

# Seminar Synopsis

## The 15th National Horticulture Seminar, 2024

### Background

Good seed in good field yields abundance

“सुबिजम् सुक्षेत्रे: जायते सम्पद्येते:“

Seed is the only viable input in agriculture and horticulture as well. In potatoes, if quality seed potato is used, about 2 metric tons of yields per hectare can be increased and Nepal becomes self-sufficient in potato. In overall vegetable production, seed plays a very important role and same is the case with spices. To review the present seed production and distribution system in Nepal and set future strategies and programs in the seed sector of potato, vegetable and spice crops, the present seminar was organized jointly by Nepal Horticulture Society (NHS), National Center for Potato, Vegetable and Spice Crops Development (NCPVSCD) and National Center for Fruit Development (NCFD).

The horticultural sector in Nepal has high prospect for addressing the insufficiencies of food security, nutrition and entrepreneurship development in the country. Among horticultural crops, vegetable, potato and spice crops are high-value crops commodity in Nepal. Vegetable crop production solely depends on the various kinds of hybrid varieties (HV) and open-pollinated varieties (OPV) of vegetable seeds qualitatively and quantitatively. Both HV and OPV of vegetable seeds have economic viability and market potential. There is huge diversity among native vegetable landraces/genotypes indicating wider market potentialities.

In this context, Nepal Horticulture Society in collaboration with National Center for Potato, Vegetable and Spice Crops Development and National Center for Fruit Development jointly organized 15th National Horticulture Seminar on "Strengthening Seed Sector of Potato, Vegetable and Spice Crops" dated from 10-11 Mangsir 2081 (25-26 November 2024) at Warm Temperate Horticulture Center (WTHC), Kirtipur in Kathmandu.

### Aim of the Seminar

This seminar aims to bring together policymakers, external development partners, farmers, vegetable seed producers, academicians, researchers, scientists, government officials, INGOs, NGOs, journalists, and private sectors to exchange information, experiences and research results on all aspects of specialized and interdisciplinary areas of climate change, biodiversity, varietal potentiality, production and marketing system in the seed (Potato, Vegetable and Spice crops) sector. The seminar provides an opportunity for everyone to network, exchange ideas and present their research, latest innovations, achievements, trends, practical problems and challenges. This information will be useful to formulate policy, plan, program and projects for viable and appropriate adaptation options.

### Theme of the Seminar

Strengthening Seed Sector of Potato, Vegetable and Spice Crops

### Composition of Different Committees

To commemorate the seminar in an elegant manner the following different committees had been formed to cooperate and coordinate with each other to execute the activities of the seminar gracefully:

### Program Schedule

**Date:** 25-26th November 2024 [10-11 Mangsir, 2081]

**Venue:** Seminar Hall of Warm Temperate Horticulture Center, Kirtipur, Kathmandu

| Session                   | Time | Activity           | Responsible Person      |
|---------------------------|------|--------------------|-------------------------|
| Day 1<br>[25th Nov. 2024] |      | Master of Ceremony | Ms. Yam Kumari Shrestha |

