

# OPERA recommendations for risk mitigation measures and IPM implementation in the context of SUD

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# 01/ Background

## The evolution of environmental issue and challenge

Today's understanding and perception of environmental challenges are changing:

No longer can they be seen as independent, simple and specific issues.

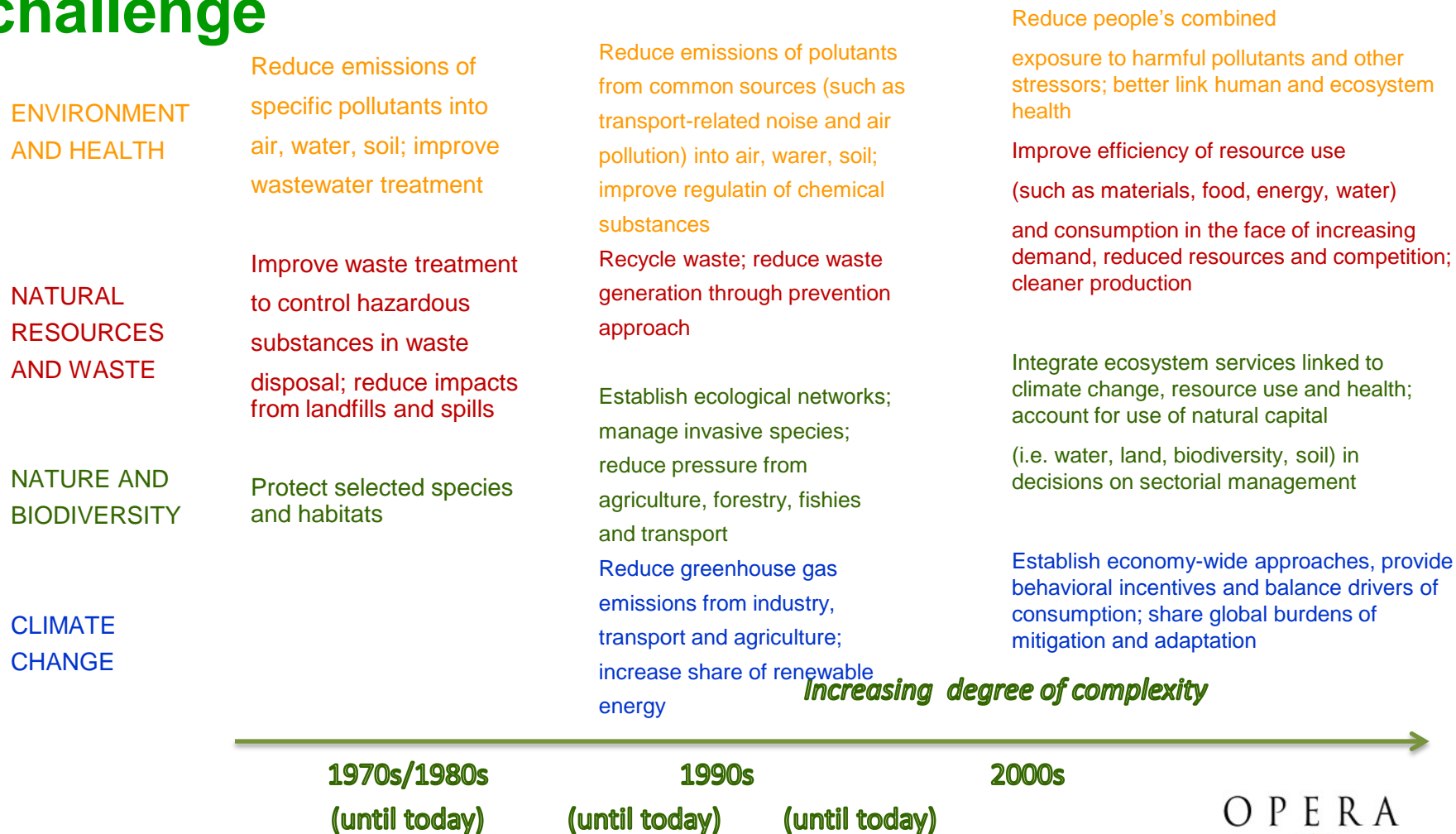
Rather, the challenges are increasingly broad-ranging and complex, part of a web of linked and interdependent functions provided by different natural and social systems

