

2.6 INDIA

I. GENERAL INFORMATION

Last updated: June 2009

Overall Executive Summary

The Headquarters of the Directorate of Plant Protection Quarantine and Storage is located at Faridabad, Haryana. This office is headed by the Plant Protection Adviser to the Government of India and is responsible for the implementation of plant protection policies and programmes of the Department of Agriculture and Cooperation, the Ministry of Agriculture, the Government of

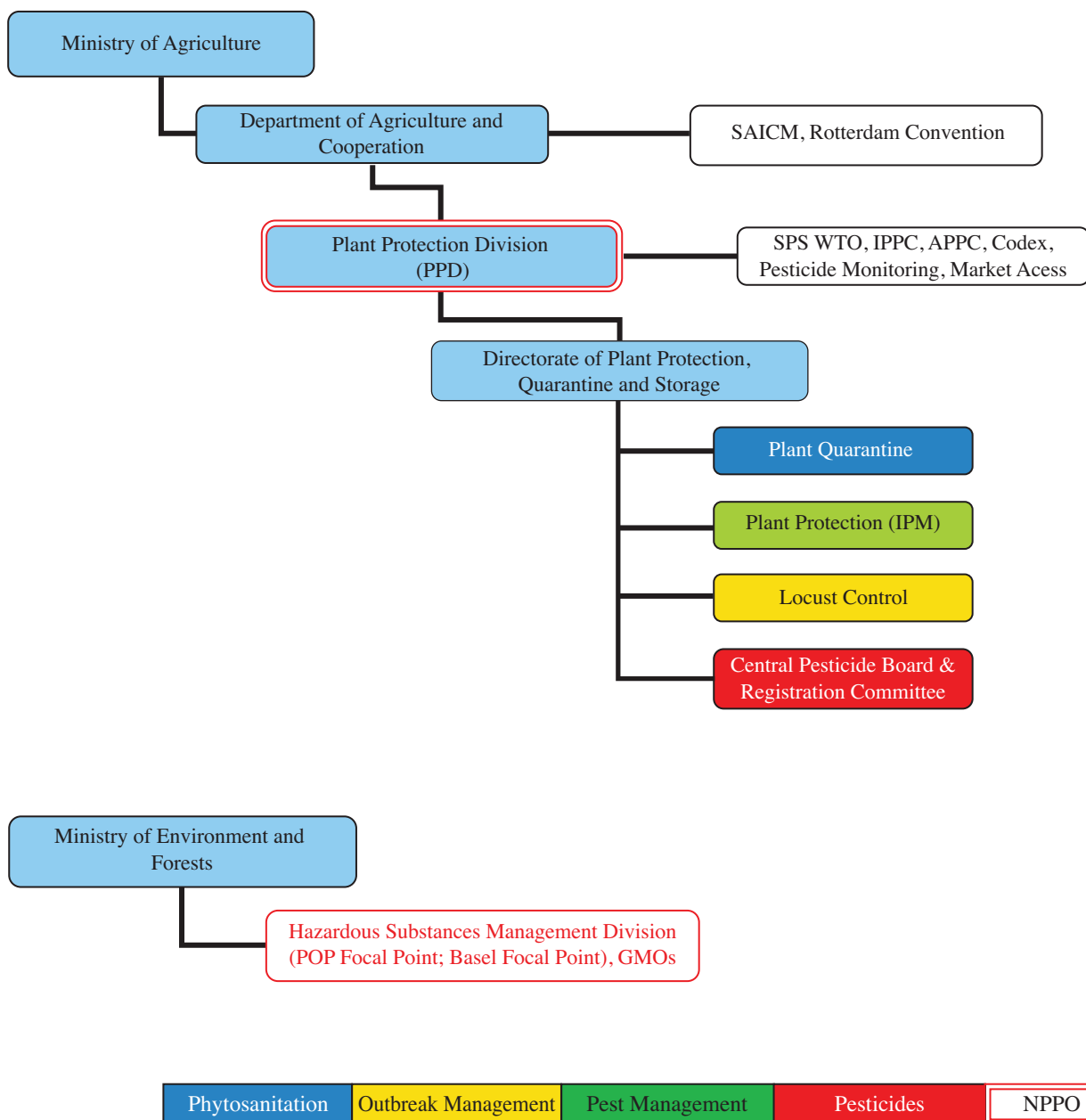
The major activities are exclusion of exotic pests, surveillance and monitoring and control of desert locust, ensuring availability of quality pesticides and biopesticides, promotion of integrated pest management approach in plant protection, development of the human resources in plant protection and monitoring of pesticide residues in agricultural commodities.

