

Quarterly Newsletter

## **AGRI-CONNECTION**

December 2023 | Volume 8, Issue 4



PROSPERITY THROUGH AGRICULTURAL TRANSFORMATION

# Association of Nepalese Agricultural Professionals of Americas (NAPA)





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https://www.napaamericas.org/

Cover photo: Finger millet (Eleusine coracana) in Jumla, Nepal

(Source: https://imagepasal.com/gallery/millets-humla-nepal/)

Despite its rich nutritional profile, including high levels of iron and calcium, finger millet often faces neglect in favor of other more popular grains. Recognizing its potential to combat malnutrition, efforts are being made to promote the cultivation and consumption of finger millet in Nepal, emphasizing its resilience to adverse weather conditions and its crucial role in enhancing food security.

#### Message from the President

Dr. Pradeep Wagle, NAPA President



Dear NAPA members and beyond,

With great pleasure, we announce the release of **Volume 8, Issue 4** of Agri-connection (AC). This issue showcases the outstanding efforts of our committees and members, presents informative articles and research summaries on key agricultural topics, and offers a concise overview of Nepal's significant agricultural news. We extend our heartfelt gratitude to our members and supporters for their invaluable contributions to both the newsletter and the organization's ongoing achievements.

As usual, our sub-committees have been busy organizing events over the past quarter. The Webinar Committee (WC) organized the 36<sup>th</sup> webinar on "Digital soil mapping: The state-of-the-art perspectives, opportunities, and challenges" on October 8 and the 37<sup>th</sup> Webinar on "Major and Emerging Diseases of High-value Crops Relevant to Nepalese Context" on December 17. The 38<sup>th</sup> Webinar on "Ecosociocentrism: The Earth First Paradigm – A Journey from Anthropocene to Symbiocene" has been scheduled for February 18, 2024. The Research and Capacity Building Committee (RCBC) equipped RMG awardees with tailored capacity-building programs. Awardees recently submitted their mid-term reports. The Reward and Recognition Committee (RRC) is evaluating nominations for the NAPA Distinguished Contribution Award. Each subcommittee is playing a vital role, with dedicated members driving progress in their specific areas.

Please mark your calendar for the NAPA 4<sup>th</sup> Biennial International Scientific Conference, happening from May 24-26, 2024 at the Maritime Conference Center near Baltimore, Maryland, USA. Please join us for an exciting gathering of minds, whether in person (if possible) or virtually from anywhere in the world. We have received an overwhelming 220 submissions for scientific presentations from researchers across nine countries in Asia, Africa, and North America. The Conference Organizing Committee (COC) and dedicated sub-committees are diligently working to ensure a successful and enriching experience for everyone. Stay tuned for more updates in the coming months, as we unveil the conference program, speaker lineup, and registration details.

NAPA is experiencing exciting growth, welcoming 33 new members this quarter! I extend a warm welcome and congratulations to our expanded community. Together, let's cultivate a vibrant platform for networking, collaboration, and contributing to the crucial goals of global agriculture and food security.

My deepest appreciation goes to the AC Editorial Board, under the leadership of Dr. Sushil Thapa. Their commitment to excellence elevates every issue of Agri-connection. Please stay engaged with AC by sending your contributions to newsletter@napaamericas.org.

Wishing everyone a very Happy New Year 2024!

For past issues of Agri-Connection, please visit:

https://napaamericas.org/newsletter.php

# Editorial

Climate change poses a formidable threat to global agriculture, exerting profound impacts on ecosystem services and food security, with Nepal standing out as particularly vulnerable to its adverse effects. Rising temperatures, and the increased occurrence of extreme events like droughts and floods significantly impact crops and livestock health. The integration of cutting-edge techniques like precision farming, agroforestry, cultivation of resistant crop cultivars, and climate-smart agricultural practices empower farmers to navigate evolving climatic abnormalities. Embracing these practices on a broader scale is essential for ensuring the resilience and sustainability of agricultural systems worldwide. In this context, NAPA proudly announces its 4<sup>th</sup> Biennial International Scientific Conference from May 24 to 26, 2024 in Baltimore, Maryland with a theme "Climate-Smart and Innovative Agriculture." Kindly mark your calendar and join us in this remarkable undertaking. Your presence is eagerly anticipated, and we would be delighted to have you contribute to the success of this momentous occasion.

We are thrilled to present another exceptional edition of Agri-Connection, showcasing diverse articles on topics such as the cold and dry food chain, the profound human-food-culture connection, and reflections on life abroad. Additionally, we provide a comprehensive overview of NAPA's impactful initiatives and achievements in organizational development, networking, and philanthropy. Another highlight of this issue is the inspiring story of a Nepalese scholar cultivating his dreams in Europe, driven by the desire to make meaningful contributions to his home country. As usual, many thanks to President Dr. Pradeep Wagle, Vice President Dr. Ramjee Ghimire, and General Secretary Dr. Nityananda Khanal for their consistent feedback and support. Special thanks to Dr. Lila B. Karki, NAPA Founding President, for his constructive feedback and encouragement. Happy New Year 2024 to you all!

# AGRI-CONNECTION Editorial Board



# AGRI-CONNECTION December 2023 | Volume 8, Issue 4

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Association of Nepalese Agricultural Professionals of Americas (N	IAPA)		
Email: napa@napaamericas.org Website: https://napaamericas.org/			
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## Please

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NAPA PROUDLY ANNOUNCES

# 4TH BIENNIAL INTETNATIONA SCIENTIFIC

preference

MAY 24-26, 2024

Memorial Day Weekend

www.napaamericas.org



**MARITIME** CONFERENCE CENTER

692 Maritime Blvd, Linthicum Heights, MD 21090

> Stay TUNED FOR UPDATES



4<sup>th</sup> BIENNIAL INTERNATIONAL SCIENTIFIC CONFERENCE (HYBRID)

MAY 24-26, 2024 | BALTIMORE, MARYLAND, USA

Climate-Smart & Innovative Agriculture

# Conference Highlights

• Panel Discussions on Various Topics

- Student Writing Contest
- Student Rapid Fire Presentations
- Student Oral and Poster Competition
- Professional Development Workshops
- Professional Oral and Poster Presentations
- Distinguished Achievement Award in Agriculture
- Outstanding Students Recognition
- Special Session on Gender Role in Climate-Smart Agriculture and Global Food Security
- Research Mini-Grantees Presentations
- Agri-Poem Recitation
- Fun Filled Cultural Night
- Door Prizes



692 Maritime Blvd, Linthicum Heights, MD 21090

Center

4" BIENNIAL INTERNATIONAL SCIENTIFIC CONFERENCE (HYBRID)

MAY 24-26, 2024 | BALTIMORE, MARYLAND, USA

Member

#### **Conference Organizing Committee**

Name Responsibility

Lila B. Karki Chair

Pradeep Wagle Co-chair, Fundraising Chair
Megha Nath Parajulee Co-chair, Program Planning
Prem Bhandari Chair, Scientific Sub-Committee

Bharat Pokharel Chair, Student Writing Contest Sub-Committee

Bishwo Adhikari Chair, Finance/Treasury

Omkar Joshi Chair, Student Rapid Fire Sub-Committee

Dev Paudel Chair, IT Sub-Committee

Bhim Chaulagain Secretary Fund Raising Sub-Committees

Sanjok Poudel Co-Secretary Responsibility Name Mahesh Jaishi Member Pradeep Wagle Chair Bishwo Adhikari Member Krishna Timsina Member Chakra Budhathoki Member Bishnu Upreti Member

Kiran Ojha Member

Gehendra Gurung Member Agri-Poem

Kemika BhandariMemberNameResponsibilityShital PoudyalMemberKrishna PoudelCoordinatorBasu Dev Sharma PokhrelChair, Local arrangement committeeGovinda BaralCo-coordinator

v Sharma Pokhrei - Chair, Local arrangement comin

Outreach, Advertising/Marketing
Name
Responsibility
Dr. Indira Paudel
Dr. Indira Paudel
Member
Dr. Indira Paudel
Member
Dr. Indira Paudel
Member
Member

Dr. Indira Paudel

Dr. Santosh Dhakal Lead Bipin Neupane Member

Keshav Sharma Member Cultural Program

Kemika Bhandari Member Name Responsibility
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Bhuwan Shrestha Member

Local Arrangement Committee

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Basudev Sharma Pokhrel Chair Keshav Sharma Secretary Janak Dhakal Secretary

Bishwo Adhikari Chair, Walk and Run and Fund-Raising Sub-Committee

Kemika Bhandari Chair, Golf Prem Bhandari Member

Chakra Budhathoki LAC member and Fund-Raising Sub-Committee
Lila Karki Member and Fund-Raising Sub-Committee

Megha Nath Parajulee Member

Pradeep Wagle Member and Chair, Fund Raising Sub-Committee

Ramesh Khanal Member Logistics

Bal Krishna Regmi Member Name Responsibility

Rudra Gurung Member Dr. Kripa Dhakal Lead

Lekh Nath Paudel Member Agni Nepal Member

Anand Tiwari Member Table Tennis

Sahil Ojha Member Name Responsibility

Dipendra Gurung Member Dr. Janak Dhakal Lead

Gopi Upreti Advisor

Ramesh Pokhrel Advisor and Chair Pre-Conference Excursion



#### 4<sup>th</sup> BIENNIAL INTERNATIONAL SCIENTIFIC CONFERENCE (HYBRID)

MAY 24-26, 2024 | BALTIMORE, MARYLAND, USA

#### **Call for Abstract**

The Conference Organizing Committee (COC) of the Association of Nepalese Agricultural Professionals of Americas (NAPA) is pleased to announce the call for abstracts for the 4 NAPAth Biennial International Scientific Conference with the theme "Climate-Smart & Innovative Agriculture." Abstracts are solicited for oral, poster, and rapid-fire presentations within the disciplines of Agricultural and Allied Sciences.

#### **Submission Guidelines**

- Abstracts should be focused on achieving sustainable supplies of food, feed, fuel, and fiber (4F) considering the climate change and food security impacts are encouraged.
- Abstract should not exceed 300 words.
   Preparation of abstract should be as follows:

#### Title:

Author(s) and affiliation(s): Email of corresponding author:

Discipline: Select the relevant discipline from

the submission portal.