| Session                    |                    | Time        | Activity  | Responsible Person  |
|----------------------------|--------------------|-------------|---|---|
| Registration and Breakfast |                    | 08:00-09:00 | Registration on NHS and NCPVSCD Counter and take breakfast - All Participants             | Ms. Shova Sharma<br>Ms. Tara Sharma<br>Ms. Sapna Khapung<br>Mr. Padam Aidi<br>Ms. Nanu Thapa<br>Ms. Pratibha Aryal<br>Ms. Heera Phuyal  |
| Inaugural Session          | Formal Start       | 09:00-09:30 | Chairperson   | Mr. Gopal Prasad Shrestha<br>President, NHS   |
|                            |                    |             | Taking Seats  | <b>Chief Guest:</b> Mr. Ramnath Adhikari, Hon'ble Minister, MoALD<br><b>Special Guest:</b> Dr. Jay Bahadur Tandon, Hon'ble Member (Agriculture Sector), NPC<br>Special Guest: Dr. Govinda Prasad Sharma, Secretary (Agriculture Development), MoALD<br>Special Guest: Dr. Rajendra Prasad Mishra, Secretary (Livestock Development), MoALD<br>Special Guest: Dr. Doj Raj Khanal, Executive Director, NARC<br>Special Guest: Prof. Dr. Kishor Chandra Dahal, Dean, IAAS/TU<br>Special Guest: Prof. Dr. Arjun Kumar Shrestha, Dean, AFU<br>Special Guest: Mr. Shiva Sundar Shrestha, President, NAF<br>Guests: Joint Secretaries, DG, DDGs, Institutions' Chiefs, Horticulturists, Farmers, Agri-Entrepreneurs, Students, Scientists and all Participants |
|                            |                    |             | Bouquet, Badge, Garland   | Chief Guest and Special Guests  |
|                            |                    |             | National Anthem   | All Participants  |
|                            |                    |             | Welcome Address and Program Information   | Ms. Januka Pandit, Chief, NCPVSCD   |
|                            |                    |             | Inauguration  | Hon'ble Minister, MoALD   |
|                            | Thematic Papers    | 09:30-09:50 | Prospects, Progress and Challenges of Vegetable Seed Crops in Nepal                       | Mr. Indra Raj Pandey, Immediate Past President, NHS   |
|                            |                    | 09:50-10:10 | Prospects and Challenges of Spice Seed Crops in Nepal                                     | Mr. Mohan Bahadur Thapa, Past President, NHS  |
|                            |                    | 10:10-10:30 | Status and Way Forward on Potato and Tuber Crops Seeds in Nepal                           | Ms. Januka Pandit, Chief, NCPVSCD   |
|                            |                    | 10:10-10:45 | Seed Management and its Impact on Processing for the Potato Industry                      | Mr. Shyam Prasad Dhakal, Potato Crop Specialist, FCFPL  |
|                            | Award Distribution | 10:45-11:15 | I. Gauri Rani-Shiva Nepali Pradhan Excellence Award in Horticulture Education (M.Sc. Ag.) | Hon'ble Minister, MoALD   |
|                            |                    |             | II. Madan Rai Best Organic Grower of the Year Award                                       | Hon'ble Minister, MoALD   |

| Session        |                        | Time        | Activity  | Responsible Person                                   |
|----------------|------------------------|-------------|---|--|
|                |                        |             | III. Anant Bahadur Shrestha Best Apple Grower of the Year Award Across Himalayas Districts                | Hon'ble Minister, MoALD                              |
|                |                        |             | IV. Best Vegetable Seed Producer of the Year Award  | Hon'ble Minister, MoALD                              |
|                | Letter of Appreciation | 11:15-11:55 | Honor to the experts for their contribution to the horticulture sector of the country                     | Hon'ble Minister, MoALD                              |
|                | Speeches               | 11:55-12:10 | Few Words   | Farmers  |
|                |                        | 12:10-12:15 | Remarks   | Mr. Shiva Sundar Shrestha, President, NAF            |
|                |                        | 12:15-12:25 | Remarks   | Dr. Govinda Prasad Sharma Secretary, MoALD           |
|                |                        | 12:25-12:35 | Remarks   | Hon'ble Member, NPC                                  |
|                |                        | 12:35-12:55 | Special Speech for Guidance   | Chief Guest, MoALD                                   |
|                |                        | 12:55-13:05 | Vote of Thanks and Closing Remarks  | Chairperson  |
| Break          |                        | 13:05-14:00 | LUNCH   | All Participants                                     |
|                |                        |             | Master of Ceremony  | Ms. Reeti Singh, SHDO, NCPVSCD                       |
| Second Session | Thematic Paper         |             | Chairperson   | Mr. Bhairab Raj Kaini, Former Joint Secretary, MoALD |
|                |                        | 14:00-14:10 | Present Seed (PVSCs) Production and Distribution System and Future Perspective in Nepal                   | NCPVSCD  |
|                |                        | 14:10-14:20 | Present Status of Vegetable and Spice Seed Research, Varietal Development and Future Perspective in Nepal | NHRC/NARC  |
|                |                        | 14:20-14:30 | Present Status of Seed Potato Research, Varietal Development and Future Perspective in Nepal              | NPRP/NARC  |
|                |                        | 14:30-14:40 | Vegetable Seed Policy, Legislation, Seed Vision and Varietal Status in Present Context                    | SQCC   |
|                |                        | 14:40-14:50 | Discussion on Thematic Papers   | All Participants                                     |
|                |                        | 14:50-14:55 | Closing Remarks   | Chair Person   |