The Directorate of Plant Protection, Quarantine & Storage, Department of Agriculture & Cooperation administer the Destructive Insects & Pests Act, 1914 (2 of 1914) under which Plant Quarantine (Regulation of Import into India) Order 2003 regulates the imports of agricultural commodities and the wood packaging material. Being the National Plant Protection Organization, the Directorate is responsible for implementation of the phytosanitary certification programme. More than 150 plant protection specialists from all over the country have been authorized by NPPO to issue phytosanitary certificates, in accordance with the requirements of importing countries as per IPPC. 194 714 Phytosanitary certificates were issued during 2008-2009 and more than 239 pest risk analyses were carried out. A number of quarantine pests had been intercepted in the imported consignments and notifications sent to the exporting countries.

IPM Programme is based on crop based Farmers Field School approach. Seventy seven (77) IPM packages on major agricultural/horticultural crops have been developed. The Government of India encourages the use of biocontrol agents. 318 biocontrol laboratories are in operation. National programme on the monitoring of pesticide residue is in progress. A project on surveillance on fruit flies has been completed during 2008 and the results are awaited. Pest free area has been developed and notified for brown rot (*Ralstonia solanacecarum*) and ring rot (*Clavibacter* of Potato in the State of Punjab, recognition of which is under consideration of EU. Bilateral agreements with USA, Japan and China have been finalized to facilitate the export of fruits, especially mango.

India is a signatory to FAO code of conduct on the distribution and use of pesticides and is implementing its provisions. The Insecticides Act, 1968 regulates the import, manufacture, sale, transport, distribution and use of pesticides with a view to prevent risk to the human beings, animals and the environment. The pesticide management bill in the form of "The Pesticide Management Act" is likely to be introduced during the year 2009 replacing Insecticides Act, 1968.

Plant Protection Organization Chart



Important Contact Addresses

Responsible Ministry/Ministries

Responsible Department

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

Directorate of Plant Protection, Quarantine and Storage

Mr Pankaj Kumar, Joint Secretary (Plant Protection)

Dr P.S. Chandurkar, Plant Protection Adviser

Department of Agriculture & Cooperation, Ministry of Agriculture

Room No. 224, Krishi Bhawan, Rajendra Prasad Road

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E-mails: pankajkumar@nic.in, ppa@nic.in

Websites: <http://www.dacnet.pp.in.nic.in>; <http://www.plantquarantineindia.org/>;

<http://www.cibrc.nic.in>, <http://agricoop.nic.in>.

Address for nominations

Operational Offices:

Plant Protection

Plant Quarantine

Surveillance, Pest Outbreaks and Invasive Species Management

Directorate of Plant Protection, Quarantine & Storage

Dr P.S. Chandurkar, Plant Protection Advisor

Department of Agriculture & Cooperation, Ministry of Agriculture

N.H-IV., Faridabad 121001 (Haryana), India

Tel: (+91) 129-2413985; 129-2418506

Fax: (+91) 129-2412125

E-mail: ppa@nic.in

Website: www.plantquarantineindia.org/ <http://www.cibrc.nic.in>

Pesticide Registration

Registration Committee, Directorate of Plant Protection, Quarantine and Storage

Dr S.K. Khurana, Secretary

Department of Agriculture & Cooperation, Ministry of Agriculture

N.H.IV, CGO Complex

Faridabad 121001 (Haryana), India

E-mail: cibsecy@hub.nic.in

Website: <http://www.cibrc.nic.in>

Official International Contact Points

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

Directorate of Plant Protection, Quarantine and Storage

Mr Pankaj Kumar, Joint Secretary (Plant Protection)

Dr P.S. Chandurkar, Plant Protection Advisor (Information officer for IPP)

Department of Agriculture & Cooperation, Ministry of Agriculture

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Website: <http://www.dacnet.pp.in.nic.in>; <http://www.plantquarantineindia.org/>

WTO SPS Contact Point

Department of Agriculture & Cooperation

Mr Pankaj Kumar, Joint Secretary (Plant Protection)

Ministry of Agriculture

Krishi Bhavan

New Delhi 110001, India

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Rotterdam Convention (PIC) DNA Pesticides (P)

