

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

Theme: Risk assessment procedures for pesticide registration

BO-06-010-010

Problem

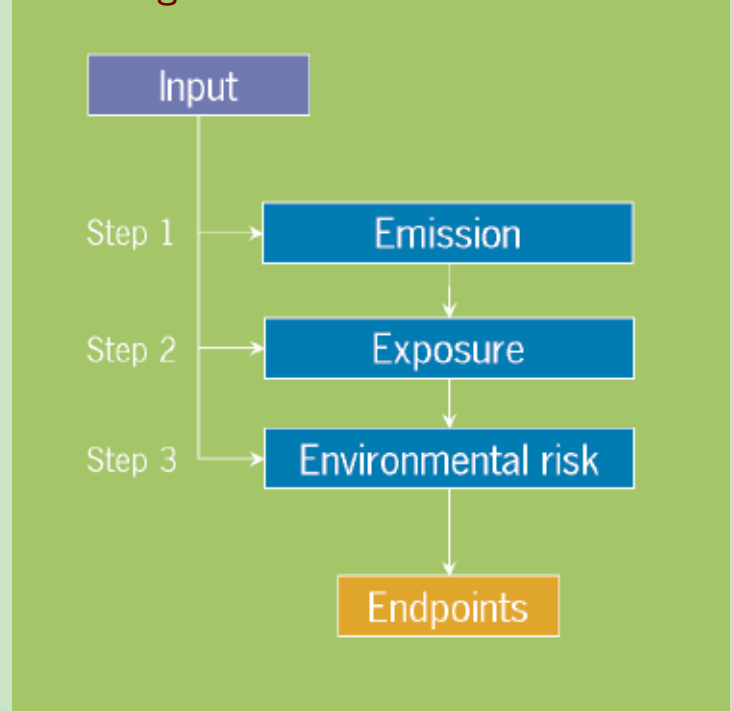
The Dutch policy document on sustainable agriculture aims at good surface water quality. The operational target for the policy period 1998 – 2010 equals 95% reduction of the risk to the aquatic ecosystem.

Approach

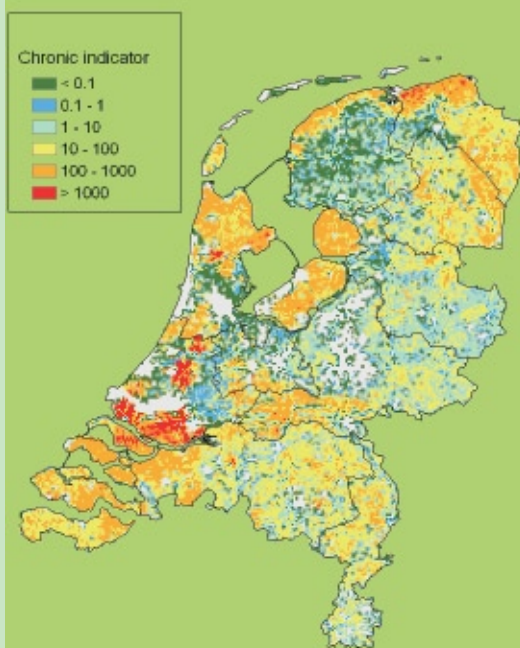
The environmental risk reduction resulting from agricultural use during the policy period will be calculated with a new version of the Nationale Milieu Indicator (NMI 3).

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 2009, part of the NMI-database will be updated. New modules for calculating emissions from greenhouses and environmental risk to the aquatic ecosystem will be derived from more sophisticated models for registration procedures

Future use in risk assessment

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

Roel Kruijne

Contact: Roel Kruijne

Alterra Green World Research

P.O. Box 47, 6700 AA Wageningen, the Netherlands

T +31 317 48 18 08 - F +31 317 41 90 00

roel.kruijne@wur.nl - www.alterra.wur.nl