### Day 1 (25 November 2024): Presentation of Strategic Papers

**Session III** (Strategic Papers: Central Farm/ Centers): Parallel Session (Seminar Hall, WTHC, Kirtipur)

| Session       |                                    | Time | Activity           | Responsible Person                           |
|---------------|------------------------------------|------|--------------------|--|
| Third Session | Central Farm Level Strategic Paper |      | Master of Ceremony | Dr. Ranjana Rawal, Scientist, NARC           |
|               |                                    |      | Chairperson        | Mr. Mohan Bahadur Thapa, Past President, NHS |

| Session |  | Time        | Activity  | Responsible Person                                      |
|---------|--|-------------|---|---|
|         |  | 15:00-15:10 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Cardamom Development Center, Fikkal, Ilam               |
|         |  | 15:10-15:20 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Potato Crop Development Center, Nigale, Sindhupalchowk  |
|         |  | 15:20-15:30 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Vegetable Crops Development Center, Khumaltar, Lalitpur |
|         |  | 15:30-15:40 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Vegetable Seed Production Center, Rukum                 |
|         |  | 15:40-15:50 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Tropical Horticulture Center, Nawalpur, Sarlahi         |
|         |  | 15:50-16:00 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Citrus Fruit Development Center, Tansen, Palpa          |
|         |  | 16:00-16:10 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Temperate Horticulture Center, Marpha, Mustang          |
|         |  | 16:10-16:20 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Horticulture Center, Jaubari, Ilam                      |
|         |  | 16:20-16:30 | Discussion and tea  | All Participants  |
|         |  | 16:30-16:35 | Closing Remarks   | Chair Person  |

Session IV (Strategic Papers: Province Level): Parallel Session (Seminar Hall, NCFD, Kirtipur)

| Session        |                                | Time        | Activity  | Responsible Person             |
|----------------|--------------------------------|-------------|---|--------------------------------|
| Fourth Session | Province Level Strategic Paper |             | Master of Ceremony  | Ms. Ranju Maharjan, HDO, DoA   |
|                |                                |             | Chairperson   | Mr. Rajendra Koirala, DDG, DoA |
|                |                                | 15:00-15:10 | Current Status, Strategy, Policy and Programs of Seed (Potato, Vegetable and Spice Crops) in the Province | Koshi Province, MoLMAC/ADD     |
|                |                                | 15:10-15:20 | Current Status, Strategy, Policy and Programs of Seed (Potato, Vegetable and Spice Crops) in the Province | Madhesh Province, MoLMAC/ADD   |
|                |                                | 15:20-15:30 | Current Status, Strategy, Policy and Programs of Seed (Potato, Vegetable and Spice Crops) in the Province | Bagmati Province, MoLMAC/ADD   |
|                |                                | 15:30-15:40 | Current Status, Strategy, Policy and Programs of Seed (Potato, Vegetable and Spice Crops) in the Province | Gandaki Province, MoLMAC/ADD   |
|                |                                | 15:40-15:50 | Current Status, Strategy, Policy and Programs of Seed (Potato, Vegetable and Spice Crops) in the Province | Lumbini Province, MoLMAC/ADD   |

| Session |  | Time        | Activity  | Responsible Person                 |
|---------|--|-------------|---|------------------------------------|
|         |  | 15:50-16:00 | Current Status, Strategy, Policy and Programs of Seed (Potato, Vegetable and Spice Crops) in the Province | Karnali Province, MoLMAC/ADD       |
|         |  | 16:00-16:10 | Current Status, Strategy, Policy and Programs of Seed (Potato, Vegetable and Spice Crops) in the Province | Sudurpashchim Province, MoLMAC/ADD |
|         |  | 16:10-16:20 | Discussion and tea  | All Participants                   |
|         |  | 16:20-16:25 | Closing Remarks   | Chair Person                       |

Day 2 (26 November 2024): Presentation of Strategic Papers

Session I (Strategic Papers: Provincial Farm/ Centers): Parallel Session (Seminar Hall, NCFD, Kirtipur)

