

Development of the new Dutch environmental indicator for plant protection products (NMI 3)

Theme: Sustainable use of pesticides

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Problem

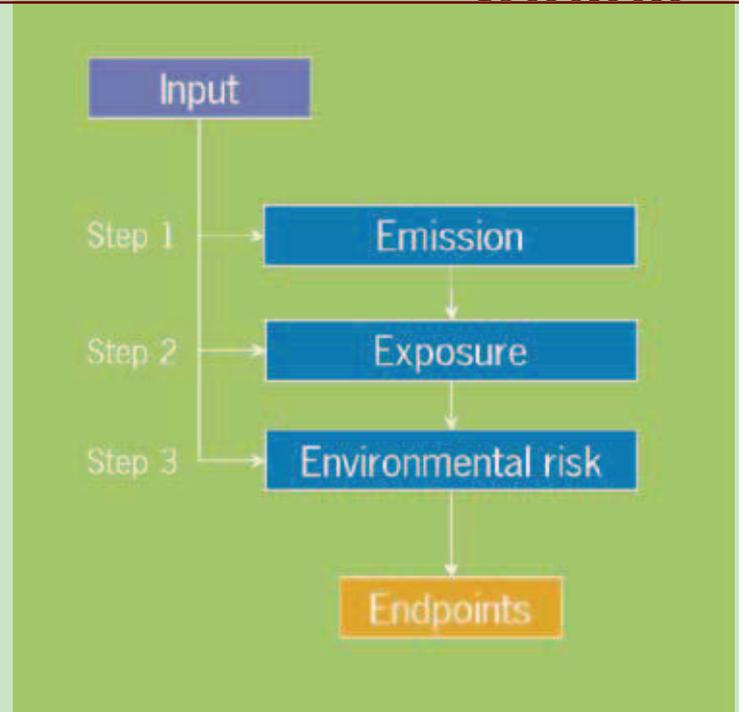
The Dutch policy document on sustainable agriculture aims at good surface water quality. The operational target for the policy period 1998–2010 equals 95% reduction of the risk to the aquatic ecosystem.

Approach

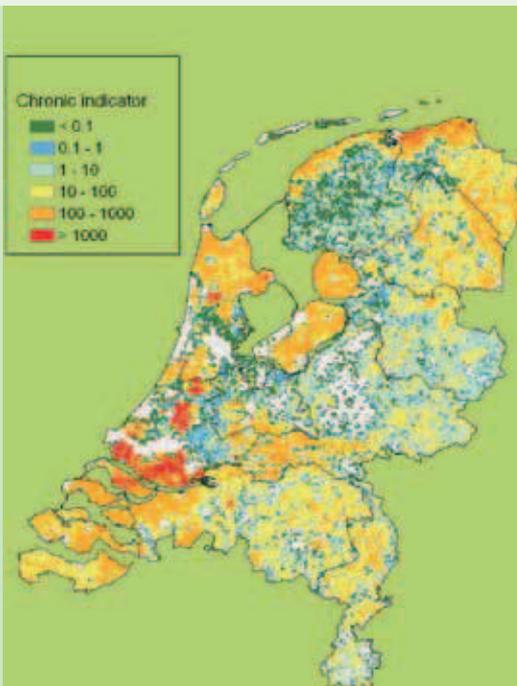
The environmental risk reduction resulting from agricultural use during the policy period will be calculated with a new version of the Nationale Milieu Indicator (NMI 3).

The model Input includes:

- Detailed spatial input data
- Average pesticide use and annual sales data
- Emission factors and emission reduction measures implemented by farmers
- Fate and ecotoxicological data for all PPP registered



Calculation scheme of the National Environmental Indicator.



Environmental risk indicator for the aquatic ecosystem:
Cumulated exposure toxicity ratio.

Results

The NMI 3 is developed in the period 2008–2011. In the year 2010, the update of the NMI-database will be completed, and new routines for calculating indicators for emissions and aquatic risk will be included in the model.

Future use in risk management

The new NMI 3 will include:

- Up-to-date routines for calculating emissions to surface water
- Contributions from all emissions to the risk indicator for the aquatic ecosystem, including drainage flow and emissions from greenhouse crops
- Additional ecotoxicological endpoints

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