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# 01/ Background

## The evolution of environmental issue and challenge



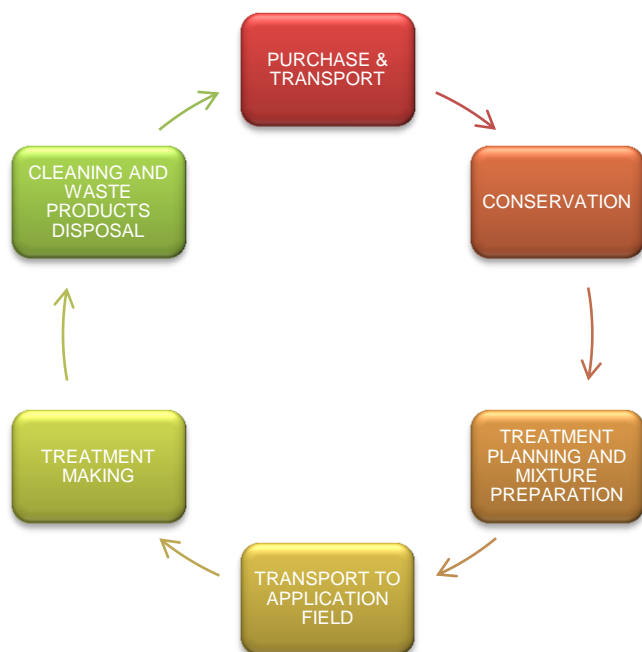
(Source: EEA)



# 01/ Background

## The challenge of pesticide risk reduction

Agricultural pesticides are associated with several environmental and human health risks during the different stages of their life-cycle



In order to help limiting pesticide risks the European Commission set out some very specific objectives on the sustainable use of pesticides

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# 01/ Background

## The Sustainable Use Directive: OPERA analysis



- Academia
- Farmers
- Industry
- Consumers' protection
- Trade

### DOCUMENTS

- Multifunctional landscapes
- Biopurification systems
- IPM
- Guidelines for the Sustainable Use of Phytosanitary Products
- Risk Indicators



### TRANSPOSITION PROCESS

- Directive
- NAP

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# 01/ Background

## The challenge of pesticide risk reduction:

### *The Sustainable Use Directive*

The EU Directive 128/2009 requires Member States to develop a legislative framework and National Action Plan (NAP) that includes the aim of reducing the potential risk associated with **pesticide use**

### *Key Objective of the activity*

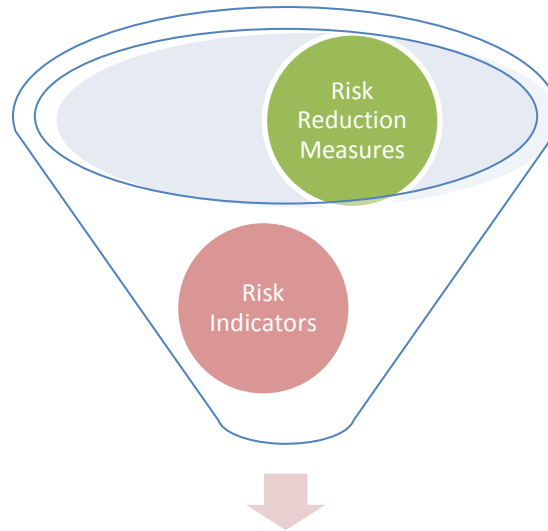
To assist authorities in defining the content of NAP and **system to measure step-by-step improvements** from an initial assessment, towards the final objective