| Session       |                                       | Time        | Activity  | Responsible Person   |
|---------------|---------------------------------------|-------------|---|--|
| First Session | Provincial Farm Level Strategic Paper | 08:00-08:30 | Registration and Breakfast  | All Participants   |
|               |                                       |             | Master of Ceremony  | Mr. Dinesh Prasad Sapkota, SHDO, PMAMP                     |
|               |                                       |             | Chairperson   | Mr. Kaushal Kumar Poudel, Former General Secretary, NHS    |
|               |                                       | 08:30-08:40 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Horticulture Center, Phaplu, Solukhumbu                    |
|               |                                       | 08:40-08:50 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Tropical Horticulture Nursery Development Center, Janakpur |
|               |                                       | 08:50-09:00 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Horticulture Center, Panchkhal, Kavrepalanchok             |
|               |                                       | 09:00-09:10 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Horticulture Center, Sindhuli                              |
|               |                                       | 09:10-09:20 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Horticulture Center, Trishuli, Nuwakot                     |
|               |                                       | 09:20-09:30 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Horticulture Center, Daman, Makawanpur                     |
|               |                                       | 09:30-09:40 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Horticulture Center, Boanch, Dolkha                        |
|               |                                       | 09:40-09:50 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Horticulture Development Center, Juphal, Dolpa             |
|               |                                       | 09:50-10:00 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Horticulture Development Center, Darma, Humla              |
|               |                                       | 10:00-10:10 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | Horticulture Development Center, Dadeldhura                |
|               |                                       | 10:10-10:20 | Discussion and tea  | All Participants   |
|               |                                       | 10:20-10:25 | Closing Remarks   | Chair Person   |

Session II (Strategic Papers: Project and Private Level): Parallel Session (Seminar Hall, WTHC, Kirtipur)

| Session        |   | Time        | Activity  | Responsible Person                           |
|----------------|---|-------------|---|--|
| Second Session | Project and Private Level Strategic Paper | 08:00-08:30 | Registration and Breakfast  | All Participants                             |
|                |   |             | Master of Ceremony  | Mr. Bikash Kharel, HDO, NCPVSCD              |
|                |   |             | Chairperson   | Ms. Sabnam Shivakoti, Joint Secretary, MoALD |
|                |   | 08:30-08:40 | Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) | PMAMP, Khumaltar, Kathmandu                  |
|                |   | 08:40-08:50 | Current Status and Programs of Seed                                     | ASDP, Birendranagar, Surkhet                 |
|                |   | 08:50-09:00 | Current Status and Programs of Seed                                     | REED, Harihar Bhawan, Lalitpur               |
|                |   | 09:00-09:10 | Current Status and Programs of Seed                                     | FANSEP, Harihar Bhawan, Lalitpur             |
|                |   | 09:10-09:20 | Potential Vegetable Crops for Hybrid Seed Production and its Strategies | Mr. Damodar Poudel, SEAN                     |
|                |   | 09:20-09:30 | Vegetable Seed Production and Maintenance                               | Mr. Keshab Pandey, Live Seeds, Kavre         |
|                |   | 09:30-09:40 | Vegetable Seed Production and Maintenance                               | Cooperative, Surkhet                         |
|                |   | 09:40-09:50 | Discussion and tea  | All Participants                             |
|                |   | 09:50-10:00 | Closing Remarks   | Chair Person                                 |

Day 2 (26 November 2024): Presentation of Technical Papers

Session III (Technical Papers: Potato, Vegetable and Spice Seeds): Parallel Session (Seminar Hall, WTHC, Kirtipur)

| Session       |                             | Time        | Activity   | Responsible Person   |
|---------------|-----------------------------|-------------|--|--|
| Third Session | Scientific/ Technical Paper |             | Master of Ceremony   | Mr. Toya Nath Joshi, PPO, NCPVSCD                                      |
|               |                             |             | Chairperson  | Prof. Dr. Kishor Chandra Dahal, Dean, IAAS/TU                          |
|               |                             | 10:05-10:15 | Horticulture in Vedic Civilization: A perspective on Vegetable Seed Conservation     | Mr. Basu Dev Kaphle Programme Coordinator, ASDP, Surkhet               |
|               |                             | 10:15-10:25 | Hybrid Seed Production Technology of Tomato  | Dr. Surendra Lal Shrestha, NHS   |
|               |                             | 10:25-10:35 | Hybrid Seed Production Technology of Cucumber  | NHRC/ NARC   |
|               |                             | 10:35-10:45 | Seed Production Technology of Pre-basic Seed (PBS) Potato and True Potato Seed (TPS) | Mr. Bijay Giri, Potato Crop Development Center, Nigale, Sindhupalchowk |
|               |                             | 10:45-10:55 | Vegetable Seed Genetic Resources, Conservation and Challenges                        | Dr. Bal Krishna Joshi, NAGRC/ NARC                                     |
|               |                             | 10:55-11:05 | Propagation, Diversification and Value Chain Issues in Root and Tuber Seeds          | Mr. Sanjay Dhimal, NHS   |
|               |                             | 11:05-11:15 | Diseases Management of Vegetable Seed Crops  | Dr. Shrinkhala Manandhar, NARC   |