Keywords: Enter up to five keywords Abstract: Include a brief introduction, objective, methods, results, and conclusions.

# For Students Only: Best Oral, Poster, and Rapid-Fire Presentation Awards

Three outstanding oral, poster, and rapid-fire presentations, each, will be awarded a cash prize of \$250, \$150, and \$100 for the first, second, and third positions, respectively, along with a certificate of appreciation.

Students must indicate their interest in participating in oral, poster, and rapid-fire competitions.

#### **EXTENDED DEADLINE**

NOVEMBER 30, 2023

11:59 PM EST

#### **Submit the abstract online at:**

https://www.napaamericas.org/NAPA-conference-2024

#### **Award**

 A limited number of awards for registration and/or accommodation (no airfare or travel support) may be available to students and young scholars. Further information about the request for award will be announced at a later day

If there are any questions, please contact us at: conference@napaamericas.org

- Prem B. Bhandari, Ph.D. Chair, Scientific Sub-committee
- Lila B. Karki, Ph.D. Chair, Conference Organizing Committee



#### **ABSTRACT**

**Closed Now!** 

4<sup>TH</sup> BIENNIAL INTERNATIONAL SCIENTIFIC CONFERENCE

MAY 24-26, 2024 | BALTIMORE, MARYLAND, USA

## Call for Essay Student Writing Contest

DEADLINE

**JANUARY 31, 2024** 

Essay Topic: "Climate-smart and innovative agriculture to achieve sustainable, and resilient agri-food systems"

Association of Nepalese Agricultural Professionals of Americas (NAPA) Conference Organizing Committee is pleased to announce the call for 2024 College and University Students' Essay Writing Contest for its 4 Biennial International Scientific Conference (https://www.napaamericas.org/NAPA-conference-2024). A full-time student enrolled in a college, including community or vocational college, and/or university around the globe pursuing a degree in agricultural or allied fields<sup>1</sup> is eligible to participate.

#### **General Guidelines**

- The essay should be written in English language.
- The essay must be the author's original work and should be attested by inserting a statement<sup>2</sup> followed by the author's full name.
- The essay should follow the standard academic essay structure and format that includes a concise
  abstract followed by an introduction with a thesis statement(s) along with a logically organized body of
  supporting arguments using headings/sub-headings leading to a conclusion(s) and future perspectives.
- The essay can be developed based on the student's own experience, online research, and scientific literature review.
- Appropriate credits must be given to the work of others through appropriate citation. The essay will be
  disqualified from the competition if any evidence of plagiarism is established. The committee strongly
  discourages plagiarism of any form and advises students to avoid engaging in such activity.
- The essay should include a complete list of references cited in the reference section. The references should be formatted using APA style (http://www.apastyle.org/), examples are available in the reference section of NAPAs' journal website: https://gjaas.org/index.php/GJAAS/authorGuideline
- The essay should not exceed 3,000 words, excluding footnotes, tables, figures, and references. The texts should be formatted double-spaced, and 12-point Times New Roman. Margins should be 1 inch on all sides.
- The essay should have the author's name, affiliated college and/or university, degree program, mailing
  address, and email ID. A proof of student status is required (e.g., a student ID card with an expiration date,
  unofficial transcript, or a letter from the college or university certifying the student's full-time status on or
  before the closing date).
- A PDF or Word copy of the essay must be uploaded online at: https://www.bit.ly/NAPA-SWC
- The pdf or Word file should be named "NAPA\_2024\_SWC\_STUDENT FULL NAME\_COLLEGE OR UNIVERSITY NAME". The deadline for submission is **January 31, 2024** (those of you who have submitted already may revise and re-submit it again before the new deadline)
- Only one essay can be submitted per contestant.
- The results of the essay writing contest will be notified only to the winners before the conference.
- The first, second, and third place winners will be awarded a certificate and cash prizes of \$250, \$150, and \$100, respectively at the conference on May 24–26, 2024 in Baltimore, Maryland, USA. Winners are encouraged (but not required) to be physically present at the award ceremony.

If you have any questions/concerns, please contact Dr. Bharat Pokharel, Chair, Student Writing Contest Sub-committee at Bharat.Pokharel@gmail.com

<sup>1</sup>Agricultural and Applied Economics; Agricultural and Applied Economics; Agricultural and Rural Sociology; Agricultural Education, Extension, Outreach; Agricultural and Environmental Sciences; Agricultural Sciences and Technology Studies; Agricultural and Biosystem Engineering; Agricultural Statistics and Research Methods; Agronomy; Animal Sciences, Aquaculture; Biomedical Science and Engineering; Comparative and Veterinary Medicine; Crop and Soil Sciences; Entomology; Food and Nutrition Sciences; Food and Nutrition; Food Engineering and Technology; Food Security; Forestry and Agroforestry; Gender and Agriculture; Horticulture; Meteorology/Climate Science; Migration, Remittances and Agriculture; Natural Resources Management; Plant Breeding and Genetics; Plant Pathology; Rural Livelihoods; Precision Farming; Sustainable Agriculture; Organic Farming; Viticulture and Enology; Water and Environmental Sciences; Weed Science and Other related disciplines.

<sup>2</sup> By submitting this essay, I hereby attested that this is my own work and I have given the permission to NAPA to review and publish all or part of the essay in their newsletters/proceedings/website, where I will be given the credit for my work. It applies whether or not I win the NAPA's 2024 essay writing competition.



#### 4<sup>th</sup> BIENNIAL INTERNATIONAL SCIENTIFIC CONFERENCE (HYBRID)

MAY 24-26, 2024 | BALTIMORE, MARYLAND, USA

Call for Outstanding Master's and Ph.D. Student Awards Recognition

Nominate yourself or a fellow eligible student for the award recognition at the 2024 NAPA Biennial Conference!



- 1. Outstanding Master's Students
- 2. Outstanding Ph.D. Students

#### Eligibility Criteria

- NAPA student member
- Enrolled in a master's or Ph.D. program in agriculture or allied sciences or having completed the degree no more than one year before the conference date (May 2024)
- Recognized as an Outstanding MS/Ph.D. student from the university enrolled or graduated
- Tomination Deadline: March 31, 2024

#### How to Nominate

 Please visit conference website for further details: <a href="https://www.napaamericas.org/NAPA-conference-2024">https://www.napaamericas.org/NAPA-conference-2024</a>

Recognition at the Conference Publication in the upcoming Agri-Connection

For inquiries, please email: conference@napaamericas.org

Join us in celebrating academic excellence in agriculture and allied sciences!

CONFERENCE THEME: CLIMATE-SMART AND INNOVATIVE AGRICULTURE



# 4<sup>TH</sup> BIENNIAL INTERNATIONAL SCIENTIFIC CONFERENCE

MAY 24-26, 2024

#### **TOPIC**

ADDRESSING GLOBAL FOOD AND NUTRITIONAL SECURITY CHALLENGES AND OPPORTUNITIES: AN 1890 LAND-GRANT UNIVERSITIES PERSPECTIVE

#### **KEYNOTE SPEAKER**

#### DR. MOSES T. KAIRO

DEAN: SCHOOL OF AGRICULTURAL AND NATURAL SCIENCES
DIRECTOR: LAND GRANT PROGRAMS AND 1890 UNIVERSITIES CENTER OF
EXCELLENCE FOR GLOBAL FOOD SECURITY AND DEFENSE
UNIVERSITY OF MARYLAND EASTERN SHORE

FOR MORE INFORMATION CLICK SCAN THE QR CODE



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# NAPA 4<sup>TH</sup> BIENNIAL INTERNATIONAL

SCIENTIFIC CONFERENCE

MAY 24-26, 2024



Join us for an exciting
TT competition as part
of the 4<sup>th</sup> NAPA
Biennial International
Scientific Conference.
Whether you're a
seasoned player or a
beginner, this is your chance
to showcase your skills, win
prize, and have a great time!

For more information, contact: Dr. Janak Dhakal jdhakal umes.edu

www.napaamericas.org



CONFERENCE

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AGRICULTURAL PROFESSION OF MERICAS

# NAPA 4<sup>TH</sup> BIENNIAL INTERNATIONAL SCIENTIFIC CONFERENCE



MAY 24-26, 2024 | BALTIMORE, MARYLAND, USA

#### **Agri-Poem Recitation**

# कृषि कविता प्रतियोगिता

मे २४-२६,२०२४ मा अमेरिकाको बाल्टिमोर (मेरिल्यान्ड)मा हुन गइरहेको चौथो द्वैबार्षिक अधिवेशनमा आयोजना हुने बृहत् कृषि कविता प्रतियोगितामा अधिवेशनका सहभागी सर्जकज्यूहरूलाई आफ्ना रचना सहित उपस्थित भई प्रतियोगितामा भाग लिएर कार्यक्रमको शोभा बढाई दिनु हुन हार्दिक अनुरोध गर्दछौं।





थप जानकारीको लागि सम्पर्क गर्नु होला : कृष्ण पौडेल

इमेल : poudelkrish1@yahoo.com

www.napaamericas.org

# Call for Articles: Global Journal of Agricultural and Allied Sciences

The GJAAS Editorial Board is requesting all potential authors from around the world to submit articles for the spring 2024 issue of the journal. There are two categories of articles:

#### 1. Full articles: original work

- Word limit 7,500, excluding the list of cited references.
- Total number of Tables and Figures together not exceeding 12.

#### 2. Short communication

- A short manuscript with original research and/or methodology with a word limit of 2,500 to 3,000 excluding abstract, tables, figures, and references.
- When tables and figures are included, the manuscript should not exceed 2 tables and 2 figures/illustrations.

Visit the GJAAS site for detailed guidelines for preparing quality articles and submitting for publication:

https://gjaas.org/index.php/GJAAS/about/submissions



#### Dr. Karki Meets Senator Chris Van Hollen

NAPA Founding President Dr. Lila B. Karki interacts with Senator Chris Van Hollen (D-MD) while attending a program with community organizations, the Nepali American Cultural Center (NACC), Interfaith Partners for the Chesapeake, Chesapeake Bay Programs, National Fish Wildlife Foundation. and others and the National Fish and Wildlife Foundation WILD Grant announcement held outside the National Aquarium in Baltimore, MD on November 13, 2023. Dr. Karki partners with these organizations in his climate-smart agriculture and, forestry and urban gardening projects in Maryland. NACC Secretary Tarun Poudel and Treasurer Updendra Subedi are also in the picture.



