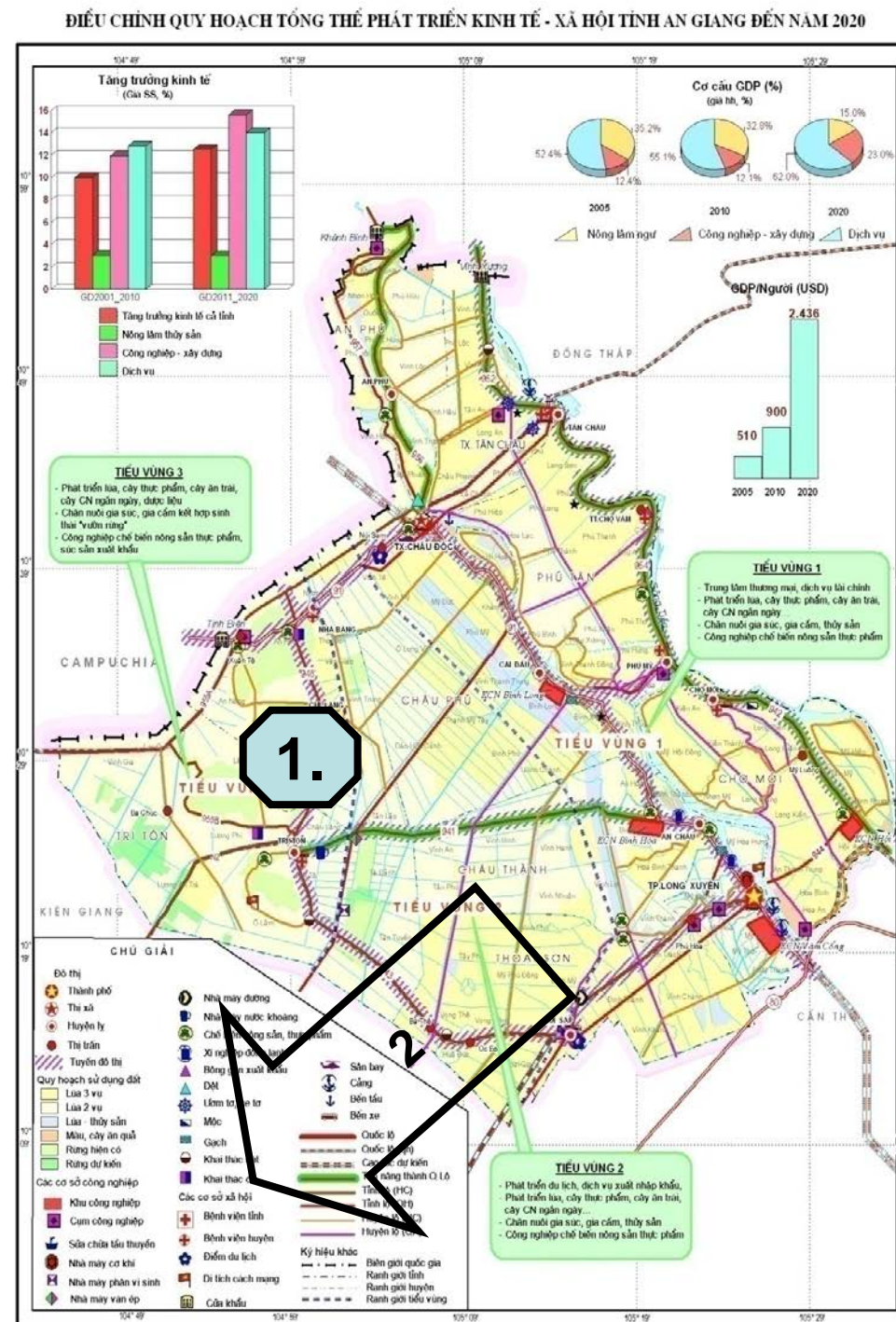


Investments planned Master plan 2020

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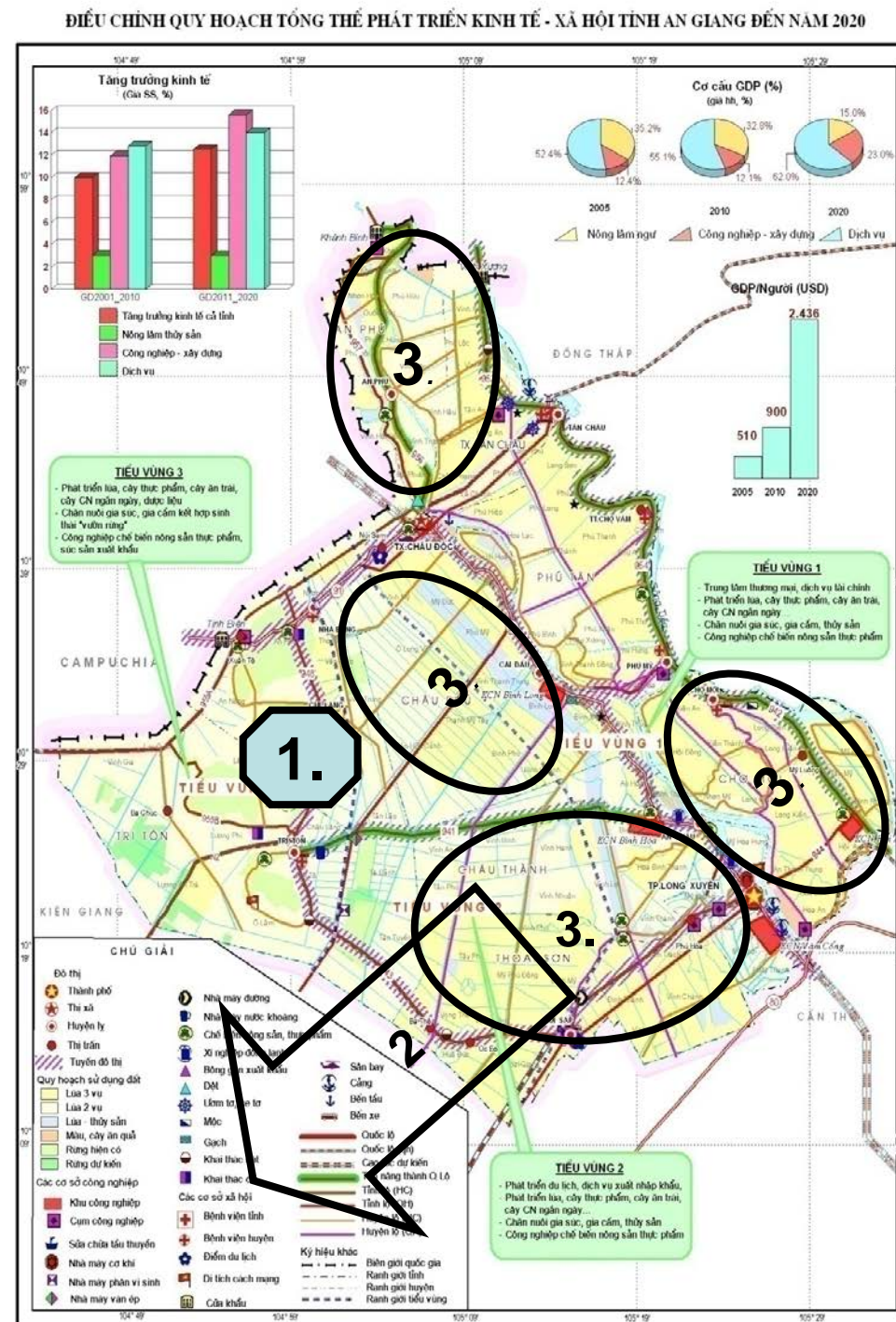


Investments planned Master plan 2020

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Lessons learned

- Province strong mandate for CC, steering districts & commun.
- Provincial climate change action plan
 - Too general, no info on risks and no measurable objectives
 - Scenarios for climate yes, for Mekong no
- Draft Master plan
 - Investments not climate proof
 - Only technical adaptation meas. technical, down stream impacts not considered
 - inter-provincial coordination nearly absent
- Need for Delta plan
- SEA helpful to develop climate proof Master plan

SEA – LUP Ajara region, Georgia

- Ajara autonomous region –semi-tropical 2000-4000mm
- 2nd richest & 0.5 M inhabitants
- Econ. Corridor & Tourism spot
- Young democracy
- Strong will for green growth
- Vulnerability to CC is low



