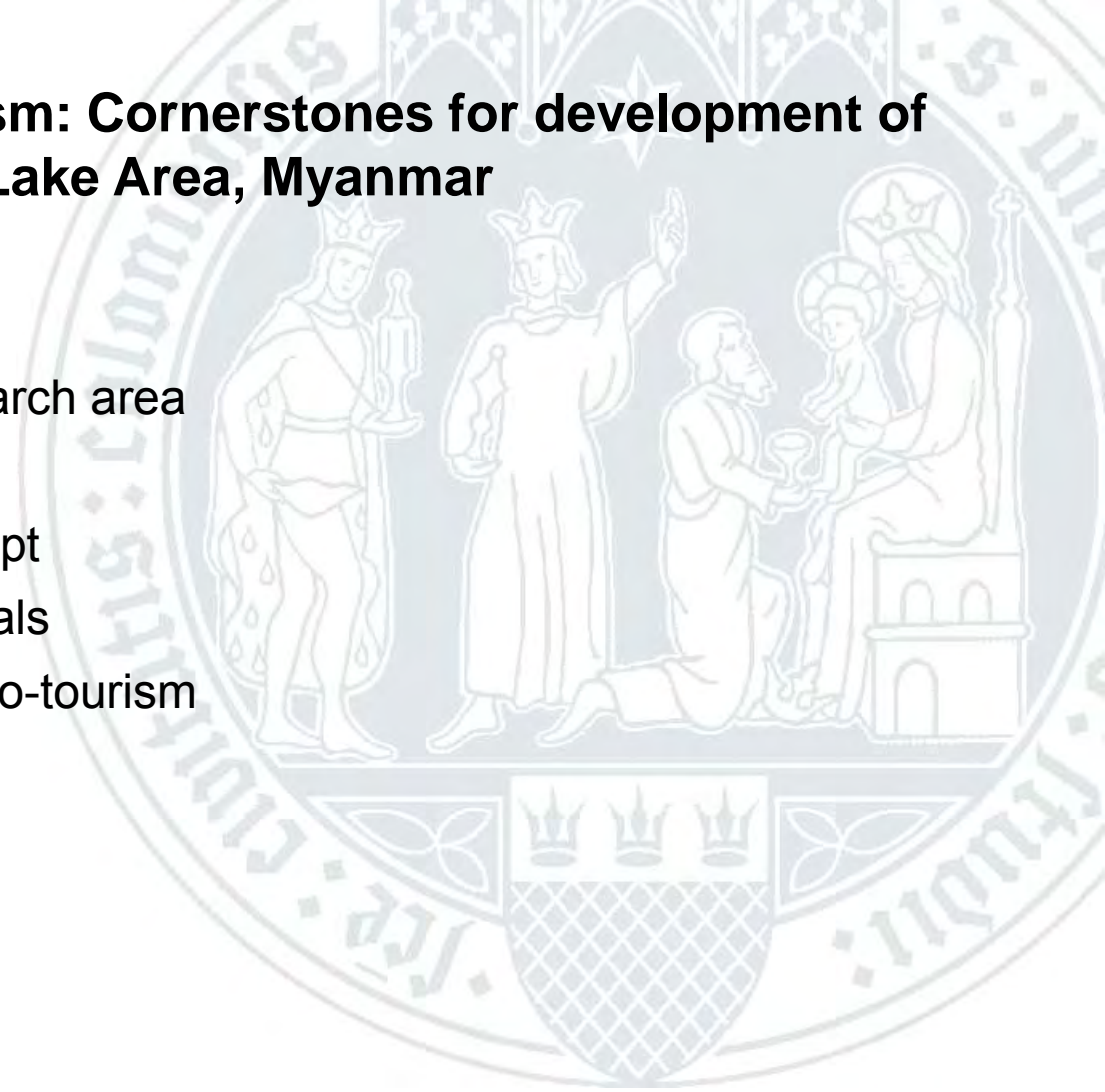


Conservation and ecotourism: Cornerstones for development of Indawgyi Lake Area, Myanmar