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# 01/ Background

## The Sustainable Use Directive: OPERA analysis



Meet the objectives of SUD

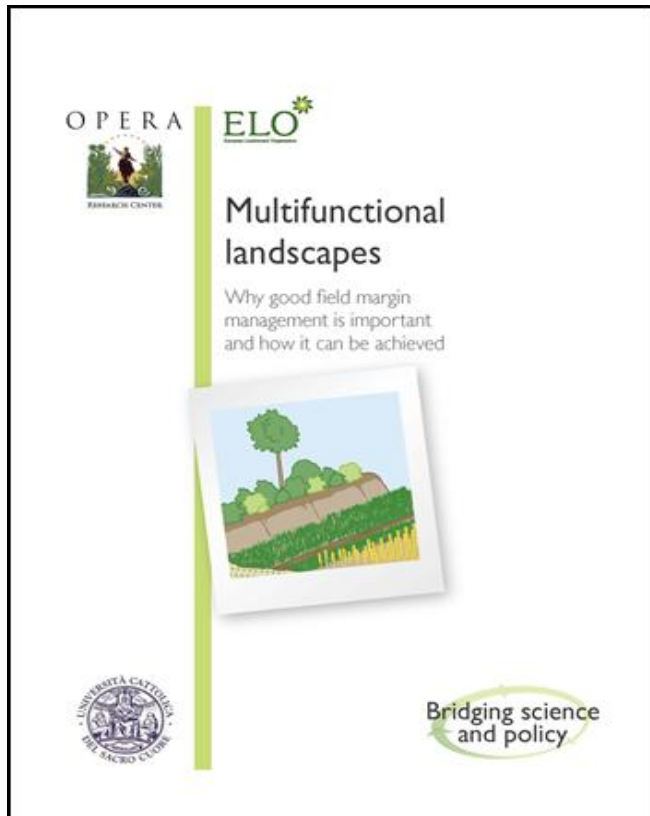
Proposing of a package of **practical** and **pragmatic** risk reduction measures together with a system of indicators to measure progress in meeting the objectives of the SUD

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# 02/ Multifunctional Landscapes

## why good field margins is important and how can it be achieved



***Our recommendation provides information on:***

- Definition
- The Functions of field margins:
  - *Enhancing biodiversity*
  - *Pesticide buffer*
  - *Nutrient retention*
- The EU legal framework
- Financial aid and assistance
- required for their setting up

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## 02/ Multifunctional Landscapes

### ***Legal compliance:***

Member States must take measures to protect the aquatic environment and drinking water

(Directive EC 128/2009)

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# 02/ Multifunctional Landscapes

## *Multifunctionality:*

Creating buffer zones, can benefit

- soil
- water protection
- natural fertilization
- biological crop protection
- biodiversity

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## 02/ Multifunctional Landscapes

MULTIPLE BENEFITS of field margins



OPPORTUNITY for agriculture and the environment

☐ Avoid erosive soil loss

☐ Protect water

☐ Reduction of pollution by pesticides from spray drift

☐ Increases earthworms populations

☐ Attract arthropods

☐ Help birds and small animals

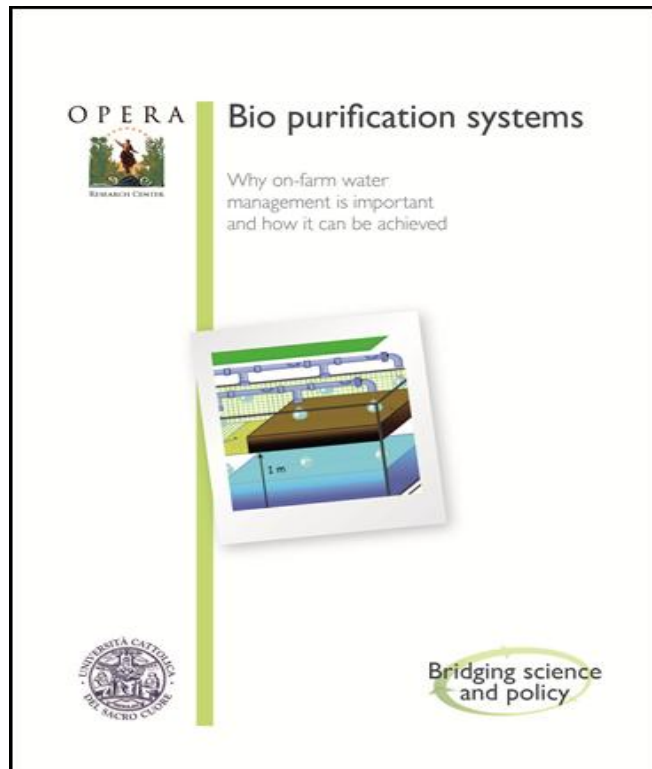
☐ Enable carbon fixation

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# 03/ Bio purification systems

