Transport Models
Vulnerability
Speed Review

Swedish Transport Administration

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Swedish Transport Administration

The Swedish Transport Administration began operations on 1 April 2010. It is a public authority that takes on responsibility for long-term planning of the transport system for road, rail, maritime and air traffic.

The authority is also responsible for the construction, operation and maintenance of public roads and railways. The Swedish Transport Administration includes activities and operations that before 1 April 2010 were undertaken by the Swedish Rail Administration and the Swedish Road Administration, as well as certain activities that were undertaken by the Swedish Maritime Administration and the Swedish Institute for Transport and Communications Analysis.

Rail Administration, the Swedish Road Administration and the Swedish Institute for Transport and Communications Analysis were phased out.

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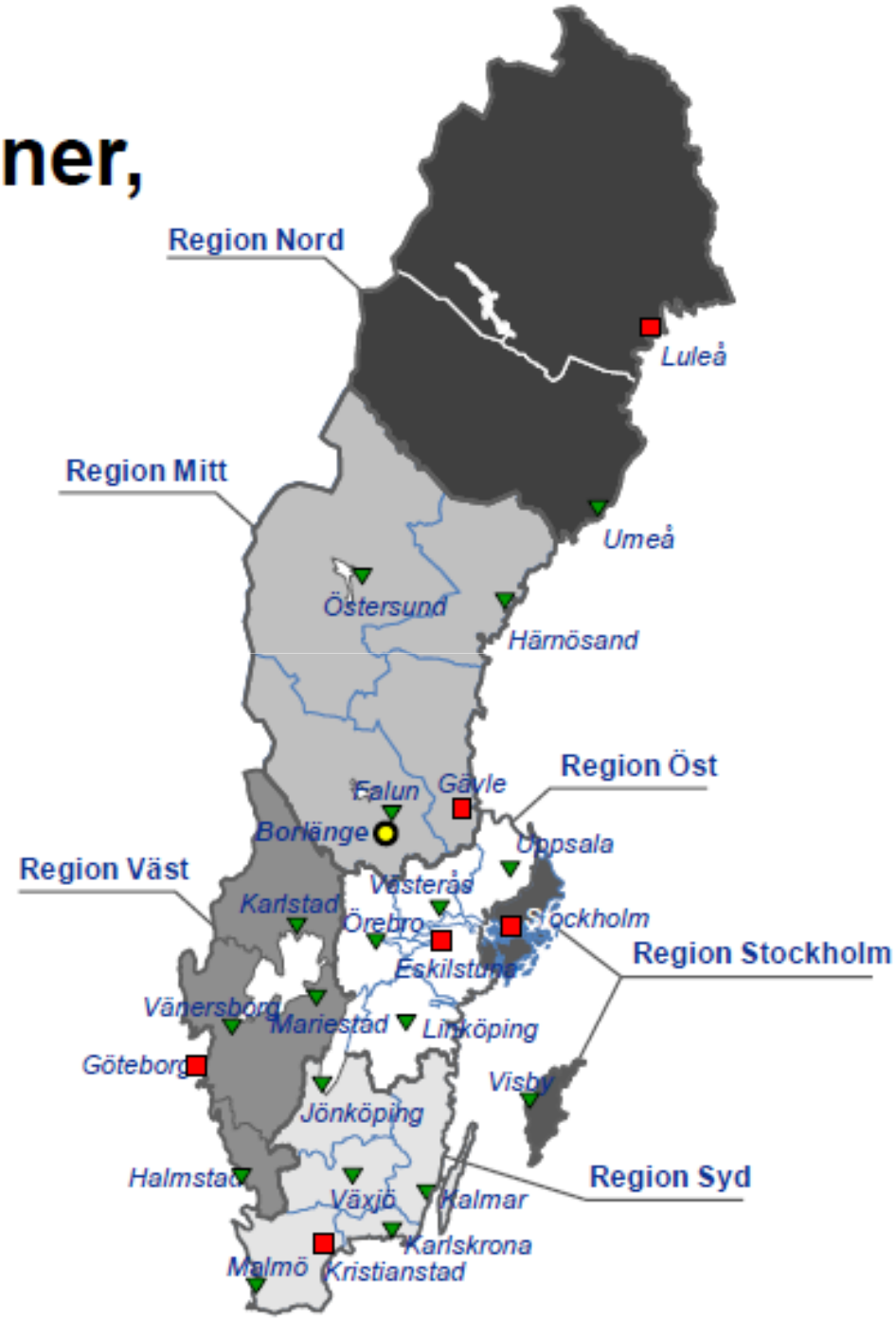


- Huvudkontor
- Regionkontor
- Lokalkontor

TRAFIKVERKET

Transport Models

Need of good statistics!!