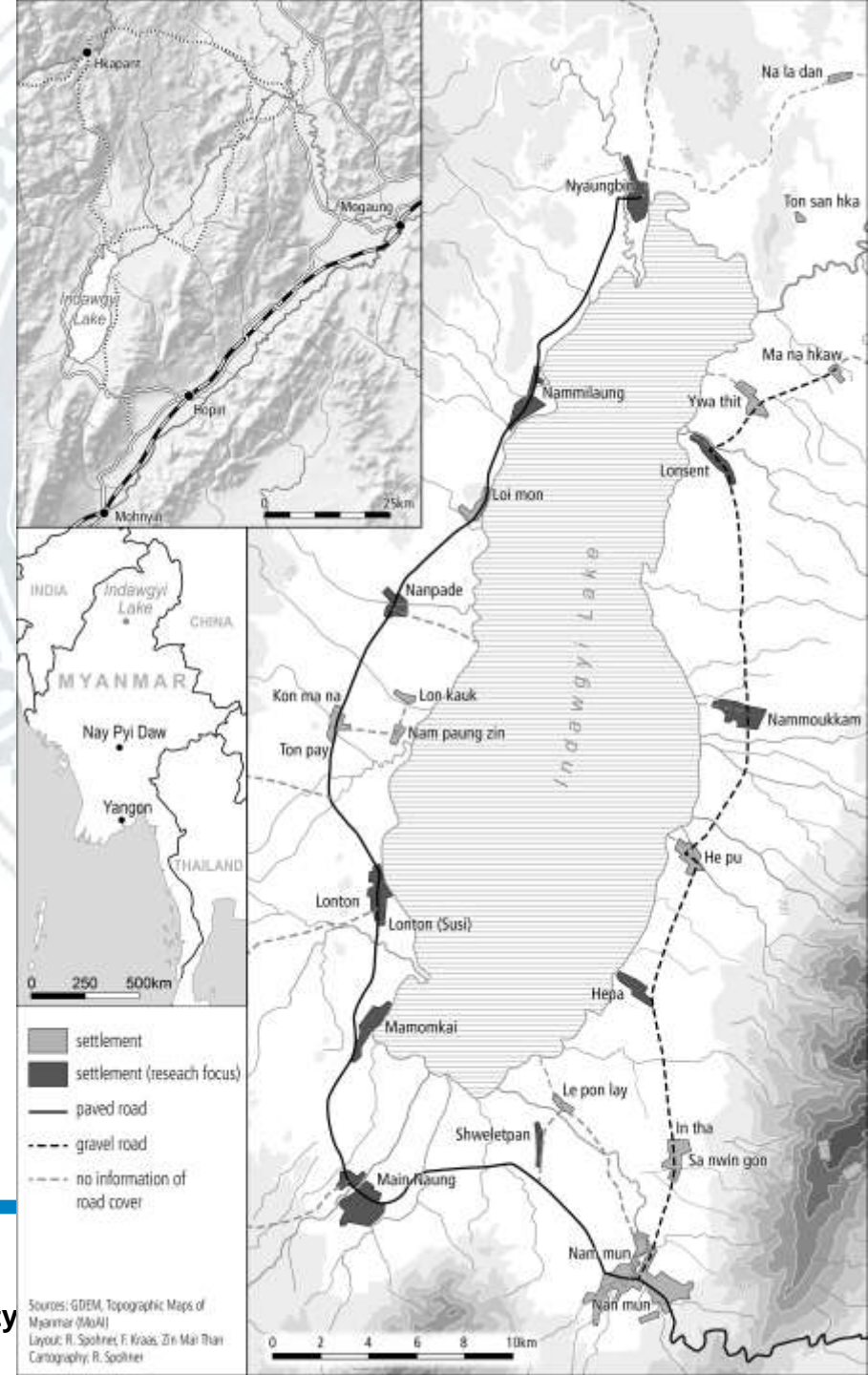
Conservation and ecotourism: Cornerstones for development of Indawgyi Lake Area, Myanmar

1. General information of the research area
2. Research aim
3. Theoretical and empirical concept
4. Results: challenges and potentials
5. Discussion: Strengthening of eco-tourism



General information of the area

- Since 1999, the total area of 775 km² is under conservation as “[Indawgyi Wetland Bird Sanctuary](#)”, also belongs to the ASEAN Heritage sites
- An open water area of 120 km², located 170 m above sea level; Savanna climate
- 64 fish species, 95 species of water birds and highest number of the [Eastern Hoolock gibbons](#) are recorded
- population of over [50,000](#)
- strong dependency on the [natural resources](#)
- [Currently main economic activities](#): agriculture, fishery and gold mining



Current challenges in socio-economic development

Unbalances in the migration patterns

- in-migration mainly un-skilled people
- out-migration mainly (highly) skilled people

Gold mining

- mercury contamination
- sedimentation
- drugs

Farming

- Mono-culture cropping system
- lack of food processing

Fishing

- overfishing
- ignorance of closed season
- illegal method



Research aim

- ❖ find out *potentials*, which can contribute to the future development of the region

Objective 1: Investigation of the current *conservation status* and *situation of ecotourism*

Objective 2: Discussion on *possible development paths*

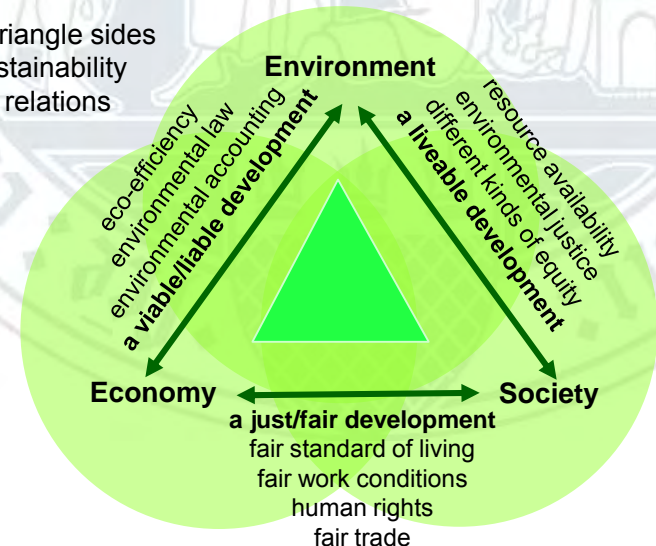
Theoretical and conceptual framework

Endogenous development:

The idea is based on bottom up development started and implemented by local and regional actors, using mainly regional resources and aiming at regional benefit (*Tödtling 2011: 333-336*)

Sustainable development:

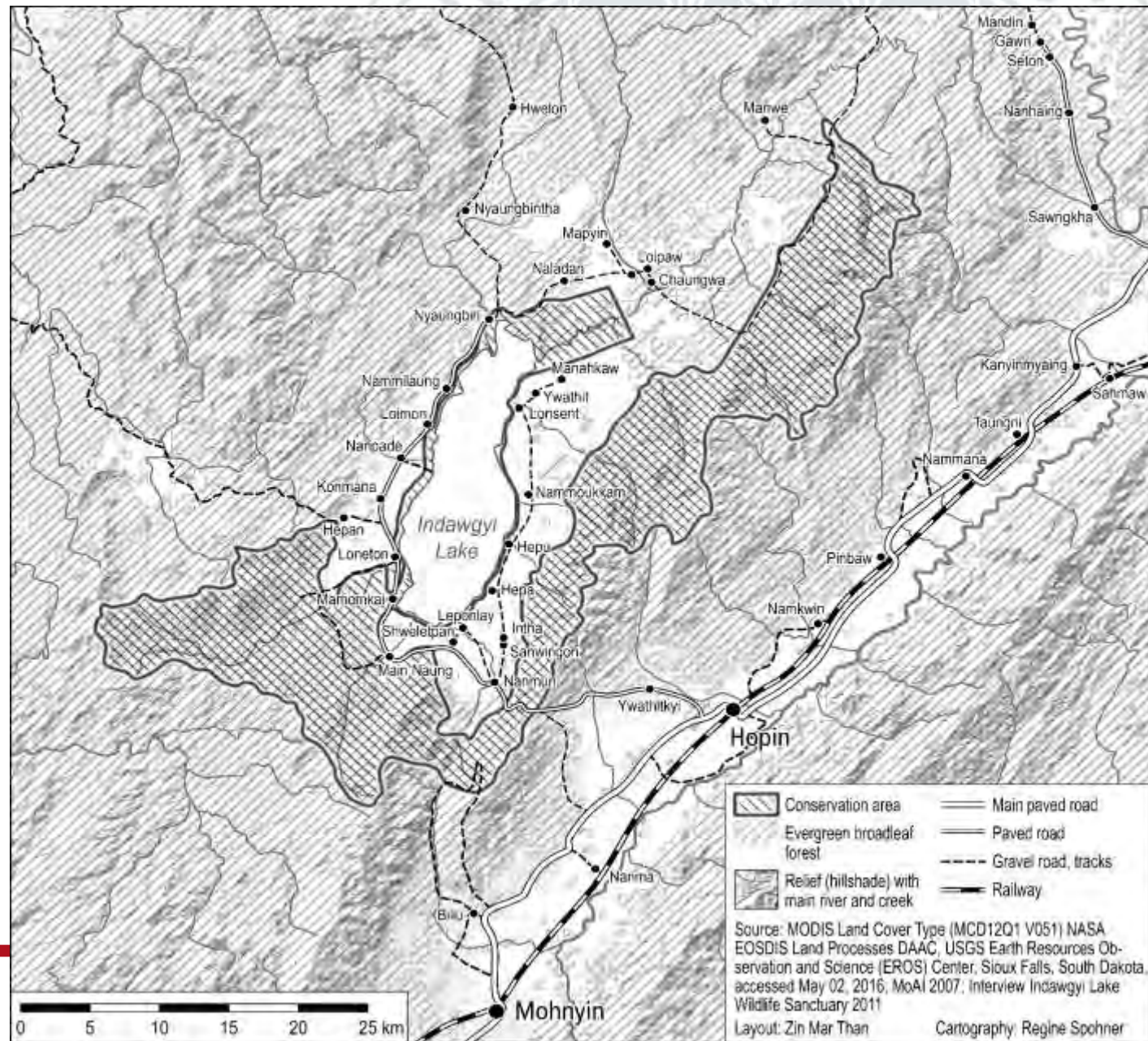
The triangle sides of sustainability – the relations



Results

- **Current conservation status**
 - undefined zoning system
 - insufficient manpower and lack of **patrolling** facilities
 - lack of environmental awareness
 - lack of collaboration (e.g. fishery ↔ conservation)
 - lack of powerful law

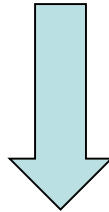
unstable political situation



Results

Potentials

- sustainable farming plus implementing added value products
- sustainable fishing plus implementing added value products
- sustainable mining plus implementing added value???...
- eco-tourism → a new (fourth) economic base