Plant Protection Division

Director (Plant Protection)

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Krishi Bhavan, Dr Rajendra Prasad Road

New Delhi 110001, India

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E-mail: pankajkumar@nic.in

Stockholm Convention (POP) National Focal Point (P)

Ministry of Environment & Forests

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Plant Protection Division

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Ministry of Agriculture,

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E-mail: pankajkumar@nic.in

Basel Convention Competent Authority (CA) and Focal Point

Ministry of Environment and Forests
Secretary to the Government of India

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New Delhi 110003, India

Tel: (+91) 11 24 36 07 21 or 24 36 18 96

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Hazardous Substances Management Division
Mr Rajiv Gauba, Joint Secretary

Ministry of Environment and Forests

Paryavaran Bhavan

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Fax: (+91) 11 24 36 35 77

E-mail: r.gauba@nic.in

Selected Country Statistics

Agricultural Population	553 million	Agricultural Land	170 million ha
GDP \$598 966 million	Agric. GDP: 22.7%	GDP \$598 966 million	Undernourishment: 20%
Main crops grown:			

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

II. PLANT QUARANTINE

Last updated: June 2009

List of Key Legislation/Regulations/Rules

1914 Destructive Insects & Pests Act

Plant Quarantine Order (effective: 1 January 2004) and amendments thereto (under consideration)

Web sources for further information:

<http://www.plantquarantineindia.org/law.htm>; <http://agricoop.nic.in>

(regarding plant quarantine)	Yes	No
Does phytosanitary legislation cover domestic quarantine?	x	
Does phytosanitary legislation cover import quarantine?	x	
Does phytosanitary legislation cover export quarantine?		x
Does phytosanitary legislation cover living modified organisms?		x
Is plant quarantine a separate organization from animal quarantine?	x	
Other policy initiatives (under review/progress): The DIP Act is in the process of being amended but is not likely to result in altered import phytosanitary conditions.		
Web source for further information: http://www.plantquarantineindia.org/abpqo.htm		

Organization of Plant Quarantine Functions	Responsible Organizational Unit (Ministry/Department/Unit)
Pest Risk Analysis	MOA/DAC/PPD/PPQ&S/NBPGR
National standards development	MOA/DAC/PPD/PPQ&S
International notifications	MOA/DAC/PPD
Import permits	MOA/DAC/PPD/PPQ&S/NBPGR
Import inspections	MOA/DAC/PPD/PPQ&S/NBPGR
Emergency action	MOA/DAC/PPD/PPQ&S
Phytosanitary certificates	MOA/DAC/PPD/PPQ&S/Notified State government authorities/ ICAR/SAUs
Treatment of commodities	MOA/DAC/PPD/PPQ&S/NBPGR/Accredited agencies

Infrastructure	Year: 2009
Number of plant quarantine officers authorized to inspect/certify	274
Total qualified personnel for plant pest risk analysis	100
Number of quarantine offices	
entry points (sea/air/land/mail = total)	34/12/13/ = 59
post-entry plant quarantine containment facilities	140
other offices	5 N/RPQS + 22 PQS
Number of quarantine service diagnosis laboratories	45
In-country recognized pest diagnostics capabilities (incl. universities, etc.)	
Number of laboratories for insect/mite (arthropod) samples	40
Number of laboratories for bacteria samples	30
Number of laboratories for virus samples	5
Number of laboratories for fungus samples	55
Number of laboratories for mycoplasma samples	5
Number of laboratories for nematode samples	4
Number of laboratories for plant/weed samples	40
Number of laboratories for other pests (snail, slug, rodents, etc.)	4

Pest Free Areas According to ISPM 10	Responsible Organizational Unit (Ministry/Department/Unit)	
Overall management	MOA/DAC	
– surveillance	MOA/DAC/PPQ&S/ICAR/State Agricultural Universities	
– management	MOA/DAC assisted by PPQ&S	
– certification	MOA/DAC/PPQ&S/ICAR	
List of target pest species and crops ISPM 4	Number of sites in [year]	
Brown rot on potato, ring rot on potato	Punjab State	
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	Year:	
Main Import Plant Commodities	Main countries/areas of origin	Quantity (tons)
Pulses and Peas	USA/Canada/France/Australia/Myanmar	
Timber	Canada/Malaysia/South America/New Zealand/Ghana	
Fresh fruits-pome/stone/citrus	Australia/New Zealand, Thailand	
Main Export Plant Commodities	Main destination countries	
Mango	EC/Japan/Canada/Africa/China, USA	
Grapes	EC/Canada/China/Middle East	
Basmati Rice	Across the Globe – Majority of the Countries	

