

# Pesticide Risk Reduction Programme – Ethiopia

## Programme Overview and achievement

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joint collaborative programme on pesticide registration and post-registration



MoA



**Towards a sustainable use of pesticides in Africa**

# Content of presentation

- Motives to start the programme
- History of PRRP-Ethiopia
- Overall goal of the programme
- Partners & Funding
- Objectives of the programme
- Programme structure and content
- Achievement so far



# Motives to start the programme

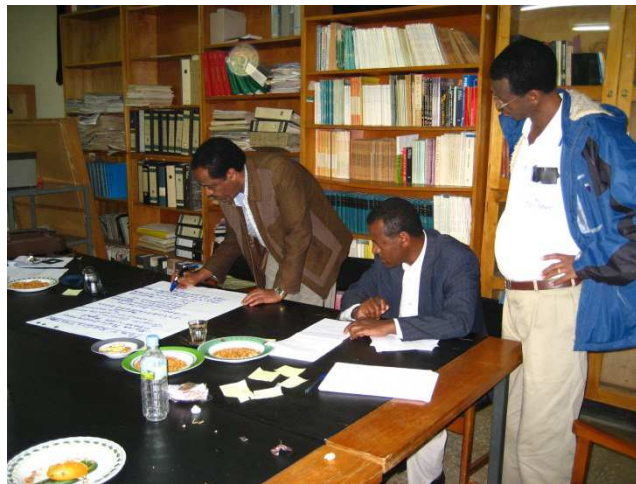
- On-going intensification of agriculture in Ethiopia
    - to meet national demands for food
    - to increase agricultural exports
  - Problems with pesticide use
    - inadequate management, residues, obsolete pesticide stocks, potential health and environmental effects, etc
  - Development of new pesticide legislation (August 2010)
  - More environmental and health awareness and regulations
  - Promotion of IPM and biological control in crop protection
- ➔ Need for comprehensive programme to strengthen sound pesticide management and regulation in the country

# History of PRRP-Ethiopia

2009: programme development initiated

2010: funding obtained and projects and MoUs approved

Late 2010: first programme activities started





# Overall goal of the programme

To contribute to a well functioning legal system for pesticide use in Ethiopia in order to regulate pesticide use by farmers, taking into account the environment, health of the growers and surrounding community, and stimulating the economic performance of the Ethiopian agricultural sector.

This project may function as a pilot project for other African countries and regions.



# PRRP partners



MoA

Ministry of Agriculture – Animal and Plant Health Regulatory Directorate (APHRD)



ALTERRA

CWK/Team Environmental Risk Assessment



Plant Production and Protection Division

# Funding of PRRP

## Government of Ethiopia – Ministry of Agriculture

- Contribution of Ethiopian counterpart, Animal and Plant Health Regulatory Department

## Government of the Netherlands – Ministry of Foreign Affairs

- € 1 950 000 (4 years)

## FAO – Technical Cooperation Programme

- US\$ 465 000 (2 years)

## SAICM – Quick Start Programme

- US \$ 190 540 (2 years)



