# Screening tool for environmental effects

Bernard MAZIJN (VODO, Brussel, 4 maart 2010)

#### Content

▶ Introduction

► Life cycle thinking – value chain

Environmental screening/assessment

What about the screening tool ?

► Final comment

#### Content

**►** Introduction

- Life cycle thinking value chain
- ► Environmental screening/assessment
- What about the screening tool ?
- Next steps

# Vredeseilanden Jaarverslag 2007

- "... de indirecte milieu-effecten van het Noordprogramma en het Zuidprogramma ..."
- "De indirecte milieueffecten hebben voor Vredeseilanden betrekking op de effecten die voortkomen uit de activiteiten van vooral het Zuidprogramma."
- "Tegen eind 2008 zal voor de meting van de indirecte milieueffecten een meetinstrument (screening tool) ontwikkeld worden in samenwerking met externe deskundigen en andere ontwikkelingsorganisaties."
- "Dit alles zal o.m. uitgedrukt worden in de ecologische voetafdruk van Vredeseilanden."

#### **Starting with some reflections**

- South programme !
- Value chain life cycle thinking/assessment!
- 'indirect environmental-effects' (cf. Annual Report)
  - = 'direct not-intended environmental effects'
- Qualitative and semi-quantitative approach
  - ≠ quantitative approach of e.g. the 'ecological footprint'
- 'ex-interim' or 'ex-post' evaluation leading to mitigation measures in the ST/MLT

# Opmaak van een screening tool via een interactieve aanpak.

De visie van Vredeseilanden bepaalt

expliciet de opmaak van een middel
(= screening tool/meetinstrument),

<u>impliciet</u> het verminderen van indirecte milieueffecten (≠ kwantitatieve doelstellingen)

# Interactive co-design of the tool: the planning

- Phase
   Phase
   Phase
   Fee
   inte
   fina
   VECO Indonesia:

   Organic Rice (Boyolali and Solo, Java)
   Coffee (Toroja and Mamasa, Sulawesi)

   VECO Mesoamerica (Nicaragua):

   Beans (Jinotepe, Carazo)
- ▶ Phase 2 rest. ... c draft screening tool en feedback
  - testing in the field: different cases (summer 2009)
  - feedback and adaptation (September-October 2009)
  - interaction with VECO RO co-ordinators (27 October 2009)
- Phase 3 Capacity-building for using the 'screening tool'
  - VECO RO SACD (25 November 2009)

