2.2 BANGLADESH

I. GENERAL INFORMATION

Last updated: December 2008

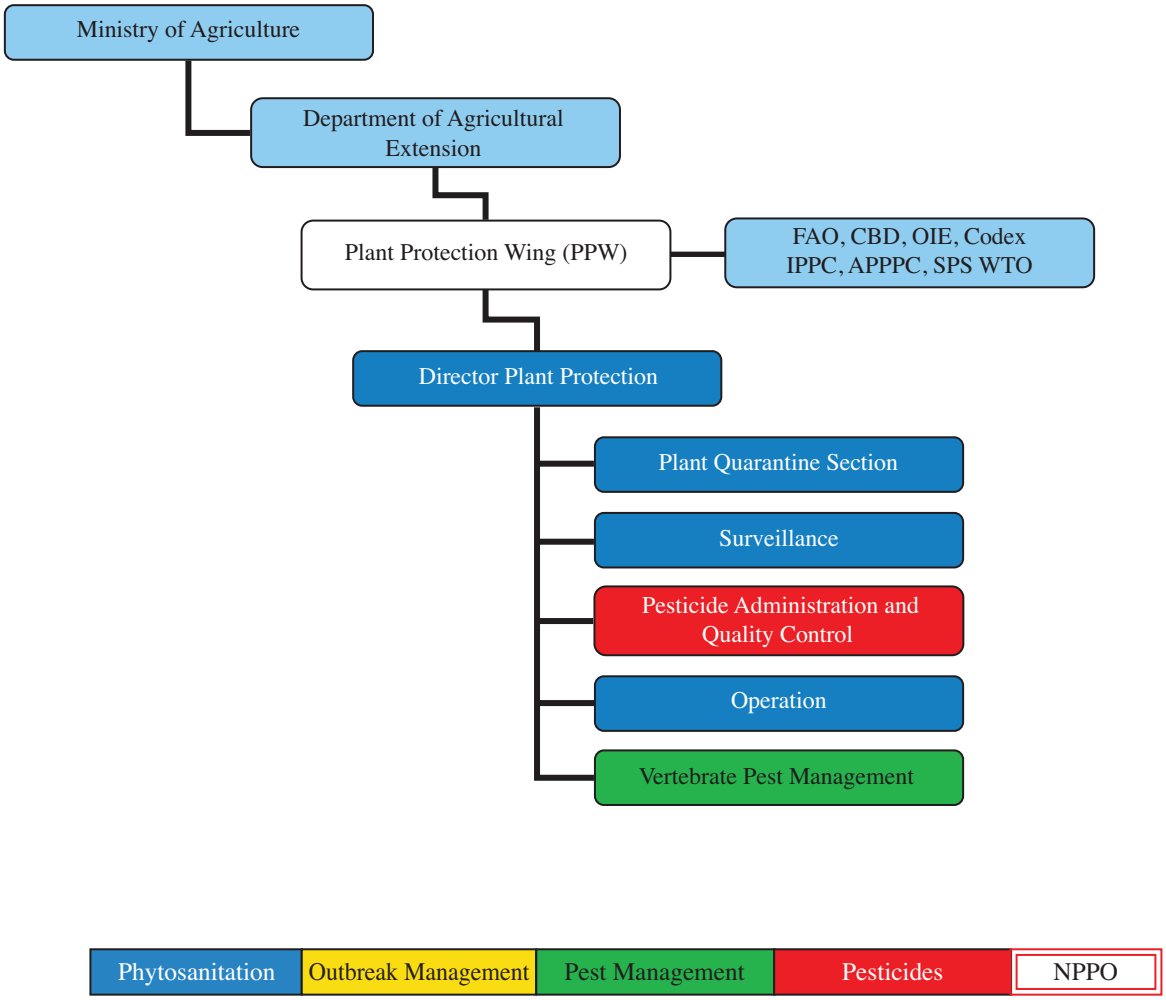
Overall Executive Summary

Apart from following IPPC's guidelines on the phytosanitary export certification and phytosanitary import regulatory systems, the Plant Quarantine Section of the Plant Protection Wing (NPPO) is responsible for implementing the International Standards for Phytosanitary Measures (ISPMs) in Bangladesh. Importantly, NPPO plays a vital role in implementing the National Pest Management Policy through the activities of Integrated Pest Management (IPM) and Integrated Crop Management (ICM) projects. They strengthen IPM activities and help farmers to become aware about healthy crop production.