MoA



Ministerie van Buitenlandse Zaken

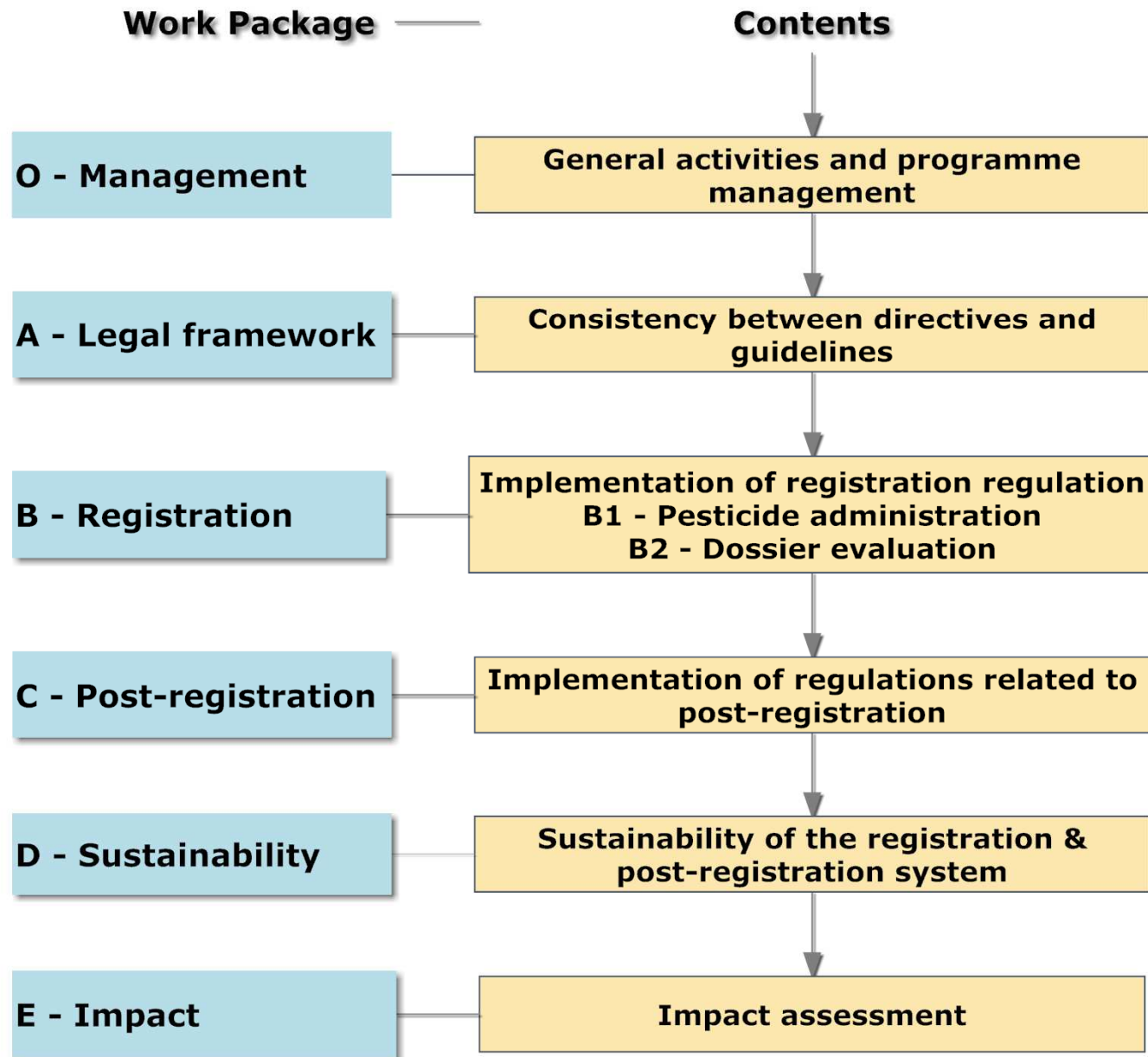


# Objectives of the programme

- To develop a **legal framework** for the registration and post registration of pesticides .
- To develop a proper **pesticide registration system** for Ethiopia and train local staff on dossier evaluation.
- To develop a **post registration system** (including pesticide quality control, monitoring, inspection, storage of pesticides, capacity building and training).
- To develop approaches and mechanisms that will ensure the **sustainability** of a effective Ethiopian pesticide management system in the long term.
- To execute an **impact assessment** of the new (post) registration system.



# Programme structure



# WP O: Programme management and general issues



Who:  
Project  
Management  
Team

## Goal

- Overall implementation of the programme.
- Information exchange, awareness building, publicity.

## How?

- Daily management and coordination within the project and reporting the progress etc.

# WP A: Legal Framework

Who:  
APHRD &  
MoA Legal  
Affairs

## Goal

- To ensure consistency between the legal framework and the methodologies, guidelines etc. that will be developed during this programme.