#### **Research Brief**

# Livamol with BioWorma Enhanced the Performance of Nursing Kiko Kids Raised in Pastures

Durga Dhakal\*, Uma Karki, Santoshi Chaudhary, and Sadikshya Lamsal

College of Agriculture, Environment and Nutrition Sciences, Tuskegee University, AL 36088

\*Email: ddhakal9095@tuskegee.edu

#### **Introduction:**

Gastrointestinal nematodes (GINs) can severely impact the performance of nursing kids. Livamol with Bio-Worma, a biological product containing spores of Duddingtonia flagrans, is considered to reduce GIN burden in small ruminants (Figure 1). However, its effect on the performance of nursing kids is not reported well. A study was conducted at the Browse Research and Demonstration Site, Tuskegee University, for 120 days (April - August 2023) to evaluate the effect of Livamol with BioWorma on the performance of nursing Kiko kids raised on pastures (Figure 2).

#### Methodology:

Sixteen nursing Kiko does and their thirty (30) kids were divided into two uniform groups, each group consisted of 8 nursing Kiko does and 15 kids. Each group of animals was assigned to separate sets of grazing plots throughout the study. Animals had free access to clean drinking water, shelters, and mineral mix in each plot. Livamol with BioWorma at the rate of 1gm/day/kg of animal live weight was fed to one group of animals mixed with 0.227 g whole corn for better mixing and making more consumable (BioWorma group). Another group was provided with an equivalent amount of corn (0.227kg) without BioWorma (control). Each group was supplemented with corn at the rate of 0.5% body weight. Animal performance data (live weight, body condition score (BCS), and FAMACHA score was taken on Day 1, every week during the study, and the last day of the study. Results showed that use of Livamol with BioWorma enhanced the performance of nursing Kiko kids raised in pastures.

Nursing kids from Livamol with BioWorma group showed better live weight (9%), BCS (7%), and FAMACHA scores (7%) than kids from the control group (Table 1).



Figure 1. Livamol with BioWorma Tuskegee University, Alabama, USA



Figure 2. Kiko kids used in the study, Tuskegee University, Alabama, USA

#### **Results:**

Table 1. Performance of nursing Kiko kids with or without Livamol with BioWorma feeding, Tuskegee University, Alabama, USA.

Tubile Bot Chirt vibroj, i hubuhin, Chir			
Live weight (lb.)	FAMACHA Scores	BCS	
$LSMean \pm SE$			
$26.15\pm0.37^{b}$	$1.63 \pm 0.03^{a***}$	$2.76 \pm 0.02$ b	
$28.40 \pm 0.36^{\dagger a^{****}}$	$1.46\pm0.03^{b}$	$2.84 \pm 0.02$ a**	
	Live weight (lb.)  LSMea $26.15 \pm 0.37^{b}$	Live weight (lb.) FAMACHA Scores  LSMean $\pm$ SE $26.15 \pm 0.37^{\text{b}}$ $1.63 \pm 0.03^{\text{a***}}$	

<sup>&</sup>lt;sup>†ab</sup>LSMean with different superscripts in a column differ (\*\*p<0.01, \*\*\*p<0.001, \*\*\*\* p<0.0001).

#### **Research Brief**

# Rearing System Influenced the Immunological Expression of Pregnant Does during Winter

Sadikshya Lamsal\*, Uma Karki, Santoshi Chaudhary, Durga Dhakal, and Bidur Paneru College of Agriculture, Environment and Nutrition Sciences, Tuskegee University, Tuskegee \*Email: slamsal3101@tuskegee.edu

#### **Introduction:**

Small ruminants in the Southeast are predominantly raised outdoors, regardless of seasons and associated weather conditions. Severe weather in winter could lead to cold stress in animals. Previous studies showed cold stressed animals requiring more energy to maintain their body temperature subsequently limiting the energy for immune function. Indoor raising of small ruminants could minimize the adverse effect of cold stress, especially when they are pregnant as they have additional energy requirement for fetal development. The objective of this study was to evaluate the impact of rearing system on immunological expression of pregnant does during winter.

#### **Methodology:**

The study was conducted from late January to early April 2023. Sixteen pregnant Kiko does were divided uniformly into indoor and outdoor groups. The outdoor group was kept in one grazing plot consisting of mobile shelters and indoor group was kept in individual pens inside a barn. Both groups were given corn-soybean mix (3:2, 0.8% of animal live weight), *ad libitum* hay, minerals, and fresh water. Daily ambient temperature and relative humidity (RH) data were collected for both sites, and temperature-humidity index (THI) was calculated. Blood samples were collected on Days 1, 34, and 69 and analyzed for immune cells (neutrophils, eosinophils, lymphocytes, basophils, and monocytes) and immunoglobulins (IgG, IgA, and IgG).

#### **Results:**

During the study, indoor temperature was higher (7%, p<0.01), humidity was lower (8%, p<0.05), and THI was higher (5%, p<0.05) vs. outdoors. Indoor does had lower eosinophils count (73%) (p<0.05) (Figure 1) vs. outdoor does. There was no difference in other immune cells in does between two groups. IgE was higher (46%, p<0.01) and IgG was lower in indoor does (13%, p<0.01) vs. outdoor does at the end of the study. Overall, IgA was higher in indoor does (5%, p<0.05) compared to outdoor does. Result showed some influence of

rearing system on the immune response of pregnant does during winter.

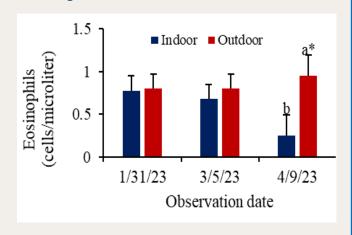


Figure 1. Eosinophils (cells/microliter) of Kiko pregnant does raised indoor and outdoor during winter, January – April 2023, Tuskegee University. (\*p<0.05).



Figure 2. Kiko does used for the experiment at Tuskeg-ee University.

#### NAPA Webinar Series-36 and 37

NAPA hosted the 36thd Webinar, presented by Dr. Kabindra Adhikari. The talk was focused on the digital soil mapping, its advantages, and disadvantages.



#### NAPA Webinar Series: 36

Digital soil mapping: The state-of-the-art perspectives, opportunities, and challenges



Kabindra Adhikari, Ph.D.
Soil Scientist
USDA-ARS,
Temple, Texas, USA



USA Time: October 8, 2023 (Sunday) 7:30 PM CST

Nepal Time: October 9, 2023 (Monday) 6:15 AM

> असोज २२, २०८० सोमवार विहान: ६:१५ वजे

zoom

829 0346 5507



www.facebook.com/NepaleseAgriculturistAmericas

NAPA hosted the 37th Webinar, presented by Dr. Rishi R. Burlakoti. The talk was focused on identification and management of major diseases of fruits and vegetable in Nepal and beyond.

#### Association of Nepalese Agricultural Professionals of Americas (NAPA) presents

#### NAPA Webinar Series: 37

Major and Emerging Diseases of High-value Crops Relevant to Nepalese Context



Rishi R. Burlakoti, Ph.D. Research Scientist (Plant Pathology)

Agassiz Research &
Development Centre
Agriculture and Agri-Food
Canada
British Columbia, Canada



USA Time: December 17, 2023 (Sunday) 7:00 PM CST

Nepal Time: December 18, 2023 (Monday) 6:45 AM

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www.facebook.com/NepaleseAgriculturistAmericas

#### **Nepal News**

#### Highlights of agriculture-related news/events in Nepal

Compiled by: Samiksha Basnet
Agriculture and Forestry University (AFU), Chitwan, Nepal
Email: basnetsamik100@gmail.com



#### Nepalese agricultural students killed in Israel-Palestine war

Two hundred sixty-five students from Nepal, with 119 from Agriculture and Forestry University (AFU), 97 from Tribhuvan University (TU), and 47 from Sudurpaschim University (SU), were working under the Learn and Earn Program in Israel. Tragically, 10 students studying at Kibbutz Alumim lost their lives in an attack by Hamas in Israel. The remaining 254 students were repatriated to Nepal. One student, Bipin Joshi, remains uncontacted.

October 13, The Himalayan Times

#### Nepal exports ginger worth Rs. 330 million

In the initial two months of FY 2023/24, Nepal exported approximately 2,624,278 kg of ginger valued at NRs. 330 million. The National Agricultural Research Council (NARC) has played a significant role in the development of ginger varieties, breeding, disease management, and technological advancements, contributing to the recognition of superior-quality ginger in the international market. The cultivation of ginger has been supported by projects like PMAMP and various governmental agencies, aiming to encourage farmers to increase production. According to the report from the United Nations Food and Agriculture Organization (FAO), Nepal is ranked among the top five ginger-producing countries globally.

October 16, myRepublica

#### Lemon lacks market in Syangja

This year, lemon producers in Syangja were concerned about finding a suitable market for their products due to low demand in local markets. This resulted in a delayed harvest of products and posed a significant challenge to commercial farmers. The lack of storage facilities in the locality further compounds the difficulties faced by farmers.

November 02, myRepublica

#### Tanahun district exports Marigold flower to Qatar

For the first time, Tanahun district exported 85 kg of Marigolds produced by the Yanchok Mothers' Group and Aadhimul Mothers' Group to the Sudan Flower of Doha's Regency Market at NRs. 550 per kg. Technical assistance and grants for flower seeds were provided by the rural municipality office to empower women in income generation through flower production in the Anbu Khaireni rural municipality of Tanahu.

November 13, myRepublica

#### Nepal government declares wild boar as a problem for agriculture

As per the notice published in the Nepal Gazette, the government of Nepal has declared that no permission is required to capture and kill wild boars, but only in the event of them causing damage to crops by entering farmers' fields. The captured boars must be handed over to offices working for animal welfare and protection, and killed boars must be buried in the presence of at least five locals, including a representative from the respective ward. The local level is required to provide details of the killed or captured boars to the Ministry of Forests.