As regards the pesticide management, in 2007 the Department of Agricultural Extension (DAE) revised "The Pesticide Ordinance, 1971" and its name was changed to "The Pesticide Ordinance (Amended), 2007". The necessary modifications were also made in The Pesticide Rules, 1995 with the incorporation of the provisions of biopesticide registration. They have been submitted to the Ministry of Agriculture for necessary action.

As part of the effort to disposal off the obsolete pesticides, a survey was conducted in different areas of the country. Moreover, continuous farmers training programmes were also conducted to increase awareness about harmful effects of injudicious use of pesticides.

Plant Protection Organization Chart



Important Contact Addresses

Responsible Ministry/Ministries

Responsible Department
Plant Protection (Policy, Regulations, Pesticide Registration, Overall Management)

Plant Protection Wing (NPPO)
Department of Agricultural Extension
Khamarbari, Dhaka-1215
Bangladesh
Tel: (+88) 02-9131295
Fax: (+88) 02-9111554
E-mail: dppw@dae.gov.bd
Website: http://www.dae.gov.bd

Address of nominations

Operational Offices:
Plant Protection

Plant Quarantine

Surveillance, Pest Outbreaks and Invasive Species Management

Plant Protection Wing (NPPO)
Department of Agricultural Extension
Khamarbari, Dhaka-1215
Bangladesh
Tel: (+88) 02-9131295
Fax: (+88) 02-9111554
E-mail: dppw@dae.gov.bd
Website: http://www.dae.gov.bd

Pesticide Registration

Plant Protection Wing (NPPO)
Department of Agricultural Extension
Khamarbari, Dhaka-1215
Bangladesh
Tel: (+88) 02-9131295
Fax: (+88) 02-9111554
E-mail: dppw@dae.gov.bd
Website: http://www.dae.gov.bd

Official International Contact Points

National Plant Protection Organization (NPPO) Contact Point (for IPPC/APPPC)

Plant Protection Wing (NPPO)
Department of Agricultural Extension
Khamarbari, Dhaka-1215
Bangladesh
Tel: (+88) 02-9131295
Fax: (+88) 02-9111554
E-mail: dppw@dae.gov.bd
Website: http://www.dae.gov.bd

WTO SPS Contact Point

Senior Assistant Chief/Assistant Chief
Policy-4 Branch
Ministry of Agriculture
Bangladesh Secretariat
Dhaka-1000
Tel: (+88) 02-9555622
Fax: (+88) 02-7167680
Website: http://www.moa.gov.bd

Rotterdam Convention (PIC) DNA Pesticides (P)

Stockholm Convention (POP) National Focal Point (P)

Director General
Department of Environment
Paribesh Bhaban
E-16, Agargaon
Sher-e-Bangla Nagar
Dhaka-1207
Tel: (+88) 02-8112461
Fax: (+88) 02-9118682
E-mail: http://www.afrinakter@doe-bd.org
Website: http://www.doe-bd.org

Basel Convention Competent Authority (CA) and Focal Point

Ministry of Environment and Forest
Secretary to the Government of Bangladesh

Selected Country Statistics

Agricultural Population	90.54 million	Agricultural Land	9.10 million ha
GDP $	Agric. GDP: 3.61%	GNI per Capita: $596	Under nourishment:
Main crops grown: Rice, Wheat, Jute, Potato, Sugarcane, Tea, Tobacco, Pulses, Oil seeds etc.			