## why on farm water management is important and how it can be achieved



Land and water management practices are of primer importance for satisfying the needs of agriculture and ecosystems

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# 03/ Bio purification systems

## why on farm water management is important and how it can be achieved

### *Legal compliance:*

SUD is the framework for measures dealing with diffuse  
and point  
source pollution to protect the environment

(Directive EC 128/2009)

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# 03/ Bio purification systems

THE RECOMMENDATION COVERS THE FOLLOWING  
SUBJECTS:

- Why on farm water management is important
- How do PPPs reach the water bodies
- Point source pollution
- Evolution of bio purification systems
- Existing types of bio purification system
- Advantages and disadvantages
- Relevant requirements in the EU legislation

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# 03/ Bio purification systems

## why on farm water management is important

## and how it can be achieved

### Advantages of Bio-purification Systems



**OPPORTUNITY** for agriculture and the environment

Eliminate point source pollution

Economic and simple constructions

Safeguard human and animal health on farm

Safeguard biodiversity and beneficial organisms

Ability to treat large volumes of contaminated water

Need of minimum maintenance

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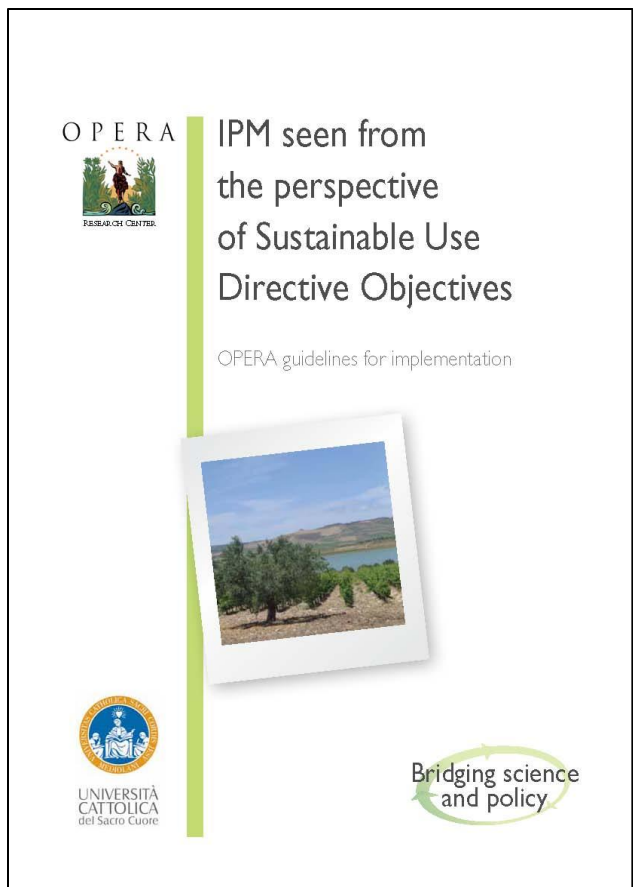


# 04/ IPM

## seen from the perspective of SUD Objectives

The RECOMMENDATION PROVIDES  
INFORMATION on:

- European Agriculture and Plant Protection
- EU legislation & IPM
- IPM concept & its application
- How to achieve IPM implementation as required by SUD
- Resources and actions to achieve a successful implementation of IPM principles
- Evolution of IPM practices at farm level
- Limitations in implementing IPM
- Regulatory initiatives recommended to be taken into consideration for a successful implementation of IPM