November 24, Ratopati

#### **Emerging becomes cardamom cultivation hub**

Cardamom farmers in the Lamjung district have earned NRs. 240 million from the sale of cardamom this year. The consistent increase in the price rate of cardamom has set an upward trajectory for earnings. However, cardamom production has declined due to factors such as the aging of cardamom plants and insufficient care.

November 26, myRepublica

#### Nepal...

#### Nepal government decides to release subsidies to sugarcane farmers

Nepal government has decided to release NRs. 520 million in subsidy to sugarcane farmers following protests by farmers demanding payment. Farmers in Sarlahi protested against the government, seeking the subsidy amount for the sugarcane sold last year, stating that they received only NRs. 21 out of NRs. 70 per quintal.

December 17, The Kathmandu Post

#### Government's admirable decision to purchase paddy

The decision of the Nepal Government to purchase paddy directly from farmers is commendable, as it ensures the food security and price stability of paddy. This action will also be a supportive gesture to farmers in remote areas where transportation costs are a concern. It will aid in distributing food grains to vulnerable districts and make essential items more affordable. A budget amount of NRs. 1.74 billion has been allocated by the government for these actions, which will sustainably promote local agriculture.

December 20, myRepublica

#### Rice production in Chitwan declines by 10 percent

Rice production in the Chitwan district has decreased by 10% this year, reaching 112,190 metric tons in 26,352 hectares. Insufficient rainfall resulted in the cultivation of rice in smaller areas compared to last year, leading to decreased production. The occurrence of pests and diseases such as black spots, neck rot, and smut during the production process also contributed to the overall decline.

December 20, Onlinekhabar

## CLICK HERE FOR NAPA Biennial Conference

#### **PROCEEDINGS**



#### **CLICK HERE FOR**

Global Journal of Agricultural and Allied Sciences



#### **Submit Articles to NAPA Journal**

Global Journal of Agricultural and Allied Sciences (GJAAS) is a multi-disciplinary, peer-reviewed (double-blind) international journal published by NAPA.

Please consider this journal for your future publications.

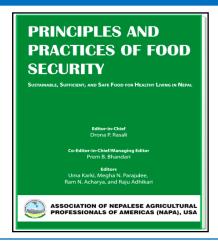
For further information: https://gjaas.org/index.php/GJAAS

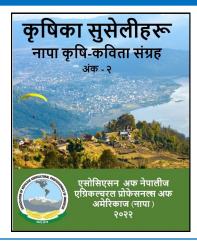
#### **Photographs in Action**

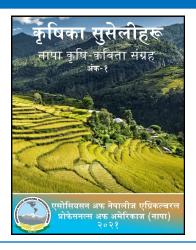


Soybeans, scientifically known as *Glycine max*, are versatile legumes widely cultivated for their high protein content and oil-rich seeds. Originating in East Asia, soybeans have become a global agricultural staple, serving as a crucial source of protein for both human and animal consumption. The beans are used in various forms, including tofu, soy milk, soy sauce, and as a key ingredient in many processed foods. *Source: Sushil Thapa* 

#### NAPA Publishes a Book and Agri-Poem Compendiums







#### Appeal for Contribution to NAPA Endowment Fund



ENDOWMENT FUND ADVISORY BOARD ~ESTD. 2020~

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Dr. Aditya R. Khanal

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Dr. Basu D. Bhandari

Dear Sir/Madam:

The Endowment Fund Advisory Board (EFAB) of the Association of Nepalese Agricultural Professionals of Americas (NAPA) sincerely requests you to consider a donation to its **Endowment Fund**. Your donations to the endowment fund would help NAPA achieve its overarching goal, "Global Food Security through Agricultural Transformation." NAPA is a non-profit, non-governmental, non-religious, and non-political professional organization dedicated to serving humanity through scientific research, teaching, outreach, and charitable initiatives in agricultural and allied disciplines. Since its inception in 2016, NAPA has implemented outstanding programs such as international scientific conferences, scholarships, research mini-grants, webinars, seminars and workshops, peer-reviewed Global Journal of Agriculture and Allied Sciences (GJAAS), a seminal book on food security, Research and Policy Briefs, and Agri-Connection — an online quarterly newsletter.

To facilitate and expand its endowment fund, originally initiated in 2017, envisioning the economic and programmatic sustainability of this emerging organization, the NAPA Executive Committee established an EFAB in January 2021. The EFAB envisages utilizing the endowment revenue to sponsor NAPA's flagship programs, prioritizing donor-specified activities while allowing the principal to grow through its productive investment strategies.

The Endowment Fund Advisory Board has already received a pledge commitment of over \$110,000.00

You can contribute to this noble cause by establishing the fund in your name or your beloved ones'. As a contributor, you can also express your activity of interest to NAPA, consistent with NAPA's mission and vision. It is an incredible opportunity for you to contribute to this cause through an upfront donation or any amount on a monthly or annual basis for any number of years, based on your interest and willingness. **Donations to NAPA endowment funds are tax-deductible**. Our Endowment Fund Donation Recognitions/Tiers are:

Platinum Sponsor ≥\$10,000	Diamond Sponsor ≥\$7,000
Gold Sponsor ≥\$5,000	Silver Sponsor ≥\$3,000
Bronze Sponsor ≥\$1,000	Green Sponsor ≥\$500
Valued Sponsor or Supporter <\$500 (allocated to common/pool fund)	

The endowment fund's beauty is that a sponsor may customize the donation as a single or multiple installment(s) over the years. The tiered recognition level may scale up anytime your support reaches the designated tier, as mentioned above. The EFAB assures you that every donation to this fund will be maintained, managed, and utilized transparently.

Please support NAPA with your kind donations!

#### Membership Update (December 31, 2023)

Member category	Members
Founding life member	5
Life member	128
Associate life member	74
Student member	99
Associate student member	10
Joint member	7
Regular member	14

#### **Welcome New Members**

Membership category	Full name	Institution
Student Member (N=18)	Akanksha Hada	University of Maryland, Maryland, USA
` ,	Anita Paneru	Washington State University, Pullman, Washington, USA
	Arjun Acharya	Murray State University, Murrah, Kentucky, USA
	Dikshit Poudel	University of Georgia, Athens, Georgia, USA
	Dipendra Gurung	University of Maryland Eastern Shore, Maryland, USA
	Ichchha Thapa	Michigan State University, Michigan, USA
	Nisha Shrestha	Michigan State University, Michigan, USA
	Prabesh Rai	Ondokuz Mayis University, Turkey
	Pratibha Poudel	University of Maryland, Maryland, USA
	Sabin Pokharel	Nanjing Agricultural University, China
	Sahil Ojha	University of Maryland Eastern Shore, Maryland, USA
	Saurav Pantha	Kansas State University, Kansas, USA
	Sujan Bhattarai	University of Arkansas at Pine Bluff, USA
	Prashant Bhatt	Kentucky State University, Frankfort, USA
	Dabit Bista	Michigan State University, USA
	Prabin Ghimire	Agriculture and Agrifood Canada
	Rajesh Neupane	Texas A&M University, Texas, USA
	Siddant Ranabhat	North Dakota State University, Fargo, USA
Associate Student Member,	Isha Gorkhali	Nepal
Nepal (N=3)	Lenin Kunwar	Nepal
	Sujit Regmi	Institute of Agriculture and Animal Science, Paklihawa, Nepal
Life Member (N=6)	Dr. Jasmine Neupane	University of Missouri – Columbia, Missouri, USA
	Dr. Kamal Khadka	University of Idaho, Moscow, Idaho, USA
	Dr. Krishna Nath	University of Arkansas Rich Mountain, USA
	Dr. Pratima Devkota	Michigan State University, Michigan, USA
	Dr. Rajendra Acharya	University of Georgia, Tifton, Georgia, USA
	Dr. Jagdish Poudel	Michigan State University, Michigan, USA
Family/Joint Member (N=1)	Sajana Dhakal Ghimire	Sparrow Hospital, Michigan, USA
Associate Life Member,	Hareram Devkota	Nepal Agricultural Research Council, Nepal
Nepal (N=5)	Dr. Nani Sujakhu	Resources Himalaya Foundation, Nepal
	Dr. Bim Shrestha	Kathmandu University, Dhulikhel, Nepal
	Dr. Bhuminand Devkota	Agriculture and Forestry University, Chitwan, Nepal
	Dr. Samudra Joshi	Nepal Agricultural Research Council, Kathmandu, Nepal
Agri-Connection Volume	e 8 - Issue 4 - December 20	023

#### Appeal to Join/Renew NAPA Membership

We would like to request potential members to join NAPA - a common professional platform for all of us. Meanwhile, we request all members who are not currently in good standing to renew their memberships. Members' contributions thus far to bring NAPA to the current level is greatly appreciated. We request our dedicated members and well-wishers to promote NAPA to the next level by recruiting eligible friends/colleagues/students in your network. New NAPA members must write the recruiter's name in the "referred by" row in the membership form. The highest recruiter(s) will be recognized at our Biennial Scientific Conference.

#### A few reasons to join/renew NAPA membership:

NAPA is a member-driven voluntary organization. Members can benefit from the association to advance their career growth, develop organizational practices and leadership skills at all stages. Some of the membership benefits include:

- Peer-to-peer networking and research collaboration opportunities
- Professional development and advancement
- Serving on various committees
- Opportunity to publish scientific works in NAPA's various outlets (Journal, Book, Research/Policy Brief, and Agri-Connection)
- Opportunity to sponsor scholarships and research mini-grants in preferred agricultural institutions and disciplines in Nepal through NAPA
- Eligibility for organizational awards, scholarships, and endowment funds
- Opportunity to share scientific works, experiences, and expertise via association's Talk Sessions (Webinars) and Online Teaching/Learning Programs
- Joining global expert repository to contribute to Nepalese Agriculture and beyond
- Keeping up-to-date on association's programs and activities
- Volunteering and charitable opportunities
- Discounted rates for registration and hotel reservation during scientific conferences organized by the association

Please check for more details on Joining NAPA at <a href="http://napaamericas.org/join-napa.php">http://napaamericas.org/join-napa.php</a> and membership type and fees at <a href="http://napaamericas.org/membership.php">http://napaamericas.org/membership.php</a>. We look forward to welcoming you for a great cause. Please let us know if you have any questions and willingness to volunteer in various committees.



