

Environmental Review of the Use
of Pesticides in USAID Projects:
Rationale & Approaches



The Regulations are strict. Why?

- ❖ Pesticides can ...
 - affect non-target ecosystems
 - affect non-target organisms
 - be dangerous to human health
 - persist/accumulate in the environment
 - lead to resistance and to resurgence of pests

The Regulations are strict. Why?

- ❖ Regulation 216 was written in response to a pesticides lawsuit
- ❖ 20% of the content of Reg. 16 concern pesticides

What is “pesticide use” per USAID?

- ❖ USAID interprets 'pesticide procurement or use' in its broadest sense.
- ❖ It encompasses all direct and most indirect forms of support to the actual acquisition and use of pesticides:

Definition of pesticide “use”

“When a project includes assistance for procurement or use of pesticides registered for the same or similar uses by USEPA without restriction...,
...the Initial Environmental Examination for the project shall include a separate section evaluating the *economic, social and environmental risks and benefits of the planned pesticide use* to determine whether the use may result in significant environmental impact.” (22 CFR 216.3(b)(1))

"Use" includes:

- ❖ Sale, handling, transport, storage, mixing, loading, application
- ❖ Disposal of pesticides
- ❖ Provision of fuel to transport the pesticides
- ❖ Technical assistance to pesticide management
- ❖ In other words, "cradle to grave."

and “Procurement” includes...

- Not only direct purchase, but also...
 - ✓ Payment in kind, donations, provision of free samples, and other forms of subsidy
 - ✓ Provision of credit to borrowers -- or even guarantee of credit to banks or other credit providers -- for pesticide inputs, could also be interpreted as procurement

Not Subject to Scrutiny under the Pesticide Procedures is...

- ❖ Technical assistance/support for development of host country pesticide regulatory capabilities.
- ❖ Procurement or use, or both, for pesticides for research or limited field evaluation:
 - surface area of under 4 ha,
 - supervised by researchers,
 - application done by trained applicators,
 - Manufacturers provide toxicological data
 - the treated products are not consumed by people or animals

Exceptions to Pesticide Procedures

- ❖ Exemptions of § 216.2(b)(1) and the categorical exclusions of § 216.2(c)(2) are not applicable to assistance for the procurement of pesticides.

However...

- ❖ Exceptions to Pesticide Procedures do apply (§ 216.3(b)(2) for:
 - Projects under emergency conditions
 - Projects where USAID is minor donor
 - > For research or limited field evaluation purposes

Other Aspects to Pesticide Procedures

- ❖ Support can be provided for training in safer pesticide use, as long as it does not involve actual application or use of pesticides by the farmer or household.
- ❖ USAID also strongly encourages that integrated pest management and alternatives to pesticides be included in any training on pesticide use.

Other Aspects to Pesticide Procedures

- ❖ Pesticides are considered a tool of "last resort" and the pesticides chosen should as far as feasible be the "least toxic" ones.

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• Pesticide IEEs are now called
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• **PERSUAPs:**

**Pesticide Evaluation Report and
Safer Use Action Plan**

- ❖ Must consider and discuss, per 22 CFR 216.3 (b) (1) *a* to *i* :
 - Host country & USEPA registration status of the requested pesticide;
 - Basis for selection of the requested pesticide;
 - Extent to which the proposed pesticide use is part of an integrated pest management program;

PERSUAPs must consider and discuss... (cont'd.)

- Proposed method or methods of application, including availability of appropriate application and safety equipment;
- Any acute and long-term toxicological hazards, either human or environmental, associated with the proposed use and measures available to minimize such hazards;
- Compatibility of the proposed pesticide with target and non-target ecosystems;

PERSUAPs must consider and discuss... (cont'd)

- Availability and effectiveness of other pesticides or non-chemical control methods;
- Host country's ability to regulate or control its distribution, storage, use, and disposal;
- Provisions made for training of users and applicators; and
- Provisions made for monitoring the use and effectiveness of the pesticide.
- NOTE: above list is not complete ("12 points")

Certain USEPA Criteria for Study of Pesticides

- ❖ Oncogenicity, mutagenicity and carcinogenicity;
- ❖ Teratogenicity and fetotoxicity;
- ❖ Toxic effects on the liver, the kidneys and thyroid;
- ❖ Neurotoxicity;
- ❖ Effects on female and male reproductive system system

Alternatives to Chemical Pesticides

- ❖ Biological control;
- ❖ Manipulation of the environment;
- ❖ Induced sexual sterility;
- ❖ Physical control and repellants;
- ❖ Attractants and traps;
- ❖ Genetic manipulation of pest populations

Steps in Integrated Pest Management (IPM)

1. Identify the major pests and establish economic injury levels
2. Select the best mix of control techniques
3. Monitor the field regularly
4. Use all control methods correctly and safely
5. Comply with all legal controls
6. Develop educational, training, and demonstration programs for farmers and extension workers

Summary of Mitigation Measures and Requirements

- ❖ Emphasize non-chemical methods of pest control and IPM systems
- ❖ Provide pesticide training and protection to project personnel and participating farmers
- ❖ Monitor pesticide use
- ❖ Comply with local laws and regulations