International approach of IENE on Sustainable Linear Transportation Infrastructures. The IGELI project.

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IENE – Infra Eco Network Europe

Founded in 1996 as a non-political, formalized network of experts on Ecology and Transportation.

A community of practice providing an independent arena for exchange of knowledge, experience, ideas etc.

Fostering collaboration for a safer and sustainable transport infrastructure.
Why this topic

64 million km of existing roads globally
25 million km of new roads to be build by 2050
Outlook to an infrastructured future

GLOBIO – future outlook 2002 – 2032
http://www.globio.info/
Fragmentation

*obvious or not…

….to only one species: *Homo sapiens*
IENE motto & Vision...!

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Can we achieve it?
IENE principles for sustainable LTI:

1. Strong legal framework
2. Sustainable strategic planning
3. **Ecosystem approach** (values of Grey and Green Infrastructure, Natural Capital, ecosystem services) in combination with the “**Precautionary**” principle
4. **Any case, a unique case** (*no blind copy paste*)
5. **Multi-disciplinary cooperation** (engineers + environmentalists + …)
6. **Involvement of civil society**
7. **Polluter pays principle** by clarifying:
   - the ethical and transparency concerns
   - including concrete mitigation measures from the planning phase until the operating phases
8. **Long life effective maintenance** (including maintenance of mitigation measures in the long life budget under operation)
9. **Environmental supervision** and monitoring in all phases of the projects from design to full operation and maintenance
10. **Culture of learning** sharing knowledge and practices (*no secrets between us*)
To see all our actions...
Just visit our website: www.iene.info
IENE is steadily growing!

IENE today
- >400 members
- representing 50 countries
- from every Continent

Join us... You are welcome!!!
A first case study

1. So, our first experience on the need of IGELI was the case of the Dawei road, a trans-border transportation project in Myanmar and Thailand.

2. There, the basic principles and special recommendations were asked by WWF, which funded a project including field visits and special events for exchanging of knowledge and experience.

3. In ICOET 2015 a loose coalition was formed by WWF, IENE and ANET for the development of an international approach for Environmentally friendly linear infrastructure - Guidelines.
The need for **sustainable** transportation infrastructure

- Can we support species to survive without helping them to communicate?
- Can we support species to communicate without secure the cohesion of the ecosystems and their landscape?
- What means “**sustainable**” development concerning **construction** and operation of Linear Transportation Infrastructure?
- What is the special need in developing countries with large areas of high level importance for biodiversity?
The first steps toward IGELI

After ICOET 2015 we started a global discussion including workshops and presentations in:
1. The IENE 2016 International Conference, Lyon, France.
2. The IUCN 2016 international Congress, Hawaii, USA.
3. The ICOET 2017 International Conference, Salt Lake City, USA.

The actual feedback of these events is related with our Workshop and the need:
1. To evaluate the international policy on transportation and ecology.
2. To make some basic definitions on the terminology and the tools we use.
3. To start to set up a strategy for the development of IGELI.

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So, which is the international environmental policy on Linear Transportation Infrastructure the last 40 Years

Or,

Did we recognize the problem of fragmentation on International level?

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International environmental policy on LTI the last 40 Years

We evaluated 5 international conventions and their reference on fragmentation:

1. Bonn Convention for Migratory Species, 1979
2. Convention on Biological Diversity (CBD), 1992
3. CBD 2011-2020 Aichi targets, 2010
4. UN Sustainable Development Goals, 2015
5. UN Paris Climate Change Agreement, 2015

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Discussion on an overall evaluation of the 5 Conventions

The evaluation of the five conventions about direct or indirect use of the terms “fragmentation” and “linear/transportation infrastructure” shows:

1. There is a **direct reference to “fragmentation” only in one text** of the Aichi Targets in Target 5/ Strategic goal B.

2. There are **several indirect references to “fragmentation” in all conventions** with more emphasis in Bonn Convention for migratory species.

3. **There is no reference to “Transportation Infrastructure” or “Linear Infrastructure”,** but there are references to **“Transport Systems”** and **“Infrastructure”** which is the most common as more wide scale term.
Setting targets according to the 5 Conventions:

According to the evaluated Conventions we have a concrete framework of targets to achieve through the angle of LTI point of view:

1. **To secure the free migration** of migratory species (*Bonn Convention*).
2. **To halt the loss of biodiversity** (*CBD*).
3. **To bring close to zero, the degradation and fragmentation** of the natural habitats (*Aichi targets*).
4. To create the “framework” for **building “sustainable” LTI** which need to secure a combination and the **balance of the support of developing and environmental vulnerable countries** (*UN Sust. Development Goals*).
5. To find the best way **to build sustainable LTI** in a **constantly changing climate** and world (*Climate Change Agreement*).
Suggestions for 3D approach: A. Ecological connectivity’s concepts approach:

Supporting the “recognition of the problem” and the using a basic roadmap concepts’ tools:

1. Genetic isolation .........................................................as the main problem

2. Habitat fragmentation..............................................as the main cause

3. Ecological and Landscape connectivity ......................as the main aim

4. Green and Grey Infrastructure ..................................................

....................................................... as the main crossing point and conflict areas

5. Sustainability ..........................................................as the main objective

6. Mitigation ...............................................................as the main solution

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Suggestions for 3D approach: B. Approach of Strategic Logical Framework:

Developing a International Strategy for development of sustainable transportation infrastructure following a logical framework and determining:

1. A General Aim/Goal
2. Concrete Targets
3. The Objectives
   - Concept Tools (finalizing-enrichment)
   - The Audients -Stakeholders
   - Principles to be followed
   - Technical tools
5. Following up procedure

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## Suggestions for 3D approach: C. Going to an Action Plan in multiple level

<table>
<thead>
<tr>
<th>Rank Range</th>
<th>Rank levels</th>
<th>Definition of Actions and tools needed from the policy and to practical level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy level</td>
<td>Policy</td>
<td>A statement of recognizing a problem, expressing the political will and decision to solve it and defining concrete goals to achieve.</td>
</tr>
<tr>
<td>Policy level</td>
<td>Strategy</td>
<td>A plan towards to achieve the goals, with analysis of the situation and defining the appropriate objectives to work on and the better solutions to be implement in practice.</td>
</tr>
<tr>
<td>Policy level</td>
<td>Principles</td>
<td>As a framework of general basic rules to be followed by the strategy. IENE has set up basic principles for development of Environmentally Friendly LTI.</td>
</tr>
<tr>
<td>Technical level</td>
<td>Action Plan</td>
<td>As a concrete framework of actions that follows the objectives towards to achieve the goals in a concrete time table.</td>
</tr>
<tr>
<td>Technical level</td>
<td>Handbook</td>
<td>As a special book or edition focusing and analyzing of special topics and providing general directions for actions and possible special case studies*.</td>
</tr>
<tr>
<td>Technical level</td>
<td>Guidelines</td>
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</tr>
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<td>Standards</td>
<td>As a special tool providing precise details of characteristics of actions, procedures or constructions. Such a case is the establishment of Green ISO for Linear Transportation Infrastructures**.</td>
</tr>
<tr>
<td>Technical level</td>
<td>Protocol</td>
<td>As a special tool providing precise details of procedures of actions.</td>
</tr>
<tr>
<td>*</td>
<td>Case studies</td>
<td>Case studies have been proposed and evaluated as very important for “lessons to be learned” to use or to avoid examples. Special editions of case studies evaluated as very important.</td>
</tr>
<tr>
<td>**</td>
<td>LTI Green ISO</td>
<td>Green ISO for Linear Transportation Infrastructures can be used as basic requirements on procurement procedures on Banks or Investor funding.</td>
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International environmental policy on LTI the last 40 Years

...following...
...our participation in TransGreen Project...
...we want to include in IGELI one more Convention:

The case of “THE CARPATHIAN CONVENTION”

..as a Special Case Study of ...how...
...after “THINKING GLOBALLY”...

.... we can go to “ACT LOCALLY”...

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IGELI: Setting up International Guidelines for Environmentally friendly Linear transportation Infrastructure in developing countries

**THE CARPATHIAN CONVENTION** under IGELI’S multiple level approach

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<td>↑</td>
<td>Policy</td>
<td>A statement of recognizing a problem, expressing the political will and decision to solve it and defining concrete goals to achieve. = THE CARPATHIAN CONVENTION SIGNED</td>
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<tr>
<td></td>
<td>Strategy</td>
<td>A plan towards to achieve the goals, with analysis of the situation and defining the appropriate objectives to work on and the better solutions to be implement in practice. = THE PROTOCOL ON SUSTAINABLE TRANSPORT</td>
</tr>
<tr>
<td></td>
<td>Principles</td>
<td>As a framework of general basic rules to be followed by the strategy. IENE has set up basic principles for development of Environmentally Friendly LTI. = INCLUDED IN THE PROTOCOL</td>
</tr>
<tr>
<td></td>
<td>Action Plan</td>
<td>As a concrete framework of actions that follows the objectives towards to achieve the goals in a concrete time table. = WE ARE HERE JUST TO WORK ABOUT!!!</td>
</tr>
<tr>
<td>↓</td>
<td>Handbook</td>
<td>As a special book or edition focusing and analyzing of special topics and providing general directions for actions and possible special case studies*. = TRANSGreen</td>
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<td>Protocol</td>
<td>As a special tool providing precise details of procedures of actions. = INCLUDED ALREADY!!!</td>
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THE CARPATHIAN CONVENTION and IENE principles in a common basic line

Carpathian Convention Principles
1. The precaution and prevention principle
2. The “polluter pays” principle
3. Public participation and stakeholders’ involvement
4. Transboundary cooperation
5. Integrated planning and management of land and water resources
6. A programmatic approach
7. Ecosystem approach

IENE Principles
1. Strong legal framework
2. Sustainable strategic planning
3. Ecosystem approach with the “Precautionary” principle
4. Any case, a unique case (no blind copy paste)
5. Multi-disciplinary cooperation
6. Involvement of civil society
7. Polluter pays principle
8. Long life effective maintenance
9. Environmental supervision and monitoring in all phases
10. Culture of learning

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Lessons learned from Western Europe …a Case Study…

- IENE 2018 Conference, Eindhoven
- 11-14 September 2018: SAVE THE DATE
- “Crossing borders for a greener and sustainable transport infrastructure”
- Why in Netherlands?
- Celebration of 15 years of national DEFRAGMENTATION program
Don’t fragment Eastern Europe!

Message from Netherlands...
Thank you for your attention

Join us…
… in…
… Harmonizing Transportation and Nature…

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