| Session |  | Time        | Activity  | Responsible Person                               |
|---------|--|-------------|---|--|
|         |  | 11:15-11:25 | Insect pests Management of Vegetable Seed Crops       | Dr. Kashi Nath Chiluwal, NARC                    |
|         |  | 11:25-11:35 | Soil Management of Vegetable Seeds                    | Dr. Shree Prasad Vista, NARC                     |
|         |  | 11:35-11:45 | Tissue Culture Production of Cardamom Seed/ seedlings | Agriculture Research Center, Pakhribas, Dhankuta |
|         |  | 11:45-12:00 | Discussion on Scientific Papers                       | All Participants                                 |
|         |  | 12:00-12:05 | Closing Remarks                                       | Chair Person                                     |
| Break   |  | 12:05-13:00 | LUNCH   | All Participants                                 |

Session IV (Technical Papers: Cross cutting Issues of Seeds): Parallel Session (Seminar Hall, NCFD, Kirtipur)

| Session        |                                 | Time        | Activity   | Responsible Person   |
|----------------|---------------------------------|-------------|--|--|
| Fourth Session | Technical/ Cross Cutting Issues |             | Master of Ceremony   | Mr. Puruswattam Bahadur Rauniyar, AEO, NCPVSCD                         |
|                |                                 |             | Chairperson  | Dr. Tika Ram Chapagain Chief, NHRC/NARC                                |
|                |                                 | 10:30-10:40 | Emerging Pestilence of Solanum fruit fly ( <i>Bactrocera latifrons</i> ): A Pest to Akbare Chili Production in Nepal | Dr. Debraj Adhikari, PQPMC, Lalitpur                                   |
|                |                                 | 10:40-10:50 | Cardamom seeds related paper   | TCP/ FAO   |
|                |                                 | 10:50-11:00 | Vegetable Seed related thesis paper  | TU   |
|                |                                 | 11:00-11:10 | Vegetable Seed related thesis paper  | AFU  |
|                |                                 | 11:10-11:20 | Akabare Chili and Srijana Tomato Hybrid Seed Production Technology and Conservation of Seeds                         | Mr. Rudra Bahadur Bisankhe, Jorsallah Cooperatives, Kavre              |
|                |                                 | 11:20-11:30 | Vegetable Seed Production under Precision and Protected Environment  | Dr. Arun Kafle, Project Director, FANSEP, Lalitpur                     |
|                |                                 | 11:30-11:40 | Online Application Platform for Farmer to Demand Agricultural Program: A Case of Kavre District of Nepal             | Mr. Sujan Amgai, Chief, BDC, Bhandara, Chitwan                         |
|                |                                 | 11:40-11:50 | Biotechnology Practices in Vegetable Seed Crops  | Dr. Deepa Singh Shrestha, NAGRC/ NARC                                  |
|                |                                 | 11:50-12:00 | Post-harvest Management in Vegetable Seed Crops  | Mr. Saroj Adhikari, HRS, Malepatan, Pokhara                            |
|                |                                 | 12:00-12:10 | Effect of Potassium Levels on Growth, Yield and Quality of Potato  | Mr. Bijay Giri, Potato Crop Development Center, Nigale, Sindhupalchowk |
|                |                                 | 12:10-12:20 | Discussion on Technical Papers   | All Participants   |
|                |                                 | 12:20-12:25 | Closing Remarks  | Chair Person   |
| Break          |                                 | 12:25-13:00 | LUNCH  | All Participants   |

## Session V (Poster Presentation and Evaluation: Seminar Hall, WTHC, Kirtipur)

| Session       |                | Time        | Activity  | Responsible Person  |
|---------------|----------------|-------------|---|---|
| Fifth Session | Poster Session |             | Coordinators                                    | Dr. Ramita Manandhar, NHS<br>Dr. Puspa Raj Poudel, IAAS<br>Mr. Ganapati Pandey, NHS |
|               |                | 13:00-14:30 | Poster Presentation, Observation and Evaluation | All Participants  |

