



Ecologic Institute
Science and Policy
for a Sustainable World

A decorative graphic on the left side of the slide shows several hands of different skin tones holding and fitting together colorful puzzle pieces (red, blue, yellow, green, pink, purple). The puzzle pieces are arranged in a way that suggests a collective effort or a complex system being assembled. The graphic is partially overlaid by a large, light blue arrow pointing to the right.

INTEGRATED APPROACHES TO MARITIME ECONOMY IN THE BSR

Project findings

*Nico Stelljes, Holger Kramer,
Andreas Hübscher, Sönke
Maatsch & Gregory Fuchs*

19.10.2022

Background

- ▶ The "**Development Plan for the Sea** – Strategy for an Integrated German Maritime Policy" was published in 2011.
- ▶ It set the **framework** for all sea-related policies in Germany.
- ▶ **Integrated maritime policy** encompasses all facets of sea-based activities across different sectors.
- ▶ They can also be summarised in the three sustainability pillars '**ecology, economy, and social**'.
- ▶ A **comprehensive evaluation** of Germany's integrated maritime policy has not yet taken place due to the lack of a compilation of appropriate indicators for assessment.

Indicators of an Integrated German Maritime Policy

Project:

- ▶ For the Federal Ministry for Digital and Transport
- ▶ By the Ecologic Institute and Institute of Shipping Economics and Logistics (ISL)
- ▶ Between Sep 2021 - May 2022

Aim of the project:

- ▶ Development of **suitable set of indicators** to make the impacts of Germany's integrated maritime policy presentable and assessable at the economic, ecological, and social levels. Based on already existing indicators.

First steps

Identification of relevant indicators:

- ▶ Based on literature, an overview of **existing indicators** was developed (longlist); then a shortlist was created

Selection criteria

Relevant

Accepted

Credible

Easy

Robust

Data availability Time intervals of data collection/availability

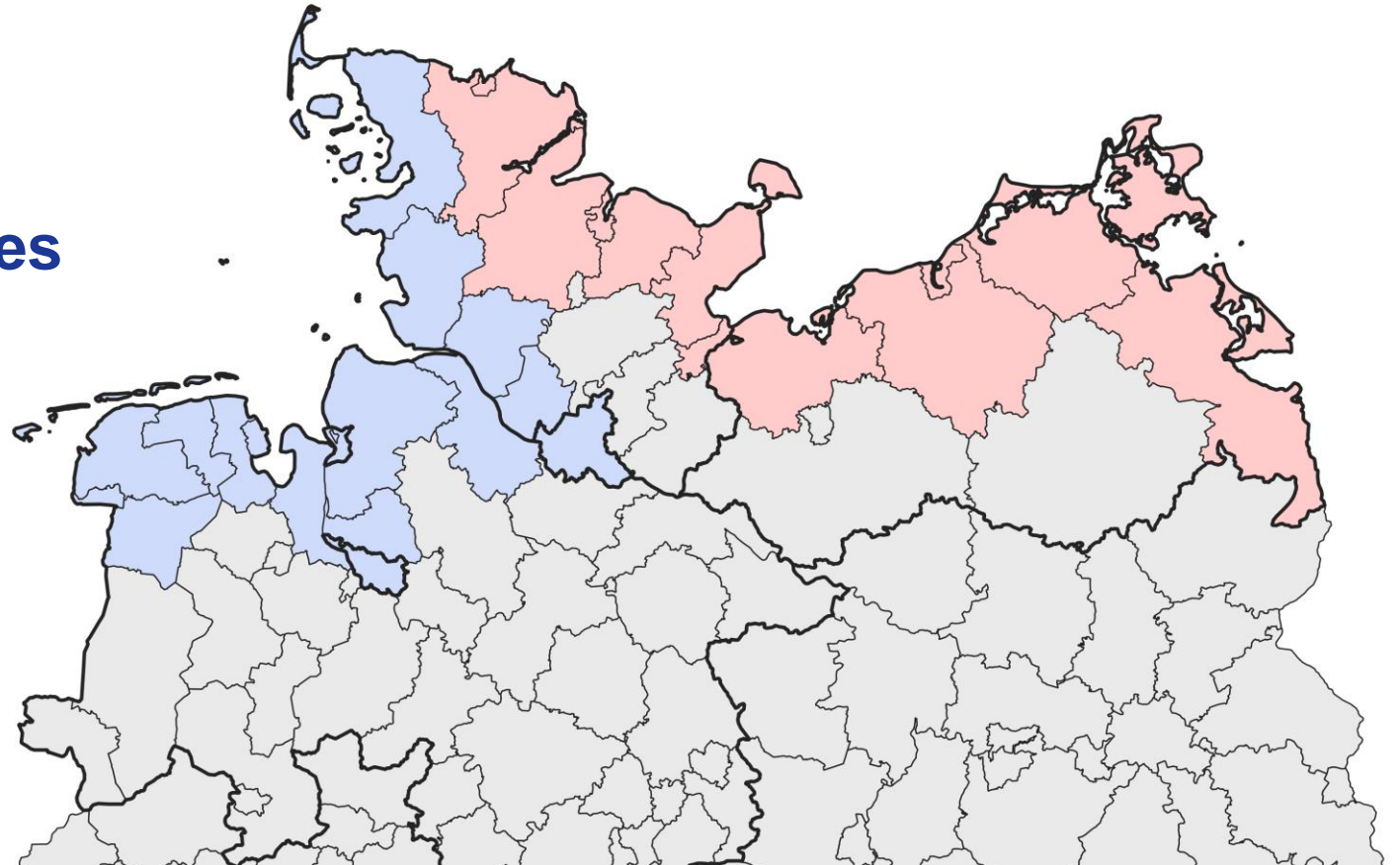
Reference to North Sea and/or Baltic Sea