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# 04/ IPM

## seen from the perspective of SUD Objectives

Opportunity for new  
and improved production practices

### The 8 points of the Annex recall

#### The adoption of:

1

Agronomic measures

2

Monitoring

3

Threshold levels

4

Specificity of application

5

Preference for non-chemicals

6

If it provides satisfactory pest control

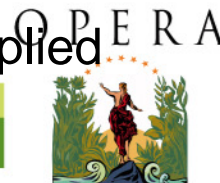
7

Resistance Management

8

Check of results in relation with the applied

measures



## 04/ IPM

# seen from the perspective of SUD Objectives

**IPM** requires certain resources for implementation related to **knowledge transfer** and to **production** methods

**Knowledge transfer =  
OPPORTUNITY FOR DEVELOPMENT**

- Training
- Information
- Research

\* Training is explicitly required by the SUD for the whole complex of measures, but it appears particularly relevant for IPM

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# 05/ Guidelines for the Sustainable Use of Phytosanitary Products

The project started in October 2007 from a collaboration between many different actors working together for the development of a culture of sustainable use of pesticides

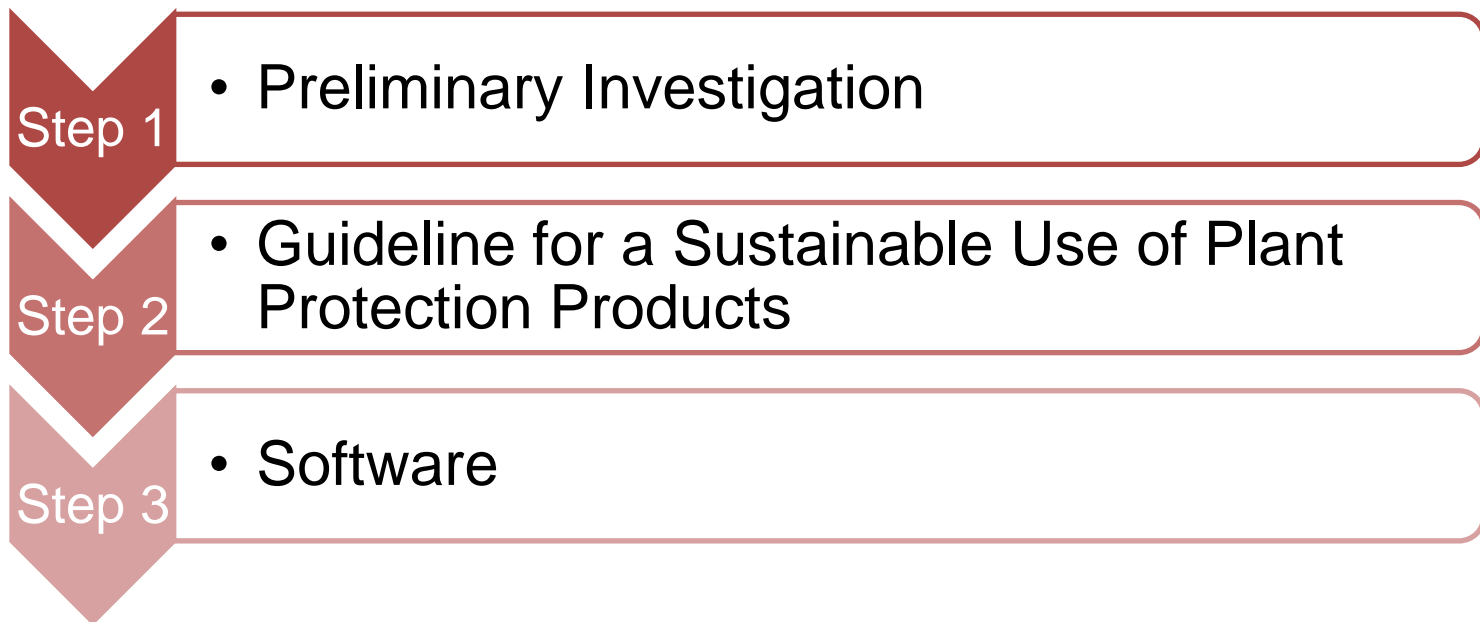


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# 05/ Guidelines for the Sustainable Use of Phytosanitary Products

## Three steps to develop a new tool



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# 05/ Guidelines for the Sustainable Use of Phytosanitary Products

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## Aims

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Training, informing and updating professionals which interact with final pesticides users