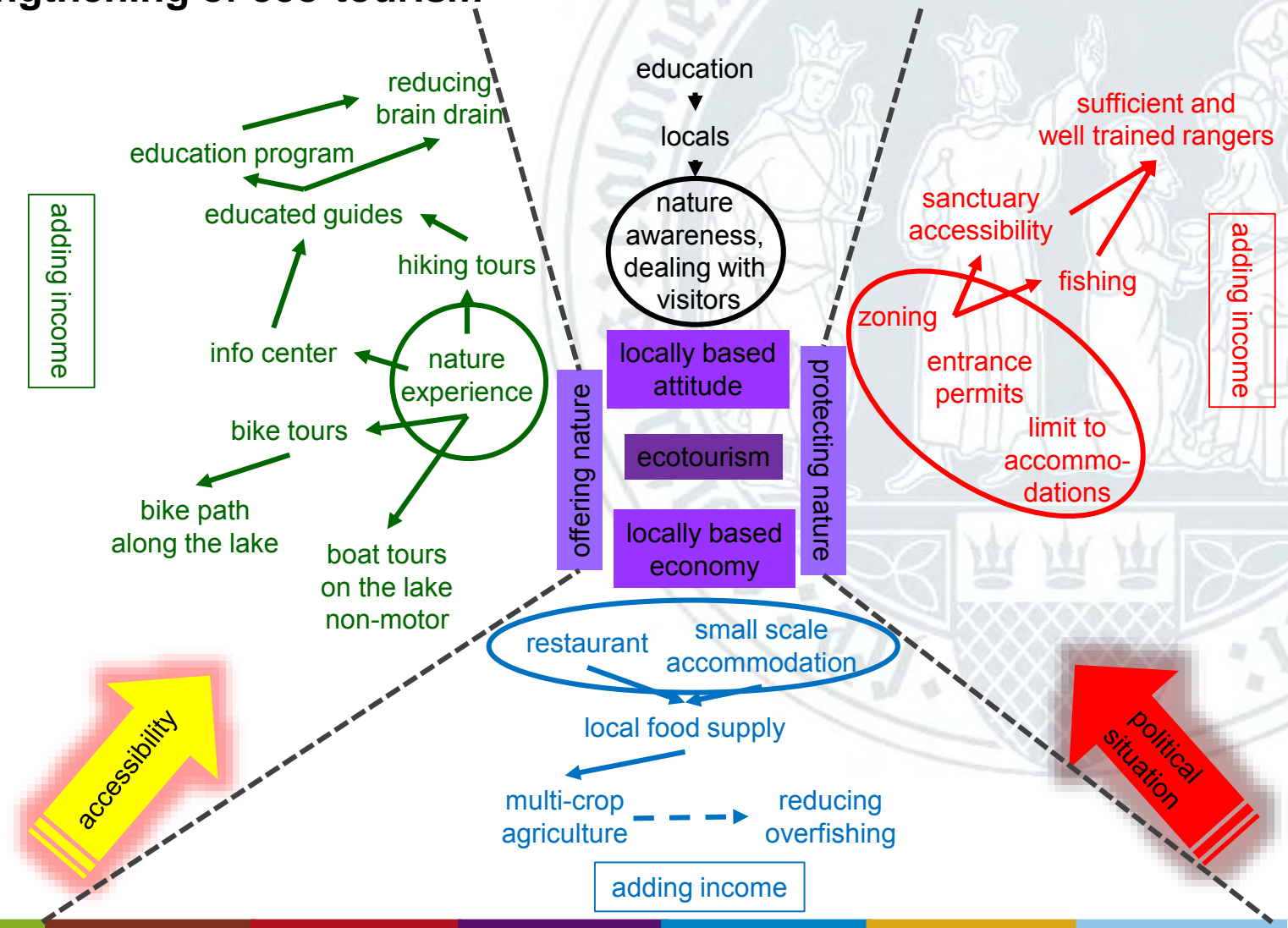


creating job opportunities
reducing brain drain



Discussion

Strengthening of eco-tourism



Thanks for your attention



Ameliorate the environment to improve the habitat's healthy