Spatial delimitation With a few justified exceptions, (at least) at county level.

Contribution to the SDGs

Districts and independent cities

**Districts and independent cities
of the North German Länder
with access to the North Sea
and Baltic Sea area**



Shortlist of indicators

- **Ecology**
 - State of the seas
 - Protection of the seas
 - Pressures on the seas
- **Economy**
- **Quality of life and attractiveness of the coastal zone (Social)**
 - Quality of life
 - Attractiveness



Indicators: Ecology

State of the seas

Hydrographic conditions

Marine Biodiversity

Non-indigenous species

Protection of the seas

Protected areas

Pressures on the seas

Eutrophication

Pollutants in the marine environment

Commercial fish and shellfish stocks

Marine litter



Indicators: Economy

Turnover of the companies

Employees

Gross earnings

Container handling

Seaborne cargo throughput

Start-ups

Offshore wind turbines

New orders in shipbuilding

Indicators: Quality of life and attractiveness of the coastal zone

Population in coastal regions

Internet Broadband access

Social aspects of employment

Coastal protection (no district level)

Unemployment rate

Criminal offense

Medical care

Students at universities (special evaluation)

Attractiveness

Tourism

Tourism intensity

Biodiversity and landscape quality
- seas and coast (no district level)

Sea rescue



(hypothetical) Maritime policy measures and their impact on the indicator set

Measure 1: Expansion of offshore wind farms

Measure 2: Strict protection status for 10% of the German marine area

Measure 3: (ban of) Microplastics

Measure 4: (increased local) Tourism

Measure 5: (increasing) Coastal protection

Effects of the exemplary measures on the indicator set

Target area: Ecology

- Hydrographic Conditions
- Marine biodiversity
- Non-indigenous species
- Eutrophication
- Pollutants in the marine environment
- Commercial fish and shellfish stocks
- Marine litter
- Protected areas

Target area: Economy

- Turnover of the companies
- Employees
- Gross earnings/wages
- Container handling (volume)
- Seaborne cargo throughput
- Start-ups
- Offshore wind turbines
- New orders in shipbuilding