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Identify the critical elements in the product management to prevent environmental contaminations and to assure high standard of safety for operators

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Give instructions and suggestions in order to improve the best pesticide practices to minimize potential contamination risks

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## 05/ Guidelines for the Sustainable Use of Phytosanitary Products

The guideline is composed of an operative guide and of a free online software which help an efficient compression of the main concepts

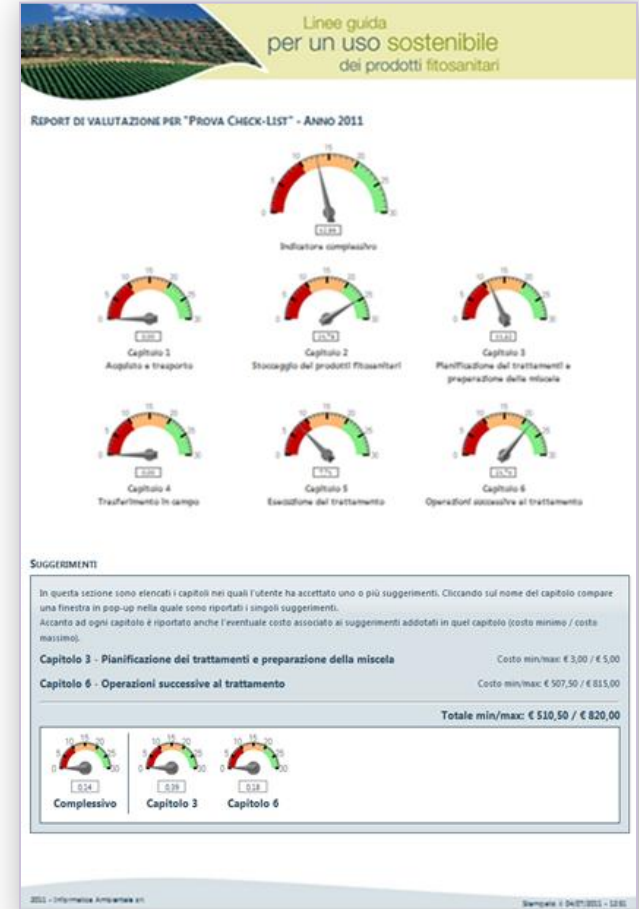


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# 05/ Guidelines for the Sustainable Use of Phytosanitary Products

## Easy to read results



# 05/ Guidelines for the Sustainable Use of Phytosanitary Products

## Conclusions

This tool could be strategic in the SUD context:

It's a simple tool to guarantee a sustainable, responsible and safe pesticides use

It's a tool for **training** the professional operators

**Evaluates** how the pesticides are managed in a specific farm

Underlines the **critical point s** in the life cycle of pesticides

Suggests how to **improve the pesticides management**

It can be useful also for **Authorities**: from a statistical to an economical point of view (i.e. economical subsidies) O P E R A





# 06/ Indicators and targets for the Sustainable Use Directive

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## Indicators and Targets

Capture information, on **impact in reducing the risk** and **not on the volume of pesticide** used, during the implementation of National Action Plans (NAP)

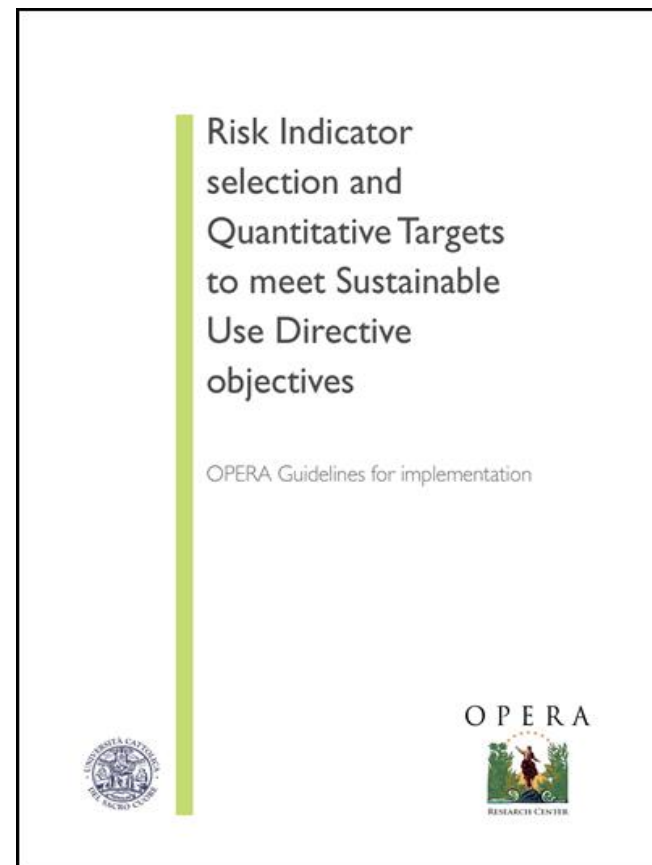
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Asses performance of NAP

