

LAO PEOPLE'S DEMOCRATIC REPUBLIC
PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY



The Poverty Reduction Fund II

SIMPLIFY

PEST MANAGEMENT PLAN (PMP)

FINAL --March 2011

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LIST OF ACRONYMS

| | |
|---------|--|
| CDD | Community Driven Development |
| CRPF | Compensation and Resettlement Policy Framework |
| DAFO | District Agriculture and Forestry Office |
| DoA | Department of Agriculture |
| DRM | Disaster Risk Management |
| EGPF | Ethnic Group Policy Framework |
| EIA | Environmental Impact Assessment |
| EPA | Environment Protection Agency |
| ESMF | Environmental and Social Management Framework |
| FAO | Food and Agriculture Organization |
| GHS | Global Harmonized System |
| GoL | Government of Lao PDR |
| IPM | Integrated Pest Management |
| JICA | Japan International Cooperation Agency |
| JSDF | Japanese Social Development Fund |
| KB | Koumban |
| LUFSSIP | Lao Upland Food Security Improvement Project |
| MAF | Ministry of Agriculture and Forestry |
| MIS | Management Information System |
| NTFP | Non Timber Forest Product |
| OP | Operational Policy (of the World Bank) |
| O&M | Operation and Maintenance |
| PAFO | Provincial Agriculture and Forestry Office |
| PDO | Project Development Objective |
| PMP | Pest Management Plan |
| POM | Project Operations Manual |
| PRF | Poverty Reduction Fund |
| PRF I | PRF Phase I |
| PRF II | PRF Phase II |
| WB | World Bank |
| WHO | World Health Organization |

INTRODUCTION

The Poverty Reduction Fund phase II (PRF II) has been designed and implemented following the community-driven approach developed during the implementation of the first phase of the Poverty Reduction Fund (2003-2011). The Project Development Objective (PDO) is to improve the access to and the utilization of basic infrastructure and services for PRF II targeted poor communities in a sustainable manner through inclusive community and local development processes.

The World Bank (WB) has categorized the PRF II as a ‘*Category B*’ project and out of the ten safeguard policies, four policies are triggered: *Environmental Assessment (OP 4.01)*; *Pest Management (OP 4.09)*; *Indigenous Peoples (OP 4.10)*; and *Involuntary Resettlement (OP 4.12)*. Given the Project’s Community Driven Development (CDD) nature, which is designed and implemented through a participatory planning process and the types of small civil works that will be supported under the project, it is not anticipated that the Project activities will create many major adverse impacts that cannot be managed by communities themselves. However small-scale civil works may require minor land acquisition and/or may create other minor negative impacts on local environment and local people but the impacts would be localized, temporally, and can be mitigated through good planning and construction practices.

To be in line with OP 4.01, OP 4.09, OP 4.10, and OP 4.12, four safeguard instruments have been prepared as a standalone documents:¹

- the Compensation and Resettlement Policy Framework (CRPF)
- the Ethnic Group Policy Framework (EGPF)
- the Environmental and Social Management Framework (ESMF)
- the simplified Pest Management Plan (PMP)

This document is the simplified Pest Management Plan (PMP). It aims to provide basic knowledge to the national, provincial and district government, the PRF team, consultants, koumban (KB) staff, village officials, private and public sector agencies with adequate guidance for effectively addressing the safeguard issues in line with OP 4.09. The process will be implemented as part of the PRF project cycle and fully integrated into the subproject selection, approval, implementation, and monitoring and evaluation process. The PMP describes key issues related to procure and use of pesticide and chemical fertilizer and identified mitigation measures related to prohibited items, training, and guidelines related to safe use of pesticides. This PMP is adopted from ESMF of Lao Upland Food Security Improvement Project (LUFSIP) which was developed as part of PRF activity implementation support. The PMP will be applicable for all PRF II activity related to agriculture infrastructure development under the Component 1 and livelihood pilot grant funded under Japanese Social Development Fund (JSDF). The simplified PMP will be implemented along with other safeguard instruments developed for PRF II such as ESMF, CRPF and EGPF.

Responsible agency: The PRF staff at central and local levels will be responsible for implementation of the PMP and ensuring full compliance, including keeping proper documentation in the project file for possible review by the World Bank.

This document is considered a living document and could be modified and changed as it is appropriated. Close consultation with the World Bank and clearance of the revised PMP will be necessary.

¹ These safeguards documents have been disclosed (both in English and Lao) at the World Bank InfoShop as well as at PRF offices in Vientiane, provinces, districts, and villages and at the World Bank office in Vientiane.

SECTION I PROJECT DESCRIPTION

The Second Phase of the Poverty Reduction Fund will be implemented over a period of five years (2011–2016). It consists of three main components:

Component 1 – Community Development Grants:

- Planning for community and local development The koumban planning process would be for a four year period. Villagers would prepare development plans that would be integrated at the koumban level through an inclusive process led by elected village representatives. Koumban plans would be revalidated on an annual basis through a participatory process at the village, koumban and district levels. Keeping in mind the objective of the PRF is to empower communities, due attention will be paid to further strengthening villagers' participation in sub-project planning, implementation and monitoring. PRF facilitators would play a critical role in this process.
- Community sub-projects: Sub-projects would be financed and implemented on an annual basis. This component would also support community training activities directly associated with sub-project investments. Sub-projects would be selected for financing at the koumban level by the PRF koumban committee (consisting of elected villagers including women and ethnic groups). PRF district staff, district local government and sector officials would provide technical validation of proposals. The final decision for sub-project financing would be made in a transparent manner at the koumban level by the PRF koumban committee based on criteria to be specified in the Project Operations Manual (POM). PRF II sub-projects would be required to meet appropriate technical standards for infrastructure agreed upon with relevant sector ministries. Activities to be financed under the grants would be open except for items specifically excluded through the project's negative list.
- Mainstreaming of Disaster Risk Management (DRM, "Cool CDD"): PRF II would play a stronger role in DRM at the koumban and village levels. These activities would include: (i) strengthening existing PRF-financed infrastructure at risk of natural disasters; (ii) factoring resilience into the design of new PRF sub-projects in high risk areas; (iii) assisting communities to identify disaster risks; and (iv) allowing for the flexible utilization of PRF II grants to assist community recovery efforts in case of natural disasters in PRF II target koumbans.
- Mainstreaming of Gender issues: Women and men's different needs, constraints and opportunities would be further mainstreamed into PRF II and the project would develop a Gender Action Plan.

Component 2: Local & Community Development Capacity-Building:

- Village & Koumban level: This component will support the PRF objective of empowering communities by training them in assessing their own needs, discussing these with local authorities, implementing and supervising the construction of small public infrastructure investments, procurement, financial management, operation and maintenance (O&M), and lastly monitoring outputs and outcomes at the community and koumban levels.
- District & Provincial level: The component would finance investments to strengthen the capacity of district and provincial officials to support pro-poor local and community development processes, including financing of training on community and local development planning, financial management, and procurement.
- Central level: The component would also finance strengthening of the Leading Committee to support national poverty targeting efforts, and to strengthen coordination of PRF II investments with those of various sector ministries and other entities supporting rural development in PRF II target koumbans.

Component 3: Project Management and Implementation Support:

- This component would finance the costs of implementing, monitoring, evaluating and reporting for PRF II. It would include salaries and fees of national, provincial and district PRF staff; associated equipment and operating costs; Management Information System (MIS), key studies and evaluations, accounting, procurement assessments, legal services, auditing, and other specialized areas. Critical technical assistance and implementation support would also be financed under this component.