Indikator	Maßnahme 1: Ausbau Offshore-Windparks	Maßnahme 2: strenger Schutzstatus für 10% der deutschen Meeresfläche	Maßnahme 3: Mikroplastik	Maßnahme 4: Tourismus	Maßnahme 5: Küstenschutz
Zielbereich Ökologie					
Hydrografische Bedingungen	●	●	●	●	●
Marine Biodiversität	●	●	●	●	●
Nicht-einheimische Arten	●	●	●	●	●
Eutrophierung	●	●	●	●	●
Schadstoffe in der Meeresumwelt	●	●	●	●	●
Kommerziell genutzte Fisch- und Schalentierbestände	●	●	●	●	●
Abfälle im Meer	●	●	●	●	●
Schutzgebiete	●	●	●	●	●
Zielbereich Ökonomie					
Umsätze der Unternehmen	●	●	●	●	●
Beschäftigte	●	●	●	●	●
Bruttoverdienst	●	●	●	●	●
Containerumschlag	●	●	●	●	●
Seegüterumschlag	●	●	●	●	●
Gründungen	●	●	●	●	●
Offshore-Windkraftanlagen	●	●	●	●	●
Auftragseingänge im Seeschiffsbau	●	●	●	●	●

Effects of the exemplary measures on the indicator set

Target area: Life quality and attractiveness of the coastal regions

- Population in coastal regions
- Internet Broadband access
- Social aspects of employment
- Coastal protection (no district level)
- Unemployment rate
- Criminal offense
- Medical care
- Students at universities (special evaluation)
- Tourism
- Tourism intensity
- Biodiversity and landscape quality - seas and coast (no district level)
- Sea rescue

Legende:

- = (vermutlich) positive Auswirkung der Maßnahme auf den Indikator (Verbesserung der Ist-Situation)
- = (vermutlich) negative Auswirkung der Maßnahme auf den Indikator (Verschlechterung der Ist-Situation)
- = (vermutlich) keine Auswirkungen der Maßnahme auf den Indikator
- = keine Aussage zu Auswirkungen möglich (wobei von Auswirkungen ausgegangen wird, es aber nicht klar ist, ob diese Wirkung positiv oder negativ ist)

Indikator	Maßnahme 1: Ausbau Offshore-Windparks	Maßnahme 2: strenger Schutzstatus für 10% der deutschen Meeresfläche	Maßnahme 3: Mikroplastik	Maßnahme 4: Tourismus	Maßnahme 5: Küstenschutz
Zielbereich Lebensqualität und Attraktivität der Küstenzone					
Bevölkerung in Küstenregionen	●	●	●	●	●
Breitbandanschluss	●	●	●	●	●
Soziale Aspekte der Beschäftigung	●	●	●	●	●
Küstenschutz	●	●	●	●	●
Arbeitslosenquote	●	●	●	●	●
Straftaten	●	●	●	●	●
Ärztliche Versorgung	●	●	●	●	●
Studierende an Hochschulen	●	●	●	●	●
Tourismus	●	●	●	●	●
Tourismusintensität	●	●	●	●	●
Artenvielfalt und Landschaftsqualität	●	●	●	●	●
Seenotrettung	●	●	●	●	●

- Probably positive effects
- Probably negative effects
- Probably no effect
- Probably effects, but unclear if positive or negative



Discussion

Mutual dependence

- Some indicators are strongly interdependent and partly influence each other
- There are some interdependencies between indicators within one pillar of sustainability but also across the pillars
- Ecology indicators: very strongly oriented towards the MSFD, long data intervals, some still under development

International comparability

- Different timing of data collection (annually, every 2, 3, 6 or even 10 years) could pose a problem in terms of comparability

Thanks! Any more Questions?

Dr. Nico Stelljes

nico.stelljes@ecologic.eu

*and Holger Kramer, Andreas
Hübscher, Sönke Maatsch &
Gregory Fuchs*

Ecologic Institute

Pfalzburger Str. 43/44
10717 Berlin
Germany

Tel. +49 (30) 86880-0

ecologic.eu