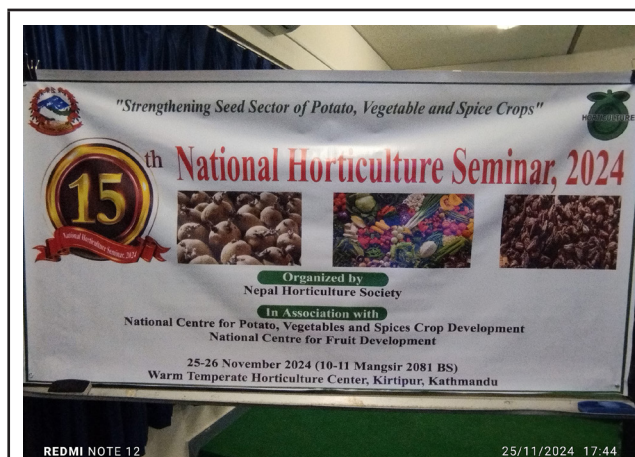
## Session VI (Closing Session: Seminar Hall, WTHC, Kirtipur)

| Session         |                  | Time   | Activity  | Responsible Person  |
|-----------------|------------------|--|---|---|
| Closing Session | Closing Ceremony |  | Master of Ceremony  | Ms. Shobha Sharma   |
|                 |                  | 14:30-14:35  | Chairperson   | Ms. Januka Pandit<br>Chief, NCPVSCD   |
|                 |                  |  | Taking Seats:<br>Chief Guest,<br>Special Guests<br>and Guests | Chief Guest: Dr. Govinda Prasad Sharma, Secretary (Agriculture Dev.), MoALD<br>Special Guest: Dr. Rajendra Prasad Mishra, Secretary (Livestock Dev.), MoALD<br>Special Guest: Dr. Doj Raj Khanal, Executive Director, NARC<br>Special Guest: Prof. Dr. Kishor Chandra Dahal, Dean, IAAS/ TU<br>Special Guest: Prof. Dr. Arjun Kumar Shrestha, Dean, AFU<br>Guests: Joint Secretaries, DG, DDGs, Institutions' Chiefs, Horticulturists, Farmers, Agri-Entrepreneurs, Students, Scientists and all Participants |
|                 |                  | 14:35-14:45  | Welcome and Summary of Seminar                                | NCPVSCD   |
|                 |                  | 14:45-15:00  | Award Distribution to the Posters                             | Chief Guest   |
|                 |                  | 15:00-15:10  | Speech from the Special Guest                                 | ED, NARC  |
|                 |                  | 15:10-15:20  | Speech from the Chief Guest                                   | Secretary, MoALD  |
|                 |                  | 15:20-15:25  | Vote of Thanks  | Mr. Mahesh Chandra Acharya,<br>Chief, NCFD  |
|                 |                  | 15:25-15:30  | Closing Remarks   | Chair Person  |
| AGM of NHS      |                  | 15:30 pm Onwards 21st Annual General Meeting of Nepal Horticulture Society followed by Farewell Dinner |   |   |

**Seminar Highlights****Day One: 10<sup>th</sup> Mangsir 2081 (25<sup>th</sup> November 2024)**

The 15th National Horticulture Seminar commenced on 10th Mangsir 2081 for two days in the Warm Temperate Horticulture Center, Kirtipur, Kathmandu with the theme of "Strengthening Seed Sector of Potato, Vegetable and Spice Crops". The chief guest, Honorable Agriculture Minister Mr. Ramnath Adhikari, Ministry of Agriculture and Livestock Development (MoALD) inaugurated the seminar. The chairperson of the opening session was Mr. Gopal Prasad Shrestha, President of Nepal Horticulture Society (NHS). Among the special guests were Dr. Govinda Prasad Sharma, Secretary, MoALD, Dr. Doj Raj Khanal, Executive Director, Nepal Agriculture Research Council, Er. Jagannath Tiwari, Director General, Department of Agriculture and Prof. Dr. Kishor Chandra Dahal, Dean,

IAAS/TU. The chief guest inaugurated the conference by watering the plant and presented certificates and prizes to the Best Vegetable Seed Grower of the Year-2081 Award (Ms. Gopa Budha Magar, Chaurjahari-10, Rukum West), Dr. Ananta Bahadur Shrestha Award in the Best Apple Grower of the Year-2081 (Neeraj Tulachan, Thasang-01, Mustang) and Subhadra-Madan Rai Award in the Best Organic Vegetable Grower of the Year-2081 (Mr. Deu Bahadur Tamang, Panchpokhari Thangpal-03, Sindhupalchok). Also he awarded two topper students with the Gauri Rani-Shiva Nepali Pradhan Excellence Award in Horticulture Education (MSc. Ag)-2081 for the year 2079/80 (Ms. Nisma Dhakal, IAAS/T.U., Kathmandu and Ms. Shreeti Udas, AFU, Chitwan). On this occasion ten veteran horticulture experts were honored as well for their contribution to the development of horticulture sector of the country.