GDP = Gross Domestic Product; GNI = Gross National Income; Hunger = Population below mini energy requirement

II. PLANT QUARANTINE

Last updated: December 2008

Executive Summary

The Plant Quarantine Section of the Plant Protection Wing (NPPO) has followed the IPPC instructions on the Phytosanitary Export Certification and Phytosanitary Import Regulatory Systems in international trade. NPPO is also implementing the International Standards for Phytosanitary Measures (ISPMs) of IPPC into Bangladesh.

In case of emergency, phytosanitary actions will be taken by the authority for any interception and non-compliance. NPPO has also drafted Bangladesh Plant Quarantine Act, 2009 and submitted it to the Ministry of Agriculture for approval.

List of key Legislation/Regulations/Rules

1914 Destructive Insects & Pests Act
1989 Destructive Insects & Pests Rules-1966 (Plant Quarantine) [Amended]

Web sources for further information: http://www.dae.gov.bd

(regarding plant quarantine)	Yes	No
Does phytosanitary legislation cover domestic quarantine?		
Does phytosanitary legislation cover import quarantine?	x	
Does phytosanitary legislation cover export quarantine?	x	
Does phytosanitary legislation cover living modified organisms?		
Is plant quarantine a separate organization from animal quarantine?	x	
Other policy initiatives (under review/progress): Plant Quarantine Act, 2009	x	
Web source for further information: http://www.dae.gov.bd	x	

Organization of Plant Quarantine Functions	Responsible Organizational Unit (Ministry/Department/Unit)
Pest Risk Analysis	PPW, DAE, MOA
National standards development	PPW, DAE, MOA
International notifications	PPW, DAE, MOA
Import permits	PPW, DAE, MOA
Imports inspections	PPW, DAE, MOA
Emergency action	PPW, DAE, MOA
Phytosanitary certificate	PPW, DAE, MOA
Treatment of commodities	PPW, DAE, MOA

Infrastructure	Years: 2007-2008
Number of plant quarantine officers authorized to inspect/certify	18
Total qualified personnel for plant pest risk analysis	18
Number of quarantine offices	13
entry point (sea/air/land/mail = total)	2/3/16/1 = 22
post-entry plant quarantine containment facilities	2
other offices	
Number of quarantine service diagnosis laboratories	13 (Narrow facility)
In-country recognized pest diagnostics capabilities (incl. universities, etc.)	
Number of laboratories for insect/mite (arthropod) samples	13
Number of laboratories for bacteria samples	
Number of laboratories for virus samples	
Number of laboratories for fungus samples	13
Number of laboratories for mycoplasma samples	
Number of laboratories for nematode samples	13
Number of laboratories for plant/weed samples	13
Number of laboratories for other pests (snail, slug, rodents, etc.)	13

Pest-Free Areas According to ISPM 10	Responsible Organizational Unit (Ministry/Department/Unit)
Overall management	PPW, DAE, MOA
surveillance	PPW, DAE, MOA
management	PPW, DAE, MOA
certification	PPW, DAE, MOA

List of target pest species and crops ISPM 4	Number of sites in [year]
Brown rot on potato	
Stone weevil and pulp weevil on mango	
List of target pest species and crops ISPM 10	Number of sites in [year]

Key Situation Indicators

International Trade		Years: 2007-2008
Main Import Plant Commodities	Main countries/areas of origin	Quantity (Tons)
Raw cotton, Rice, Wheat, Pulses etc.	USA/Canada/Australia/Mayanmar /India/Thailand/Pakistan/Egypt etc.	
Fresh fruits-pome/stone/citrus	China/Thailand/India/Pakistan /Australia/Middle East/Brazil	
Main Export Plant Commodities	Main destination country	
Fresh vegetables, citrus/Fresh Fruits /Frozen Vegetables/Food Stuff	Middle East/EU/USA/Canada/ Australia	
Fine and Aromatic Rice	EU/USA/Middle East	

Cooperation Projects			
Title (Purpose/Target)	Donor	Amount	Years (start-end)
			[year – year]
Title of government follow-up programmes		Amount	Years (start-end)
			[year – year]

