

Biosphere for Baltic

Blekinge Archipelago BR
Finland, 5th of October, 2018



blekingearkipelag.se





BLEKINGE
ARKIPELAG

9 HÅLLBAR INDUSTRI,
INNOVATIONER OCH
INFRASTRUKTUR



3 GOD HÄLSA OCH
VÄLBEFINNANDE



Steering documents

ETT HÅLLBART BLEKINGE

REGIONALT ÅTGÄRDSPROGRAM FÖR
MILJÖKVALITETSMÅLEN 2017-2020



15 EKOSYSTEM OCH
BIOLOGISK MÅNGFALD



Sveriges biosfärområden

– arenor för implementering av

Agenda 2030

7 HÅLLBAR ENERGI
FÖR ALLA



Lima Action Plan

Global handlingsplan för
Unescos Biosfärprogram
2016-2025

14 HAV OCH MARINA
RESURSER



Vägledning för
biosfärområden



Attraktiva Blekinge

Blekingestrategin 2014-2020



Our working fields



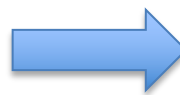
Sveriges biosfärömråden
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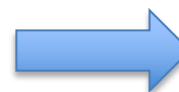
Global handlingsplan för
Unescos Biosfärprogram
2016-2025



Attraktiva Blekinge
Blekingestrategin 2014-2020



Specific challenges of BR,
Requests from the public, local
authorities and municipalities.
BR org. viability at the moment.



5 themes with different actions and goals -2020:

Information,
learning and
participation

Keep the
biosphere
clean

Sustainable
tourism
industry

Sustainable
fishing

Sustainable
farming

Information,
learning and
participation

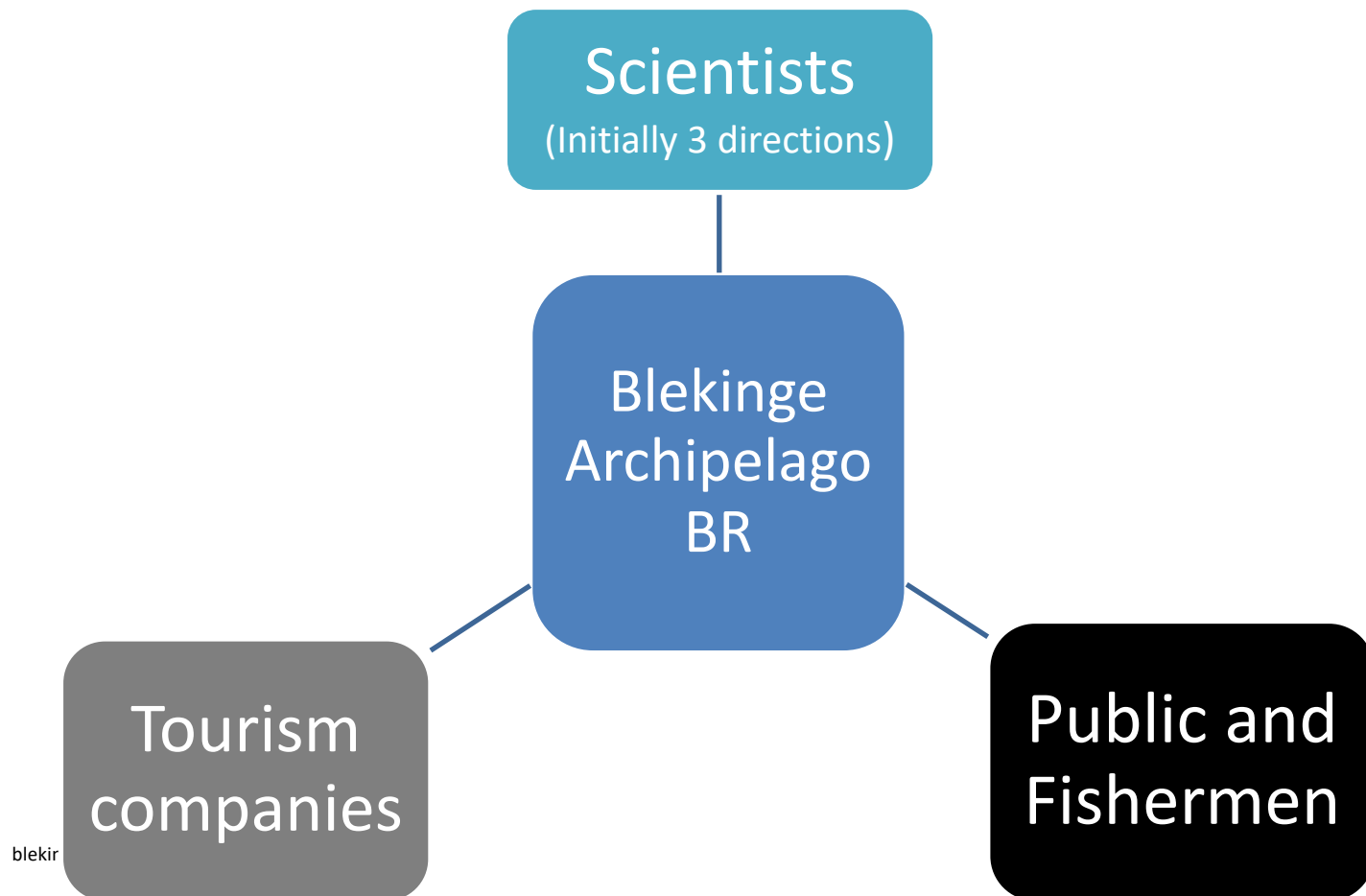
Keep the
biosphere
clean

Sustainable
tourism
industry

Sustainable
fishing

Sustainable
farming

Different stakeholders of the damaged ecosystem service **fish** wanted to use Blekinge Archipelago as a joint arena to see if there was something we could do together.



Information,
learning and
participation

Keep the
biosphere
clean

Sustainable
tourism
industry

Sustainable
fishing

Sustainable
agriculture

- Thiamine deficiency (a lack of thiamine, or vitamin B1) has been scientifically known and proved since 1990.
- Then found on salmon eggs – M74 – top of mountain
- Today found in important symbolic species (among others) for



a vital sea and coast
(Eider)



fresh rivers
(Salmon)



healthy forests
(Moose)

The deficiency makes it difficult to reach SDGs on a regional, national and global level.

In our famous salmon river Mörrumsån from 2013- (Second biggest travel reason).



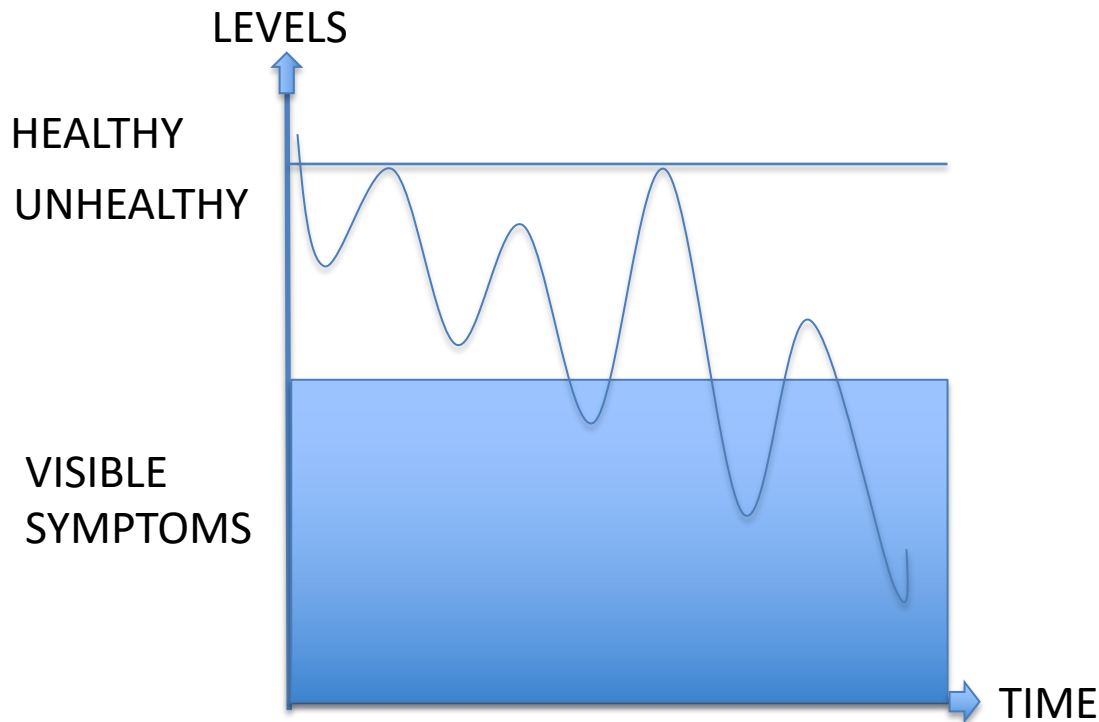
- * Different behaviour
- * Difficulties in feeding and breeding
- * Reduced immune system and higher susceptibility to virus and bacteria
- * Paralysis
- * Death

A frank question: Why is this a problem?

- Animals suffer and die – effecting populations
- Loss of attractivity around the river as a place for recreation, lower prices of properties in the area.
- Anglers stop fishing – effecting economy in small businesses, less jobb opportunities, loss of identity for the whole village.
- Reduced fish resource is a potential conflict between sport anglers and fishermen at sea.