#### Content

▶ Introduction

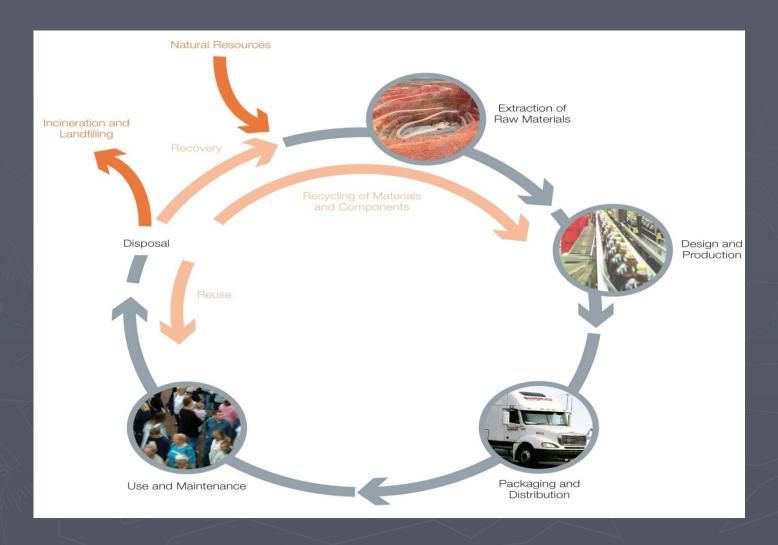
Life cycle thinking – value chain

► Environmental screening/assessment

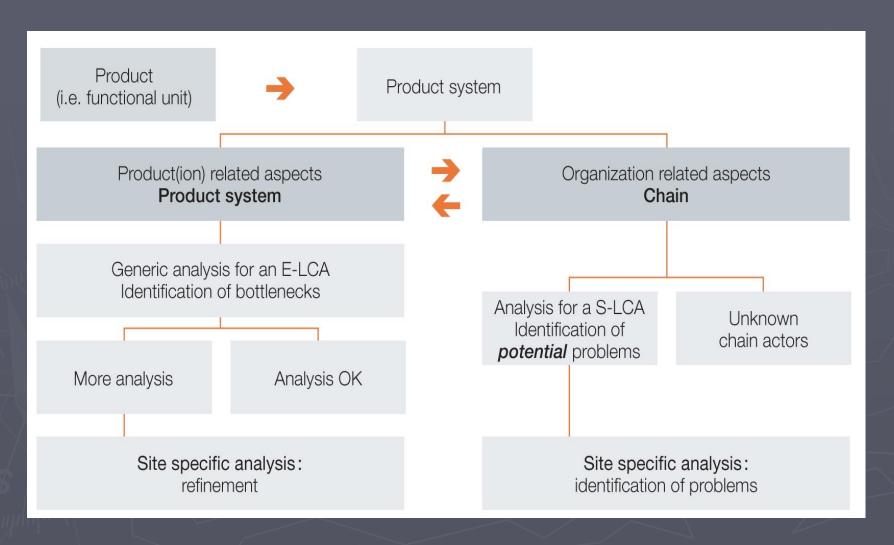
What about the screening tool ?

Next steps

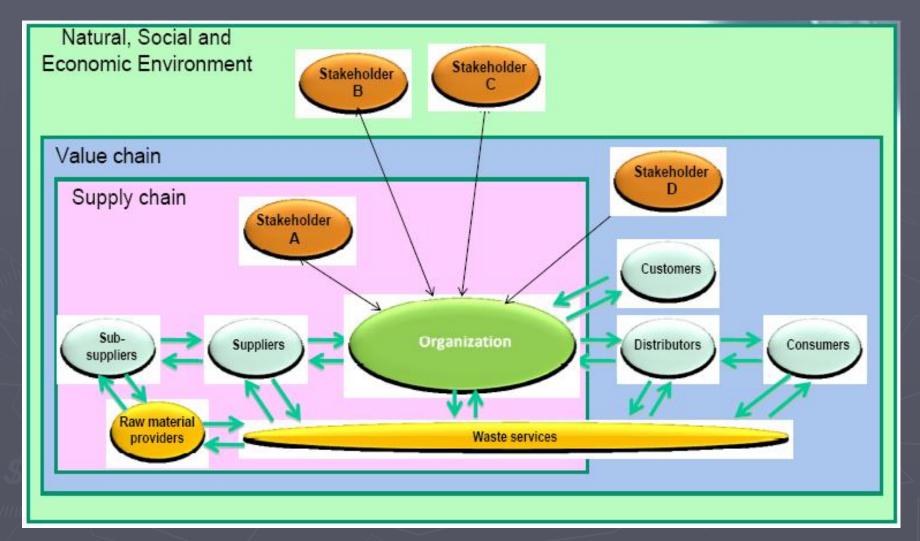
## Life Cycle Thinking (1)