Key Operation Indicators

Institutional Functions	Years: 2007-2008
Number of import permits issued	15 337
Number of import inspections carries out	15 337
Number of emergency phytosanitary treatments taken on imports	
Number notifications of non-compliance	
Number of conventional phytosanitary certificate issued	27 337
Number of electronic phytosanitary certificate issued	

Number of quarantine pests intercepted		Years: 2007-2008
Top three commodity	Top three pest/commodity	# of interceptions

Lists of Regulated Pests	Year of last update	Insects	Pathogens	Plants
Number of quarantine pests				
Number of regulated non-quarantine pests				
Number of regulated import articles				
Website for the above information: http://www.dae.gov.bd				

Pest Risk Analysis	Insects	Pathogens	Plants
No. of PRA completed and documented (according to ISPM)			
Web source for further information: –			

Progress and Constraints

Main Progress in Recent Years (legislation, policies, infrastructure, investments, training, etc.)
Upgraded Bangladesh Plant Quarantine Act, 2009 is submitted to Ministry of Agriculture for approval by the Parliament
Main Constraints (personnel, infrastructure, administrative, operational, training, etc.)
Modern Phytosanitary Diagnostic Laboratory support, Human Resources Development and Infrastructural development needed

Implementation of ISPM	Relevance			Implementation				Planned/Actual Year of full implementation
International Measures	low	medium	high	none	partial	most	full	
ISPM 01 Principles of plant quarantine as related to international trade			x				x	
ISPM 02 Guidelines for pest risk analysis			x				x	
ISPM 03 Code of conduct for the import and release of exotic biological control agents			x			x		
ISPM 04 Requirements for the establishment of pest free areas			x		x			
ISPM 05 Glossary of phytosanitary terms			x				x	
ISPM 06 Guidelines for surveillance			x		x			
ISPM 07 Export certification system			x				x	
ISPM 08 Determination of pest status in an area			x		x			
ISPM 09 Guidelines for pest eradication programmes			x		x			
ISPM 10 Requirements for the establishment of pest free places of production and pest free production sites			x		x			
ISPM 11 Pest risk analysis for quarantine pests			x				x	
ISPM 12 Guidelines for phytosanitary certificates			x				x	
ISPM 13 Guidelines for the notification of noncompliance and emergency action			x				x	
ISPM 14 The use of integrated measures in a systems approach for pest risk management			x			x		
ISPM 15 Guidelines for regulating wood packaging material in international trade			x				x	
ISPM 16 Regulated non-quarantine pests: concept and application			x			x		
ISPM 17 Pest reporting			x				x	
ISPM 18 Guidelines for the use of irradiation as a phytosanitary measure			x		x			
ISPM 19 Guidelines on lists of regulated pests			x			x		
ISPM 20 Guidelines for a phytosanitary import regulatory system			x				x	
ISPM 21 Pest risk analysis for regulated non-quarantine pests			x		x			
ISPM 22 Requirements for the establishment of areas of low pest prevalence			x		x			
ISPM 23 Guidelines for inspection			x				x	
ISPM 24 Guidelines for the determination and recognition of equivalence of phytosanitary measures		x			x			
ISPM 25 Consignments in transit		x			x			
ISPM 26 Establishment of pest free areas for fruit flies (Tephritidae)			x		x			
ISPM 27 Diagnostic protocols for regulated pests			x		x			
ISPM 28 Phytosanitary treatments for regulated pests								
ISPM 29 Recognition of pest free areas and areas of low pest prevalence								
ISPM 30 Establishment of areas of low pest prevalence for fruit flies (Tephritidae)								
ISPM 31 Methodologies for sampling of consignments								
Comments/Constraints								

III. SURVEILLANCE, PEST OUTBREAKS AND INVASIVE SPECIES MANAGEMENT

Last updated: December 2008

Regular surveillance activities are conducted in every district of the country to monitor the introduction, pest outbreaks, establishment and spread of invasive species.