Support for improved livelihoods

In addition to the core project, PRF II would support livelihoods improvement activities on a pilot basis through a grant (US\$2.6 million) financed by the Japanese Social Development Fund (JSDF). This would be implemented in a select number of communities, in Huaphan and Savannakhet, with a view to testing models for effective and sustainable rural livelihood improvements for poor communities. Specifically, the pilot would support:

- Formation of community self-help groups & capacity building of local service providers: This component will focus on forming self-help groups, with a focus on women's self-help groups, in ethnic communities and building these groups' capacity to articulate their own needs and to successfully implement sustainable livelihood activities. The component will also train new college graduates to serve as community facilitators, build the capacity and responsiveness of local service providers and link available technical assistance with community needs.
- Community asset creation: This component will provide grants (average of \$2,000 each) to eligible village through a competitive and participatory selection process, and support the planning, implementation and sustainability of livelihood activities. Activities under this component will focus on empowering participants with technical assistance, promote sustainability by building financial literacy, establishing links to markets and promote pro-nutrition livelihood activities.
- Participatory pro-nutrition assessment & activities: Progressive reduction of poverty rates and increased household incomes in Lao PDR have not led to significant improvements in malnutrition over the past 15 years. This component will thus seek to ensure that livelihood sub-grants to self-help groups have a positive impact on community nutrition. Participatory pro-nutrition assessment and activities will be introduced in targeted areas of the pilot to allow evaluation of the effects of linking community-based livelihood improvements with pro-nutrition activities.
- Monitoring and impact evaluation of pilot activities: This component will evaluate pilot impacts as well as efficacy of implementation and monitoring mechanisms, with lessons intended to inform the planned expansion of the Poverty Reduction Fund.

The Poverty Reduction Fund is community driven, and rests on a participatory planning process, which is an integral part of the Fund's activities. The current planning process will be updated in the Operations Manual to fit with the 3-year planning cycle (as opposed to the annual planning process which was used during PRF I).

SECTION II. POLICY AND REGULATIONS

World Bank's safeguard policy on pest management (OP 4.09)

OP 4.09 (pest management). The objective of this policy is to minimize and manage the environmental and health risks associated with pesticide use and promote and support safe, effective and environmentally sound pest management. The OP 4.09 was not triggered in the PRF I as the project was not involved and did not support any use of pesticide and/or chemical fertilizer. A review of safeguards issues in PRF I, however, has shown that providing agriculture infrastructure may provide indirect support to the use of chemical fertilizer and pesticide in some project areas. Differently from PRF I, PRF II will support livelihoods activities through the JSDF in selected communities with a view of testing models for effective and sustainable rural livelihood improvements for poor communities. In addition, the PRF is also supporting the implementation of component 3 of the LUFSSIP project. OP 4.09 was triggered for the LUFSSIP project.

While the project will not procure and promote use of chemical pesticides and fertilizers, which are included in the *negative* list, it may be unrealistic to completely prevent all farmers from applying chemical inputs. Specifically, rehabilitation of irrigation, building of small irrigation/agriculture production, and/or control of infestation of diseases may involve the use of pesticides and/or procurement of small amount of pesticides, herbicides, and insecticides. To mitigate this potential impact this simplified PMP has been prepared outlining clear regulations and procedures for management of pesticides and/or toxic chemical as well as providing knowledge and training on health impacts and safe use of pesticides and/or, when possible, promotion of non-chemical use alternatives such as organic farming. The PRF II will work closely with agriculture sector to apply the Conservation Agricultural Technology approved by Ministry of Agriculture and Forestry (MAF) in 2006 for the agricultural activities. This PMP is adopted and simplified from PMP prepared for LUFSSIP project.

Government regulation related to pest management

In March 2000, with support from Japan International Cooperation Agency (JICA) and Food and Agriculture Organization (FAO), the MAF established the Regulation number 0886/MAF and recently updated in June 11, 2010 into the regulation number 2860/MAF (Annex 2) on Pest Management in Lao PDR. The regulation was developed based on the WHO recommended Classification of Pesticide by Hazard and Guideline to Classification 1994-1995. The GoL had registered in January 2010 the companies who import pesticides, fertilizers and seeds into Lao PDR. Registered pesticide has been adjusted in May 2010 based on the new regulation. The Department of Agriculture (DoA) under MAF is mandated to oversight all the usage of pesticide.

SECTION III KEY ISSUES AND MITIGATION MEASURES

Key issues related to use of pesticide and chemical fertilizer

The PMP is developed to support project community and a responsibility of all parties to support the implementation. Negative impacts from the use of pesticide and chemical fertilizer are expected to be minor and localized and could be mitigated during the planning and implementation of the project. Given that pesticide and chemical fertilizer are normal practicing by many farmers, however, it is important for PRF staff and local communities to understand the nature of activity which could possibly encourage people to reduce the use pesticide and chemical fertilizer.

Below summarizes the possibly activity which could be associated with the use of pesticide and chemical fertilizer under PRF II.

- Implementation of subprojects related to irrigation (new and rehabilitation) may indirectly involve the use of pesticides and or chemical fertilizer. It often occurs when farmers aim at increase their productivity as their land can now be irrigated. It also obvious when intensive agriculture has been introduced given an opportunity of water is available in their agriculture areas.
- PRF II would support livelihoods activities through a recently approved grant (US\$2.6 million) financed by the JSDF in selected provinces. This would be implemented in a select number of communities with a view of testing models for effective and sustainable rural livelihood improvements for poor communities. This activity could encourage community with an intensive on-farm activity such as a rice production, vegetable garden, industry tree plantation, and livestock husbandry where pesticide and chemical fertilizer could be applied by local communities.
- From past experience, many of PRF I project target villages are using pesticide and chemical fertilizer on their agriculture activity and rubber plantation which is already polluted nearby streams.

Actions for mitigation

As mentioned, the negative impacts from the use of pesticide and chemical fertilizer from PRF II activities would be minor and localized and could be mitigated during the planning and implementation of the project. During the consultation stage with koumbans, there are also opportunity to enhance positive impact during the planning and selection of the subprojects. Below summarizes the activities to be carried out during the planning and implementation of PRF II on pest management.

(a) Prohibition

To avoid adverse impacts due to pesticides, procurement of large pesticides will be prohibited and this has been included in the “*negative list*”.

(b) PRF staff training

The PRF II will provide basic knowledge on alternative options for agriculture development and /or livelihood activities, including safe use of pesticides and other toxic chemicals. Budget would be allocated for project staff training to understand 1) overall policy on Pest Management (government and Bank policy); 2) basic knowledge on possibly negative impact on environmental and health from the use of pesticide and chemical fertilizer; and 3) basic knowledge on how to prevent it including what are the prohibited items in the country for pesticide and chemical fertilizer, how to prevent or mitigate the negative impact from the use etc (staff training could be done jointly with other topics). For the subprojects involve the use of fertilizer, pesticides, and/or toxic chemicals.