## Life Cycle Thinking (2)



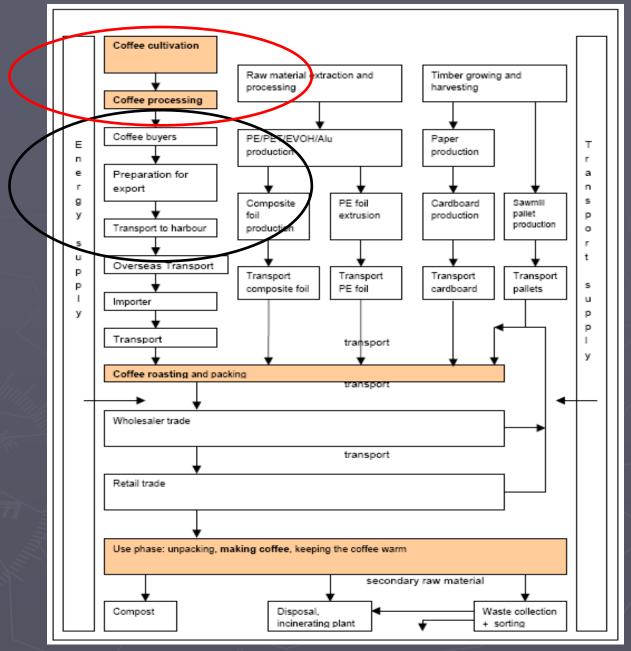
#### **Value Chain**



**Source:** ISO 26 000 (2008)

## Life cycle thinking — value chain

Example of coffee from Costa Rica



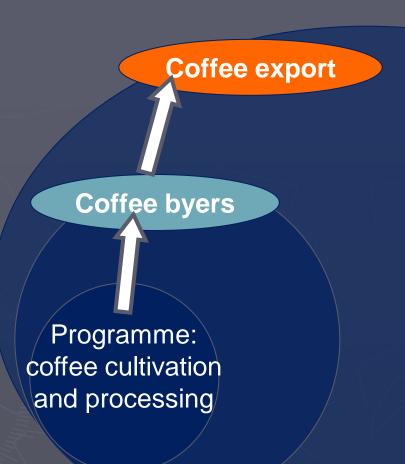
Source: Mazijn B. et al. (2004)

#### **The Limits of Influence**

Sphere of Interest

Sphere of Influence

Sphere of Control



Adapted from Harry Jones (RAPID)

#### Content

▶ Introduction

Life cycle thinking – value chain

► Environmental screening/assessment

What about the screening tool ?

Next steps

#### **Screening tool** Does the programme/project No has significant environmental effects? Yes The results of the quick scan must be reported to the VECO RO & HO HO & RO are taking a decision on starting an EIA, eventual focussing on a limited number of effects Assessment of the

relevant environment

effects

The screening form must be completed

The results
must be reported
to the VECO RO & HO.
Eventually, a decision on small
scale mitigation measures is
taken.

The EIA results
must be reported
to the VECO RO & HO.
A decision on mitigation
measures is taken,
in the ST or in the LT (when
preparing for the new
multiyear programme)

EIA report

# Characteristics of a VECO environmental screening (1)

- What is the goal of the 'environmental screening'? Addressing asap relevant concerns to ensure mitigation of environmental effects or enhancement of environmental opportunities.
- Where will it be applied?
  Each stage of the supply chain in which VECO is involved. For the first time in 2010. Each VECO RO will select the three most important agricultural chains.

# Characteristics of a VECO environmental screening (2)

#### ► Who will be involved?

VECO responsible is leading the screening. However it should be an open and participatory process, taking into account the local circumstances and involving chain actors. If possible support from local environmental experts.

#### ► How will it be used?

'Efficiency' and 'cost-effectiveness' are the key words. For each step of the chain it should be feasible to fill in the matrix in a one day workshop/meeting.

# Characteristics of a VECO environmental screening (3)

- Why is it important?
  - Looking for environmental opportunities and benefits of the programme.
  - Detecting for environmental effects associated with the programme at an early stage.
  - Consistency with policy at the national and international level.

#### Content

▶ Introduction

Life cycle thinking – value chain

► Environmental screening/assessment

▶ What about the screening tool ?

