

Plant Health System in Nepal: Role of NPPO

National Plant Protection Workshop

Date:

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Venue:

The Entrance Café
Kathmandu, Nepal

S.P. Humagain
Chief, PQPMC

Presentation Outline

- **General Information**
- **Phytosanitary Matters (Plant Quarantine)**
- **Surveillance, Pest Outbreaks and Invasive Species Management**
- **Pest Management**
- **Pesticide Management**
- **Regional Initiatives**

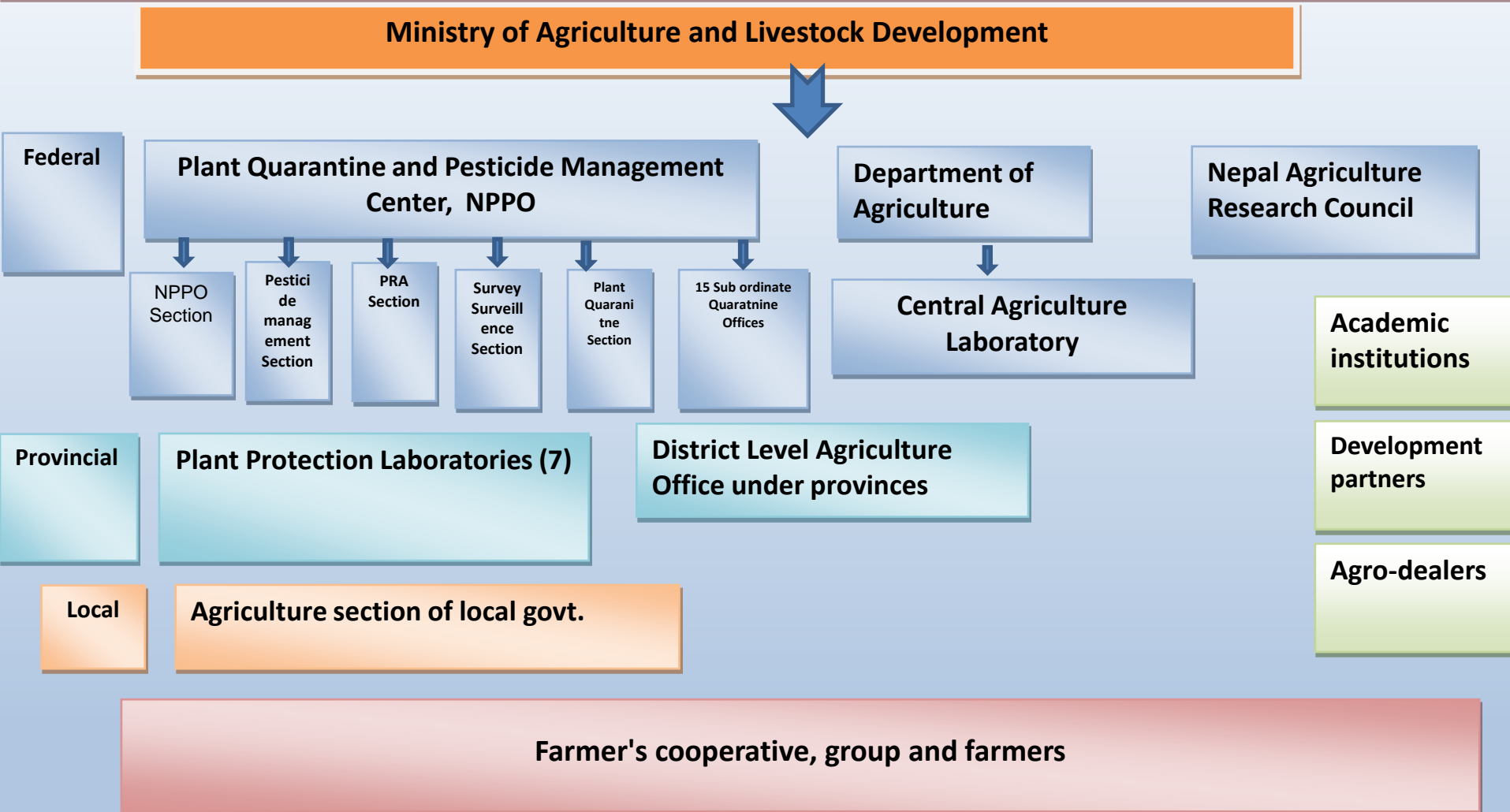
General Information

- Agriculture sector contributes 26.20% to National GDP.
- 65.6 % population are engaged in agriculture.
- **Plant protection** is an important discipline in the agriculture science.
- 30-35% of crop production has been damaged by insect pest.
- The cost of **plant protection** on various crops ranged from 7 to 40% of the total crop production cost.