Thank you.

On behalf of NAPA Executive Committee, Dr. Ramjee Ghimire Vice President Chair, Membership Drive Committee Email: ramghi@gmail.com BECOME A
INTENBER

Renew now

Renew now

Please join or renew your membership. Become a life member if possible!

#### Membership Type and Fee

NAPA Membership Drive Committee seeks to create a database of students, faculty, researcher, and other professionals of agriculture and allied fields in public, private and nonprofit institutions, industries, and enterprises working in Americas, Nepal and beyond; establish contact with potential NAPA members and promote awareness about NAPA's vision, mission, goals, objectives, and activities; conduct membership drive; inform members in advance their membership; and regularly update the membership directory on the NAPA website. NAPA membership pool has nine categories including honorary members, senior members, and members for the eligible spouse.

Table 1. Membership fees and eligibility.

Membership type	Fee	Eligibility
Regular Member	USD 50 (for two years)	Individuals who hold at least an undergraduate or bachelor or equivalent degree in agriculture or allied areas
Student Member	USD 25 (for two years)	Current students of agricultural and allied areas of studies who are in good standing student status.
Life Member	USD 200 (one time)	Individuals having met regular/general member's category and pay defined dues at a time.
Life Member (eligible spouse)	USD 100 (one time)	Eligible spouse of Life members
Family (Joint) Member	USD 15 (for two years) or USD 50 (one time for Life Membership)	Spouse of a member of any of the five categories (regular/general, student, life, honorary, and associate), who is not eligible for other categories of membership. Family members will not have voting right.
Associate Membership (outside Nepal)	USD 25 (for two years) or USD 100 (one time for Life Membership)	Interested individuals who do not qualify for membership types above. Associate members shall not have a voting right and shall not be eligible for the candidate of the Executive Committee. An Associate member may become Associate Life member with the payment of defined dues at a time.
Associate Life Membership from Nepal	NPR 5,000 (one time)	Interested individuals who do not qualify for membership types above. One-time membership fee of NRs. 5,000.00 (five thousand rupees) to become Associate Life Member.
Associate Student Membership from Nepal	NPR 1,000 (one time)	Undergraduate and graduate students in good standing in Nepal. One-time membership fee of NRs. 1,000.00 (one thousand rupees) to become Associate Student Member as long as they are a student in Nepal.

NAPA is for and by members. Please join NAPA and request your friends and family to join too. We would like to request eligible and interested people to join the NAPA family and work together with other fellow members. You can access this link to join NAPA: <a href="https://napaamericas.org/join-napa.php">https://napaamericas.org/join-napa.php</a>.

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Vice President

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General Secretary

Dr. Nityananda Khanal

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Dr. Sushil Thapa

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Dr. Dev Paudel

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Dr. Kripa Dhakal

Dr. Pramod Pokhrel

Dr. Uma Karki

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Nepal Liaison: Mr. Kiran Ojha

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Dr. Narayan Khadka

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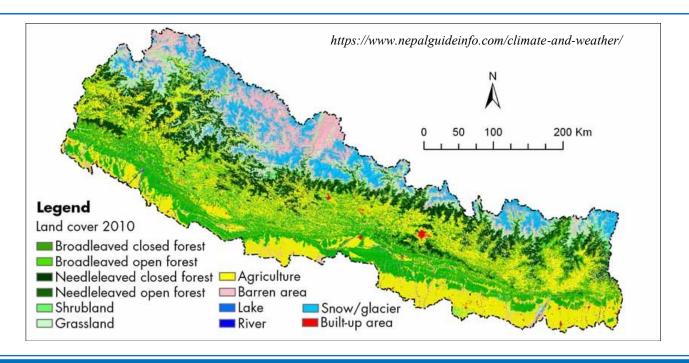
Dr. Dilip Panthee

Dr. Rajan Shrestha

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#### Climate in Nepal

Nepal's climate varies considerably both seasonally and according to altitude. Autumn and spring are the two most favorable seasons for visiting Nepal. Autumn season starts from early September to early December and brings in clear weather with sunny days and warm nights. Spring season starts from the beginning of March to the end of May with occasional precipitation. From June to September, is the monsoon season with several rainy days (almost everyday). About 80% of Nepal's annual rainfall is during that period, so the remainder of the year is pretty dry. Trekking is generally difficult and uncomfortable at that period. Moreover, the mountains are usually obscured by cloud.



#### **KidsZone**

#### Please Encourage Your Kids to Participate

Dear NAPA members and AC readers.

Please inform and encourage your kids to contribute for KidsZone. Creations such as arts, drawings, and any forms of writings (short essay, poem, story, memories, etc.) related to agriculture and allied sciences are accepted. **KidsZone** also includes features on kids, animals, plants, life at school, and issues of particular interest to kids.

#### Please include the following:

Name:

School (optional):

Grade:

State/District:

(And a photograph)

#### KIDS TODAY, SCIENTISTS TOMORROW!

#### **Cold and Dry Chain to Reduce Food Loss and Waste**

Peetambar Dahal<sup>1\*</sup>, Kent Bradford<sup>1</sup>, Pedro Bello<sup>1</sup>, Johan Van Asbrouck<sup>2</sup>, Keshavulu Kunus-oth<sup>3</sup>, Irfan Afzal<sup>4</sup>, Tim Letzkus<sup>5</sup>, Filippo Guzzon<sup>6</sup>, Ravi Kafle<sup>7</sup>

<sup>1</sup>University. of California, Davis, United States; <sup>2</sup>Rhino Research, Thailand; <sup>3</sup>Telangana State Seed and Organic Certification Authority, India; <sup>4</sup>University of Agriculture, Faisalabad, Pakistan; <sup>5</sup>Food Rescue, White Pony Express, Pleasant Hill, California, United States; <sup>6</sup>European Cooperative Programme for Plant Genetic Resources (ECPGR), Alliance Bioversity International-International Center for Tropical Agriculture (CIAT), Rome, Italy; and <sup>7</sup>Department of Public Health, Washington State, United States

#### \*Email: peetambardahal@gmail.com

**Teaser:** Dry Chain limits insects, toxic molds, nutrient loss, and reduces food losses. It improves seed and food security, enhances biodiversity conservation, enables indigenous food systems and resiliency.

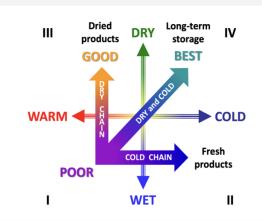
The Cold Chain, including modified ecofriendly variations, is being used for prolonging quality of perishables by utilizing refrigeration to maintain high moisture content (MC) and low product temperatures. The Dry Chain, analogous to the Cold Chain, is proposed to maintain the quality of low MC products (seeds, foods, and feeds) at ambient temperatures without requiring expensive infrastructure. Low MC products are dried to safe humidity levels and packaged into moisture-proof containers until used, thereby minimizing losses at farms and through the downstream value chain. This process has been used by gene banks, seed companies, food manufacturers and the pharmaceutical industry in developed countries to minimize quality loss of dry products during storage.

The Dry Chain, developed with the support of the USAID Horticulture Innovation Lab at UC Davis, California, enables health-centric food systems by extending seed longevity and minimizing food contaminants (e.g., mycotoxins) and insect infestation and nutrient loss. It complements food, nutrition security and disaster resiliency and agrobiodiversity conservation. Furthermore, the Dry Chain could save about 25% food losses at farms in the developing countries that could help countries to improve dry product trade ratios. Although this technology complements central issues of food security identified by USAID and several other global programs, it has yet to be used by the food stakeholders in the developing countries.

#### **Dry chain implementation**

The Dry Chain can be implemented using climate-smart tools like natural drying, solar dryers, regenerable drying beads and heated air dryers. Drying beads are especially useful for low-volume and high-value seeds and can replace existing Cold Chain gene bank infrastructure. Moisture-proof packaging is essential following

drying to prevent reabsorption of water from the air in humid climates. Bill and Melinda Gates Foundation (BMGF)- and USAID-supported triple-layer Purdue Improved Crop Storage (PICS) bags are handy containers to enable Dry Chain systems.



Dry Chain Concept: doi: 10.1016/j.tifs.2017.11.002

Implementing the Dry Chain could minimize most of carcinogenic mycotoxins (aflatoxins), which affects 4.5 billion people in developing countries. In combination with good agricultural practices (GAP), including Aflasafe, the Dry Chain should be optimally initiated soon after the harvest when seed quality and nutrients are at peak levels. Seeds could be a good implementation point before scaling up Dry Chain to reduce farm food losses.

#### Dry chain steps

Preharvest measures: Seeds of improved/local varieties should be planted using GAP. Integrated Pest Management (IPM) that uses biological measures but embraces pesticides as the last resort is recommended to minimize chemical residues in both low and high MC foods. Areas receiving high rainfall, as in tropical climates, need preharvest application of Aflasafe, a mixture of country-specific atoxigenic Aspergillus strains to outcompete toxigenic ones.