Network disruptions

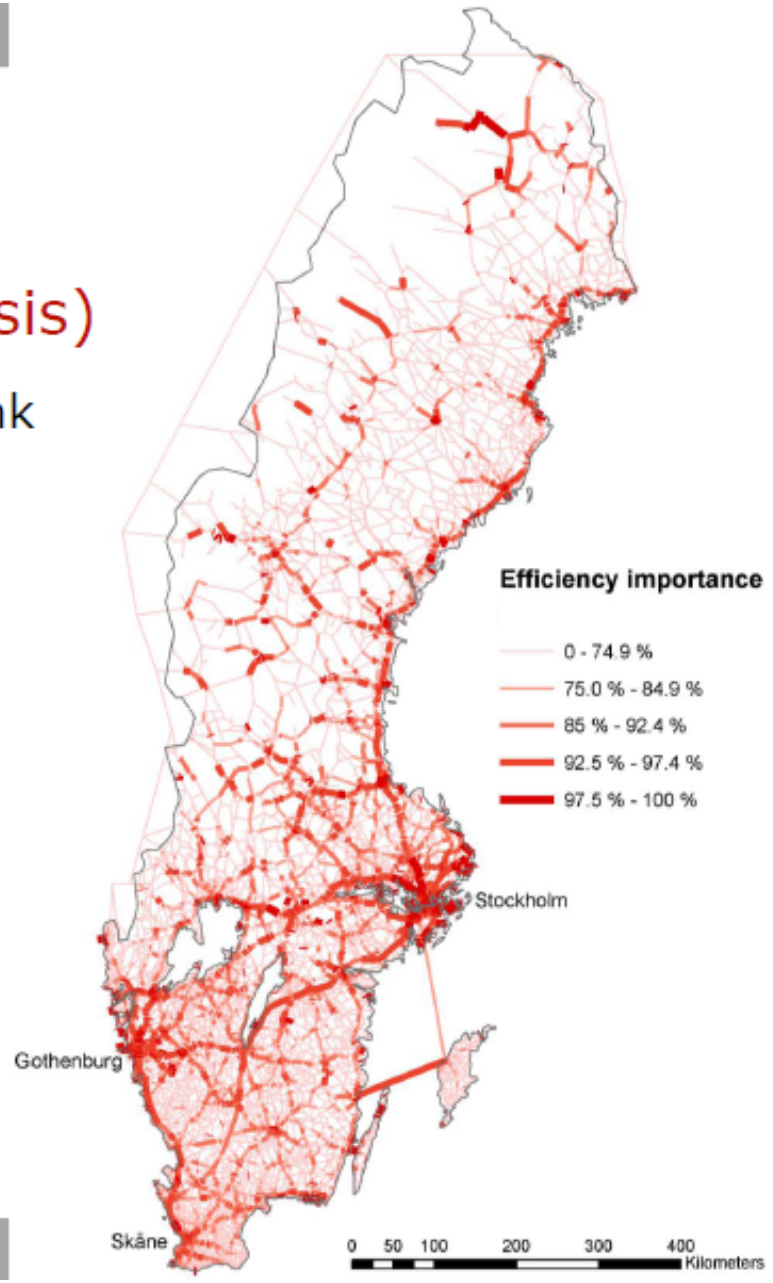
Road network vulnerability
Based on research by Erik Jenelius