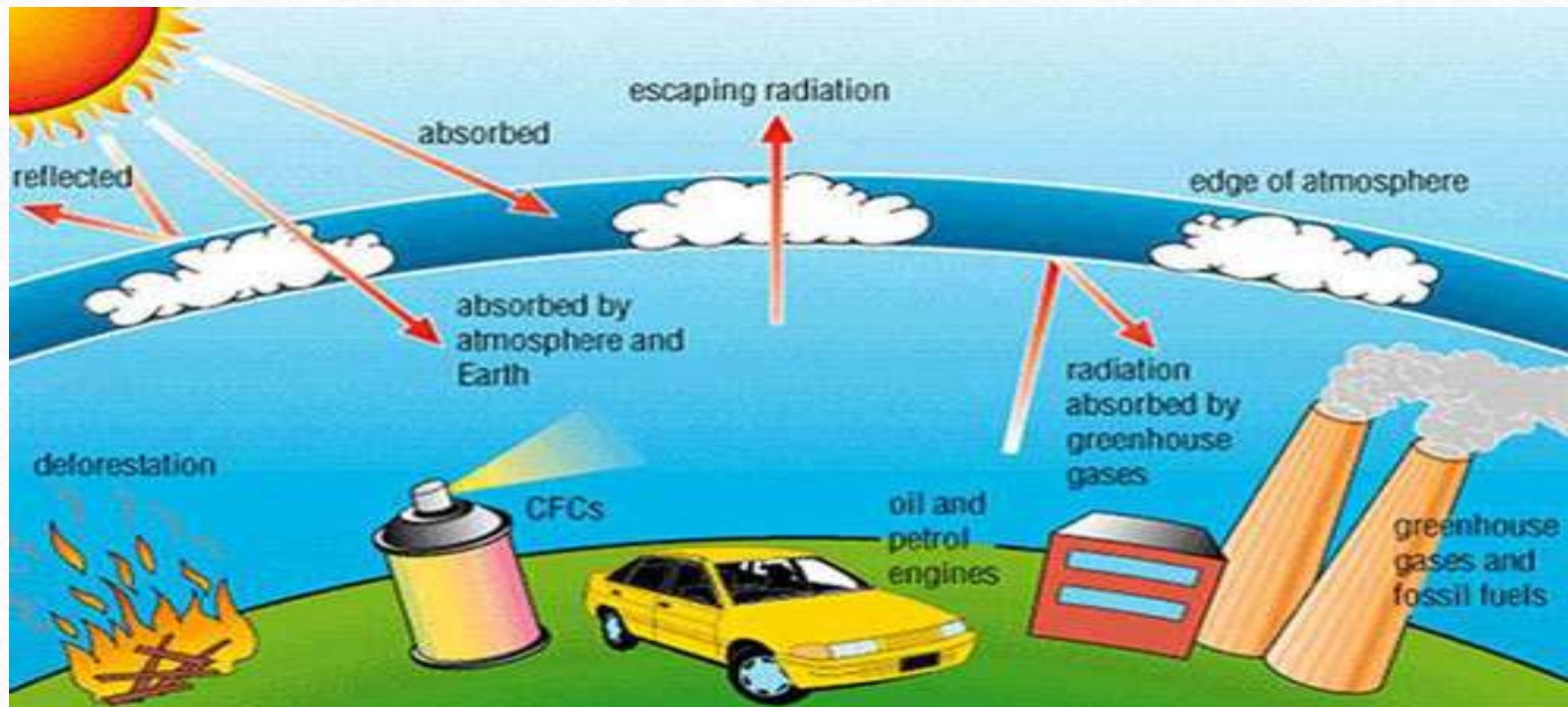
Case study Singapore

Nguyen Phuoc Linh

Environment Impact Facts

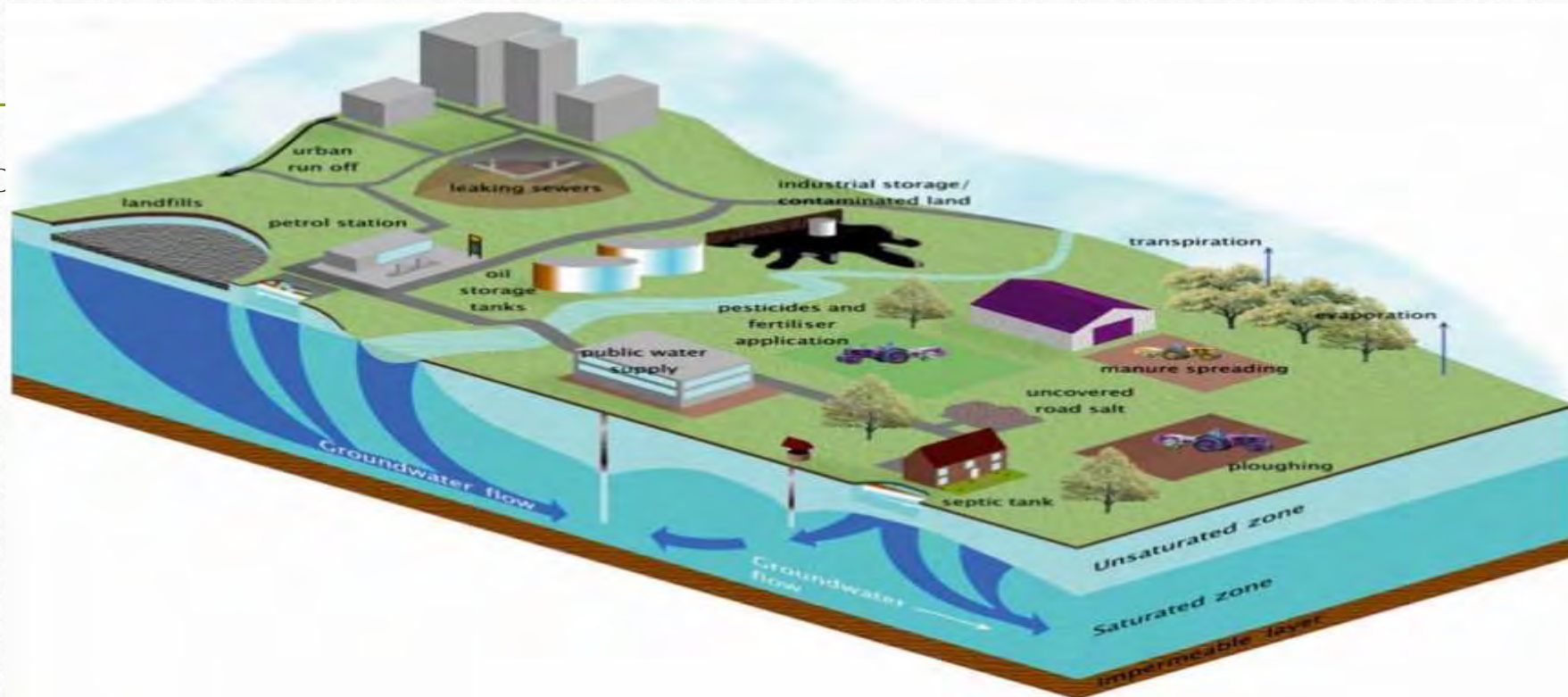
- Water Contamination
- Tree
- Emission Gas
- Pesticide