SEA for LUP Ajara region, Georgia

Request by Governor of Ajara region

- Develop land use plan for the region and districts

Starting points:

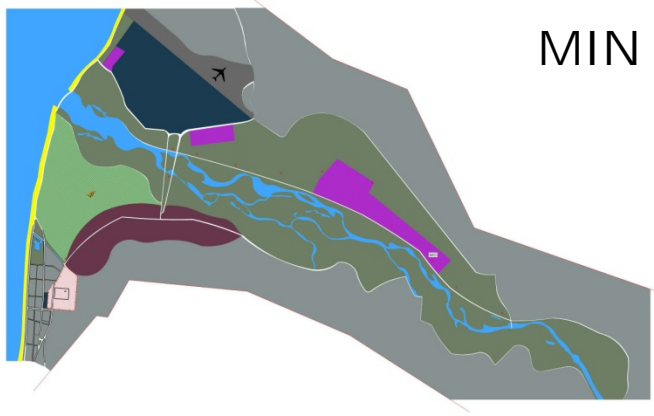
- Vision for Adjara 2030
- Uncontrolled economic development
- No planning tradition & tools
- Climate change is NOT an issue

SEA:

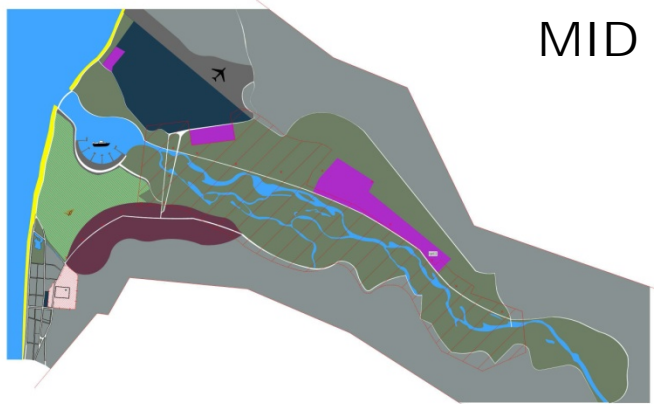
- Support land use planning
- Develop alternatives to feed public debate