(Why is the cause still hidden?)

Why are scientists not supported?



SCHEMATIC PICTURE!

- Occurrence and symptoms are episodic
(If you can't see it, its not there?)
- Different levels – different symptoms
(Same cause!)

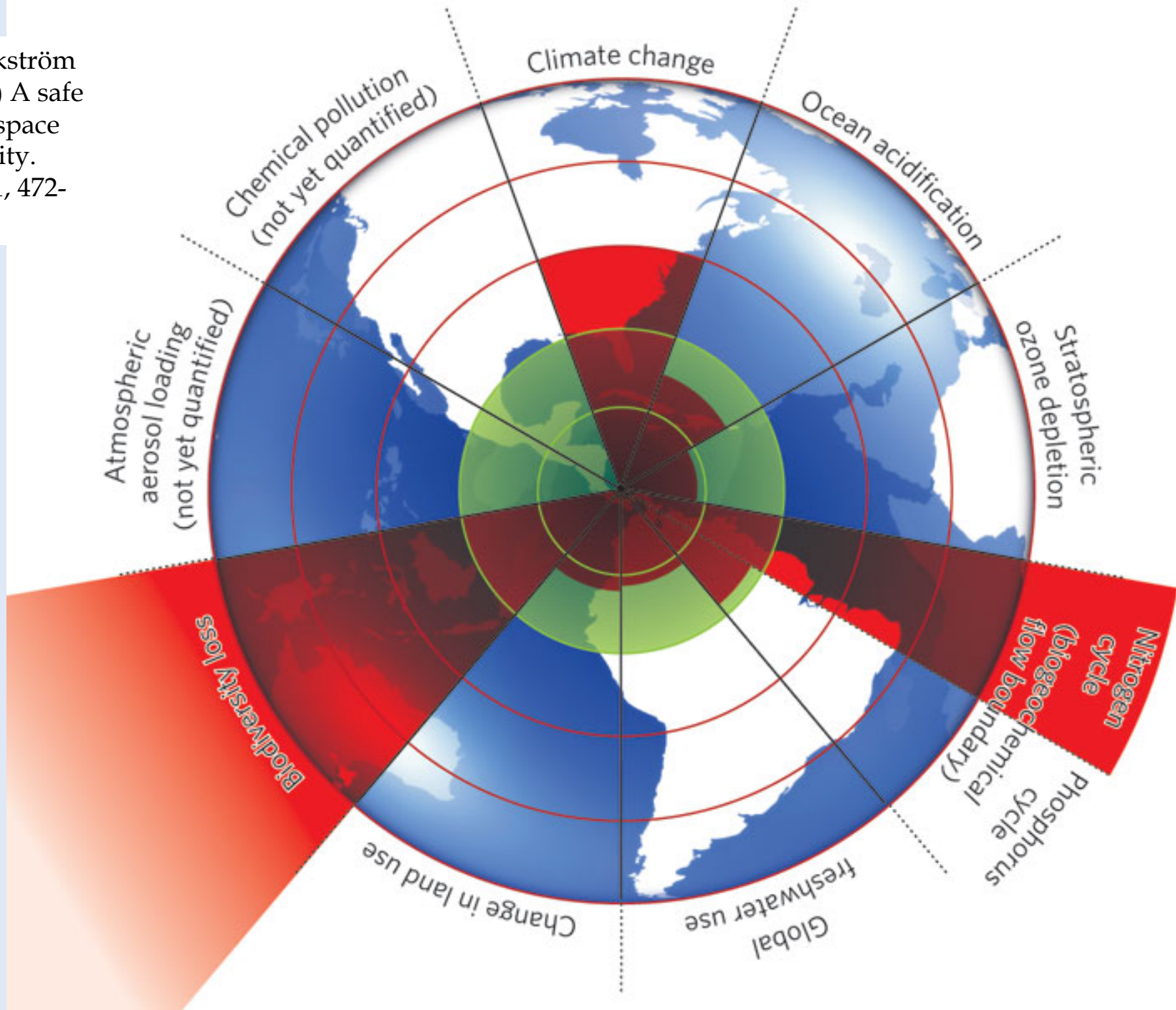
Why is the cause still hidden?

Why are scientists not supported?

- Biochemistry on cellular level – lack of knowledge
- It has disappeared before – let's wait and see
- BIG efforts has been made to enhance swedish salmonpopulation (f ex through river restoration)
Denial from different stakeholders
- Biodiversity in the shadow of climate change
- The modern method: reducing nitrogen, microplastics, greenhouse gases...without dealing with the problem

Working hypothesis demands direct action

Johan Rockström
et al. (2009) A safe
operating space
for humanity.
Nature 461, 472-
475



How can BR support this science?