#### Cold and Dry...

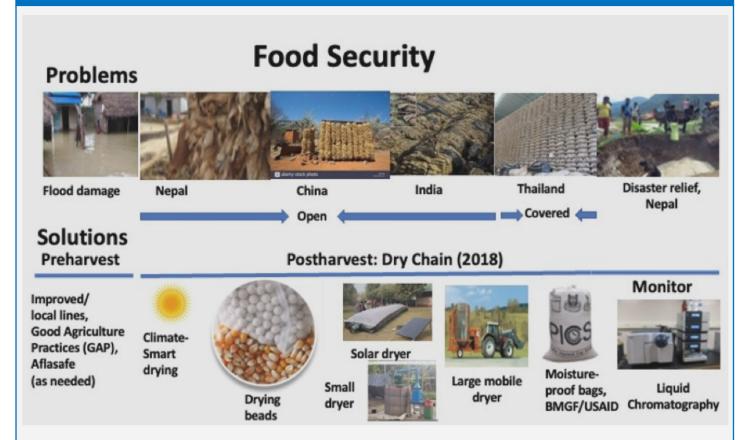


Figure 1. The Dry Chain pictorial. (Picture source: Author)

- 2. Drying after harvest: Harvest seed/grain at proper maturity and use natural or artificial drying systems to reduce MC to 10-12% or 65% equilibrium relative humidity (eRH) or lower. Drying prevents growth of toxigenic storage molds and insects that proliferate concomitant with nutrient losses at higher humidities. Dry products harvested during the dry season can utilize repeated natural drying. However, dry products harvested during the rainy season need rapid drying using artificial dryers that could also use solar energy. Ecofriendly solar drying tools have been discussed even for drying high MC foods. Seeds need lower MCs than grain products and high viability has been maintained for several decades. Expensive dehumidified cold storage has been proposed to store seed in the developing countries. Instead, regenerable drying beads could be used to maintain local and improved cultivars in dry storage, even in humid climates.
- 3. Checking dryness: In addition to traditional drying knowledge, inexpensive handheld devices, DryCards and humidity strips could be used to measure eRH of stored products. A moisture content calculator can convert eRH values of handheld devices to traditional MC values.

- 4. Moisture proof containers: The BMGF- and USAID -supported moisture-proof triple-layer PICS bags are preferred over other containers throughout the postharvest value chain. Other plastic or metallic containers with airtight seals could also be used to prevent moisture penetration into the storage container. These containers protect dry products from rainfall/annual flooding and enable disaster resiliency by addressing food safety.
- Quality assurance: Implementing sensitive quality monitoring systems to conform to Codex standards for both domestic and imported low and high MC foods will promote exports and improve livelihoods of smallholders.
- 6. Dissemination of knowledge: Digital apps could be useful to disseminate such knowledge to food stakeholders. Training on drying systems and hermetic storage is needed to implement the quality-oriented, pesticide-free and climate smart Dry Chain to reduce food loss in the developing countries.

(For details: https://agrilinks.org/post/cold-and-dry-chain-reduce-food-loss-and-waste)

\*\*\*

#### Human Life: A Blend of Tradition, Food, and Agriculture

**Shaurav Sharma**Agriculture and Forestry University (AFU), Chitwan, Nepal

Email: shauravsharma5151@gmail.com

Across various parts of the world, one encounters a fusion of food, culture, agriculture, and faith, all converging to prioritize human life at the core. In Nepal's southern region, popularly called Terai-Madhesh, the ancient Mithila kingdom's festival season starts from Naga Panchami (Lagpache). The weeding process in transplanted rice will be completed, accompanied by the application of split fertilizer doses by this point. In the first week of August (Bhadra Putrada Ekadasi Vrata of Sulka pakshya), fasting on the eleventh of the lunar waxing month starts.

I still feel nostalgic regarding folk festivals. During every festive occasion, Grandma would enlist me as her assistant in distributing *Baina* (traditionally gifted food) to those who didn't partake in some of our customary celebrations. I opted to assist her for two reasons: being the youngest in the family and, as you all know, Grandma's advancing age and enduring waist pain. I used to stand still holding *Dallas/Supas* (bamboo flat or depressed tub) with dozens of paired *Puri* sandwiched with rice pudding in the middle! *Puri* used to be of wheat or rice flour, mostly with a legume pulse in the middle while some used to be made with blended molasses. She used to be very busy calling housewives by their children's names, for instance:

"Oh, Bhunti's mother, come out of the house, I'm in a hurry to distribute food to the whole community..." She used to hand over *Baina* hurriedly. The fellow kid Bhunti's joy still mesmerizes my mind!

In the United Nations Sustainable Development Goals (SGD), Zero Hunger lies in the second position and can be fulfilled by giving importance to underutilized crops and traditionally processed food as they are accessible and affordable to local people and those foods are high in fiber content and vital nutrients. Flour of cereals (rice, wheat, maize), and sugarcane molasses are major sources of carbohydrates in Nepal. Minor indigenous cereals like millet and barley are losing priority due to low yield and lack of high-yielding varieties.

Milk and leguminous pulses (Vigna sp., Cajanus cajan, Cicer arietinum, and many more) supply ample protein to us. Vegetables from Cucurbitaceae and Brassicaceae families are commonly consumed, but the indigenous and hardy vegetables like pointed gourd (Trichosanthes dioica), and colocasia are also consumed in our community. Along with mustard green (Nepali raayo), wild purslane (Portulaca oleracea), Amaranthus sp., Colocasia (leaf and root), etc. are also consumed as leafy vegetables. These vegetables contain most of the vital vitamins. For fat, along with milk dishes, Puri is fried in rapeseed, sunflow-

er, or soybean refined oil. The use of rapeseed gives a golden color and a typical fragrance to food, but at present, frying is done in refined sunflower or soyabean oil due to consciousness about the cholesterol effect. Sesame pickles (*Till ko chutney*), elephant foot yam, lemon, and chilly provide ample amounts of micronutrients along with adding extra taste and flavor to other foods.

In our community, slaughter of animals (*Bali paratha*) is metaphoric as vegetarianism is preferred. Instead of animals, cucurbit vegetables are cut apart and red paste is smeared on the cut part to signify the victory. Isn't it symbolic of a non-violent way of celebrating the tradition? A complete vegetarian (*Vaishnava*) food is consumed in our home-region as numerous plants can be cultivated easily all year round on the clay-loam soil. Some local people keep goats for meat purposes and even offer them to the god during festivals. Poultry bird's meat is uncommon and prohibited by tradition. Livestock is kept only for milk purposes.



Figure 1. Wheat blended with molasses and fried in oil (*Tataruwa*) (a), Rice flour blended with butter and cane sugar (*Aanarsa*) (b), Samolina made gulabjamun and bittergourd-potato fry (c), and Rice pudding in cow milk (d). (Picture source: Author)

#### Human Life ...

Revisiting fond memories, some of my fellow villagers used to observe unique cultural festivals, generously gifting us with an abundance of delicious foods. I would eagerly step outside, grasping the *Dalla/Suppa* with both hands, as Baina from numerous families generously provided more than I could consume. The joy of sharing left a lasting impact on me, imparting the valuable lesson that what you give to others will eventually come back to you in some form. However, due to my current priorities and Grandmaa's delicate health, we are unable to engage in the same communal sharing. Traditional foods are delicious not only because of their nutrient-rich ingredients but also because they possess the sweetness of sharing.

Traditional foods are mostly organic. There is zero wastage. We even eat food placed on banana leaves during festivals, and leftover food is offered to livestock. The clay-dung blend is used to plaster the worshipping room floor. We all know the insecticidal properties of cow dung. This traditional sanitation and use of natural resources is eco-friendly which leads to easy biodegradation for recycling in the ecosystem. This zero-wastage concept can be a small step toward zero hunger! Undernutrition and overnutrition, both have detrimental effects on our bodies. In underdeveloped and developing countries, malnutrition is a major challenge whereas in developed nations, obesity is a serious issue. In South Asian countries there is also a culture of periodical fasting, let me share a few.

Ekdashi Vrata is the 11th day of the waxing and waning moon (Shukla and Krishna Paksha Tithi) in every month according to the Vedic calendar. In Nepal and India, Ekadashi is considered a day to cleanse the digestive system and ultimately the whole body which aids in the repair and rejuvenation of epithelial tissue of the abdomen. Highly energetic foods such as beans and grains are not consumed by observant people during the fast as it is a day to cleanse the body and give rest to the digestive system. Instead, only fruit, vegetables, and milk products are eaten. This period of abstinence starts from sunrise on the day of Ekadashi to sunrise on the following day. Medically it has been proved that not consuming food once in a fortnight suppresses the growth of cancerous cells in the alimentary canal.





Figure 2. Foods served on banana leaf (left picture) and *Diyo* (oil lamp with vegetable oil and cotton thread).

(Picture source: Author)

Kuldwata (genetic deity) is believed and worshipped with a raised soil surface which signifies the worshipping soli/motherland. We all know our genes are composed of DNA sequences inherited from our ancestors. The transcripted amino acids are the major component of hormones and enzymes that determine all that we do and how we behave. So, isn't it sensible to have faith in the genetic deity (Kuldwata)?

Grandma consistently emphasizes the importance of staying grounded asserting that such grounding directs our energy in the right path. She firmly believes that engaging in spiritual practices not only fosters a sense of balance but also contributes to hormonal equilibrium, ultimately leading to a more blissful and fulfilling life.

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# Home or Away from Home: A Lifetime Dilemma of Living Abroad

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**Preamble:** Interacting with some of my peers motivated me to write this article. The discussion was centered around returning to the home country-a country where someone was born and raised-after accomplishing the objectives of temporary relocation to a second country. However, can the meaning of "home" and "home country" change for a person as they evolve through experience and life aspirations while living in multiple countries? If not, what kind of emotional dilemma someone goes through? If yes, can "away from home" be a "home"? I reflected on my thoughts centered around these questions based on my experience and life aspirations while living in the US. This article will make you contemplate your answers to these questions rather than answering "Yes" or "No". I am not giving definite yes/no answers because you may have your answer and so does everyone else including me.

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I was born, grew up, and lived in Nepal for more than two decades before I moved to the United States (US) about a decade ago. I spent my childhood and adulthood building several memories, friends, families, and relatives in Nepal. Suppose I exclude the first decade of my childhood-a part of my life I never spent thinking about life and a better future-in Nepal, the number of years I spent in the US and Nepal is about the same. Yet, I still call Nepal my "home" country and the US my "home away from home" country. However, the dilemma of "Where is my home?" and "Which is my home country?" are questions that I think about a lot. I am explaining my thoughts on these questions relating to Nepal's socioeconomic and political context.