15<sup>th</sup> National Horticulture Seminar commenced on 10<sup>th</sup> Mangsir, 2081



Chief Guest Hon. Minister, MoALD, Mr. Ramnath Adhikari addressing the seminar



Chief guest, special guest, guest and chairperson taking seat in the seminar



Participants on the Inaugural Session of the 15<sup>th</sup> National Horticulture Seminar

Ms. Januka Pandit, Chief of the National Center for Potato, Vegetable and Spice Crops Development welcomed the chief guest, special guests, guests and all participants. After that she presented the Keynote speech on Potato and Tuber Seed Crops. Likewise, Keynote speeches on Vegetable Seed Crops was given by Vegetable Expert Mr. Indra Raj Pandey, another Keynote speech on Spice Seed Crops were given by Spice Crops Expert Mr. Mohan Bahadur Thapa and the fourth Keynote speech on Potato Processing Industry was given by Potato Crop Specialist Mr. Shyam Prasad Dhakal. After the inaugural address of honorable minister and secretary of the MoALD, Mr. Gopal Prasad Shrestha, president and chairperson of the inaugural session with his closing remarks declared the end of the inaugural session. The master of ceremony was facilitated by Ms. Yam Kumari Shrestha, SFDO, NCFD.

The inaugural ceremony was witnessed by 225 participants including students from Tribhuvan University, Institute of Agriculture and Animal Science, Agriculture and Forestry University and delegates and representatives from different agriculture institutions and was followed by thematic paper presentation sessions entitled "Strengthening Seed Sector of Potato, Vegetable and Spice Crops".



Chief Guest Hon'ble Minister, MoALD presenting the Best Vegetable Seed Grower Award of the year 2081



Chief Guest Hon'ble Minister, MoALD presenting the Best Organic Grower Award of the year 2081



Chief Guest presenting the MSc. Ag. (Horticulture) Topper Student Excellence Award of the year 2081



Chief Guest Hon'ble Minister, MoALD honored the veteran horticulture expert Mr. IR Pandey of NHS



Chief Guest Hon'ble Minister, MoALD honored the veteran horticulture expert Mr. MK Rai of NHS



Group Photo with the awardee and honored horticulture experts in the 15th NHS-2081

### Thematic Paper Session

There were four thematic papers presented in this session. The first paper covered present seed (potato, vegetable and spice crops) production and distribution system and future perspective in Nepal, the second one regarding vegetable and spice seed research and varietal development, the third one seed potato research and varietal development and the fourth one about the vegetable seed policy, legislation, seed vision and varietal status in the country were presented. Thematic session was facilitated by a chairperson and each paper was assisted by one rapporteur. There were 200 participants in the thematic session which was followed by strategic paper session.



Dr. Januka Pandit, Chief, NCPVSCD, presenting the thematic paper



Special Guest Dr. Govinda Prasad Sharma, Secretary, MoALD addressing the seminar

## Strategic Paper Session

There were two strategic paper sessions where seven Central farm level strategic papers regarding Current Status and Programs of Seed (Potato, Vegetable and Spice Crops) in the farm/centers and four Province level strategic papers in Status, Strategy, Policy and Programs of Seed from the province were presented. Each strategic paper session was facilitated by a chairperson and each paper was assisted by one rapporteur. There were about 150 participants in the technical session.

### Day Two: 11th Mangsir 2081 (26th November 2024)

#### Provincial Strategic Paper Session

Day two was started with the provincial strategic paper session. There were seven provincial farm level strategic papers regarding vegetable seed status in the farms and four project and private level strategic papers regarding program of seed crops implemented in the command areas were presented. Each session was facilitated by a chairperson and each paper was assisted by one rapporteur. The strategic session was followed by technical paper session.