NGO and private initiatives

Department of Environment

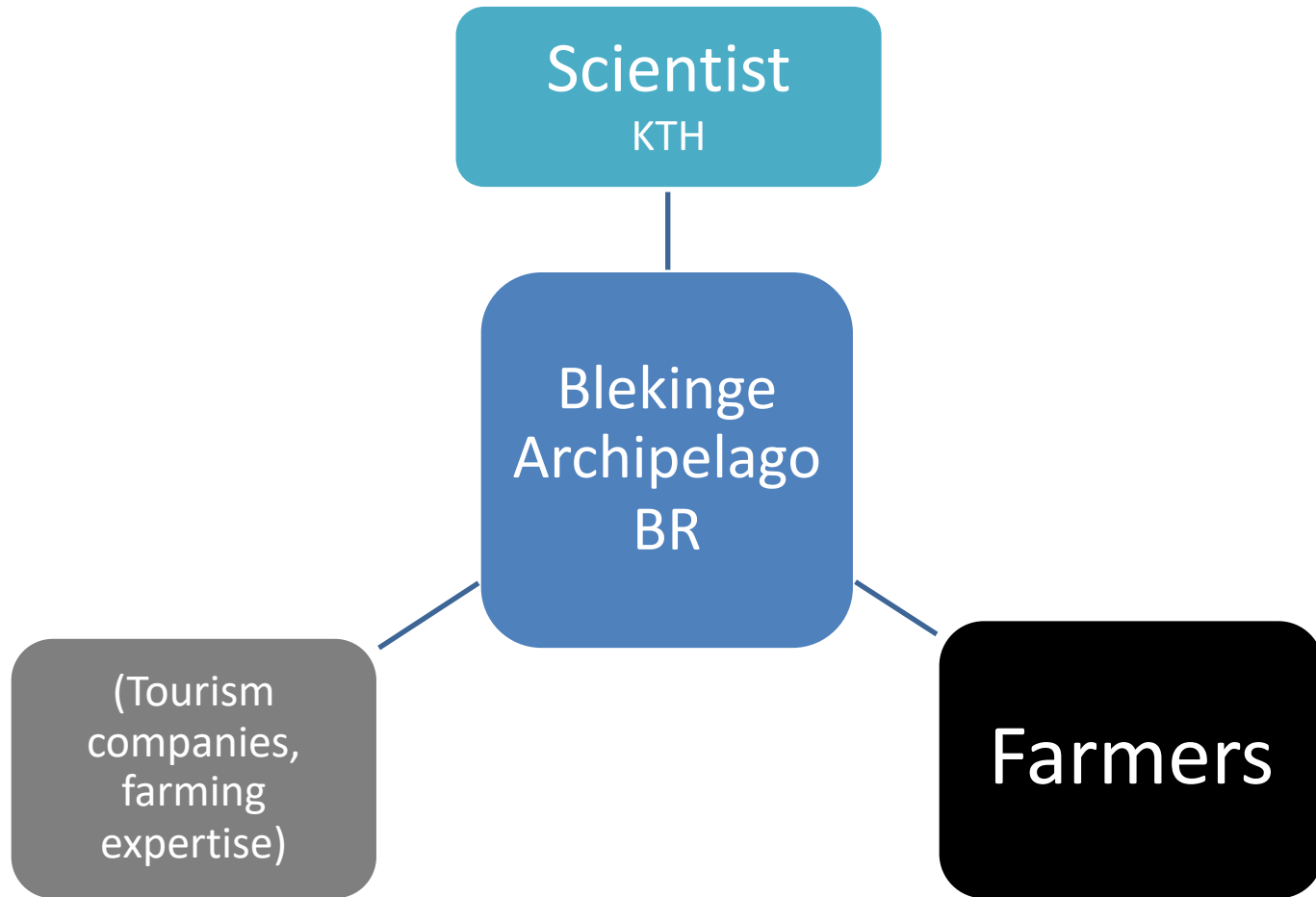
Inform about the problems

Produce a public opinion by sending a supporting letter

Invite national politicians to info meeting

A model for optimized irrigation





The model:

- Using new mathematical logarithms on weather data from SMHI and NASA
- Producing weather forecasts and long term scenarios
- The farmer will know when and how much to irrigate, also based on the specific crop and soil
- Sustainability produced in several aspects:

Optimized irrigation for more sustainable:

- Fresh water consumption (Ecological, social)
- Electricity consumption (Ecological, economical)
- Farmers crop yield (Economical)
- Nutrient contribution to the Baltic sea (Ecological)
- Coastal algae situation and tourism (Eco + Eco)

Next step:

- Application answer for further development (November, FORMAS)
- If positive, contact with different stakeholders in Blekinge Archipelago BR
- Apply the model on farmland in BR