Next steps

# Screening tool

A matrix and a manual

#### **Matrix**

► Identification sheet

► Environmental effects

Scores



#### Screening tool for environmental effects Matrix for involved chain actors

	Area / District:	Boundary Partner(s):  •	Target Group:  • direct:  • indirect:
Involved chain actors (names and affiliation):		Contact details of the VECO responsible:  • Email  • Telephone  • Fax	
Date:	Time spend:		
Additional information:			

## **Environmental effects (1)**

- ▶ Is the programme affecting ...?
  - (Semi-)Arid Lands
  - Wetlands
  - Forests
- ▶ Is there ecological disturbance, due to the programme, of ...?
  - Habitats (Aquatic or Terrestrial)
  - Wildlife (Aquatic, Terrestrial, Avian)
  - Biodiversity
  - Ecosystem Functions (Aquatic, Terrestrial)
  - Rare Species / Ecosystems
  - Protected Areas

## **Environmental effects (2)**

- Are there direct inputs into the programme such as ...?
  - Natural resources, e.g. ...
    - forest products
    - ▶ fish stocks
    - **>**...
  - GMO's
  - Materials, e.g. ...
    - fertilizers
    - Pesticides
    - **...**
  - Recycled products, waste ...
  - Land
  - Energy
  - Surface Water
  - Ground Water

## **Environmental effects (3)**

- Are there emissions affecting ...?
  - Climate
  - Air Quality
  - Groundwater Quality
  - Surface Water Quality
  - Soil Quality
  - Health, e.g. ...
    - occupational
    - public

## **Environmental effects (4)**

- Are there activities influencing ... ?
  - Soil Stability / Erosion
  - Soil Fertility / Productivity
- ▶ Is (Solid) Waste produced by the programme?
- Does the programme generate Mobility/Transport ?
- Is there other infrastructure (e.g. sanitation, canals, storage, ...) causing environmental effects?
- ► Is the programme affecting the neighbourhood by producing nuisance (gaseous or odor emissions, noise or vibrations, ...)?

#### Monitoring. Please note!

- ▶ With the help of a local environmental expert, it seems easier to understand the meaning of the detailed questions in the matrix.
- The questions should not be read out to the involved chain actors, in particular when they are not familiar with the terminology used in the matrix.
- The latter can be solved by seeking answers to the questions through a conversation; therefore the VECO RO responsible should familiarize him or herself with the matrix.

# Effect in the ST (i.e. within the period of some months or 1-2 year)

Effect in the LT (i.e. more than 1-2 year)

#### **Effect score**

Severity

- ± / ?
- Public Concern
  - Y / N
- Reversible
  - R-/R/R+

#### **Effect and scale**

- ▶ Local → within the sphere of control/influence
- ▶ Regional → within the sphere of interest
- Country
- Cross-borderer → if the effect is crossing the borders of the country

## Certainty regarding information

- ► → "There is a low certainty about the information; it consists of the professional or instinctive assessment of the implementer, is out-of-date and cannot be substantiated using recent data or studies."
- ► ± → "The implementer has some information, but this is not recent enough and/or lacks detail."
- → "There is a high certainty about the information; it is good and sufficiently available, although some lack of topicality, detail or completeness is permissible, to the extent that accurate assessment remains possible."

#### Comments, including inter alia ...

- `clarification of the public concern' → explain how the public concern could be observed
- ▶ 'possible mitigation measures to reverse negative environmental effects' → suggest measures to be taken in the ST or LT
- `description of the scale' → it happens that the categories indicated are not sufficient: describe in more detail the situation, if necessary
- ➤ 'sources of information' → in addition to categorizing the 'certainty regarding information', if available, list the sources
- ► ... → maybe you want to add other comments
- differences in opinion! → if the involved chain actors are not in a agreement about a particular score, don't 'calculate' the average!