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Information on risk reduction at European level will be completed with data collected for the **future** harmonised indicators

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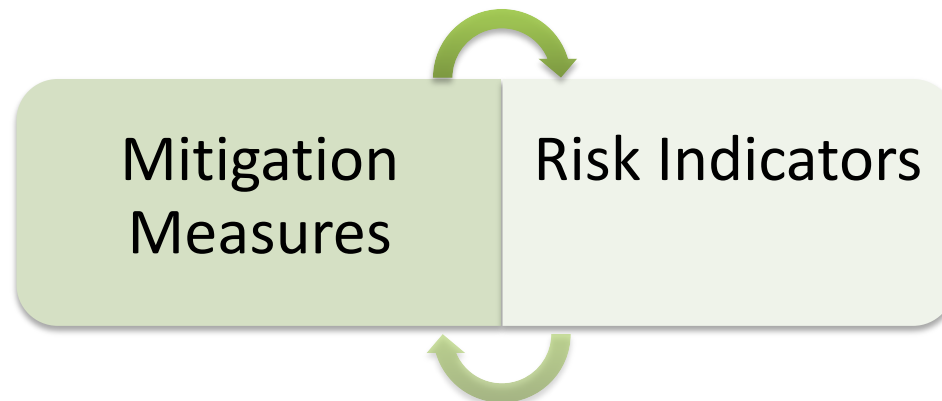


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## 06/ The approach of the working group

In implementing the SUD, it is important to clearly define **goals** to reduce risk, and then **measures** to reach these goals



The mitigation measures are linked to the risk indicators selected.

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## 06/ The approach of the working group

Therefore, risk indicators and mitigating measures -  
have to be addressed in parallel