(c) *Provide knowledge to farmers*

Prior consultation would be provided to project KBs. Pest management will be included as one topic for village consultation meeting at the KB. It is likely that the agriculture support would be priority for a particular village either agriculture infrastructure and livelihood support, training on pest management should be provided in the following areas:

- *Pest management training:* The objective is to provide basic knowledge to the target farmer on prohibited type of pesticide, the negative on the use of pesticide and chemical fertilizer both on environmental and human health, and how to mitigate the negative impact from the usage of pesticide and chemical fertilizers if there is a need for the use. It is also to inform farmers that, the GoL is not intended to support the use of any pesticide and chemical fertilizer in any agricultural productivity but promote conservation agriculture instead; however the country has experienced severe pest invasions, and could lead to the usage of pesticide and chemical fertilizer in some cases to limit losses and damages to the agriculture product. The procurement of pesticide and chemical fertilizer will not be necessary funded under PRF II budget; however any PRF II villages that get support for either agriculture infrastructure and livelihood activity through JSDF would need to have training on pest management described under this PMP.
- *Training on GoL regulation:* The country is experienced in the use of pesticide and chemical fertilizer and learnt from its neighboring countries. The PRF II will train the target farmers on the Regulation number 2860/MAF on Pesticide Management before the subproject can be implemented and subject to compliance with the Bank safeguard policy OP 4.09 on Pest Management.
- *Technical training;* This training would aims at providing the target farmers to understand clearly the technical aspect of pesticide and skill in using them such as what are the eligible and prohibited items of pesticide in Lao, the level of negative impact of each eligible item, how to use them, how to protect and minimize the negative impact while using them, how to keep them before and after used etc. Thus the trainer would be someone from PAFO or DAFO who is knowledgeable on this. PRF II will finance the training cost and per diem and transportation cost for the trainer if needed.
- *Procurement, storage, and usage of pesticide;* Procurement, storage and monitoring of the usage of pesticide financing under LUFSP is fully a responsibility of DOA. The DOA should strictly follow with articles 18 and 19 of the MAF's regulation number 2860/MAF for procuring the pesticide; articles 20, 21 and 22 for transportation, storage and trans-boundary transportation of pesticides; and articles 23 and 24 for the safety use of pesticide. The DOA or user may refer in addition to the article 25 and 26 for the storage and usage of pesticide.

Promotion of non-chemical agriculture

The PRF II has been designed also to promote conservation of natural resources when possible. It is anticipated that linking PRF II agriculture's activity with conservation agriculture technique is important for improving the quality of life among farmers. Given that most of PRF subprojects are located in remote area and sustainable use of natural resources would be critical for their livelihood development and poverty reduction. If protected areas or critical natural habitats are located nearby, it is necessary to also take measures to minimize potential negative impacts and/or enhance positive impacts through the community-driven process. In this context, a "conservation agriculture technique" should be introduced for target communities. During the planning process, action will be carried out jointly between the PRF and DAFO to plan and train farmers.

Implementation arrangement and budget

(a) Planning and implementation

In close cooperation with PAFO, PRF staff at central level will be responsible for providing training to PRF staff at province and local level and koumban facilitator during the consultation and planning stage. Budget for training will be included in the subproject cost or capacity building as appropriate.

(b) Monitoring

PRF staff at local level will work with DAFO staff for the monitoring of the use of pesticide in target community including: a) ensure the procured pesticide is not in the negative list provided in Annex 1; b) ensure procured pesticides are properly kept and transport them to the target area; c) ensure training delivery to the user before distribution; and d) monitor compliance usage of pesticide according to the MAF's regulation number 2860/MAF (in Annex 2). The World Bank and PRF team at central will carry out a joint Implementation Support Mission in every six months period to review the compliance. The World Bank will use its Pest Management Guidebook as a standard to monitor compliance of the use of pesticide procured under the project.

Annex 1: The “Negative List”

To avoid adverse impacts on the local environment and people, the following activities are explicitly excluded from being part of PRF II subproject and/or funded by PRF II:

- (i) Relocation and/or demolition of any permanent houses or business.
- (ii) Use of PRF investment or subproject as an incentive and/or a tool to support and/or implement involuntary resettlement of local people and village consolidation.
- (iii) Land acquisition that affect more than 200 persons or 20 households.
- (iv) New settlements or expansion of existing settlements inside “Total Protected Zone” as defined in a government decree (see actions in Table 1 of ESMF).
- (v) Likely creation of adverse impacts on ethnic groups within the village and/or in neighboring villages or unacceptable to ethnic groups living in a ethnic homogenous village or a village of mixed ethnic composition.
Imposing ideas and changing priorities identified by the community and endorsed at the koumban level meeting without community consultation, prior review and clearance from the PMT.
- (vi) Damage or loss to cultural property, including sites having archeological (prehistoric), paleontological, historical, religious, cultural and unique natural values.
- (vii) Resources access restriction that will result in adverse impacts on the livelihoods of ethnic groups and disadvantage peoples.
- (viii) New roads, road rehabilitation, road-surfacing, or track upgrading of any kind inside natural habitats and existing or proposed protected areas.
- (ix) Purchase of guns; chain saws; asbestos, dynamites, destructive hunting and fishing gears and other investments detrimental to the environment.
- (x) Purchase large amount of pesticides, insecticides, herbicides and other dangerous chemicals. However, if pest invasion occurs, small amount of eligible and registered pesticides in Lao PDR is allowed if accompanied with a training of farmers to ensure its safe uses and World Bank’s clearance is needed.
- (xi) Forestry operations, including logging, harvesting or processing of timber and non-timber products (NTFP). However support to sustainable harvesting and processing of NTFPs is allowed if accompanied with a management plan for the sustainable use of the resources.
- (xii) Unsustainable exploitation of natural resources.
- (xiii) Introduction of non-native species, unless these are already present in the vicinity or known from similar settings to be non-invasive.
- (xiv) Significant conversion or degradation of natural habitat or where the conservation and/or environmental gains do not clearly outweigh any potential losses.
- (xv) Subprojects that require full Environmental Impact Assessment (EIA) will not be funded.

Annex 2: Regulation number 2860/MAF

People's Democratic Republic
Peace Independence Democracy Unity Prosperity

Ministry of Agriculture and Forestry

No 2860/MAF
Vientiane Capital, date June 11, 2010

Regulation on the control of pesticides in Lao PDR

- Pursuant to the Law on Agriculture No. 01/98/NA, dated 6 November 1998.
- Pursuant to the Environment Protection Law No. 02/99/NA, dated 3 April 1999.
- Pursuant to Law on Local Administration No. 03/NA of 5 October 2003;
- Pursuant to the Law on Food No. 04/NA, dated 15 May 2004.
- Based upon the proposal of the Minister of Agriculture and Forestry No./MAF, dated.....2009.

The Minister of Agriculture and Forestry issues the Regulation on the Control of Pesticide as follows:

PART I General provision

Article 1. Objective

This regulation defines the principles, rules and measures for controlling activities involved with pesticide in Lao PDR in order to protect human health, animal plant and environment, and to be consistent with agreements and international regulations.

Article 2. Output

This regulation is as a tool of monitoring, control of the production processing, import-export, distribution, transport, storage, usage, destroy, disposal properly and safety to human health, animal plant and environment; to ensure the usage, making the business units and pesticide activities smoothly undertake accordingly to the defined rules and principles.

Article 3. Definitions

Terms used in this regulation shall be interpreted as follows:

Pesticide means any substance or mixture of substances intended for preventing, destroying or controlling any pest, including vectors of human or animal disease, unwanted species of plants or animals causing harm during or otherwise interfering with the production, processing, storage, transport or marketing of food, agricultural commodities, wood and wood products or animal feedstuffs, or substances which may be administered to animals for the control of insects, arachnids or other pests in or on their bodies. The term includes substances intended for use as a plant growth regulator, defoliant, desiccant or agent for thinning fruit or preventing the premature fall of fruit, and substances applied to crops either before or after harvest to protect the commodity from deterioration during storage and transport.

Banned pesticide means a pesticide for which all uses have been prohibited by final regulatory action, in order to protect human health or the environment. The term includes a pesticide that has been refused approval for first-time use, or has been withdrawn by industry either from the domestic market or from further consideration in the domestic approval process,

and where there is clear evidence that such action has been taken in order to protect human health or the environment.

Unwanted plant means the plant is not in the target of growing.

Pesticide industry means all those organizations and individuals engaged in manufacturing, formulating or marketing pesticides and pesticide products.

Trader means anyone engaged in trade, including export, import and domestic distribution.

Formulation means the combination of various ingredients designed to render the product useful and effective for the purpose claimed; the form of the pesticide as purchased by users.