## Manual - Content

- ▶ Introduction
- Life cycle thinking value chain
- Environmental screening/assessment
- ► How to use the matrix? (incl. examples of the testing)
- What will be done with the results?
- Foreward looking

#### Some results from the testing (1)

- VECO Indonesia:
  - Organic Rice (Boyolali and Solo, Java)
  - Coffee (Toroja and Mamasa, Sulawesi)
- VECO Mesoamerica (Nicaragua):
  - Beans (Jinotepe, Carazo)

#### Some results from the testing (2)

- Although it was a testing, the pilot exercise has been excuted with a lot of dedication and commitment.
- ► The result is that already right now positive and negatives impacts can be indicated:
  - positive impacts allows VECO to find a 'fact based' storyline for external communication
  - negative impacts invites VECO to set up a pilot action plan with mitigation measures:
    - ▶ Rice: water, transport, neighbourhood
    - Coffee: neighbourhood
    - ▶ Beans\*: fertilizers, pesticides, transport, ...

<sup>\*</sup> There is a considerable difference between the two production systems (COOPAVE and Red Agroecológicos)

#### **Observations: the communalities**

- ▶ Both VECO RO's used the local official language
- Both VECO RO's ran through an open and participatory process as requested in the manual

#### **Observations:** the differences

- ► VECO MA engaged an external expert, VECO IN didn't: it influenced the capacity to deal e.g. with the terminology
- Implication of VECO people:
  - MA Co-ordinator together with the VECO Country coordinator;
  - IN M&E Co-ordinator together with VECO Field coordinators
- ▶ VECO MA invested more time than VECO IN, but not per sé more than estimated in the manual.

# Recommendations different from the manual/matrix

- Matrix scores : more 'grades'
- Matrix environmental effects : numbering instead of bullet points
- Matrix: "more space for social-economic analysis" (cf. PLA-system)
- Matrix : "Sería muy interesante que se diseãra un sistema de evaluación ..."
- Matrix : "Para la linea de base ... Es conviente que se defina un punto de partida ..."

#### Remarks/Comments/Observations (1)

- The manual/matrix recommended to use a different form for the different steps in the agricultural chain (production, processing, transport, distribution): in practice this has not been materialized.
- ▶ It is important to consider the exercise as 'making a picture of today', not as a movie with 'flashbacks' or 'views into the future'. The baseline is the first year of assessment.
- Within this context, it is important that the way of scoring is interpreted in the correct way.

#### Remarks/Comments/Observations (2)

- Making use of the 'screening tool' will go through a learning curve
- It is clear that capacity-building is needed on ...:
  - 'Environmental effects', in particular with regard to the terminology used in the manual/matrix
  - Monitoring (and evaluation)
- ▶ 'Train the trainers' : as soon as possible

#### Content

**►** Introduction

Life cycle thinking – value chain

► Environmental screening/assessment

What about the screening tool ?

Next steps

## Next steps (1)

- Setting up the environmental screening of important agricultural chains in each region. (VECO RO)
- Putting in place procedures for record keeping by VECO HO and RO's. (VECO HO & RO)
- After the application of the screening tool, concluding an action plan with mitigation measures. (VECO HO & RO)
- Facilitating a platform for 'continuity in guidance'. (VECO HO)

## Next steps (2)

- At the level of VECO HO, incorporation of environmental screening in the context of the PLA system.
- ➤ At the level of VECO RO, linking with regional tools (chain analysis tool, screening tool, etc.).
- At the level of VECO HO & RO, streamlining with the GRI performance indicators.

# In comparison with GRI

- Materials
- Energy
- Water
- Biodiversity
- Emissions, effluents, and waste

→ HO & RO

- Products and Services
- → South Programme in the field

- Compliance
- ▶ Transport
- Overall

→ HO & RO

# Doing a good job is a matter of sustainable development!

In all its aspects.

# Thank you.

#### **Bernard MAZIJN**

Consultant 'Sustainable Development' Visiting Professor Ghent University

Email: <u>bernard.mazijn@skynet.be</u>