## How?

- Adaptation of the current regulations, as a result of the strengthening of the registration and post registration system.



# WP B: Development of pesticide registration system



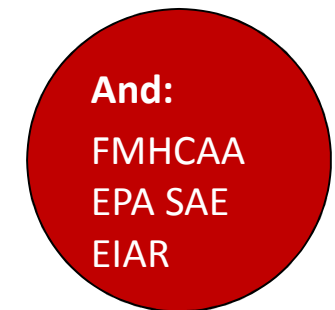
## Goal

Development of:

- B.1: Pesticide registration management unit
- B.2: Scientific evaluation system for registration of agricultural pesticides, and bio-pesticides

## How?

- On-the job-training on dossier evaluation. Development of procedure manual, new application forms, database with registered pesticides, a webpage etc.
- A scientific evaluation system will be developed for efficacy, human health, residues and environmental issues.





Working on safe food and drinking water, taking care for the environment






# WP C: Development post-registration system

## Goal

To develop a well functioning post registration system.

- C.1: reference laboratory for pesticide quality control
- C.2: monitoring system
- C.3: inspection system
- C.4: storage of pesticides
- C.5: public awareness and capacity building of professionals
- C.6: training of pesticide distributors, retailers and pesticide applicators
- C.7: empty container management



Lead:  
APHRD  
FAO

## How?

- Development of guidance, standards and protocols.
- Capacity building through workshops and training.
- Infrastructure development



And: FMHCAA  
EPA EIAR  
universities  
customs agency  
private sector

# WP D: Sustainability of developed systems

## Goal

- To develop approaches and mechanisms that will ensure the financial and scientific sustainability of the Ethiopian pesticide management system in the long term.

Lead:  
APHRD  
Alterra

## How?

- Economic feasibility study
- Development of financial mechanisms
- PhD and MSc grants

And:  
universities  
private sector  
MOFED



# WP E: Impact assessment

Lead:  
APHRD  
Alterra

## Goal

- To evaluate the impact of new developed systems related to (post) registration of pesticides.

## How?

- Start project: research on reference situation (e.g. pesticide use, pesticide impact and knowledge about pesticides)
- After 5 - 10 years: same research to assess impact of the activities within project will be evaluated.

And:  
university  
EIAR



# Project achievements

- Period covered: February 2010 – October 2012
- Presentation by work package



# WP 0 : VISIBILITY(9 types of posters)



## Pesticide Risk Reduction Programme – Ethiopia (PRRP) Impact Assessment

### Goal of Work Package E

To execute a study of the overall impact of the new (post) registration system in Ethiopia .

### Approach

Research on reference situation (e.g. pesticide use, pesticide impact and knowledge about pesticides); same research after 5-10 years to assess impact of the activities of the programme.



### Activities

1. Hold a general workshop (baseline study start-up meeting)
2. Conduct a study on registered pesticides
3. Investigate pesticide use by farmers & farmer knowledge
4. Assess environmental risk
5. Assess risk to human health
6. Evaluate capacity building of professionals
7. Investigate knowledge of pesticide users
8. Evaluation and reporting

Lead:  
APHRD &  
Alterra  
Ethiopian  
Universities,  
EIAR



### Results so far

- The study on registered pesticides (in 2010) has been conducted in 2011.
- The results showed that c. 54% of registered pesticides in Ethiopia fell in WHO class I and II (extremely and very hazardous) and that the other 46% fell in the less hazardous WHO classes.
- The baseline study start-up meeting was held in Debre Zeyit, Ethiopia, from 3-7 October 2011. It was well attended by representatives from different ministries, universities, government services and regional agricultural authorities.
- The participants presented overviews of their own work on pesticides and during several working group sessions with vivid discussions a great number of very useful recommendations was formulated for the design of the baseline study based on the working knowledge of the participants.

### Expected impact

- Quantitative information on the success of the PRRP programme.