Cooperation Projects			
Title (Purpose/Target)	Donor	Amount	Years (start-end)
Need assessment and project formulation for the development of an Integrated National Quarantine	UNDP		
Title of government follow-up programmes		Amount	Years (start-end)

Key Operation Indicators

Institutional Functions	Years: 2008-2009
Number of import permits issued	25 986
Number of import inspections carried out	>60 000
Number of emergency phytosanitary treatments taken on imports	>1 300
Number notifications of non-compliance	112
Number of conventional phytosanitary certificates issued	194 714
Number of electronic phytosanitary certificates issued	–

Number of quarantine pests intercepted		Years: 2008-2009
Top three commodity	Top three pest/commodity	# of interceptions
Timber	Platypus parallebus	
Almond	Ephestia kuehniella	
Coffee beans	Oryzaephilus mercator	

Lists of Regulated Pests	Year of last update	Insects	Pathogens	Plants
Number of quarantine pests	2008-2009	131		
Number of regulated non-quarantine pests	–	–		
Number of regulated import articles	2008-2009		53	
996 Commodities with Import Risk Analyses				
Web source for further information: http://www.plantquarantineindia.org/seeds.htm# India regulates import seeds and consumption plant species, not pests				

Pest Risk Analysis	Insects	Pathogens	Plants
No. of PRA completed and documented (according to ISPM)	2 368		
Web source for further information: 1682 Commodities can be imported into India as per the Pest Risk Analysis. Details are available in website: www.plantquarantineindia.org			

Progress and Constraints

Main Progress in Recent Years (legislation, policies, infrastructure, investments, training, etc.)
<ul style="list-style-type: none"> • A new PRA based and continually updated PQ regulation put in effect, i.e. Plant Quarantine Order, 2003, effective since 1 July 2004. • SPS principles and transparency requirements being met through timely notifications of proposed phytosanitary measures. • National Phytosanitary certification system being modernized and strengthened. • Market access and phytosanitary requests from a number of member countries considered and issues resolved. • National Phytosanitary Standards, protocols and guidelines developed in a number of key phytosanitary activities. • Emphasis on capacity building; training and human resource development. • Continuous overhaul of the certification and accreditation system for treatment providers – both fumigators and ISPM 15 heat treatment providers. • Major expansion of facilities and laboratories under way – Number of new entry points and Plant Quarantine Stations opened across the country, more being opened. • Modern diagnostic facilities put in place. • Quarantine treatment facilities using VHT, Irradiation and other treatments developed and accreditation/certification systems developed for these facilities. • Massive survey and surveillance programmes undertaken for development and maintenance of pest free areas. • Pest free area notified for brown rot and ring rot on potato in Punjab, recognition of which is under consideration
Main Constraints (personnel, infrastructure, administrative, operational, training, etc.)
<ul style="list-style-type: none"> • Constraints are mainly in form of staff shortages in the wake of massive expansion of the Plant Quarantine facilities and operations across the country. Also, the need remains for upscaling training of officials and support staff in phytosanitary tasks.

Implementation of ISPM	Relevance			Implementation				Planned/Actual Year of full implementation
	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 15 adopted National standards: http://www.plantquarantineindia.org/standards.htm 5 standards under preparation								

III. SURVEILLANCE, PEST OUTBREAKS AND INVASIVE SPECIES MANAGEMENT

Last updated: June 2009

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/Plant Quarantine (Regulation of Import into India) Order, 2003

Web source for further information: www.agricoop.nic.in

(regarding invasive/migratory species management)	Yes	No
National strategy to control serious field pest outbreaks?	x	
National strategy to control migratory or periodically occurring pests?	x	
National strategy to eradicate serious newly invaded exotic pests?	x	
Other policies: (e.g. subsidies, etc.): IPM/GAP/Survey and Surveillance Project/NRM		
Web source for further information: www.agricoop.nic.in		