Chorokhi delta development alternatives

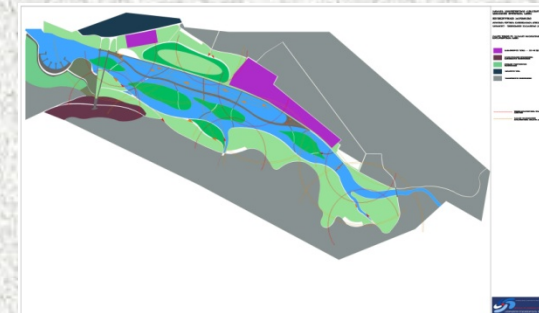
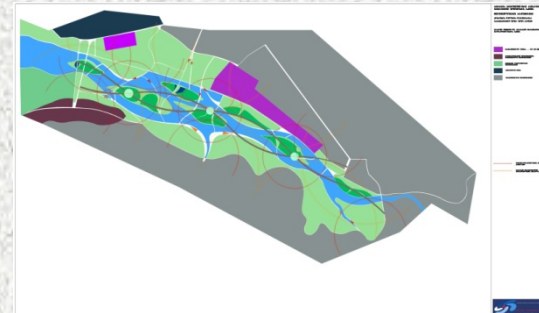
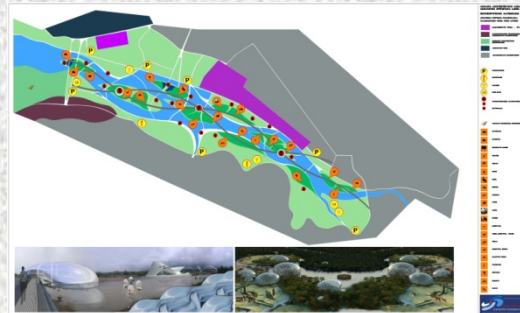
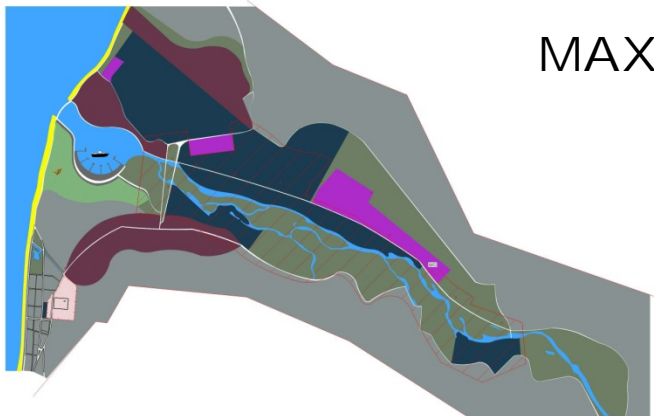
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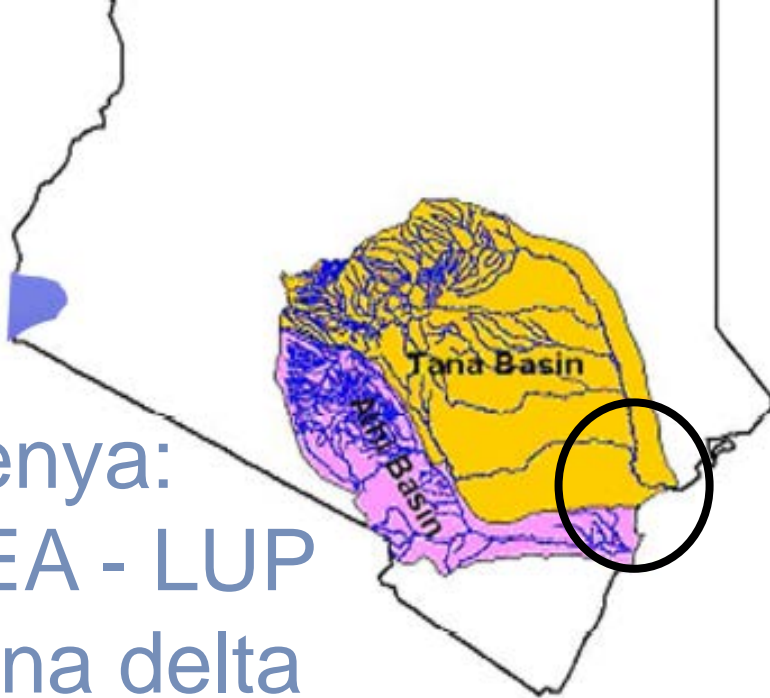
MAX



Lesson learned

- Leadership by the Governor
- SEA supportive to climate proof planning
 - CC awareness raising (gov. & public)
 - CC factor in discussing alternative development options

Kenya:
SEA - LUP
Tana delta



Tana Delta is insurance for pastoralists during the dry season



Tana Delta is a Key Biodiversity Area (KBA)...

TANA DELTA

- 130,000 ha – semi-arid climate 200-600mm
- 80.000 people (farmers; pastoralists; fishers)
- Key biodiversity – bird area
- Flooding regime determines land use and biodiversity value
- Vulnerable to climate change
- Discharge < 50% since 1995
- Conflicts between different groups!



Vision 2030

planned developments

Upper Tana

- Hydro-power development
- Irrigation projects

Lamu port development

- Use of Tana fresh water

Tana delta - Agricultural developments e.g.