**Towards a sustainable use of pesticides in Africa**

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# PRRP – Ethiopia Newsletter

## *Special topic: Pesticide registration in a nutshell*

### Newsletter # 2, part 2, special topic

#### **Pesticide registration in a nutshell**

All pesticides used in Ethiopia must be registered<sup>1</sup>, and it is the Animal and Plant Health Regulatory Department (APHRD) of the Ministry of Agriculture which is responsible for this task. But what is pesticide registration and why is it so important?

In a way, the term "pesticide registration" is confusing, because it only seems to refer to the recording of a product on the list of nationally approved pesticides: the pesticides register. However, this is merely the last step in a long and sometimes complicated process.

Pesticide registration means the process whereby the responsible national government or regional authority approves the sale and use of a pest control product following the evaluation of comprehensive scientific data demonstrating that the product is effective for its intended purposes and does not pose an unacceptable risk to human or animal health or the environment<sup>2</sup>.

Three parts of this definition are key to the understanding of pesticide registration: "... evaluation of comprehensive data", "... effective

the pesticide's effect) and formulants (i.e. substances other than the active ingredient that are added to a pest control product to improve its physical characteristics; e.g., sprayability, solubility, or stability).

In Ethiopia, as is the case in many other countries, not just the active ingredient, but each individual pest control product needs to be evaluated before it can be authorized for use. Furthermore, it is important to realize that a pest control product never gets a "blanket registration" which allows use in all situations. Pest control products in Ethiopia are registered for a specific use, e.g. against a coffee pest, for malaria mosquito control, against weeds in maize, etc. In principle, if the product is used for another purpose than the one(s) that are registered, the user violates the law.



## WP.O -Information release to the website

- Summary/information about the processes and results in connection to each workshop, training and meeting held from October2011-May2012 has been released in Project website:

[www.prrp-ethiopia.org](http://www.prrp-ethiopia.org)

- Four management and 3 progress reports have been prepared.

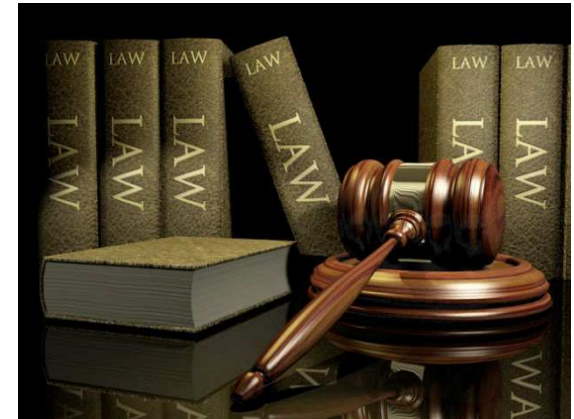


# WPO-SEARCH for extra funding

The Project in collaboration with APHRD able to solicit USD 190 540 from UNEP/SAICM for Bio-pesticide regulation and evaluation

## WP A: Legal Framework

- Important elements obtained from stakeholders meeting have been incorporated in the draft pesticide registration and control regulation.
- However the same document will be further amended with the assistance of FAO Legal personnel in the near future





# WP B1. Strengthening of pesticide registration administration system

- Training of APHRD staff on the administration of pesticide registration
- Study tour to Netherlands to get experience on pesticide registration procedure
- A pesticide Registration System(PREMAS) software has been developed

The screenshot displays the 'Antracol 70 WP - Full Registration' software interface. The main window is titled 'Step 10: Technical completeness check'. On the left, there is a sidebar with 'Product Identity' (Trade name: Antracol 70 WP, Applicant: Bayer, PRF Nr: er966876) and 'Registrations/Applications' (Full Registration). The main area contains several sections for data entry and completion status:

- 10a: Technical completeness**
  - Complete: The dossier is technically complete. Date: // / . Print: Completeness checklist.
  - Complete: A letter has been sent to the applicant notifying about any missing data that should be submitted. Date: // / . Print: Standard letter.
  - Complete: The missing data have been received (1 hard copy & 1 soft copy). Show: Deadline for reception [8 weeks after date 10b]. Date received: // / . A receipt has been provided to the applicant. Date: // / . Print: Standard receipt.
  - Complete: The missing data have been forwarded to the APHRD evaluators. Date: // / . Name evaluator: // / .
- 10d: Technical completeness (update)**
  - Complete: The dossier is technically complete. Date: // / . Application for registration of the pesticide can proceed.  Yes  No.