Greenhouse Effect



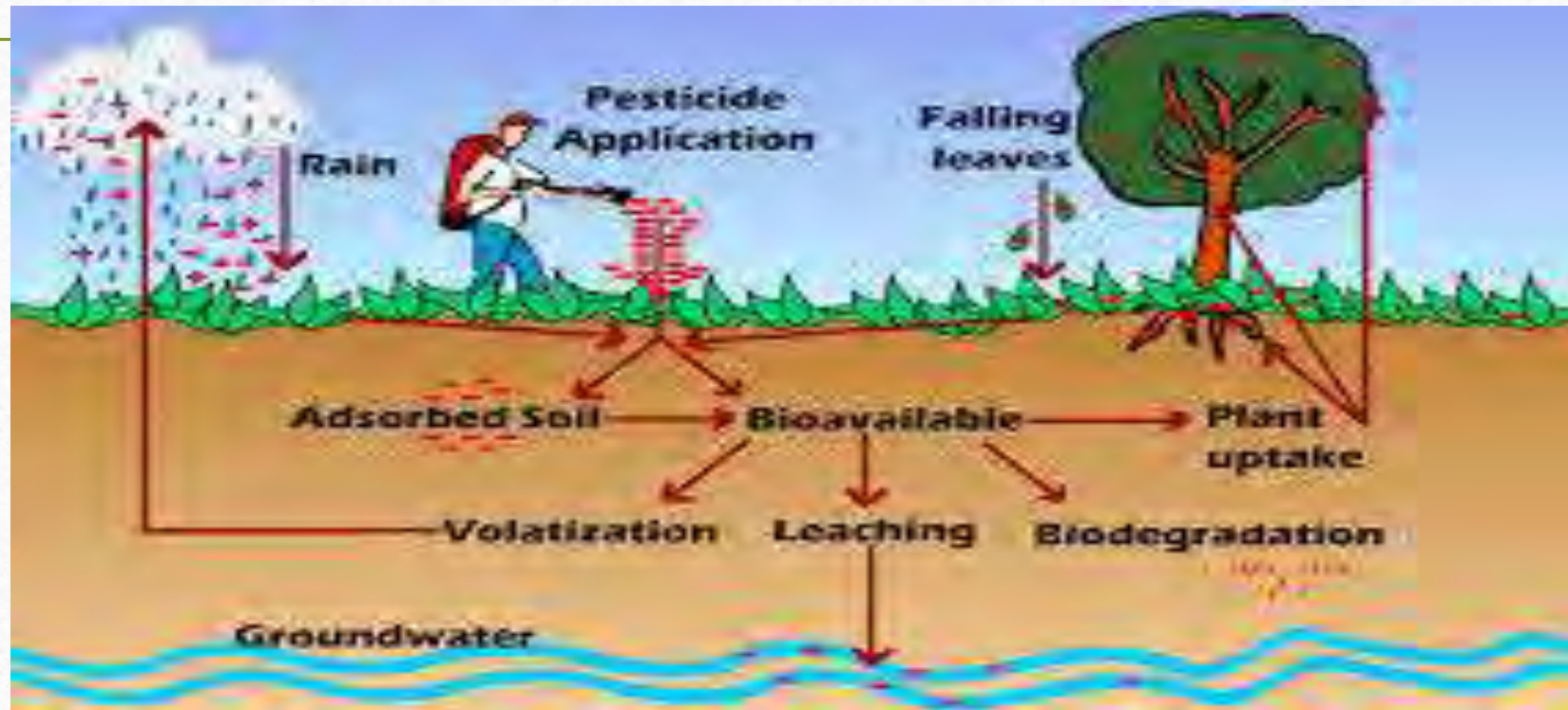
Reference: <http://www.kidzworld.com/>

Water Contamination



<https://ospar.org>

Pesticide Cycle



Reference: ["Applied Bioremediation - Active and Passive Approaches"](#)

Health effect of pollution



Reference: <https://blog.wisdomjobs.com>

Singapore Environment Amelioration

- City in a Garden
- Water from Local Catchment
- Engaging and inspiring communities to co-create a greener Singapore
- Enhancing competencies of landscape and horticulture industry
- Enriching biodiversity in urban environment
- Optimising urban spaces for greenery and recreation
- Rejuvenating urban parks and enliven streetscape

Tree Plant



Reference: <http://www.gardensbythebay.com.sg/>

Local Water Catchment



Reference: <https://wordpress.com>

Singapore Resident Health Index





<http://www.desicommments.com>



Illegal Fishing & Human Trafficking in Southeast Asia: Cases of Thai Fishing Operators

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Thai Fishing Industry



- Too many vessels using destructive and unsustainable fishing methods to catch too many fish
- Increased demand in animal feeds and farmed shrimp
- Lack of law enforcement
- Catch: 14% of mid-1960s
- CPUE: reduced by 86% since 1966



*"Exacting profits from exploiting people
will often go hand in hand with illegal,
unsustainable and unregulated industries."*