General Information

- Constitution of Nepal 2015 has assigned plant quarantine as federal role.
- Plant Quarantine and Pesticide Management Center (PQPMC) is the Central Level Organization under the Ministry of Agriculture and Livestock Development (MoALD).
- PQPMC has been designated as secretariate of National Plant Protection Organization (NPPO) of Nepal, official contact point of International Plant Protection Convention (IPPC) and Asia Pacific Plant Protection Commission (APPPC).
- Plant Quarantine and Pesticide Management Center has 15 satellite office (3 at Nepal-China Border, 11 at Indo-Nepal Border and one at Tribhuvan International Airport).

Plant health system in Nepal



Functions of National Plant Protection Organization (NPPO)

- Prepare the list of regulated pests
- Provide information on the regulated pests to other organizations
- Prepare the phytosanitary health standards and their implementation for the plant and plant products to be imported or exported.
- Prepare the guidelines for the inspection, testing and treatment of the plant and plant products, biological control agents, beneficial organisms and other products and their implementation.
- Identify endangered areas and protect plants and plant products in such areas through quarantine process
- Prescribe terms and restrictions relating to the trafficking and use of plants and plant products, biological control agents and beneficial organisms
- Act as a national coordinator for activities relating to plants and plant products, biological control agents and beneficial organisms
- Make coordination with phyto-sanitary bodies of other countries and make understandings on the recognition of each other's permits and phyto-sanitary certificates

Phytosanitary Matters (Plant Quarantine)

Phytosanitary Matters (Plant Quarantine)

- NPPO Nepal has officially declared total of 254 Pests of 18 commodities and endorsed 33 different NSPMs and directives on domestic quarantine. Out of 33 NSPMs, Nepal has prepared 31 national standards.
- Pesticide registration and its renewal, Phytosanitary Import Regulation and Phytosanitary Certification service is now Online through Nepal National Single Window (NNSW) and it is paperless.
- Phytosanitary certification system has been linked with the e-phyto hub of IPPC

Documents Issued by PQPMC in the process of quarantine

- PQPMC has three types of LPCOs:
 - 907 Entry Permit for Plants, Soil, Seeds, and for Propagation
 - 909 Entry Permit for Plants, Soil, Seeds, and for Propagation - On Arrival
 - 908 Phytosanitary Certificate

Phytosanitary Matters (Plant Quarantine)

- Bilateral meeting between NPPO Nepal and NPPO India was held on 16 August 2019 at Kathmandu, Nepal. The main agenda among others included the followings:
 - ✓ Pesticide residue testing of fruits and vegetables exported from India
 - ✓ Issue of PQ/PSC
 - ✓ Market access of Nepali herbs, fruits and vegetables into India
- Agreement on Protocol of Phytosanitary Requirements for the Export of Citrus Fruit from Nepal to China 2012 was revised on Oct. 13, 2019 with main revision on the requirement of pest free orchards replaced by the pest free fruits for fruit flies.

Phytosanitary Matters (Plant Quarantine)

- With the support of World Bank funded project (Nepal India Regional Trade and Transit Project-NIRTTP), different studies have been conducted which include:
 - Review and assessment of Phytosanitary System in Nepal and its recommendations
 - Study on Traditional Trans-border Trade, SPS issues and its management
 - Federal and Provincial structure of Plant Protection
 - Strengthening the Plant Protection Directorate and Improvement of SPS Laboratory in Kathmandu.
 - Construction of SPS laboratory, supply and installation of equipments at Hariharbhawan(Operation is due)
 - Phytosanitary Capacity Evaluation (PCE) of NPPO Nepal is accomplished with the assistance of IPPC and World Bank. Final report of this is yet to be submitted.

Phytosanitary Matters (Plant Quarantine)

- With the assistance from the World Bank funded Project for Agriculture Commercialization and Trade (PACT), Fumigation Chamber and Post entry Quarantine Facilities have been constructed and handed over.
- Training of the human resources for the operation of the facilities along with the approval of the Standard Operating Procedures (SoP) have also been accomplished.
- With the aid of World Bank, SRCTIP project is under implementation through PQPMC which is supporting plant quarantine system in Nepal with the aim to facilitate trade improvement.
- Construction of Laboratory Building at Kakarbhitta and Strengthening of SPS Lab at Birgunj and Biratnagar is underway.