## B.2.1 Development of Scientific evaluation system for registration of chemical pesticides

15 crop protection researcher/ experts trained on efficacy testing of pesticides

16 crop protection researcher/experts trained on trial execution, statistical analysis, reporting and evaluation

18 Crop protection researchers trained on developed efficacy testing protocols

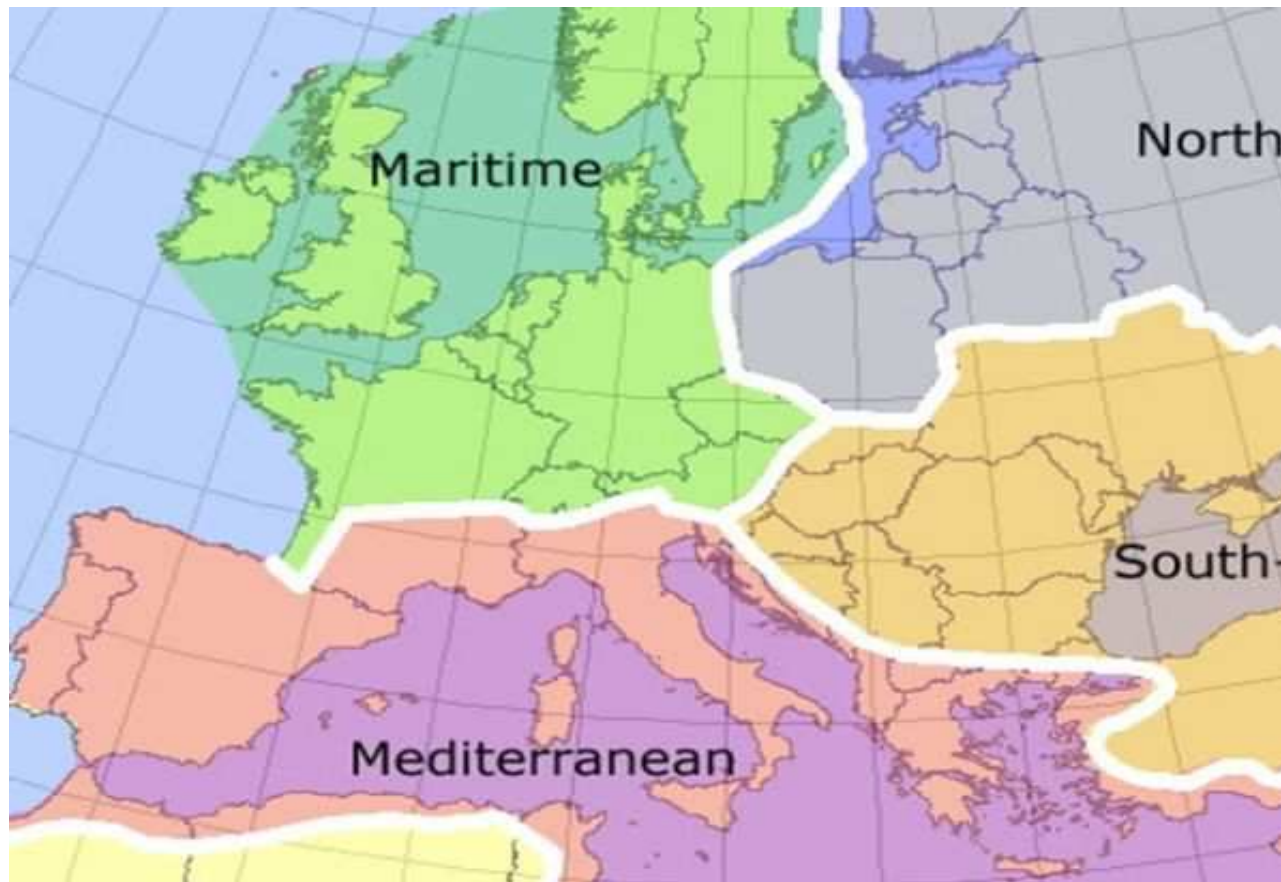


## Twenty efficacy testing protocols developed for 20 crop/pest combinations

- Coffee berry disease (*Colletotrichum kahawae*) on coffee
- late blight (*Phytophthora infestans*) on potato
- powdery mildew (*Erysiphe cichoracearum*) on mango
- rusts (*Puccinia* spp.) on wheat
- *Botrytis* on roses
- powdery mildew (*Sphaerotheca pannosa*) on roses
- Seed born diseases in wheat
- red teff worm (*Mentaxya ignicollis*) in teff
- epilachna (*Chnootriba similis*) in teff
- aphids in cotton