US Secretary of State John Kerry, 2014

POOR FISHERIES MANAGEMENT

Weak Monitoring, Control and Surveillance

OVER-FISHING

IUU FISHING

DECLINING CATCHES

Fishing vessels fish further away and spend longer periods at sea

Increased pressure to reduce costs

Ineffective and fewer inspections

Labour shortage

HUMAN TRAFFICKING AND FORCED LABOUR

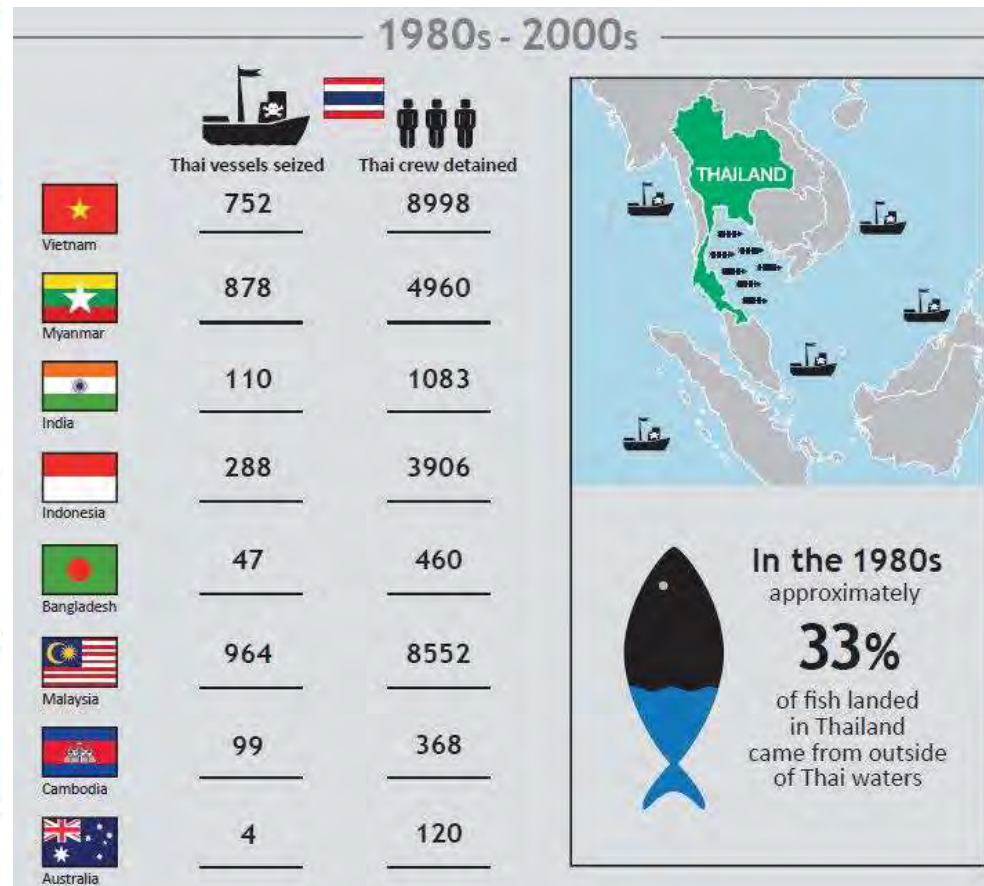
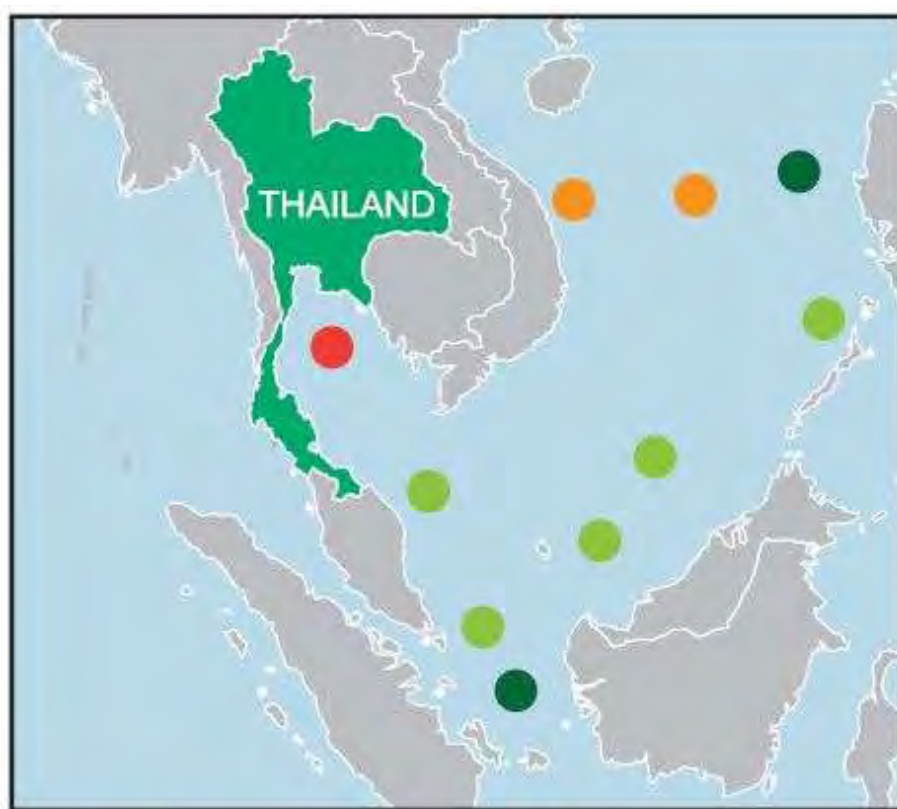
Source:

EJF (2014) SLAVERY AT SEA: The Continued Plight of Trafficked Migrants in Thailand's Fishing Industry