List of Key Legislation/Regulations/Rules for Surveillance, Pest Reporting and Emergency

List of legislation/regulations/rules for surveillance, pest reporting and emergency actions:
DIP Act proposed to be replaced by Plant Quarantine Act, 2009

Web source for further information: http://www.dae.gov.bd

(regarding invasive/migratory species management)	Yes	No
National strategy to control serious field pest outbreaks?		
National strategy to control migratory or periodically occurring pests?		
National strategy to eradicate serious newly invaded exotic pests?		
Other policies: (e.g. subsidies, etc.)		
Web source for further information: http://www.dae.gov.bd		

Organization of Outbreak Management Functions	Responsible Organizational Unit (Ministry/Department/Unit)
Field/Storage Pest Outbreaks	(e.g. BPH, boll worm, etc.)
Response strategy/plans	PPW, DAE, MOA
Surveillance	PPW, DAE, MOA
Control	PPW, DAE, MOA
Migratory Pest Outbreaks	(e.g. locusts, birds, armyworm)
Response strategy/plans	PPW, DAE, MOA
Surveillance	PPW, DAE, MOA
Control	PPW, DAE, MOA
New Exotic Pest Eradication	(e.g. coconut beetle)
Response strategy/plans	PPW, DAE, MOA
Surveillance	PPW, DAE, MOA
Control/eradication	PPW, DAE, MOA
Reporting to bilateral or international organizations	PPW, DAE, MOA

Infrastructure	Years: 2007-2008
Number of designated staff for **surveillance** of field pests of national	[number]
Number of designated staff for **surveillance** of migratory and periodically occurring pests	
Number of designated staff for **surveillance** of invasive species	
Number of designated staff for **control** of field pests of national	
Number of designated staff for **control** of migratory and periodically occurring pests	
Number of designated staff for **eradication** of invasive species	

Key Situation and Operation Indicators

(Outbreaks and invasions in the past 2 years)

New exotic species found established in country	Insects	Pathogens	Weeds
Total number for year 2007:			
Total number for year 2008:			
Total number on record			

Eradication or internal quarantine actions taken against economically important species			
Name of species			
Year of first discovery			
Location of first discovery			
Area affected [ha]			
Area treated [ha]			
Control method			

Pest outbreak actions	Outbreak 1	Outbreak 2	Outbreak 3
Name of species			
Year of outbreak			
Area affected [ha]			
Estimated damage US$			
Area treated by government [ha]			
Expenditures by government [US$]			
Control method			
More information			

Progress and Constraints

Main Progress in Recent Years (legislation, policies, infrastructure, investments, training, etc.)
Main Constraints (personnel, infrastructure, administrative, operational, training, etc.)

IV. PEST MANAGEMENT

Last updated: December 2008

Executive Summary

The Plant Protection Wing (NPPO) plays a vital role in implementing the National Pest Management Policy through the activities of Integrated Pest Management (IPM) and Integrated Crop Management (ICM) projects.

The IPM and ICM projects strengthen IPM activities through establishing and introducing Farmers Field School (FFS), IPM Clubs (Farmers Association), Organic Farming Pilot Programme, Biological Pest Control, Farmers Training and organization of workshops/seminars throughout the country. They help farmers become aware of healthy crop production. IPM club also helps promote IPM activities among the neighbouring farmers. Pesticide-free crop production has now become popular among the farmers.