Surveillance, Pest Outbreaks and Invasive Species Management

Surveillance, Pest Outbreaks and invasive Species Management

- Survey & surveillance programs have been undertaken for establishment and maintenance of pest free areas/product for citrus orchards in Sindhuli and Syanja.
- Survey protocols for quarantine pests of citrus in Nepal has been published.
- Survey and surveillance programs is underway for 18 agriculture crops and medicinal herbs from the regular program budget of PQPMC.
- The 19th Meeting of NPPO, Nepal (Aug, 2019) declared the invasion of the fall army worm (FAW) in Nepal. Surveillance protocol, Management protocol and Action plan of FAW has been prepared. Surveillance program in maize crop has been arranged.
- Workshop on Invasive species including Fall Armyworm was conducted on 21-22 Nov.,2018 with the collaboration of CABI and Fall Armyworm Preparedness and Management workshop was jointly organized with CYMMIT, USAID and iDE and conducted on 29-31 July, 2019.

Surveillance, Pest Outbreaks and invasive Species Management

- Pest Risk Analysis of 4 crops (Rice, Maize, Cowpea and Onion and has been done.
- Commodity Specific Import Requirement of 4 crops (Apple, Citrus, Tea and Coffee) has been prepared.
- Pest List of ten agricultural crops has been prepared.
- Pest list of different eighteen crops has been updated
- Recently invasive weed *Mimosa diplotricha* is reported in Morang and Jhapa districts of Nepal
- Another Invasive weed “Singapore daisy” is also reported from Panchkhal of Kavrepalanchowk district. Awareness program has been done in those districts.

Pest Management

Pest Management

- MoALD has emphasized and recognized IPM FFS as the mainstream program of Agriculture Extension.
- IPM resource centers at community level (IPM Farmers) have been established for the production of bio-pesticides at local level.
- Central and Provincial level Plant Protection Laboratories are also engaged in the production and testing of some bio-control agents.
- Government of Nepal is working in collaboration with CABI Plantwise and conducting regular Plant Clinics and related plant health programs at national, provincial and local levels since 2014.
- Publication and distribution of the Fact Sheets and Pest Management Decision Guides for different Pests.
- Publication and distribution of Pest Identification and Management Booklet (Vol I and II)
- As a member country of IPPC, Nepal celebrated the International year of Plant Health with different activities as guided by IPPC

Pesticide Management

Pesticide Management

- Pesticide Act 2019 has been implemented.
- With the FAO supported TCP project (Strengthening Pesticide Management in Agriculture to reduce Risk to Health and Environment) different procedures, guidelines and standard operating procedures (SoP) have been prepared.

Pesticide Management

- Interaction programs in collaboration with the Consumer's Forum and Pesticides Entrepreneurs Association for reducing the risks associated with the use of chemical pesticides are built in the regular annual programs.
- Different awareness programs in the electronic and print media on the negative impacts and judicious use of pesticides are also being conducted.

Status of Pesticide related matters under Pesticide Management Act 2019

- 286 Importers
- Pesticide Formulators: 5
- 16110 registered License holder Pesticide resellers
- 37 licensed pesticide applicators
- 3035 registered pesticides by trade names
- 165 registered pesticides by common names

Status of Pesticide related matters

- Altogether 24 pesticides have been banned (Obsolete - 6, WHO Ia – 4, WHO Ib – 4, WHO II – 8, NC- 1, U- 1).
- Carbofuran, Carbaryl, Dichlorvos, Triazophos and Benomyl have been banned since Dec. 2018
- Aluminium Phosphide (Conditional), Dicofol and Carbosulfan have been banned for use since Aug. 2019 with the decision of the Pesticides Board of Nepal

Status of pesticide import and use in Nepal

- Annual import of Nepal : 681.50 mt(a.i)
- Average use of pesticide : 396 gm a.i/ha
- Out of these, major portion of pesticide is used in Vegetables, tea and cotton
- 85% of pesticide is used only in vegetable

- With the change in governance from Unitary to Federal structure with seven provinces in the country, new Pesticides Act has been enforced from August, 2019. The pesticide regulation in line with the new act is in process. Major provisions and changes in the new act include:
 - Power of issuing the license to the pesticide applicators and resellers to the Provincial government.
 - Revised and increased the penalties
 - Relaxations in the registration process for the bio-pesticides and botanicals.
 - Provision of the warehouses at the provincial level for the safe storage of obsolete pesticides before their safe disposal.
 - Establishment of Pesticide Quality testing laboratory.

Thank you