**MEASURE**  **TARGET**  **RISK INDICATOR**

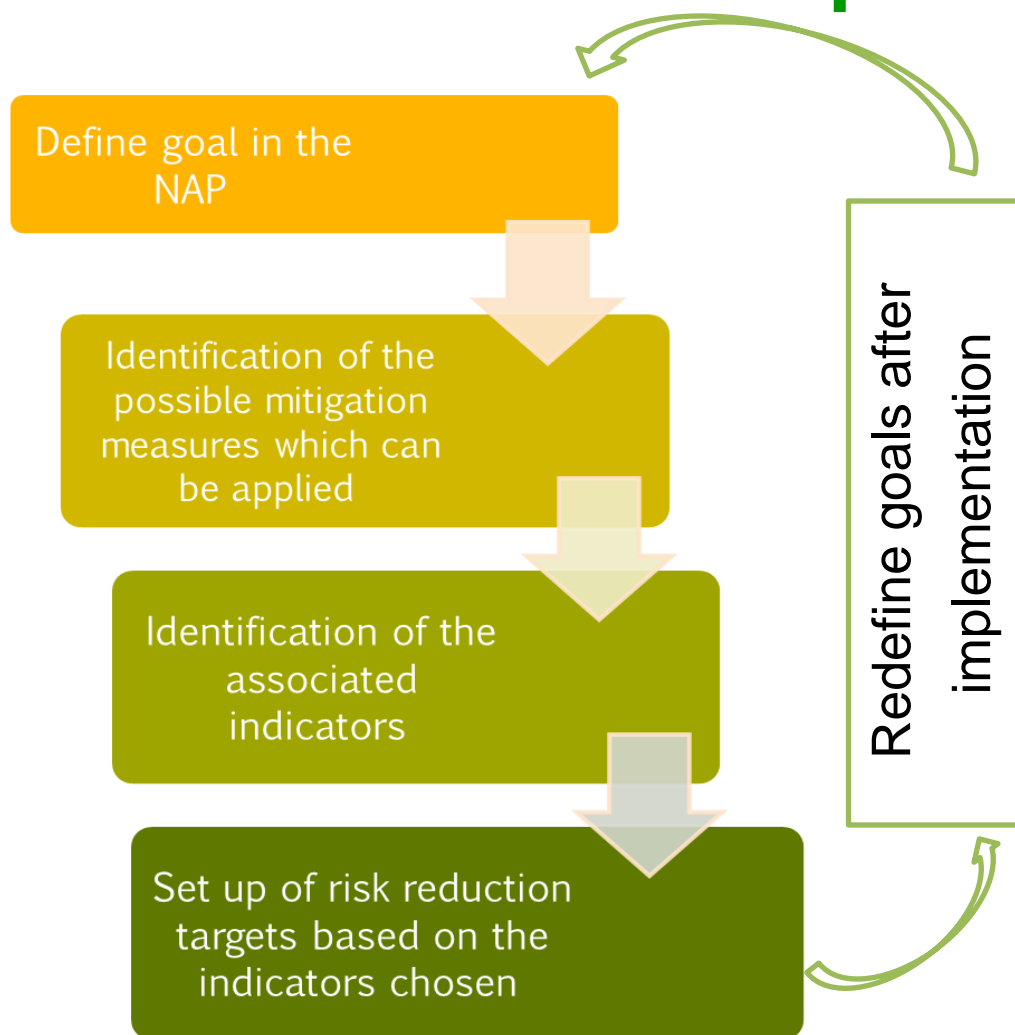
Any set of indicators should reflect a minimum number  
of

**economic, social and environmental** aspects

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## 06/ The toolbox stepwise approach



Goals should be set in relation to the policy priorities in the MS to address the risks identified prior to the application of the NAP

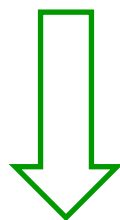
The targets for each measure shall vary from MS to MS, even if the overall quantitative target of the plan is the same.

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## 06/ The toolbox

Procedure to establish quantitative risk reduction targets



Give **benchmark values** over time to the indicators selected to monitor risk reduction

The targets suggested in the toolbox are a *hypothetical example* of how MS's may consider achieving a certain level of risk reduction through the measure taken and its corresponding indicator.

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## 06/ The toolbox

Example: Risk reduction measure: Training of farmers and operators in application techniques and equipment maintenance

Balanced set of indicators	Examples of Quantitative Targets
Attendance of designated training courses	1000 farmers participating every year to designated training courses
Participation in recognized professional bodies	Increase by 10% in 3 years the number of farmers adhering to professional bodies
Skill tests for operators	Over 80% of the tested operators pass the examination
Financial impact for users	No target required



Environmental



Social



Economic

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# 06/ The toolbox

The toolbox of practical risk indicators proposed by OPERA aims to measure the impact of NAP on:

**Environment - water; soil and biodiversity**

**People - consumers; bystanders and operators**

**Social issues**

**Economic costs**

A mix of indicators from the four categories it is recommended

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# 07/ Conclusions

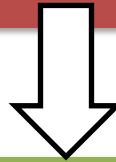
NEW LEGAL REQUIREMENTS POSE A SERIES OF **CHALLENGES** TO:

Farmers to  
adapt their  
practices

Industry to  
develop new  
solutions

Food chain to  
take into  
account  
developments

Authorities to  
implement legal  
text



**OPPORTUNITIES ARE CREATED FOR:**

Farmers to improve  
their practices and  
knowledge

Industry to put in  
practice their  
research

Food chain to boost  
consumer  
confidence

Authorities to  
communicate to  
society risk  
reduction





Thank you for your attention!

The publications are available at

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