Like any other educated Nepali, I moved to the US after completing my undergraduate degree in Nepal in search of a better education, better job opportunities, and eventually a better future. I have been thinking about returning to Nepal since completing my doctorate more than I used to think when I was a student. The major factors, more than anything else, behind returning to Nepal are emotional and cultural attachments, a sense of belonging, and giving back to the homeland from which I benefitted the most. Besides the factors mentioned above, Nepal-and South Asia-has tremendous potential for personal and professional growth in multiple fields such as policy-making, innovation, entrepreneurship, and national and regional diplomacy which could expand to the global scale depending upon a person's ability. Often several ideas and innovations that have proved successful in the Western world

are out of the imagination in South Asia including Nepal. Geographically, Nepal is well-situated to have access to almost, if not more than, half of the world's population. The opportunities for innovation and market expansion are unlimited. With the advancement in technologies and expansion of the internet, opportunities available in the Western world can be easily tapped into Nepal.

I discussed my plans of returning to Nepal with my friends and family a few times so far. During the discussion, I almost always get a series of questions such as, "What are you going to do in Nepal?", "Why do you want to return when everyone is leaving Nepal?", "Can you build a better future in Nepal?", "How do you afford children's (once having them) education and medical bills?", "How do you pay for housing?", "Can you build a quality life and satisfactory lifestyle in comparison to what you could potentially build in the US?", "Why do you want to earn less money than you may earn in the US?", "Can you save money for retirement?", and many more. Their concerns expand to broader macro-level problems such as: 1) whether I can thrive well against all odds such as corruption, political biases, inefficient bureaucracy, black markets, institution failures, and so on which could kill my enthusiasm, leave me frustrated, and force me to leave Nepal again, 2) if future of my children (Of course! they are not born yet, but I must include them in the long term planning) would have secure future even if I thrive well?, 3) If my unborn children have to move to a developed country leaving their family and loved ones behindexactly what I did-for their better future, is it not wise to remain in the US? and many more.

It is easier to explain my ability and willpower to thrive in Nepal. Despite confidence in my ability, the macro-level questions mentioned above are genuinely serious issues to deal with every day. When I think about these issues from the family and friends' perspectives who are dealing with these issues daily, their concerns make better sense than my plan. I'm unable to predict how these issues-most of which are out of my control-would affect my life in Nepal. My ugliest fear lies in my tolerance level while dealing with these macro-level issues and my patience to execute my plans under such circumstances. Furthermore, questions such as "Can I execute my plans in the way I planned given the current bureaucratic, socioeconomic, and political conditions have changed since I left the country?", "Are there enough people to buy my ideas to become a successful sellable commodity?" genuinely important to know before making such a big life-changing decision. In the long run, I am concerned that my children

#### Home or Away...

must choose the same pathway that I chose almost a decade ago. Other concerns about lifestyle, quality of life, quality of education, professional and personal growth, environmental factors, opportunities, etc. are not even in consideration in this article for which I must think in greater detail.

Considering all these concerns and life aspirations, planning a return to Nepal for someone living abroad for such a long period is not only challenging but also a risky decision. The more I think the more I get a clear picture of why several Nepali chose "home away from home" even though they have a strong desire to return "home". This gets me thinking if it is the responsibility of a citizen to return to their home country or if a country should create a favorable environment so that its citizens can return. In other words, is it the responsibility of a country to create a "homely" environment for its citizens or the responsibility of a citizen to blindly call a country "home" just because someone was born, raised, and spent their childhood in a country? To answer this question, let's talk about the homely feeling.

We often experience "homely feeling" inside a building or house made up of four walls and a roof because we feel safe, protected, and secure inside those walls in the presence of our loved ones even when we are tired, weak, lost, incapable, and vulnerable. Would you consider a house with four walls and a roof as a home if you could not feel safe, protected, and secure when you are tired, weak, lost, incapable, vulnerable, or at the lowest point of your life (Think carefully before answering)? Any wise and rational person would answer "No!" to this question because, homely feeling is the feeling of being safe, protected, and secure when we feel vulnerable and insecure. Without feeling safe, protected, and secure such homely feeling is lost. If you ever have heard statements like "I don't feel like going home", that is because such "homely feeling" was lost or no longer experienced. As a result, the building with four walls and with roof becomes a house, not a home. A house is a building with a lost feeling of being a part of it and the people who live there.

Suppose you expand this concept of "homely feeling" to a country in the context of a citizen/resident of the country. In that case, it becomes obvious that a citizen/resident would consider a "country" as "home" if the citizen could feel safe, protected, and secure. The complexity of "homely feeling" or "home country feeling" can only be described after considering several other factors along with where someone was born and lived. Such factors include if someone can live a quality life, live a lifestyle of their choice and ability, feel welcomed and respected, and strong feeling of belonging there. A home country should provide ample opportunities to its citizens and their immediate future generations to fulfill their life aspirations, live a quality life happily, and pursue their dream future. Every country may define what these things are to their citizens

but at the minimum, a country should be a reasonably satisfactory place to live for a lifetime. In any country that cannot provide such opportunities to live a reasonably satisfied life, its citizens may not always remain at home.

If a citizen gets an opportunity to live a reasonably satisfactory life for their lifetime in another country, can the person call their new country their "home"? If yes, can that person consider the new country they migrated to as their "home" and the country they migrated from as "home away from home"? If yes, the feeling of "home" and "away from home" is completely changed--it's now upside down. This is sad but true. Policymakers and politicians should think about how to build such a "homely environment" and create opportunities for citizens to grow so citizens can help Nepal grow its national economy. Policymakers and politicians are positioned to shape every aspect of a country.

Citizens are often opportunity seekers. Believe it or not, Nepal needs its citizens more than a citizen needs Nepal in the current globalized world. Some of those who returned to Nepal after spending several years to decades outside Nepal suggest making decisions based on personal comparative advantage. However, many developed countries' policies are favorable toward attracting and retaining mature and active labor force. It's easier for a developed country to bring in well-grown labor forces and recruit them to work from the next day rather than spending resources for several years to prepare a newborn child as a mature workforce. Developed countries are wise enough to understand this simple economic concept which is why they widely welcome immigrant workforce. This is also a win-win for both-a country importing labor force and a person looking for an opportunity to fulfill their life aspirations.

I want to conclude this article by reiterating what I said in the preamble. I tried to answer a question about the meaning of "home" and "home country" and if it can change as a person evolves through their experience and life aspirations while living in multiple countries and connecting with the socioeconomic and political condition of Nepal. As I reflect on some of my experiences in this article, I am not in any way implying anything about my feeling of "home" and "home country". I don't have a definite "Yes" or "No" answer to these questions. I still believe that Nepal will evolve as a country that can rejuvenate hope in its citizens and remain a welcoming country to those who want to return to fulfill their life aspirations and live a happy and fulfilled life with a homely feeling in their hearts. I hope someday Nepal evolves as a stable country such that I and many others like me can plan their return to Nepal with more confidence than confusion in their mind.

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#### Poem

- Dr. Nityananda Khanal



#### Today's Message

As the earth's life support capacity declines, the graph of the human population inclines As Earth's safe operating limits transgress, resource exploitation progresses

It seems,

Nature's creations fall victim to capitalist extravagance Even helpless creatures scream in silence Hot atmospheric den tends to suffocate our existence

Nitrogen and phosphorus cycles accelerate quadruply
Vast tracts of land tend to turn barren & ugly
Vital life-supporting power of air & water peril in pollution
Acidifying oceans undergo the dead zone expansion

Consumerism neglects looming crisis of the living worlds
Colonial arrogance roars despite doomsday unfolds
The agri-food system dries up in the swamp of chemicals
Peoples' livelihoods wail at the mercy of invasive capitals

Will the world persist with the suicidal spoil? Will the food crops resist the harsh climate and desolate soil?

So, let's transform

Consumptive obsessions with egalitarian cultures

Greedy economies into regenerative structures

Corrupt mechanisms into judicial sovereignty

Violent warfare into gestures of harmony

Perilous insanity into enlightened humanity.

(The Nepali version of this poem was recited on NAPA Day 2024)

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## मन कवि होस्, मस्तिष्क वैज्ञानिक

#### प्रस्तुति: अमृत शर्मा

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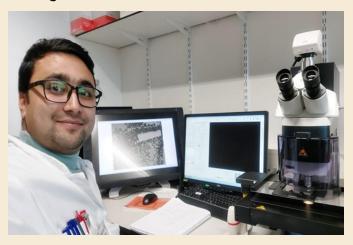
कैलाश पाण्डे हाल पश्चिम युरोपेली देश नेदरलेण्ड्समा हुनुहुन्छ। केही वर्ष अघि एरास्मस् मण्डस् छात्रवृति अन्तर्गत फ्रान्स, जर्मनी एवं फिनल्याण्डमा बाली प्रजनन् बिषयमा स्नातकोत्तर गर्नुभएका कैलाश, अहिले विश्वविख्यात वागिनेङ्गेन विश्वविद्यालयमा विद्यावारिधी गर्दै हुनुहुन्छ।

तनहुँ जिल्लामा जिन्मनुभएका उहाँको शिक्षाआरम्भ सोही सेरोफेरोमा भयो। आफ्नो हजुरबुवाको काखमा लुट्पुटिदै प्राचिन धर्मग्रन्थ (वेद, महाभारत, रामायण) को श्रवनले बालक कैलाशमा, जीवन-जगतकाप्रति विशेष कौतुहलता एवं अस्तित्ववादी प्रश्नहरू उत्पन्न भए। फलस्वरूप, सानै उमेरदेखि प्रकृति एवं समाजका विविध आयामबारे खोज गर्न कैलाशको दिनचर्या बन्यो।

पूर्वीय दर्शनमा रुचि राखुहुने उहाँको प्रारम्भिक रुझान सामाजिक विज्ञानप्रति भएको मान्नुहुन्छ। विद्यालय तह कै दौरान, एक अवसरमा, अणुबारे शैद्धान्तिक ज्ञान प्राप्त गरेपश्चात् उहाँलाई विज्ञान बिषयप्रति लगाव हुन थाल्यो। समयक्रमसंगै उच्च माध्यमिक तहको लागि कैलाश काठमाडौँको सेन्ट जिभेयेर्स पुग्नुभयो। त्यहाँको माहोलले आफुलाई विशेष प्रेरणा दिएको उहाँ स्मरण गर्नुहुन्छ।