List of Key Legislation/Regulations/Rules for Pest Management

1971 The Pesticide Ordinance
1995 The Pesticide Rules

Web source for further information: http://www.dae.gov.bd

(regarding pest management)	Yes	No
Do you have policies encouraging organic or low-pesticide use production	x	
Is IPM specifically mentioned in laws or policy documents?	x	
Do you have official Good Agricultural Practice (GAP) or any other relevant food safety (ecofood, etc.) standards for pest management?		
Is pest management extension separate from general extension?		
Other policies: (subsidies, production inputs, etc.) Emphasis on biocontrol agents, biopesticides and pheromones Phasing out, banning or restricting hazardous chemical pesticides		
Web source for further information: http://www.dae.gov.bd		

Organization of Plant Protection Functions	Responsible Organizational Unit (Ministry/Department/Unit)
Policy development	
Pest management research	
Control recommendations	
Pest management extension	
IPM training	
GAP training	

Infrastructure	Years: 2007-2008
Number of technical officers for pest management	
Number of central, regional, provincial or state offices	
Number of district and village level field offices	
Number of field/extension agents for pest management advice	
Number of field/extension agents trained in IPM-FFS facilitation	
Number of government biocontrol production/distribution facilities	
Number of government biopesticide production/distribution facilities	
Number of general extension staff involved in pest management	
Number of designated plant protection technical officers for extension	

Key Situation and Operation Indicators

Pest Management	Yes	No
Does the country have a National IPM Programme? *If yes, give Name and Address of IPM Programme:*		
Does the country have specific IPM extension programmes? *If yes, in which crops?:*		
Does the country have specific IPM research programmes? *If yes, in which crops?:*		
Does the country have specific GAP extension programmes? *If yes, in which crops?:*		
Does the country have specific GAP research programmes? *If yes, in which crops?:*		

Market shares (estimated value, volume or area under control)	Years: 2007-2008
Size of chemical pest control market	[number, %]
Size of biopesticides market	
Size of biological control agents market	

Major pest control requiring crops (requiring most pesticide applications)	1st	2nd	3rd
Name(s) of pest(s)			
Estimated crop loss			
Number of pesticide applications or amount of pesticide used			
Government action taken			

Cooperation Projects			
Purpose/Target	Donor	Amount	Years (start-end)
Purpose/Target of government follow-up programmes		Amount	Years (start-end)

Pest Management Extension	Years: 2007-2008
Number of farmers trained in IPM during the year	222 550
Number of IPM-FFS conducted during the year	6 243
Number of farmers trained in GAP standards during the year	
Area under IPM/low pesticide management [ha]	
Area under organic/pesticide-free management [ha]	15
Crops in which IPM or other ecology friendly programmes are successfully implemented: IPM packages developed	
Crops grown organic/pesticide-free: –	

Progress and Constraints

Main Progress in Recent Years (legislation, policies, infrastructure, investments, training, etc.)
Main Constraints (personnel, infrastructure, administrative, operational, training, etc.)

V. PESTICIDE MANAGEMENT

Last updated: December 2008

Executive Summary

The Pesticide Administration and Quality Control Section of the Plant Protection Wing (NPPO) of the Department of Agricultural Extension (DAE) revised "The Pesticide Ordinance, 1971" and its name was changed to "The Pesticide Ordinance (Amended), 2007".

The necessary modifications were also made to The Pesticide Rules, 1995 with the incorporation of the provisions of biopesticide registration and submitted to the Ministry of Agriculture for necessary action.

To facilitate modern diagnosis and laboratory facilities, the Pesticide Quality Control Laboratory of NPPO has already been modernized with the installation of testing equipment.

To disposal off the obsolete pesticides, a survey was conducted in different areas of the country. Continuous farmers training programmes were also conducted to increase awareness of harmful effects of injudicious use of pesticides.

List of Key Legislation/Regulations/Rules:

1971 The Pesticide Ordinance; The Pesticide Ordinance (Amended) 2007
1985 The Pesticide Rules

Ministry of Environment and Forest

1995 Bangladesh Environmental Conservation Act
1997 Bangladesh Environmental Conservation Rules

Web source for further information: http://www.dae.gov.bd

(regarding pesticide management)	Yes	No
Do you have national pesticide reduction target? If yes, what is the target: –	x	
Have you ratified the Rotterdam (PIC) Convention?		
Have you ratified the Stockholm (POP) Convention?	x	
Have you ratified the Basel Convention? (hazardous wastes)	x	
Have you ratified the Montreal Protocol? (MeBr phasing-out)	x	
Have you reported the observance of the code of conduct to FAO according to Art 12 of the Code?		
Have you adopted Good Laboratory Practices (GLP)?	x	
Pesticide Registration		
Do you require pesticides to conform to relevant FAO or WHO specification?	x	
Do you allow the "me-too" registration and sale of genetic pesticides?	x	
Do you require data on product equivalence for generic registration?	x	
Do you conduct country-specific risk assessments for....		
occupational risks?		
consumer risks?	x	
environmental risks?	x	