#### Technical Session

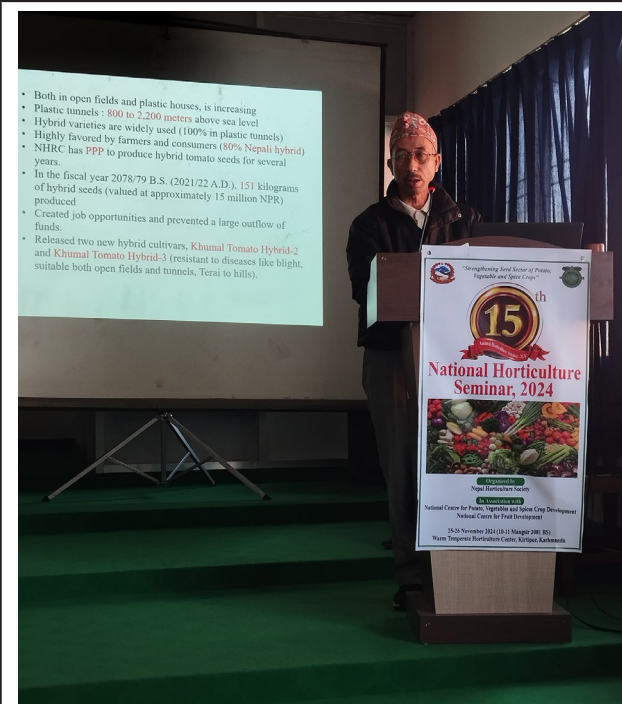
There were altogether 45 paper presenters in total and they presented technical papers in their respective fields. Each technical session was facilitated by a chairperson and each paper was assisted by one rapporteur. The technical session was followed by group discussion and interaction on the paper presented in the technical sessions for preparing a way forward document that would serve as a guidelines document for the strengthening seed sector of potato, vegetable and spice crops in the future. There were 186 participants in the technical session.



Mr. Basu Dev Kaphle, Programme Coordinator, ASDP, Surkhet presenting a paper on A perspective on Vegetable Seed Conservation in Vedic Civilization



Dr. Bal Krishna Joshi of NAGRC/ NARC presenting his paper on Vegetable Seed Genetic Resources, Conservation and Challenges



Dr. Surendra Lal Shrestha of NHS presenting a paper on Hybrid Seed Production Technology of Tomato



Mr. Sujan Subedi from National Horticulture Research Center presenting a paper on hybrid cucumber seed production

### Closing Session

The session was chaired by the chief of NCPVSCD Ms. Januka Pandit and the chief guest was Dr. Govinda Prasad Sharma, the secretary of MoALD. In this session the summary of seminar was presented with the recommendations. After the closing address of the chief guest Dr. Govinda Prasad Sharma, secretary of MoALD, Ms. Januka Pandit ended the session and wrapped up the 2-days seminar with her closing remarks. There were altogether 200 participants in the closing session.



Technical Panels in the Technical paper presentation on the 2nd day of the 15th NHS, 2024



Participants at the closing ceremony of the 15th National Horticulture Seminar, 2024



Closing ceremony addressing by the Chief Guest Dr. Govinda Prasad Sharma, Secretary, MoALD



Mr. Gopal Prasad Shrestha, President, NHS ending the session with closing remarks

### Consequential of the Seminar

- Germplasms conservation of vegetables
- Separate institution needed for research and development of spice crops
- Promotion program for increasing productivity of potato
- Potato Day celebration (May 30)
- Revision of Procurement Act for buying quality seed
- Prepare a yearly source seed balance sheet and repair broken link among breeder, foundation and improved seed
- Master plan for seed sector development
- Collaboration for germplasms exchange
- Expedite variety registration process and promote PPP for private sector led variety registration
- Development of potato variety suitable for processing.
- Strengthening farm infrastructure

- Accelerate varietal registration and seed certification process
- Assurance of breeder seed
- Seed and saplings production plan according to farmers' demand
- Central level farm should have a mandate for floriculture development
- Strong linkage between central and local level government
- Human resource development in province and local level farm/centers
- Formulation of policies regarding vegetable seed sector development
- Priorities vegetable seed production program
- Strategic action plan needed for development of center of excellence
- Export promotion of Cardamom and ginger
- Budget allocation for research and development (RandD) promotion of existing hybrid varieties
- Support private sector for RandD
- Need strong collaboration with central government
- Capacity development of human resources
- Availability of quality seed
- Implement certification system of produced seed
- Emphasize mass production of seeds as per the demand
- Awareness and capacity building should be focused for seed production and management
- Internal quarantine protocol should be implemented strictly
- Degeneration of TPS seed quality
- Protecting land races with geographical indication tag and farmers right
- Production of quality planting materials in root and tuber crops
- Survey and surveillance for insect pest management
- Location specific research on protected horticulture
- Cardamom sapling production support through TCP
- Future research of fruit fly in Akbare variety of chili
- Increase in extension coverage as a result of digitalization