- pea aphid in leguminous crops
- stalk borers in maize
- bollworms in cotton
- onion thrips (*Thrips tabaci*) in onion
- weevils in maize
- scales in citrus
- woolly aphids (*Eriosomatinae*) in apple
- Shoot flies on teff
- weeds in cereals
- weeds in in perennial crops

# Development of guideline for accepting efficacy data in the neighboring countries

## EPPO



# Ethiopia and neighbouring countries



## **WP 2.1 Environment, public health (operator and consumer health) risk assessment**

15 participants representing different stakeholders and APHRD are trained on environmental risk assessment and protection goals

11 participants representing different stakeholders and APHRD trained on human health risk assessment

14 participants are trained on MRL and consumer health risk assessment

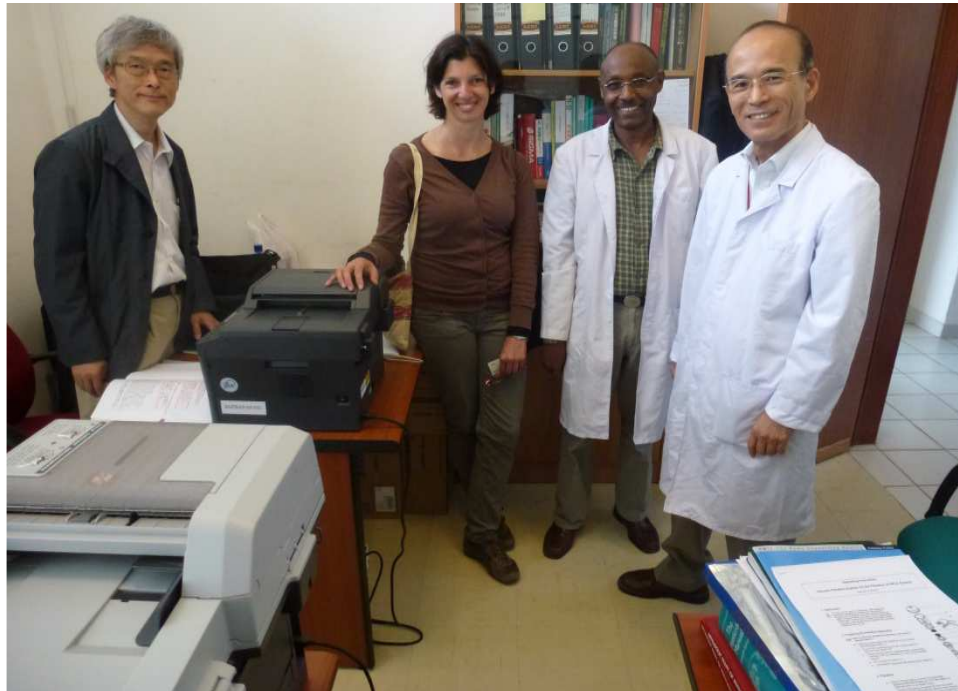
10 participants trained on environmental risk criteria for pesticide registration