Active ingredient means the biologically active part of the pesticide.

Registration means the process whereby the responsible national government or regional authority approves the sale and use of a pesticide following the evaluation of comprehensive scientific data demonstrating that the product is effective for the intended purposes and does not pose an unacceptable risk to human or animal health or the environment.

Label means the written, printed or graphic matter on, or attached to, the pesticide or the immediate container thereof and also to the outside container or wrapper of the retail package of the pesticide.

Manufacturer means a corporation or other entity in the public or private sector or any individual engaged in the business or function (whether directly or through an agent or entity controlled by or under contract with it) of manufacturing a pesticide active ingredient or preparing its formulation or product.

Distribution means the process by which pesticides are supplied through trade channels to local or international markets.

Advertising means the promotion of the sale and use of pesticides by printed and electronic media, signs, displays, gift, demonstration or word of mouth.

Personal protective equipment means any clothes, materials or devices that provide protection from pesticide exposure during handling and application.

Disposal means any operation to recycle, neutralize, destruct or isolate pesticide waste, used containers and contaminated materials.

Residue means any specified substances in or on food, agricultural commodities or animal feed resulting from the use of a pesticide. The term includes any derivatives of a pesticide, such as conversion products, metabolites, reaction products and impurities considered to be of toxicological significance. The term "pesticide residue" includes residues from unknown or unavoidable sources (e.g. environmental) as well as known uses of the chemical.

Risk is a function of the probability of an adverse health or environmental effect, and the severity of that effect, following exposure to a pesticide.

Toxicity means a physiological or biological property which determines the capacity of a chemical to do harm or produce injury to a living organism by other than mechanical means.

Integrated Pest Management (IPM) means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms.

Natural enemies means disease and insect usefully controlling pest in the nature include predators, parasitoids, and pathogens.

Article 4. Scope

This regulation applies to all persons, juristic persons or organizations engaged in manufacturing, importing, exporting, selling, using, transport, storage, destroying and disposal of pesticide in Lao PDR.

PART II Business on pesticides

Article 5. Business on pesticides

A person, juristic person or organization having the intention to conduct business on pesticide shall submit a request licenses through agriculture sector and others related sector for getting an approval and shall register its enterprise with industrial and commerce sector as determined in the Law of Enterprise.

Article 6. Import and export, selling license

Registered Pesticide prior to import and export shall be applied document to Agriculture Sector prior import or export 3 working days, 20 days for selling.

Article 7. Recording

A Person, juristic person or organization intend to import, export, manufacture, store pesticide shall record on whole of quantities of pesticides and other related information for using as a statistic providing to pesticide management.

Article 8. Responsibility on pesticide business

A person conducting pesticide business shall ensure the safety to minimize risks to human health, animal and the environment. In the case of accident where pesticide caused damage to human, animal and environment the pesticide business operator shall be responsible according to the laws. In addition the pesticide business operator shall be cooperated and facilitated to pesticide inspectors and other related authorities.

PART III Registration of pesticides

Article 9. Registration of pesticide

All pesticides that are produced, imported, exported, distributed and used in Lao PDR must be registered with the Department of Agriculture, Ministry of Agriculture and Forestry.

Article 10. Exception pesticide registration

1. Registration is not required for botanical pesticide that are not packed for sale;
2. Provisional registration can be granted for products imported for the purpose of research, trial or exhibition, but need to be requested from DOA, MAF, with requires evidence that the products register in the country of origin.

Article 11. Qualifications for pesticide registration

A person, juristic person or organization who wants to register pesticide shall have the following qualifications:

1. Person holding license as described in article 19 of this regulation;
2. Imported pesticide shall be registered in exported country.

Article 12. Application for registration

A person, juristic person or organization having intention to register pesticide shall submit application to pesticide registration committee in Ministry of Agriculture and Forestry.

The registration application shall consist of following documents:

1. Copy of enterprise registration certificate;
2. Copy of pesticide registration certificate of exporting country or/and original country;
3. Nomination letter for registration from manufacturer or exporting country;
4. Instruction of pesticide use;
5. Sample of pesticide.

Article 13. Registration consideration

Pesticide registration Unit of DOA shall consider application whether to register or denied registration within 60 days from the date the application is received. In the case of denial of registration, the written notice shall be given to applicant by the DOA.

Article 14. Pesticide registration certificate

Pesticide registration certificate is an official document issued by Director General of DOA, Ministry of Agriculture and Forestry and valid for two year. Prior two months of expiration, the Certificate Owner shall submit a request for renewal certificate to the DOA. The application and process of consideration will be proceed as described in article 12 and 13 of this regulation.

Article 15. Withdrawal of pesticide registration certificate

The pesticide registration certificate may be withdrawn prior to its expiration date by the Director General of Department of Agriculture in any following case:

- there is a material violation of this regulation or other related laws by the certificate owner or his authorized representatives;
- the pesticide is no longer effective for its intended use;
- the pesticide has been withdrawn from the market;
- in case of cancellation of a registration, the Registration Committee shall fix a reasonable phasing-out period for the distribution and use of the product concerned.

Withdrawn certificate of registration shall be informed to related agencies.

Article 16. Pesticide registration Unit

Pesticide registration Unit is a unit under administration of the Department of Agriculture, Ministry of Agriculture and Forestry, which has the main role and task as following:

1. Review application for registration of pesticide and take registration decision;
2. Regularly review the list of registered of pesticide to determine whether they still meet the requirements, taking into consideration the latest scientific information;
3. Edit and approve labels of pesticide;
4. Implement others right and task as described in related legislations.

PART IV

Management of production, import, export, distribution, transportation, storage and transit of pesticide

Article 17. Formulating pesticide

A person, juristic person or organization having the intention to formulate pesticides shall submit an application to Ministry of Agriculture including socio-economy document and production technique.

Article 18. Import-Export of pesticide

Only registered pesticides can be imported or exported. Registration has to be applied for from the Department of Agriculture, Ministry of Agriculture and Forestry and shall comply with other related laws, exclude the pesticide determined in article 10 of this regulation.

Article 19. Distribution or selling pesticide

Distributors or traders must have criteria as following:

1. Attended in training of pesticide and have related certificate;
2. Have material safety data sheets, instruction of pesticide for customer using properly;
3. To ensure there are not harmful to neighboring people or environment;
4. To supply plant protection clothes for customers;
5. Storage must strictly follow article 21;
6. Must have records purchase orders and selling.

Prohibitions of distributors or traders of pesticide are following:

1. Distribute without license of related authorities;
2. Sale pesticides which:
 - did not register in Lao PDR
 - have exceeded their expiry date, or have changed their physical appearance or behavior, such as color, sedimentation, inability to disperse, etc... or container break or leak container;
 - lack of sign or was destroyed that could not read;
 - repack for sale

Article 20. Transportation

Transporters/carriers of pesticide shall adhere to the following rules:

- 1) For consignment of Pesticides, either of same or different groups, exceeding 100 liters (fluids) or 1000 kg (solids), separate documentation has to be issued and be kept with the driver. The documentation shall have the following content:
 1. Name, address, phone number of owner and shipper;
 2. Trade name or common name of transported Plant Protection Products;
 3. Formulation types and concentrations of Plant Protection Products transported;
 4. Volume of Plant Protection Products;
 5. Emergency procedures, in the case of breakage or spill;
 6. A safety data sheet for each of the materials transported.
- 2) For consignments greater than 1000 liters or 1000 kg the transport route must be declared in advance;
- 3) Plant Protection Products carried by means of public transport, shall not exceed 20 l for liquids or 20 kg for solids. However, they shall be wrapped properly and kept separately from the passengers and other goods;
- 4) The drivers of vehicles carrying Plant Protection Products shall be selected properly – they shall be reliable and competent;
- 5) Prohibit to transport pesticides with living organism and others goods.

