Sustainable Land Use

Setting the Scene

Malin Andersson, Trafikverket on behalf of UIC Sustainable Land Use Network
Introduction: Railways and the natural environment

Only in Sweden
- 11 000 km
- 1 700 stations

- ~ 6 000 ha managed railway embankments
- ~ 1 500 ha managed station areas
• Vegetation management and weed control
Vegetation Management – Weed Control
Vegetation Management – Weed Control
Vegetation Management – Tree Safety

The storm "Gudrun" 2005
(75 milj cubic meters fell)

The Storm "Per" 2007
(15 milj cubic meters fell)
• Invasive species
Invasive species

- Japanese Knotweed (*Fallopia Japonica*)
Invasive species

- 6 months earlier!
Invasive species

- Not from natural habitat
- Spread very quickly
- No natural enemies
Other Invasive species

Ambrosia artemisiifolia

Heracleum mantegazzianum
Conclusion: Invasive Species

Danger for rail operation

Danger for staff

Danger for subcontractors

Danger for customers

Nature conservation conflicts

Damages on infrastructure

Increasing maintenance costs
• Animal strike – problems and solutions
Animal Strike
Landscape Connections
Landscape connections
Landscape Connections: Compensation and mitigation

Construction of extensive new wetlands and flood plains in the course of the building of the new railway line Koralmbahn.

6 new islands in lake Urner built from Gotthardtunnel-excavationmaterial (SBB)
• Biodiversity
Biodiversity

• Which species live in the railway environment?

• Why bother?
  – An extraordinary high biodiversity
  – Red-listed and EU habitat directive species
  – Ecosystem services
  – Species set from farmed landscape
Biodiversity

• Why care about this environment?
  – Necessary for biodiversity goals
  – Convention of biological diversity

• Meet goals of European Biodiversity Strategy
• Conclusion and questions
First UIC Conference on Sustainable Land Use

- The first conference on these topics will be kindly hosted by Network Rail
- Date: 1st and 2nd October 2013
- Agenda: The intention is to focus on Vegetation Management, Invasive Species and Weed Control
- What other topics should be discussed?
Where do we go from here?