Overseas Fisheries

Pelagic overfishing in SEA

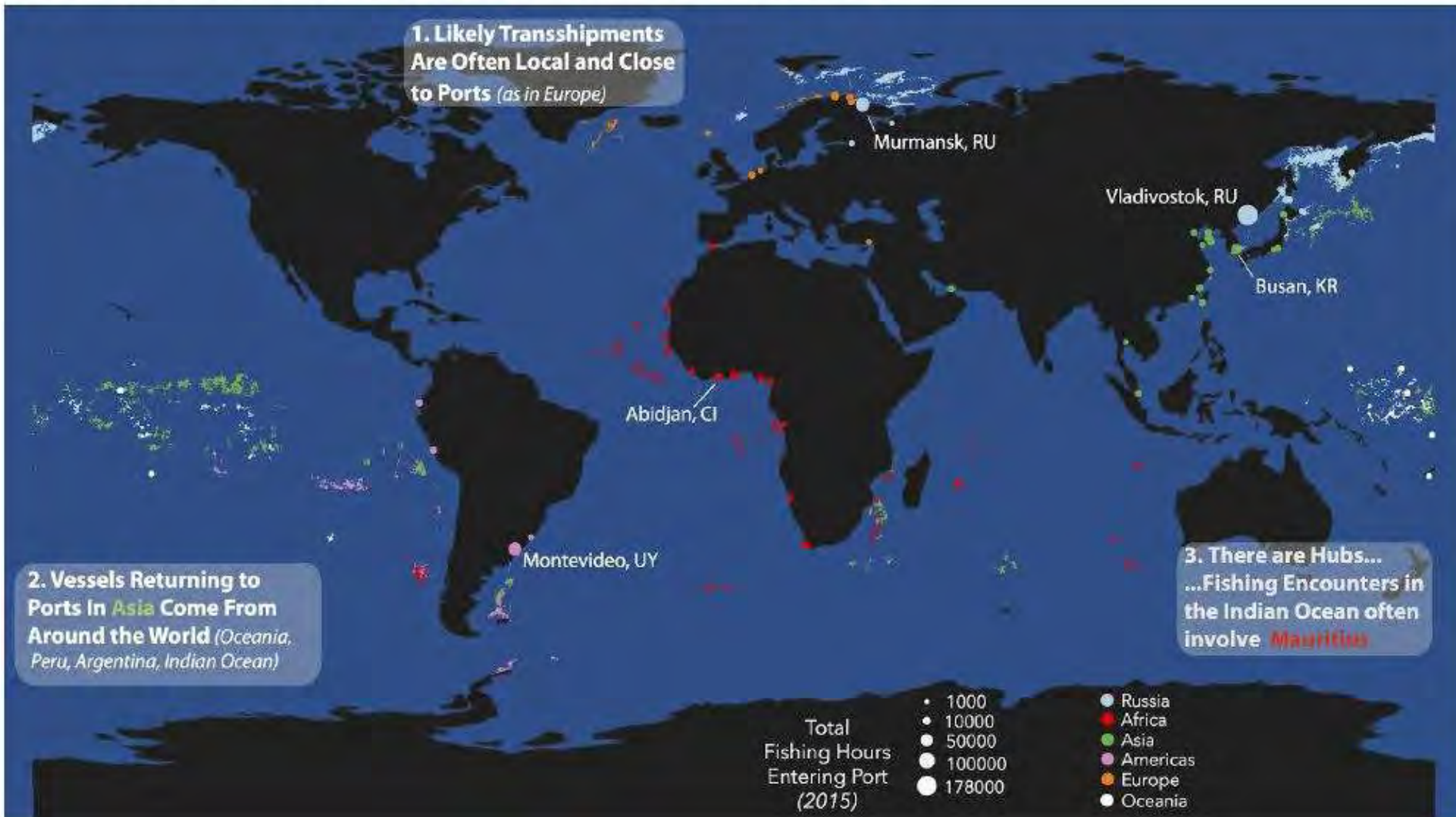
Number of Thai vessels seized



Source: EJF (2015) *PIRATES AND SLAVES: How Overfishing in Thailand Fuels Human Trafficking and the Plundering of Our Oceans*

Problems with Transshipment

Top Destinations for Likely Transshipped Catch, 2015



Source: SkyTruth and Global Fishing Watch (2017) *THE GLOBAL VIEW OF TRANSSHIPMENT*

Human Trafficking & Labor Abuses



Trafficking and fishing operations in Southeast Asia



Source: Greenpeace (2015) *SUPPLY CHAINED: Human Rights Abuses in the Global Tuna Industry*



- 94% had no contract
- 80% reported never feeling free
- 68% reported sexual/physical violence
- ▲ 59% witnessed executions at sea
- 52% witnessed their boss/trafficker harming someone
- 47% reported at least one injury
- 44% reported lack of food
- 42% experienced wage reductions
- 23% were locked in a room during trafficking situation
- 17% worked against their will
- 17% were threatened with violence
- 11% attempted escape
- 10% were severely beaten
- 5.8% reported being forced to use drugs

Sources:

▲ UNIAP (2009);
(n = 49)

● ILO (2013);
(n = 596)

■ Zimmerman et al (2014)
(n = 275)

Source: EJF (2015) *THAILAND'S SEAFOOD SLAVES. Human Trafficking, Slavery and Murder in Kantang's Fishing Industry*



*"Consumers will buy
and eat fish as long as they can
afford to. But if they knew about us,
I think they would have sympathy
and no longer consume
these products."*

San Htike Win