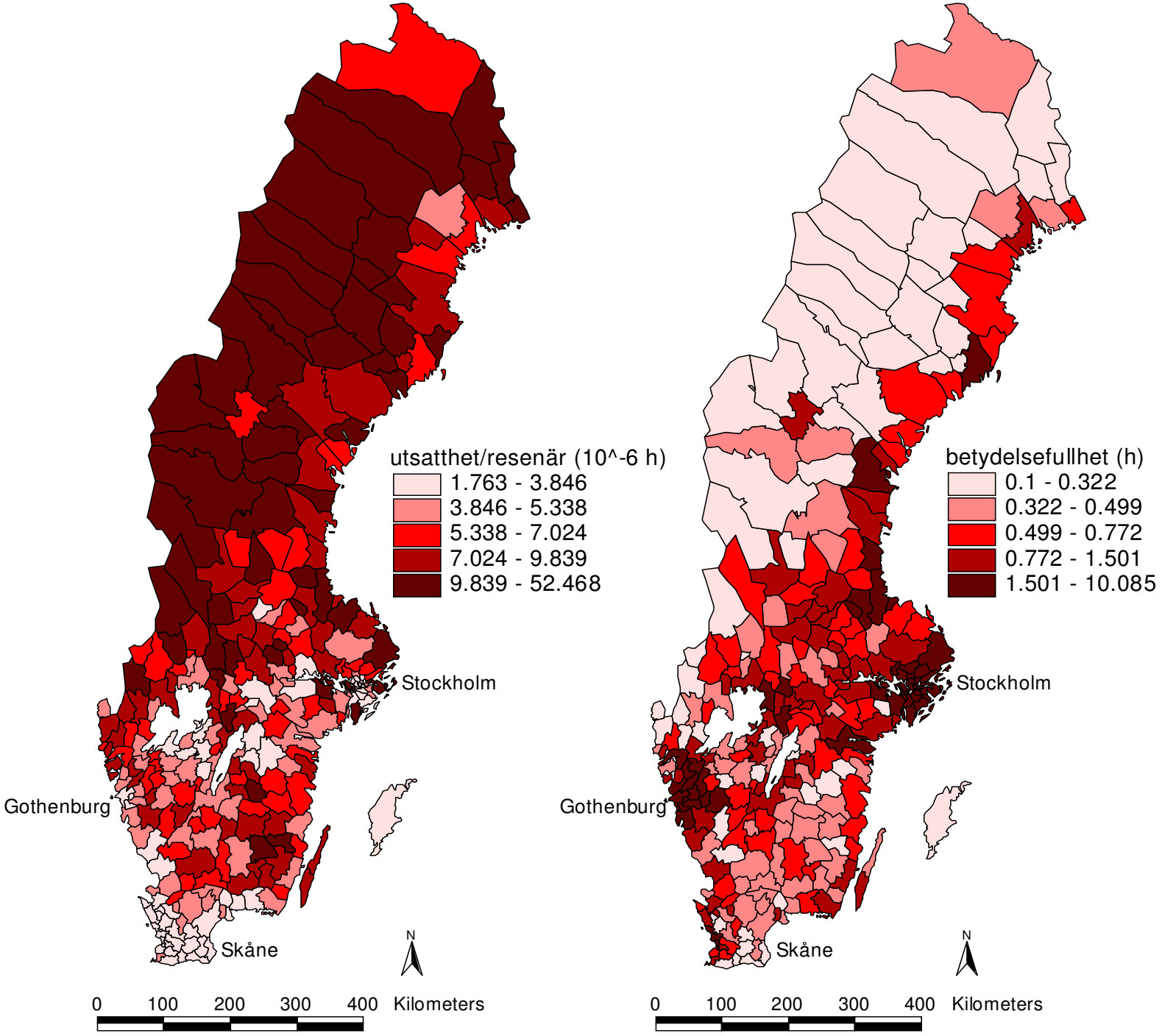
- Events sometimes occur that severely disrupt transportation services
- Can have big impacts on individuals and businesses
- For individuals: reduced accessibility to social services, loss of access to/time for work, school, daycare, shopping, recreation, etc.
- For businesses: loss of manpower/ customers, delayed deliveries, increased freight costs, etc.

- In planning stage:
  - Adjust location/structure of roads to risks
  - Support road projects providing redundancy to existing network
- In maintenance/operations stage:
  - Probability of disruption can be reduced by upgrades and maintenance
  - Consequences can be reduced by information and swift restoration

Link importance
(Critical link analysis)

- Total delay due to link closure
- 48 h closure




utsatthet/resenär (10^-6 h)
1.763 - 3.846
3.846 - 5.338
5.338 - 7.024
7.024 - 9.839
9.839 - 52.468
Stockholm
Gothenburg
Skåne
N
0 100 200 300 400 Kilometers
betydelsefullhet (h)
0.1 - 0.322
0.322 - 0.499
0.499 - 0.772
0.772 - 1.501
1.501 - 10.085
Stockholm
Gothenburg
Skåne
N
0 100 200 300 400 Kilometers