Article 21. Storage

If pesticides are store more than 10 liters/kilogram the following requirement should be met:

- 1) A pesticide storage facility should be located in an area where flooding is unlikely and far from people and domestic animal farm at least 100 m;

- 2) All pesticides must be kept in a facility that can be locked and posted as a pesticide storage area;
- 3) Kept pesticide far from sources of heat or directly in the sun;
- 4) Separate pesticide from others goods;
- 5) Lay out pesticide by group and hazard classification;
- 6) Kept pesticide in original containers with label;
- 7) Absorbed substances such as charcoal, sawdust, sand;
- 8) Take care floor clean and dry, clean up when spillage of pesticide occurred, leaking from container;
- 9) Soap and water are available for washing when contact with pesticide;
- 10) Use stand or pallets for placing pesticide and avoid direct on floor;
- 11) Kept empty containers in safety place prior to disposal.

Article 22. Transition

All pesticides passing through Lao PDR in transit shall comply with relevant bilateral or multilateral agreements to which Lao PDR is a party.

PART V Use of pesticide and disposal

Article 23. Use of pesticide

A person intending to use pesticide shall recognize its characteristic and pay attention to following matters:

1. Use Integrated Pest Management especially controlling pest by using natural enemies;
2. Use pesticide in proper way and implement as described on the label;
3. Wear protective equipments whenever apply pesticide; employers should provide proper equipments including training on pesticide application for employees;
4. Ensure preventing dangerous effects of pesticide to human health, animal and environment;
5. Any accident involving pesticides that requires specialist assistance or poses a threat to human health or the environment should immediately be reported to the relevant authority.

Article 24. Disposal of pesticide

Substandard pesticide, counterfeit, expired products, pesticide waste including empty containers shall be properly disposed or buried in an approved landfill without effecting to environment, the location is on flat ground, far from water resource and well or underground water and follow technical guideline as specified by Water Resources and Environment Administration (WREA).

PART VI Packaging Labeling and Advertising

Article 25. Packaging

Repackaging of pesticide is prohibited unless specific permission has been obtained from pesticide registration unit, DOA.

Pesticides should be in original package which safety while import, transport, store or distribute and ensure safe when handle to protect harmful to human health, animal and environment.

Article 26. Labeling

All packaging of pesticide should be affixed label on or attached label in the pesticide container. The label must be in Lao language and/or English which could easily to read, clear and does not easily to tear.

1. The contents and form of label shall be approved by the pesticide registration unit, and contains the following information:
 - 1.1 Trade name;
 - 1.2 Chemical (common) name, formulation and concentration of active ingredient;
 - 1.3 Purpose of usage, e.g. which crops and pests;
 - 1.4 Dosage and mode application;
 - 1.5 Signs and instructions see paragraph 2 of this article;
 - 1.6 Directions for storage, mixing, usage, packaging and recommended personal protection from hazards;
 - 1.7 Pre-harvest interval;
 - 1.8 Warnings;
 - 1.9 Symptoms of poisoning, methods of mitigation, directions for physician;
 - 1.10 Hazard classification (WHO or GHS);
 - 1.11 Name of producer;
 - 1.12 Volume of package;
 - 1.13 Production or expiry date;
 - 1.14 License number;
2. Instruction for labeling
 - 2.1 Pesticide under WHO hazard Class Ia must be labeled with a clear danger sign, the skull and crossed bones, and bear the text ‘extremely toxic’ which should be accompanied by the appropriate signs as under 3 below.
 - 2.2 Pesticide under WHO hazard Class Ib must be labeled with a clear danger sign, the skull and crossed bones, and bear the text ‘highly toxic’, accompanied by the appropriate signs as under 3 below.
 - 2.3 Pesticide under WHO hazard Class 2 must be labeled with a clear danger sign, flash, and bear the text: ‘dangerous’, accompanied by the appropriate signs as under 3 below.
 - 2.4 Pesticide under WHO hazard Class 3 must bear the text: ‘attention’ accompanied by the appropriate signs as under 3 below.
3. The following phrases shall be used to mark characteristics of usage and to Mark of usage and characteristic precautions:



- 3.1

Keep away from children



- 3.2

Wash after handling



- 3.3







Dangerous to animals



- 3.4

Dangerous to fish and aquatic animals, prohibited to contaminate water ways

- 3.5 The following phrases shall be used in either “usage” or “mixing” directions, as appropriate:

| | | |
|-------|--|--|
| 3.5.1 |  | Wear eye protection |
| 3.5.2 |  | Wear breathing protection |
| 3.5.3 |  | Wear mask |
| 3.5.4 |  | Wear gloves |
| 3.5.5 |  | Wear protective clothing during spraying or handling |
| 3.5.6 |  | Wear rubber boots |

Article 27. Advertising

A person, juristic person or organization shall only advertise registered pesticide.

Prohibit advertising over reality or not correctly as characteristic of pesticide which lead misunderstanding of customers and users.

PART VII Management and inspection

Article 28. Management and inspection of pesticides

Pesticide management and inspection sections comprise of:

- Department of Agriculture, Ministry of Agriculture and Forestry;
- Provincial Agriculture and Forestry Office;
- District of Agriculture and Forestry Office.

These three sections will assign pesticide inspection unit which include trained staffs on pesticide management from DOA.

Article 29. Inspection of pesticide

Inspection of pesticide refers to monitoring of pesticide manufacture process, import – export, distribution, advertising, storage, using and disposal of expired pesticide or pesticide waste include empty containers on farm, concession farm, individual farm, governmental and private farm to compliance with laws of Lao PDR.

Article 30. Types of pesticide inspection

There are three types of pesticide inspection:

1. Regular inspection;
2. Inspection with advance notice;

3. Immediate inspection.

Regular inspection refers to an inspection performed regularly according to plans at pre-determined times which shall conduct at least once a year.

Inspection by advance notice refers to an inspection which is not included in the plan, which is performed when deemed necessary and for which advance notice is given.

Immediate inspection refers to a sudden inspection performed without advance notice to the person to be inspected.

Article 31. Right and duties of Department of Agriculture

In the management and inspection of pesticide, the Department of Agriculture has following rights and duties:

1. To conduct research on policies, laws and regulations on management and inspection of pesticide and then propose to Minister for consideration;
2. To disseminate and train policy, laws and regulations on pesticide management and inspection;
3. To cooperate with related agencies and local administration for pesticide management and inspection;
4. To implement the pesticide registration and make available regular update of the lists of registered and banned pesticides;
5. To monitor the licensing for the import-export of pesticide;
6. To train and upgrade officials involving to pesticide management and inspection on politic, ideology, moral, and technique;
7. To appoint inspectors taking into consideration based on proposal and to provide them with the necessary badge that empower them to conduct their task;
8. To provide training to traders to obtain basic knowledge about pesticide and their risks;
9. To cooperate with international organizations on pesticide management and inspection;
10. To regularly report to government on the implementation of its duties in pesticide management and inspection throughout the country.
11. To exercise other rights and duties as stipulated in related legislations.

Article 32. Right and duties of Provincial Agriculture and Forestry Office (PAFO)

In the management and inspection of pesticide, Provincial Agriculture and Forestry Office has following rights and duties:

1. To supervise the implementation of laws and regulations on pesticide management and inspection within its own province;
2. To issue the imported license to person or juristic person which registered pesticide, or to be representative of pesticide distributor, and must be based on requirement of use of pesticide in local province to avoid over supply leading to expire date;
3. To issue sell and/or imported license to person or juristic person which meet the requirement for such business;
4. To implement the inspection of pesticide shops in their provinces and to follow up in cases of violation;
5. To make available the necessary staffs and budget to exercise the duties assigned under the regulation;
6. To make proposal regarding appointment of pesticide inspectors under its control to the Minister of Agriculture and Forestry ;
7. To cooperate with other involving agencies on pesticide management and inspection;
8. To regularly report to the Ministry of Agriculture and Forestry on the implementation of its duties in pesticide management and inspection;
9. To exercise other rights and duties as stipulated in the laws.