Development of evaluation manual for registration of chemical pesticides in connection to environment, human health (occupational and consumer health) is in progress



## WP C. Development of a post-registration system for pesticides

- Capacity development of pesticide management in Ethiopia - Review and planning workshop
- Update the list of equipment
- Purchase laboratory equipment
- Two chemists trained on quality control at Belgium
- Five consultancy studies on strengthening post registration capacity



# WP D-Sustainability

- Three PHD grants to support research projects contributing to sound management of pesticides
- Annual meeting with the private sector to ensure information exchange
- Annual meeting with farmers and agricultural commodity organizations to ensure information exchange
- National workshop on the development scientific support platform and post registration (June 21/2012)





## WP-D (cont..)

Hiring of local consultancy firm for assessment of the feasibility of an institutionally and financially sustainable pesticide registration and post-registration system is in progress

# WP E-Impact assessment

- Baseline study start-up meeting
  - Baseline study on registered pesticides, less toxic and safer alternatives
  - Recruitment process for hiring two consultants
    1. on farm survey and pesticide users
    2. On health professionals
- Is under progress



# More information

Project website: [www.prrp-ethiopia.org](http://www.prrp-ethiopia.org)

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# PRRP-Ethiopia



MoA



## WP B2.1 Environment

Development of a scientific evaluation system for the registration of pesticides –

Evaluation of dossiers of chemical pesticides

1. Efficacy - started Jan 2011
2. Environment – started May 2011
3. Human health and residues – start early 2012

## **Scientific evaluation system for environmental aspects – Planned activities 2011- 2013**

### Activity 1:

Development of environmental hazard and risk assessment to be used for evaluation of dossiers, by

A. General workshop on environmental hazard and risk assessment and

B. Workshop to define protection goals for the environment (soil, water, air, zones, species etc)

## **Scientific evaluation system for environmental aspects – Planned activities 2011- 2013**

Activity 1 (cont'd):

Development of environmental hazard and risk assessment to be used for evaluation of dossiers, by

C. Adopt an existing tool or create a new tool/model for environmental hazard and/or risk assessment (PRIMET ?)

D. Develop evaluation procedures leading to conclusions on acceptability (yes/no) according to developed criteria (of Activity 3)

# **Scientific evaluation system for environmental aspects – Planned activities 2011- 2013**

Activity 2:

Development of new data requirements (if needed)  
by

A. Update SEARCH based and associated guidelines



# **Scientific evaluation system for environmental aspects – Planned activities 2011- 2013**

## Activity 3:

Development nationally applicable criteria for acceptability of pesticides (e.g. environmental impact, physical-chemical characteristics)  
by

- A. Define draft criteria using international criteria as basis and
- B. Discuss draft criteria with all stakeholders

## **Scientific evaluation system for environmental aspects – Planned activities 2011- 2013**

Activity 3 (cont'd):

Development nationally applicable criteria for acceptability of pesticides (e.g. environmental impact, physical-chemical characteristics)  
by

C. Define national applicable criteria  
and

D. Formalize criteria as part of directive or regulation

# **Scientific evaluation system for environmental aspects – Planned activities 2011- 2013**

## Activity 4:

Development of guidance on how to assess the quality of the data submitted by

- A. Workshop on quality data submitted by registrant and
- B. Development of guidance on quality assessment

## **Scientific evaluation system for environmental aspects – Planned activities 2011- 2013**

### Activity 5:

Capacity building on human resources to get a qualified team with relevant skills to evaluate the dossier by

- A. Development of a manual (environmental aspects);
- B. Training on environmental risk assessment tool and
- C. On the job training on dossier evaluation for registration experts from stakeholder institutions

**THANK YOU!**