Organization of Outbreak Management Functions	Responsible Organizational Unit (Ministry/Department/Unit)
<i>Field/Storage Pest Outbreaks</i>	(e.g. BPH, bollworm, etc.)
Response strategy/plans	MOA/DAC/PPQ&S/CIPMC/LWO/State Government/ICAR and SAUs
Surveillance	MOA/DAC/PPQ&S/CIPMC/State Governments
Control	MOA/DAC/State Government/PPQ&S/LWO/CIPMCs/ICAR/SAUs/Pesticide Industry
<i>Migratory Pest Outbreaks</i>	(e.g. locusts, birds, armyworm)
Response strategy/plans	MOA/DAC/PPQ&S/Locust Warning Organization (LWO)
Surveillance	MOA/DAC/PPQ&S/LWO/CIPMC/State Governments
Control	MOA/DAC/State Government/PPQ&S/LWO/CIPMCs/ICAR/SAUs/Pesticide Industry
<i>New Exotic Pest Eradication</i>	(e.g. coconut beetle)
Response strategy/plans	MOA/DAC/PPQ&S/CIPMC/State Government/ ICAR and SAUs
Surveillance	MOA/DAC/PPQ&S/CIPMC/State Governments
Control/eradication	MOA/DAC/State Government/PPQ&S/CIPMCs/ICAR/SAUs/Pesticide Industry
Reporting to bilateral or international organizations	MOA/DAC/PPD

Infrastructure	Year:
Number of designated staff for surveillance of field pests of national importance	>150 000
Number of designated staff for surveillance of migratory and periodically occurring pests	11 Locust centers and 32 CIPMCs
Number of designated staff for surveillance of invasive species	>150 000
Number of designated staff for control of field pests of national importance	>600
Number of designated staff for control of migratory and periodically occurring pests	11 Locust centers and 32 CIPMCs
Number of designated staff for eradication of invasive species	76

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: out break	2		
Total number for year: out break	1		
Total number on record	3		

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			
Expenditures			

Pest outbreak actions	Outbreak 1	Outbreak 2	Outbreak 3
Name of species	Mealy bug	Tobacco caterpillar	BPH
Year of outbreak	2007	2008	2008
Area affected [ha]	297 640	254 828	112 750
Estimated damage \$			
Area treated by government [ha]	238 100	79 497	46 100
Expenditures by government [\$]			
Control method			
More information	On cotton in Punjab	On soybean in Maharashtra	On paddy in Haryana

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: June 2009

List of Key Legislation/Regulations/Rules for Pest Management

Insecticides Act, 1968, Insecticides Rules, 1971

Web source for further information: –

Policies (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?	x	
Is pest management extension separate from general extension?		x
Other policies: (subsidies, production inputs, etc.)		
<ul style="list-style-type: none"> • Increase in financial support for IPM • Phasing out subsidies on chemical pesticides • Emphasis on biocontrol agents, biopesticides and pheromones • Phasing out, banning or restricting hazardous chemical pesticides 		
Web source for further information: www.dacnet.pp.in		

Organization of Plant Protection Functions	Responsible Organizational Unit (Ministry/Department/Unit)
Policy development	MOA/DAC
Pest management research	MOA/DAC/ICAR & PPQ&S/SAUs
Control recommendations	MOA/DAC/ICAR & PPQ&S/SAUs
Pest management extension	States/PPQ&S
IPM training	States/PPQ&S

Infrastructure	Year:
Number of technical officers for pest management	
Number of central, regional, provincial or state offices	31 Central IPM Centres
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	54 336
Number of government biocontrol production/distribution facilities	177
Number of government biopesticide production/distribution facilities	177
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? <i>If yes, give Name and Address of IPM Programme: PPQ&S</i>	x	
Does the country have specific IPM extension programmes? <i>If yes, in which crops?: Vegetables & fruits, cereals, pulses, oilseeds, cotton, sugarcane etc.</i>	x	
Does the country have specific IPM research programmes? <i>If yes, in which crops?: Several crops</i>	x	

Does the country have specific GAP extension programmes? <i>If yes, in which crops?: Grapes, Mangoes</i>	x	
Does the country have specific GAP research programmes? <i>If yes, in which crops?:</i>		

Market shares (estimated value, volume or area under control)	Years: 2008-2009
Size of chemical pest control market	43 000 MT
Size of biopesticides market	9 000 MT
Size of biological control agents market	