Article 33. Right and duties of District Agriculture and Forestry Office (DAFO)

District Agriculture and Forestry Office has following rights and duties:

1. To implement the laws and regulations on pesticide management and inspection within its responsible area;
2. To cooperate with other involving agencies on pesticide management and inspection;
3. To regularly report to PAFO on the implementation of its duties in pesticide management and inspection ;
4. To exercise other rights and duties as stipulated in the laws.

Article 34. Rights and duties of pesticide inspectors

The pesticide inspectors have following rights and duties:

1. Inform traders (import-export, sale, storage) of their obligation under this regulation;
2. While conducting inspection of pesticide, inspectors shall show the nominated certificate and identity card to persons subject to the inspection and shall duly and strictly comply with the laws and regulations;
3. carry out periodic inspections of all persons, juristic person or organizations who involved in import, export, manufacture, pack, repack, label, store, distribute, advertise or use pesticides to determine whether the provisions of this Decree are being complied with;
4. require for inspection, the production of certificates, permits, licenses, records or any other document or authorization granted or issued under this Decree;
5. take samples of any pesticide, substances or other objects related to pesticide for analysis;
6. seize any equipment, pesticide, document, record, or other thing which the Inspector believes has been used in, or which appears to afford evidence of, a contravention of national legislation, so long as:
 - the inspector gives a receipt in the prescribed form to the person from whose custody the item was taken;
 - the item is returned to that person once the inquiry has been completed, except for illegal pesticides, which if so declared by the court, shall be disposed as prescribed in article 11 of this regulation;
7. Take the appropriate action with the responsible authorities to follow up on violation;
8. Report violation that required fining to the PAFO on the result of inspection to the Head of Provincial Agriculture and Forestry Office and Director General of DOA.

PART VIII

Fees and Service charges

Article 35. Fees and service charges

Fees and service charges for registration certificate or licenses of pesticide shall be based on curricular of Ministry of Finance on fees and service charges which have been promulgated from time to time.

PART IX

Rewards and sanctions

Article 36. Rewards

Any person, juristic person or organization having good deeds in implementing this regulation shall be adequately rewarded and privileged from treatments determined by Ministry of Agriculture and Forestry.

Article 37. Rewards for government officials

Government official work involved pesticide continuously over 5 years shall be received pension before the date as described in article 59 of Labor Law.

Article 38. Measures towards violators

Any person, juristic person or organization having violated of this regulation shall be educated, warned fined and punished, depending on the gravity of the cases as follow:

1st violation: educate, warn and record in file;

2nd violation: seize goods and fine 50% of the goods according to the market price and record in the file;

3rd violation: seize goods and fine twice of the goods value according to the market price, record in the file, collaborate and submit to the concerned authority for temporally or closing the business depending on the case.

Any violation in the first time, second or third, if it being strong consequences to the human health, animal, plant or environment shall be punished according to criminal law.

Any person who suffers from the imports, exports, manufacture, packaging or storage of pesticides which are unqualified and dangerous to human health and the environment, or from their illegal use, shall be compensated by the competent court.

In case of disposal pesticides or send back to exported country the violators must be responsible for all expenditure.

PART X

Final provision

Article 39. Implementation

The Department of Agriculture, Ministry of Agriculture in collaboration with concerned organizations has to develop and implement this regulation for effectively result.

Article 40. Effectiveness

This regulation comes into force after the date of its signing.

Regulations and provisions which are contradicted to this regulation shall be null.

Minister of Agriculture and Forestry

Annex 3: List of eligible and banned Pesticide in Lao PDR. May 2010 - List of eligible and registered pesticides

| No | Common name | a.i (%) | Trade name | Type of application | Countries of origin | Toxicity class |
|----|---|--------------|--------------------------|------------------------|---------------------|------------------|
| 1 | 2,4- D | 80% | Zico 80 WP | Herbicide | Vietnam | WHO II |
| 2 | 2,4-D dimethy Lammonium | 84% | Dee Jai | Herbicide | Thai | WHO II |
| 3 | 2,4-D dimethyl ammonium | 82.1% | Obet | Herbicide | Thai | WHO II |
| 4 | 2,4-D dimethyl ammonium | 84% | B K Amin | Herbicide | Thai | WHO II EPA II |
| 5 | 2.4 D | 60% | ZICO 720 SL | Herbicide | Vietnam | WHO II |
| 6 | 2.4 D | 48% | Zico 48 SL | Herbicide | Vietnam | WHO II |
| 7 | 45% buprofezin + 15% Imidacloprid | 60% | DIFLOWER® 600WP | Insecticide | Vietnam | WHO U |
| 8 | Abamectin | 1.80% | Khum Pleum | Insecticide | Thai | EPA IV |
| 9 | Abamectin | 1.8% | Countdown | Insecticide | Thai | EPA IV |
| 10 | Abamectin | 1.8%-3.6%-5% | DIBAMEC®1.8E C-3.6EC-5WG | Insecticide | Vietnam | EPA IV |
| 11 | abamectin | 1.8% | Intake | Insecticide | Thai | EPA IV |
| 12 | Abamectin 0.9% + Bacillus thuringensis 1.15 | 2% | ABT 2 WP | Insecticide | China | EPA IV |
| 13 | Acetochlor | 50% | Dibstar 50 EC | Herbicide | Vietnam | WHO III |
| 14 | Acetochlor | 80% | Saicoba 80 EC | Herbicide | Vietnam | WHO III |
| 15 | Acting | | AI-Net Acting | Plant Growth regulator | Thai | |
| 16 | Agrio-streptomycin | 72% | Agrio-streptomycin | Bactericide | China | |
| 17 | Alachlor | 48% | Anchor | Herbicide | Israel | WHO III |
| 18 | Alpha cypermethrin | 5% | Sapen-Alpha 5 EC | Insecticide | Vietnam | WHO II |
| 19 | Alpha-Cypermethrin | 2% | Dominex | Insecticide | Thai | WHO II |
| 20 | Alpha-Cypermethrin | 5% | DANTOX®5EC | Insecticide | Vietnam | WHO II |
| 21 | Ametryn | 50%,80% | Sametrin 50 WP, 80 WP | Herbicide | Vietnam | WHO III |
| 22 | Atrazine | 80% | Mizin 80 WP | Herbicide | Vietnam | WHO U |
| 23 | Atrazine | 90% | B K Mac P 90WG | Herbicide | Thai | WHO U EPA III |
| 24 | Azoxystrobin + Propiconazole | 32,5 % | Saiprobin 325 SC | Fungicide | Vietnam | WHO U |
| 25 | Bensulfuron methyl | 10% | Beron 10 WP | Herbicide | Vietnam | WHO U |
| 26 | Bifenthrin | 24% | Biflex - TC | Termiticide | Thai | WHO II |
| 27 | Bifenthrin | 0.50% | Fentax 10 WP | Insecticide | Thai | WHO II |
| 28 | Bifenthrin | 1.25% | Bistar- D | Insecticide | Thai | WHO II |
| 29 | Bifenthrin+Malathion | 2%+40% | Bistar - M | Insecticide | Thai | WHO II |
| 30 | buprofezin | 40% | Lang van | Insecticide | Thai | WHO U |
| 31 | Butachlor | 5%-10% | DIBUTA®60 EC | Herbicide | Vietnam | WHO U |
| 32 | Butachlor | 60% | Butaxim 60 EC | Herbicide | Vietnam | WHO U |
| 33 | Butachlor + Propanil | 70% | Por Jai | Herbicide | Thai | WHO U |