- Rice 40,000 ha
- Jatropha 200.000 ha
- Sugar 90.000 ha

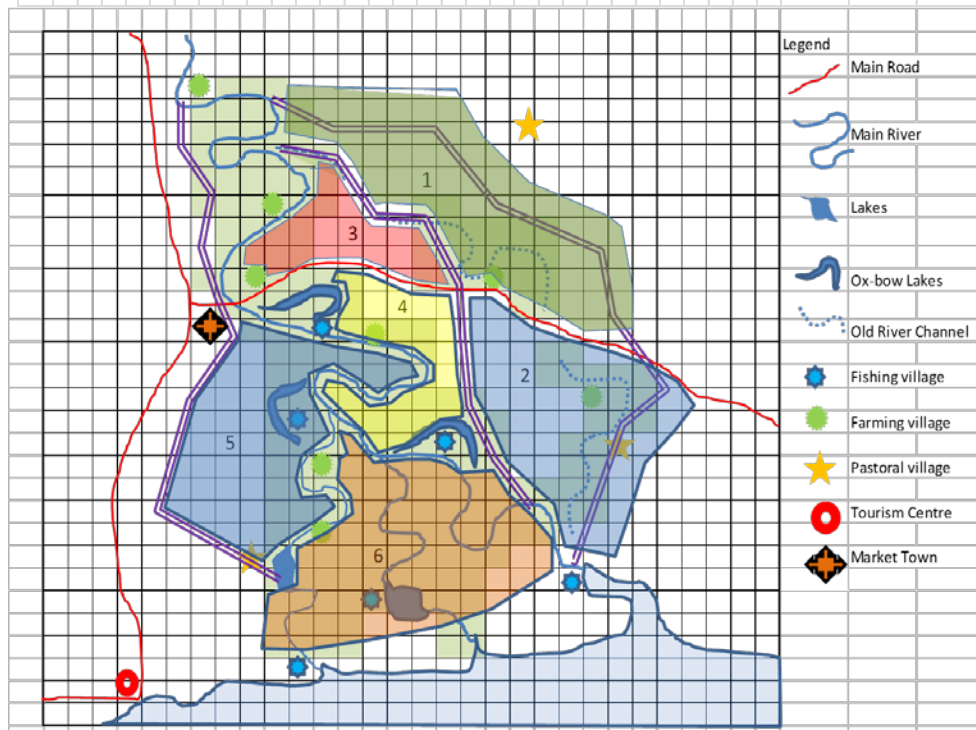
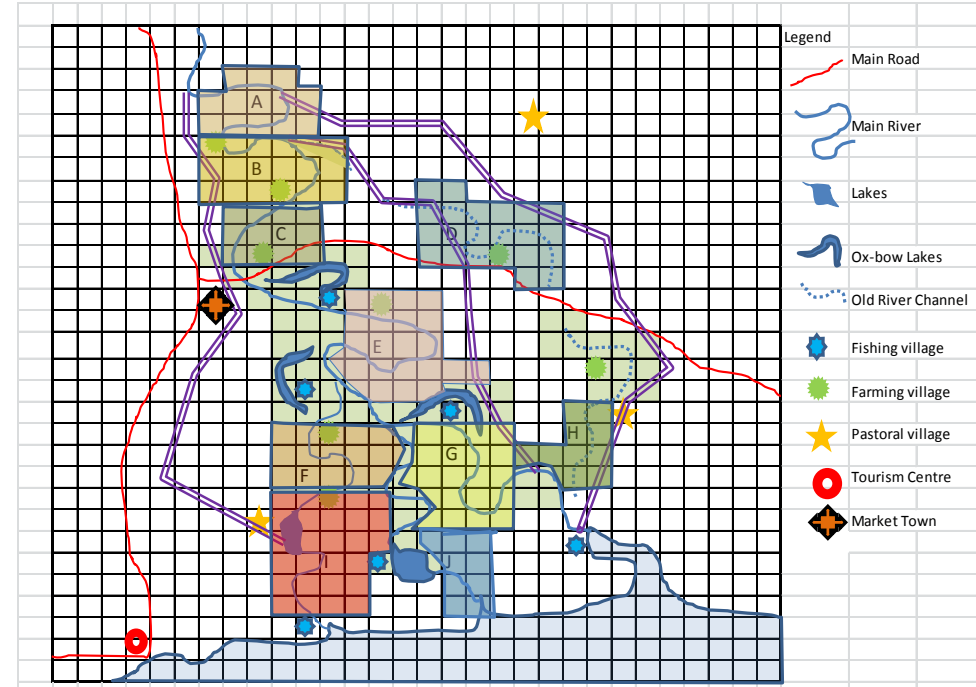
Objective of the SEA – LUP

- Developing agricultural potential
- Securing livelihoods of the people
- Securing biodiversity value

Conflicting objectives?

mer Alternatives

- Alt. 1 AD+
- Alt. 2 Comm.
- Alt. 3 Hybrid
- Climate change
 - Floods
 - Sea level rise



Conclusion: Added value of SEA?

SEA supports government planning by:

- Considering climate change resulting in:
 - Agenda setting
 - Integrating climate change issues
 - Taking long term planning horizon
 - Achieving climate change objectives
- Identifying better (climate proof) alternative development options
- Building stakeholder commitment
- Preventing conflicts