Have you adopted the Global Harmonized System (GHS) for pesticides hazards evaluation and labeling?	x	
Do you accept evaluation results from other countries?	x	
Do you accept field studies conducted in other countries?		x
Do you require environmental fate studies?		x
Incentives/Disincentives		
Do you have a special tax on pesticides to cover externality costs?	x	
Do you subsidize or provide low-cost pesticides?		x
Do you subsidize or provide low-cost biopesticides?		x
Other policies: Other policies: Pesticide Ordinance 1971 is being amended, Integrated Pest Management and Integrated Crop Management Policies The Pesticides (Amended) Rules-2007 is under process.	x	
Web source for further information: http://www.dae.gov.bd		

Organization of Plant Protection Functions	Responsible Organization Unit (Ministry/Department/Unit)
Legislation	MOA/PPW, DAE,
Registration	PPW, DAE, MOA
Licensing of shops	PPW, DAE, MOA
Licensing of field applicators	PPW, DAE, MOA
Enforcement/inspections	PPW, DAE, MOA
Testing of pesticide efficacy	PPW, DAE, MOA
Development of pesticide use recommendation	PTAC
Safe use training/extension	PPW, DAE, MOA, BCPA
Food residue monitoring	BSTI
Environmental monitoring	PPW, DAE and DOE
Health monitoring	DOH
Other Stakeholders:	
Pesticide Industry Association	BCPA
Civil Society Organization (NGO, etc.)	BCPA

Infrastructure*	Years: 2007-2008
Number of registration officers	
Number of enforcement officer	550
Number of department quality control laboratories	01
Number of quality control laboratory personnel	06
Number of department residue analysis laboratories	01
Number of residue laboratory personnel	06

* Only include the laboratories belonging to MOA

Key Situation Indicators

Pesticide Trade:	Tons	$ '000 value
Imports	77 712 (Formulated)	
Domestic Use/Sales		
Pesticide Use Profile: 2007-2008	**Tons (a.i./formulation to be specified)**	**US$ '000 Value**
Chem. Insecticides	66%	
Chem. Fungicides	29%	
Chem. Herbicides	3%	
Chem. Others: e.g. molluscicide, acaricide	2%	
e.g. Avamectrin, Bt. NeeM		
Other purposes		

Registration Monitoring

Testing, Quality Control and Effects in the Field	Yes	No
Do you have significant problems with low-quality pesticides in the market?	x	
Do you have significant problems with pesticide resistance?	x	
Do you have a list pesticides under close observation for problems		x
Source for more information		

Health and Environmental Information	Yes	No
Do you maintain data on pesticide poisoning cases?	x	
Do you have a system to monitor pesticide residues in food?	x	
Do you have a system to monitor pesticide residues in the environment?	x	
Do you have significant problems of environmental contamination from pesticides	x	
Do you have data on pesticides effects on wildlife and ecosystems?		x
Source for more information: http://www.dae.gov.bd		

Pesticide Disposal	Yes	No
Do you have system to collect and safely dispose of used containers and small quantities of left-over pesticides?	x	
Do you have an inventory of outdated and obsolete pesticides in the country? (e.g. banned and no longer traded, but still in storage)	x	
Do you have illegal trade in pesticides?		x
if yes: what is the estimated amount: – No estimated made, but it exists.		
Source for more information: –		