Major pest control requiring crops (requiring most pesticide applications)	1 st	2 nd	3 rd
Affected crop	Cotton	Paddy	Vegetables
Name(s) of pest(s)			
Estimated crop loss			
Affected area			
Number of pesticide applications or amount of pesticide used	40%	17%	13%
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: 2008-2009
Number of farmers trained in IPM during the year	24 261
Number of IPM-FFS conducted during the year	812
Number of farmers trained in GAP standards during the year	
Area under IPM/low pesticide management [ha]	
Area under organic/pesticide-free management [ha]	
Crops in which IPM or other ecology friendly programmes are successfully implemented: 77 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: June 2009

List of Key Legislation/Regulations/Rules

Ministry of Agriculture Department of Agriculture & Cooperation

1968 Insecticides Act

1971 Insecticides Rules.

Ministry of Environment & Forest

1986 Environment Protection Act.

Ministry of Health & Family Welfare

2006 Food Safety & Standards Act (residue monitoring, MRLs)

Ministry of Labour

1948 Factories Act.

Web source for further information: –

(regarding pesticide management)	Yes	No
Do you have national pesticide reduction targets? <i>If yes, what is the target: _____</i>		
Have you ratified the Rotterdam (PIC) Convention?	x	
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?	x	
Have you adopted Good Laboratory Practices (GLP)?	x	
<i>Pesticide Registration</i>		
Do you require pesticides to conform to relevant FAO or WHO specifications?		x
Do you allow the “me-too” registration and sale of generic pesticides?	x	
Do you require data on product equivalence for generic registration?	x	x
Do you conduct country-specific risk assessments for...		
occupational risks?	x	
consumer risks?	x	
environmental risks?	x	
Have you adopted the Global Harmonized System (GHS) for pesticides hazards evaluation and labelling?	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	
<i>Incentives/Disincentives</i>		
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: Insecticides Act, 1968 being amended.		
Web source for further information: http://agricoop.nic.in		

Organization of Plant Protection Functions	Responsible Organizational Unit (Ministry/Department/Unit)
Legislation	MOA/DAC
Registration	MOA/DAC/CIB&RC/PPQ&S
Licensing of shops	State Governments
Licensing of field applicators	State Governments
Enforcement/inspections	States, Central Task Force
Testing of pesticide efficacy	RC, IARI, PLT, ICAR, SAUs
Development of pesticide use recommendations	RC
Safe use training/extension	MOA/DAC/PPQ&S/NPPTI
Food residue monitoring	MOA/DAC/PPD & DOH
Environmental monitoring	DOC/DBT
Health monitoring	DOH
<i>Other Stakeholders:</i>	
Pesticide Industry Association	Crop Life India, Indian Pest Control Assoc., Crop Care Fed. of India, Pestic. Manuf. & Formulation Assoc. of India
Civil Society Organizations (NGO, etc.)	Center for Science and Environment (CSE), Voluntary Health Assoc. of India

Infrastructure	Year:
Number of registration officers	
Number of enforcement officers	>10 000
Number of department quality control laboratories	57
Number of quality control laboratory personnel	>250
Number of department residue analysis laboratories	21 Central Gov't, 56 States; 30 other Gov't sectors
Number of residue laboratory personnel	>1 500

Key Situation Indicators

Pesticide Trade:	Tons	\$ '000 Value
Imports	29 297	321 680
Manufacture		
Export	96 268	968 226
Domestic Use/Sales	43 000	
Pesticide Use Profile:	Tons (a.i./formulation to be specified)	\$ '000 Value
Agriculture	43 000	
Chem. Insecticides	56%	
Chem. Fungicides	15%	
Chem. Herbicides	15%	
Chem. Others: e.g. molluscicide, acaricide	14%	
e.g. Avamectrin, Bt, Neem		
Other purposes		

Post 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 of pesticides under close observation for problems		
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: –		

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? if yes: what is the estimated amount: _____ No estimates made, but it exists.	Note	
Source for more information: –		

Key Operation Indicators

Registration/Regulation/Monitoring	Year:	
	a.i.*	Trade Name
Number of registered pesticide products	220	
Number of registered biopesticides (Avamectrin, Bt, Neem, etc.)	16 prov.	
Number of restricted-use pesticides/formulations	13	4
Number of banned pesticides	27	
Number of licensed outlets	145 173	
Number of licensed field applicators (professional and/or farmers)	>300	
Number of licensing violations reported during year	299	
Number of quality control analyses conducted during year	44 226	
Number of food samples analyzed for pesticide residues during year	9 834	
Number of samples exceeding MRL	112	
Number of environmental samples analyzed for pesticide residues	2 751	

* active ingredient; **provisional registration