| | | | | | | |
|----|-----------------------------------|----------------------|-------------------------|-------------|---------|---------|
| 34 | Butachlor+Bensulfuron Methyl | 21%+4% | ALOHA®25WP | Herbicide | Vietnam | WHO III |
| 35 | Carbendazim | 50% | Sabay Dee | Fungicide | Thai | WHO U |
| 36 | Carbendazim | 50% | DIBAVIL® 50FL-50WP | Fungicide | Vietnam | WHO U |
| 37 | Carbendazim | 50% | Carbendazim 500 FL | Fungicide | Vietnam | WHO U |
| 38 | Carbendazim | 50% | Carbendazim 50 WP | Fungicide | Vietnam | WHO U |
| 39 | Carbendazim + Mancozeb | 6.2%+73.8% | C M plus | Fungicide | Thai | WHO U |
| 40 | Carbosulfan | 20% | Kanir | Insecticide | Thai | WHO II |
| 41 | Cartap | 95% | Big cock 95 SP | Insecticide | China | WHO II |
| 42 | Cartap | 4% | Big cock 4 G | Insecticide | China | WHO II |
| 43 | Cartap hydrochloride | 50% | Chodsanit | Insecticide | Thai | WHO II |
| 44 | Chlorothalonil | 75% | Mention | Fungicide | Thai | WHO U |
| 45 | Chlorothalonil | 53.0% | Daconil 720 SC | Fungicide | Japan | WHO U |
| 46 | Chlorpyrifos methyl | 3% | Sago-Super 3 G | Insecticide | Vietnam | WHO U |
| 47 | Chlorpyrifos methyl | 20% | Sago-Super 20EC | Insecticide | Vietnam | WHO U |
| 48 | Chlorpyrifos | 40% | Temsoob | Insecticide | Thai | WHO II |
| 49 | Chlorpyrifos | 40% | Casto | Insecticide | Thai | WHO II |
| 50 | Chlorpyrifos | 40% | CJ - 40 | Insecticide | Thai | WHO II |
| 51 | Chlorpyrifos Ethyl + Cypermethrin | 532g/l+55g/l | Golden dragon 585 EC | Insecticide | Vietnam | WHO U |
| 52 | Chlorpyrifos+cypermethrin | 50%+5% | New teen 55 | Insecticide | Thai | WHO II |
| 53 | Chlorothalonil | 75% | Chlorothalonil | Fungicide | China | WHO II |
| 54 | Copper hydroxide | 77% | Microbucob | Fungicide | Thai | WHO III |
| 55 | Copper Oxycloride | 85% | Saicoxy 85 WP | Fungicide | Vietnam | WHO III |
| 56 | Cyhalofop-Butyl | 10% , 20% | Sagolince 100 EC,200 EC | Herbicide | Vietnam | WHO U |
| 57 | Cyhalofop-Butyl + Pyribenzoxim | 50% + 20% | Sagoshots 70 EC | Herbicide | Vietnam | WHO U |
| 58 | Cymoxanil + Mancozeb | 8% + 64% | Saicymance 72 WP | Fungicide | Vietnam | WHO III |
| 59 | Cypermethrin | 10% | Jud Hai | Insecticide | Thai | WHO II |
| 60 | Cypermethrin | 35% | Rup four 35 | Insecticide | Thai | WHO II |
| 61 | Cypermethrin | 5%-10%-25% | DANTOX®5EC-10EC-25EC | Insecticide | Vietnam | WHO II |
| 62 | Cypermethrine | 25% | Secsaigon 25 EC | Insecticide | Vietnam | WHO II |
| 63 | Cypermethrine | 10% | Secsaigon 10 EC | Insecticide | Vietnam | WHO II |
| 64 | Cypermethrine | 5% | Sec saigon 5 EC | Insecticide | Vietnam | WHO II |
| 65 | Cypermethrine | 50% | Secsaigon 50 EC | Insecticide | Vietnam | WHO II |
| 66 | Cyst-Forming protozoan | 200,000- δ ip | Prorodent | Rodenticide | Thai | |
| 67 | Denotefuran + Imidacloprid | 5%+15% | EXPLORER® 200WP | Insecticide | Vietnam | WHO II |
| 68 | Diazinon | 10% | Diaphos 10 G | Insecticide | Vietnam | WHO II |

| | | | | | | |
|----|----------------------------------|----------------|-----------------------------|------------------------|---------|---------|
| 69 | Diazinon | 50% | Diaphos 50 EC | Insecticide | Vietnam | WHO II |
| 70 | Dimethoate | 40% | Dimenate 40 EC | Insecticide | Vietnam | WHO II |
| 71 | Dimethoate + Fenvalerate | 21.5% +3.5% | Febis 25 EC | Insecticide | Vietnam | WHO II |
| 72 | dinotefuran | 20% | Sagoshin 20 WP | Insecticide | Vietnam | WHO U |
| 73 | Diuron | 80% | Ansaron 80 WP | Herbicide | Vietnam | WHO U |
| 74 | Effective Microorganism (EM) | 5% | GENO-MI® 5 SL | Plant Growth regulator | Vietnam | |
| 75 | Emamectin + Benzoate | 5%+2% | COMDA 5WDG,2EC,2SC, 5EC,5SC | Insecticide | Vietnam | WHO II |
| 76 | Emamectin benzoate | 0.20% | Emamectin benzoate | Insecticide | China | WHO III |
| 77 | Ethephon | 2,5% | Sagolatex 2.5 PA | Plant Growth regulator | Vietnam | |
| 78 | Fenobucard | 50% | Bascide 50 EC | Insecticide | Vietnam | WHO II |
| 79 | Fipronil | 5% | Sagofipro 5 SC | Insecticide | Vietnam | WHO II |
| 80 | Fipronil | 5%-0.3%-80% | LEGEND®5SC-0.3G-800WG | Insecticide | Vietnam | WHO II |
| 81 | Fluazifop-p-butyl | 15% | Hekio | Herbicide | Thai | WHO III |
| 82 | Flumetralin | 25% | Flumetralin | Plant Growth regulator | China | WHO U |
| 83 | Fomesafen | 25% | Dilamma | Herbicide | Thai | WHO III |
| 84 | Fosetyl aluminium | 80% | Kan Aeng | Fungicide | Thai | WHO U |
| 85 | Fosetyl aluminium | 80% | Alpine 80 WP; 80 WDG | Fungicide | Vietnam | WHO U |
| 86 | Fosetyl aluminium | 80% | DIBAJET®80WP | Fungicide | Vietnam | WHO U |
| 87 | Glyphosate | 41% | Lyphoxim 41 SL | Herbicide | Vietnam | WHO III |
| 88 | Glyphosate IPA Salt | 48% | Dibphosate 480 SL | Herbicide | Vietnam | WHO III |
| 89 | Glyphosate isoproylammonium | 48% | Burn up 48 | Fungicide | Thai | WHO III |
| 90 | Glyphosate isoproylammonium | 48% | Glyfosate 48 | Herbicide | Thai | WHO III |
| 91 | Glyphosate isoproylammonium salt | 48% | Grafic | Herbicide | Thai | WHO III |
| 92 | Glyphosate isoproylammonium salt | 48% | Baca up 48 | Herbicide | Thai | WHO III |
| 93 | Glyphosate isoproylammonium salt | 48% | Baka up 48 | Herbicide | Thai | WHO III |
| 94 | Greenfast | | AI-Net Greenfast | Plant Growth regulator | Thai | |
| 95 | haloxyfop-R-methylester | 10.8% | Hork | Herbicide | Thai | WHO II |