Key Operation Indicators

Registration/Regulation/Monitoring	Years: 2007-2008	
	a.i.*	Trade Name
Number of registered pesticide products	123	
Number of registered biopesticides (Avamectrin, Bt, Neem, etc.)	02	
Number of restricted-use pesticides/formulations	04	
Number of banned pesticides	07	
Number of licensed outlets		
Number of licensed field applicators (professional and/or farmers)		
Number of licensing violations reported during year	02	
Number of quality control analyses conducted during year	56	
Number of food samples analyzed for pesticide residues during year		
Number of samples exceeding MRL		
Number of environmental samples analyzed for pesticide residues		

* active ingredient

Pesticides Restricted in Recent Year	
Year	Name of active ingredient or hazardous formulation

Pesticide Banned in Recent Years	
Year	Name of active ingredient

Cooperation Project			
Purpose/Target	Donor	Amount	Years (start-end)
Strengthening Plant Projection Project	DANIDA		
Purpose/Target of government follow-up programmes		Amount	Years (start-end)
Integrated Pest Management Project	GOB	15 Core	2006

Progress and Constraints

Main Progress in Recent Years (legislation, policies, infrastructure, investments, training, etc.)
Implementation of IPM & ICM policies
Main Constraints (personnel, infrastructure, administrative, operational, training, etc.)
Plant Protection legislation, policies, infrastructure, investments, training, etc. should be modernized. Developed Pesticide Residue Analysis Laboratory.

VI. ADDITIONAL ISSUES OF INTEREST

Last updated: December 2008

Genetically Modified Crops	
Name of GMO Crop	Area under Cultivation [ha]

2.3 CAMBODIA

I. GENERAL INFORMATION

Overall Executive Summary

The Plant Protection and Phytosanitary Inspection Office (PPPIO) as Cambodia's NPPO has recently been upgraded as the Plant Protection and SPS Department (PP-SPSD) of the General Directorate of Agriculture (GDA). NPPO was previously under the supervision of the former Department of Agronomy and Agricultural Land Improvement (DAALI).

The Government of Cambodia has endorsed Sub-Degree No. 188 (14/11/2008) with the establishment of GDA which consists of nine departments. One of these is the Plant Protection Sanitary and Phytosanitary Department (PP-SPSD) that has the following roles and responsibilities:

- To prepare the policy, plan, project, development programmes, the measure to *reduce* the crop production loose caused by pest, to *manage* chemical substances used to prevent, control, repellant, grow regulate (and all other pesticide actives) pest and all agent or biological substances used for the above mentioned purpose and for soil fertility improvement in order to increase productivity and plant production in the sound of sustainable of natural resources and biodiversity of the environment;
- To prepare the plant product *quality standards*, the *assurance system of safety* and quality of plant product, policy plant project development programmes to *improve* the quality and safety of plant product in order to assure the quality and safety of plant product to consumer, market and encourage the export of plant product;
- To prepare the *regulation* and to be the *regulatory service* in the management of *plant protection work, safety of food* originally from plant product and *phytosanitary inspection* according to the Government policy and SPS agreement of WTO;
- To direct, manage and encourage the *research activities* of research institution under its manage and in cooperation with the agricultural extension department and local organizations to encourage the *extension* of plant protection, phytosanitary and production measures to improve the quality and safety of product to farmers, farmer organization, investor and private sector for increasing their benefits and family income to improve population's welfare and facilitate the exportation of agricultural product;
- *supporting service to the seed inspector* by playing a role of regulatory authority for inspecting all the seed transportation across the border;
- To persuade, facilitate and *encourage private sector to invest* the supporting service for plant protection, phytosanitary and improving quality of agricultural product;
- *technical advisor* and a service in *pest control* intervention, in *assessment of chemical* substances used to prevent, control, repellant, grow regulate (and all other pesticide actives) pest and all agent or biological substances used for the above mentioned purpose and for soil fertility improvement and in *assessment of quality* of agricultural
- To liaison, cooperate and implement the convention, agreement related in national, regional and international level
- To implement other duties as given by Director Team of General Directorate.