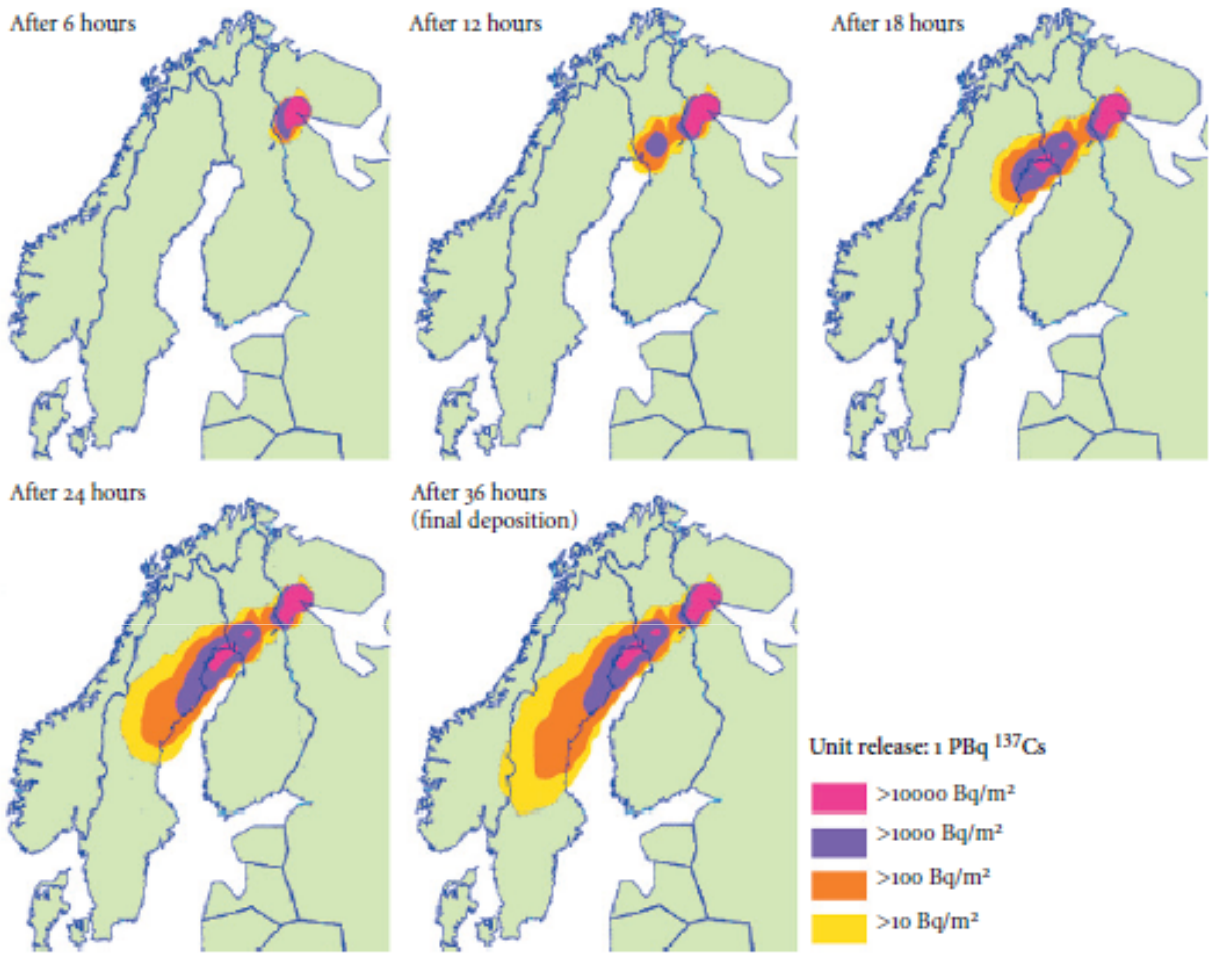


FIGURE 1 *A hypothetical scenario based on real weather conditions (August 26, 1998). The simulated release was from KNPP to an altitude of 70–130 m at a radius of 60 m. The particles were 0.1–1 μm and 2.8 kg/dm³. The simulation was made with PELLO [9]. Each reactor at KNPP contains 180 PBq ^{137}Cs. Some 3–30%, maybe more, of it could be released in a serious accident. During the Chernobyl accident 20–40% of the ^{137}Cs content was released, or about 1% of the total radioactivity released – most of the released radioactivity was in form of short-lived isotopes, such as ^{133}Xe, ^{131}I (about one order of magnitude more than ^{137}Cs), ^{132}Te etc. [4] and [9].*

Speed Review

Speed gives

Accessibility

Standard & Maintenance

Transport Policy Goals

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