| | | | | | | |
|-----|--------------------------|----------------|---|------------------------------|---------|---------|
| 96 | Hexaconazole | 5%,10% | Saizole 5SL, 10EC,10SC | Fungicide | Vietnam | WHO U |
| 97 | Hexaconazole | 5%-10% | DIBAZOLE® 5 SC-10SL | Fungicide | Vietnam | WHO U |
| 98 | Imidacloprid | 10% | Saimida 100 SL | Insecticide | Vietnam | WHO II |
| 99 | Imidacloprid | 5%-10%- 70% | ARMADA®50EC -100SL-100EC- 100WG-700WG | Insecticide | Vietnam | WHO II |
| 100 | Imidacloprid | 50% | Imidacloprid | Insecticide | China | WHO II |
| 101 | Iprobenfos | 50% | Kisaigon 50 EC | Insecticide | Vietnam | WHO III |
| 102 | Iprobenfos+ Tricyclazole | 14%+6% | Lua vang 20 WP | Fungicide | Vietnam | WHO III |
| 103 | isoxaflutole | 75% | Balance | Herbicide | Thai | EPA III |
| 104 | Lamda Cyhalothrin | 2,5 % | Vovinam | Insecticide | Vietnam | WHO II |
| 105 | Magnesium Phosphide | 66% | MAGTOXIN | Fumigant | Germany | EPA 1 |
| 106 | Malathion | 73% | Malate 73 EC | Insecticide | Vietnam | WHO III |
| 107 | Mancozeb | 80% | Dipomate 80 WP | Fungicide | Vietnam | WHO U |
| 108 | Mancozeb | 80% | Kroche | Fungicide | Thai | WHO U |
| 109 | Mancozeb | 25% | Khob Jai | Fungicide | Thai | WHO U |
| 110 | Mepiquat chloride | 97% | Animat 97 WP | Plant Growth regulator | China | WHO III |
| 111 | Metalaxyl | 25% | Chiket | Fungicide | Thai | WHO III |
| 112 | Metalaxyl | 25% | Chud Jen | Fungicide | Thai | WHO II |
| 113 | Metalaxyl + Mancozeb | 8% + 64% | Mexyl MZ 72 WP | Fungicide | Vietnam | WHO II |
| 114 | Metsulfuron Methyl | 20% | DANY®25 DF | Herbicide | Vietnam | WHO III |
| 115 | N - ONE | | AI-Net N- One | Plant Growth regulator | Thai | |
| 116 | N- TWO | | AI-Net N- Two | Plant Growth regulator | Thai | |
| 117 | N-Function | | AI-Net N- Function | Plant Growth regulator | Thai | |
| 118 | Nitrogen | 4% | GENO-SUPER | Plant Growth regulator | Vietnam | |
| 119 | Nitrogen | 21% | GENO-N-SUA | Plant Growth regulator | Vietnam | |
| 120 | Pacecilomyces lilacinus | 50% | Palila 500 WP | Fungicide | China | |
| 121 | Paclobutrazol | 15% | Saigon P1 15 WP | Plant Growth regulator | Vietnam | WHO III |
| 122 | Pendimethalin | 330g/l | Pendimethalin | Herbicide | China | WHO III |
| 123 | Phosalone + Cypermethrin | 17,5% + 3% | Sherzol 205 EC | Insecticide | Vietnam | WHO II |
| 124 | Pretilachlor | 30% | Venus 300 EC | Herbicide | Vietnam | WHO U |
| 125 | Propanil | 36% | Protocom | Herbicide | USA | WHO III |
| 126 | Propiconazole+Prochloraz | 49% | Sai Jai | Fungicide | Thai | WHO II |
| 127 | Propineb | 70% | Saitracone 70 WP | Fungicide | Vietnam | WHO U |
| 128 | Pyrazosulfuran ethyl | 60% | Red dragon60WDG | Herbicide | Vietnam | WHO U |

| | | | | | | |
|-----|-----------------------------------|--------------|---------------------------|------------------------|---------|---------|
| 129 | Pyribenzoxim | 3% | Pyanchor 3 EC | Herbicide | Vietnam | |
| 130 | Quinalphos | 25%-5% | FAIFOS®25EC-5G | Insecticide | Vietnam | WHO II |
| 131 | Quinclorac | 50% | DANY®25 DF | Herbicide | Vietnam | WHO U |
| 132 | Seaweed Extract | 6% | GENO-ROOTS | Plant Growth regulator | Vietnam | |
| 133 | Sulfur | 80% | Sulox 80 WP | Fungicide | Vietnam | WHO U |
| 134 | Tebuconazole | 2,5% + 4,5 % | Saifolicer 250 WG, 430 SC | Fungicide | Vietnam | WHO III |
| 135 | Tebuconazole + Trifloxystrobin | 5% + 2.5 % | Sainative 750 WG | Fungicide | Vietnam | WHO III |
| 136 | Temephos | 1% | Chemfleetsan dagarid | Insecticide | Thai | WHO U |
| 137 | Thiophanate methyl | 70% | Thio - M 70 WP | Fungicide | Vietnam | WHO U |
| 138 | Thiophanate methyl | 50% | Thio-M 500 FL | Insecticide | Vietnam | WHO U |
| 139 | Thiophanate methyl + Tricyclazole | 36%+14% | Pysaigon 50 WP | Fungicide | Vietnam | WHO U |
| 140 | Tricyclazole | 20% + 75 % | Trizole 20WP, 75WP.75WG | Fungicide | Vietnam | WHO II |
| 141 | Validamycin | 5% | Vanicide 5 SL | Fungicide | Vietnam | WHO U |
| 142 | Validamycin | 3% | Kwan Jai | Fungicide | Thai | WHO U |
| 143 | Validamycin A | 5% | Vanicide 5 WP | Fungicide | Vietnam | WHO U |
| 144 | Validamycin A | 3% | vanicide 3 SL | Fungicide | Vietnam | WHO U |

List of banned pesticides

Insecticides and acaricides

1. Aldrin
2. BHC
3. Chlordane
4. Chlordimeform
5. Chlorfenvinphos
6. Chlorthiophos
7. Cyhexatine
8. DDT
9. Dieldrin
10. Dimefox
11. Dinitrocresol
12. Demeton
13. Endrin
14. Endosulfan
15. Ethyl Parathion
16. EPN
17. Heptachlor
18. Hexachloro cyclohexane
19. Leptophos
20. Lindane
21. Methamidophos
22. Methomyl
23. Methyl parathion
24. Monocrotophos
25. Pholy chlorocamphene

26. Phorate
27. Schradan
28. TEPP
29. Toxaphene

Fungicides

30. Binapacryl
31. Captafol
32. Cycloheximide
33. Mercury and mercury compounds
34. MEMC
35. PMA
36. Selenium compound

Rodenticides

37. Chlorobenzilate
38. Sodium fluoasetate

Herbicides

39. 2,4,5 -T
40. Dinoseb
41. Dinoterb acetate / Dinitrobutyphenol
42. Paraquat
43. Sodium chlorate

Fumigants

44. EDB
45. Ethylene oxide
46. Methyl bromide

Others

47. Arsenic compound
48. Calcium arsenate - Herbicide, rodenticide, molluscicide, insecticide
49. DBCP - Nematocide
50. Daminozide - Plant growth regulators
51. Fluoroacetamide - Insecticide, rodenticide
52. Oxamyl - Insecticide, acaricide, termiticide
53. Phosphamidon - Insecticide, nematocide
54. Sodium Arsenite - Insecticide, fungicide, herbicide, rodenticide
55. Thallium (i) sulfates - Rodenticide, insecticide