देवकोटाले आफ्नो निबन्धसंग्रहमा भनेझैं, पथप्रदर्शक बिना जीवनको यात्रा केवल भुलभुलैया हुन्छ। कैलाश आफुलाई यसअर्थमा भाग्यशाली ठान्नुहुन्छ। आवश्यक समयमा सही मार्गनिर्देशन दिने गुरु, सधै धरातल सम्झाउने पिताजीको प्रेरणा एवं अग्रजहरूको सहयोगमा आफ्ना सपनाहरू साकार पर्ने अवसर जुरेको उहाँको अनुभव छ। उच्च माध्यमिक तह अध्ययन गर्ने क्रममा चार्ल्स डार्विनको विकासवादको शिद्धान्त एवं अनुवांशिकी विषयप्रतिको आकर्षणले स्नातक तहमा कृषि तर्फ मोडिएको उहाँ बताउनुहुन्छ।

बाली प्रजनन् बिषयमा अनुवांशिकी समेतको अध्ययन हुने जानकारी पश्चात् कैलाश रामपुर कृषि क्याम्पस पुग्नुभयो। आफ्ना सपनालाई मूर्तरूप दिन उहाँ बाली प्रजनन् एवं अनुवांशिकी सम्बन्धी गहन अध्ययनतर्फ लाग्नुभयो। रामपुरमा रहेर कृषि स्नातक तह पुरा गरेपश्चात कैलाश स्नातकोत्तर गर्न युरोप पुग्नुभयो। फिनल्याण्डस्थित हेलसिन्की विधविद्यालयमा स्नातकोत्तरको दोस्रो वर्ष अध्ययनका क्रममा आफुले डेम्लपमेन्टल बायोलोजीमा भविष्य कोर्ने निर्णय लिएको उहाँ बताउनुह्न्छ।



फोटो १. ल्याबमा कैलाश पाण्डे।

हेलसिन्कीमा आफ्ना प्रशिक्षक ब्रेट तेमुतेरी र ऐरिपेका माहोनेनबाट प्राप्त गरेको ज्ञान एवं सिपमा आश्रित रही कैलाशले विद्यावारिधीतर्फ पाइला लम्काउनुभयो। "तेमुतेरी अद्भुत थिए", कैलाश भन्नुहुन्छ, "उमेरले ६५-७० भएपनि, पढाउन निकै तेज। एक अवसरमा, निकै कम तापक्रममा रहेको प्रोटिनलाई थप अध्ययनका लागि बफर सोल्युसनमा मिश्रण गर्नुपर्ने भयो। तेमुतेरीले सोही प्रसंगमा, बफरको मात्रा कित राख्ने भन्नेबारे हिसाब गर्न लगाए। आफुले प्लस-टुमा रसायनशास्त्र पढ्दाको तापको शिद्धान्त प्रयोग गरेर निकालेको मात्रा मिल्न पुग्यो। तेमुतेरी मुस्कुराए। त्यसदिन मलाई उनको सिकाउने शैली रोचक लग्यो। हरेक सानो प्रक्रियामा विशेष कारण लुकेको आभास भयो। उक्त अनुभवपश्चात् आफुले अनुसन्धानका क्रममा गर्ने साना-साना प्रक्रियालाई रामरी

#### मन कवि...

केलाएर हेर्न प्रेरणा मिल्यो।" हाल उहाँ Genetic drivers of secondary growth in flowering plants अर्थात्, फुल-फुल्ने बिरुवामा हुने सेकेण्डरी ग्रोथ (जसले बोट कित मोटो हुने निर्धारण गर्छ) मा भूमिका खेल्ने जिन (अनुवांशिकी तत्व) को अन्वेषण गर्द हुनुहुन्छ। "नेचर लगायत् विश्व प्रतिष्ठित जोर्नलमा धेरै लेख लेखेका एवं अनुभवले खारिएका वैज्ञानिक तथा प्रध्यापकसँग एक प्रयोगशालामा रहेर काम गर्न पाउनु ठूलो अवसर हो", कैलाशको बुझाई छ। जर्मनीको बोनमा रहँदा गरेको अनुसन्धानकार्य न्यु-फाइटोलोजिस्ट जोर्नलमा प्रकाशित हुनु पनि उहाँको युरोप बसाईको सुखद क्षणमध्ये रहेको मान्नुहुन्छ।

आफ्नो अध्ययनका क्रममा सर्वाधिक खुसी भएको क्षण सम्झंदै कैलाशले भन्न्भयो, "हेलसिन्कीमा थेसिसको काम गरिरहँदा, महिनौ लगाएर प्रोमोटर-रिपोर्टर लाइन्स् बनाएँ। बिरुवाको जरामा ह्ने क्याम्बियममा विशेष भूमिका खेल्ने जिन (अनुवांशिकी तत्व) को खोजका लागि सोही जिनको समिप अर्को जिनको सिक्ट्यस् राख्रपर्ने थियो। उक्त नयाँ जिन सिक्व्यस्ले प्रकाशमा टल्किने किसिमको (फ्लोरिसेन्ट) प्रोटिन बनाउने हुँदा, जराको सानो पत्र काटी, कन्-फोकल माईक्रोस्कोपमा हेरर, कुन ठाउँमा सो जिन उजागर भयो, सहजै पत्ता लगाउन सकिन्थ्यो। कोलोनिङ्ग एवं ट्रान्स्फर्मेशनको प्रक्रिया लामो हुने भएकाले, मेरो लागि धैर्यताको परिक्षण हन गयो। अन्त्यमा, जब माईक्रोस्कोपमा जराको पत्र हेर्दा प्रोटिनको प्रकाश देखियो, तब महिनौको कामले सफलता प्राप्त गरेकोमा मन हर्षित भयो। आहिले पनि सो तस्विर कम्प्य्टरको ब्याकग्राउन्डमा राखेको छ्।"

युरोप एवं विशेषगरी डच् शिक्षा प्रणालीमा समाहित हुँदै गर्दा कैलाशलाई, यहाँको शिक्षामा पाइने जिवन्तता र दार्शनिक चेत तारिफयोग्य लाग्छ। "युरोपेलीहरू मेरीटोक्रेसी मान्छन् र संसारभरका उत्कृष्ट मानिसहरूलाई आकर्षित् गरेर आफ्नो समाजको वैज्ञानिक विकास गर्नतर्फ उद्दत छन्", उहाँ भन्नुहृन्छ।

राम्रो शिक्षाको लागि विदेश धाउनुपर्ने, के नेपालीहरूको बाध्यता हो, भन्ने प्रश्नको जवाफमा कैलाश केही समय सोचमग्न हुनुभयो। आफुले बिरुवाको विशेष तन्तुमा मात्र उजागर हुने जिन (अनुवांशिकी तत्व) को अन्वेषण गर्न हाल प्रयोग गरिरहेको लेजर क्याप्चर माइक्रो डाइसेक्सन् नामक उपकरणको प्रसङ्ग जोड्दै उहाँले भन्न्भयो, "यसको नेपाली मूल्य करिब ३ करोड पर्ने रहेछ। नेपालमा यो हालसम्म उपलब्ध छैन। यदि कसैले यस सम्बन्धी खोज कार्य गर्न चाहेमा, नेपालमा सम्भव नहने देखिन्छ। यसप्रकारका अनुसन्धानमा आउने प्राविधिक जटिलताले गर्दा क्नै बिषयमा विशेष अध्ययन गर्ने मानिस विदेशिन्पर्ने बाध्यता भएको छ। तथापी, नेपालमै बसेर रामरी पढ्न सिकने थुप्रै बिषयहरू पनि छन्। ग्रामिण समाजशास्त्र पढ्नका लागि नेपाल जस्तो अब्बल ठाउँ कुन होला? मानवशास्त्रका विविध बिषयपनि सहज ढंगले नेपालमै बसेर अध्ययन गर्न अलिक प्राविधिक बिषयको अन्सन्धानमा केही जटिलता छन्। आशा गरौँ छिटै नै हामी हाम्रे देशमा सो कार्यहरू गर्न सकौं।"

नेपालीहरुको बढ्दो विदेशमोह एवं गन्तव्य विहिन यात्राको प्रसङ्गमा कैलाश जोड्नुहुन्छ, "हाम्रो नेपाली समाज एक ठूलो साँस्कृतिक संकटबाट गुज्जिरहेको छ। धन केवल साधन नभई, साध्य कै रुपमा परिभाषित हुँदैगएको छ। अधिकांश नेपालीहरू विलाशी जीवनशैली एवं उपभोक्तावादी चेतबाट निर्देशित भएको पाईन्छ। अब समय आएको छ, हामीपनि सामाजिक एवं राष्ट्रिय तवरमा केही विशेष लक्ष्य राखेर अघि बढौँ। देखावटी भलाद्मीपनालाई तिलान्जली दिँदै एक्काइसौँ शताब्दीको वैज्ञानिक चेतले निर्देशित मानव बन्न प्रयास गरौँ।"

आफ्नो विद्यावारिधी पश्चात् नेपाल फर्केर पुर्णकालिन रूपमा बिषयगत् ज्ञान एवं सीपको प्रयोग गरि, समाज विकासमा योगदान गर्ने कैलाशको निर्दिष्ट लक्ष्य छ। युरोपको भौतिक विकास आकर्षक भएपनि उहाँलाई नेपालको साँस्कृतिक, सामाजिक एवं पारिवारिक पक्षले खिचिरहन्छ। उहाँ भन्नुहुन्छ, "मानिस कामको शिलशिलामा जता पुगेपनि, आफ्नो जन्मभूमिप्रति उत्तरदायी रहनुपर्छ। त्यसअर्थ, धरातल निबर्सि कर्मयोगी बन्ने प्रयत्न गर्नुपर्छ। देश बाहिर हुनेले दम्भ एवं घमण्ड त्याग गरि देशको बारेमा सोच्नुपर्छ भने, नेपालमा रहेका विविध पेशाकर्मीले पनि, स्वदेश फर्केर सेवा गर्न चाहने व्यक्तिहरूलाई उचित सहयोग गर्नुपर्छ।"

युरोपमा रहँदा त्यहाँका केही सामाजिक-साँस्कृतिक पक्षबारे जानकार रहेपनि, व्यापक भ्रमणमा ननिस्केकाले गहिराईमा थाहा नभएको कैलाशले बताउनुभयो।

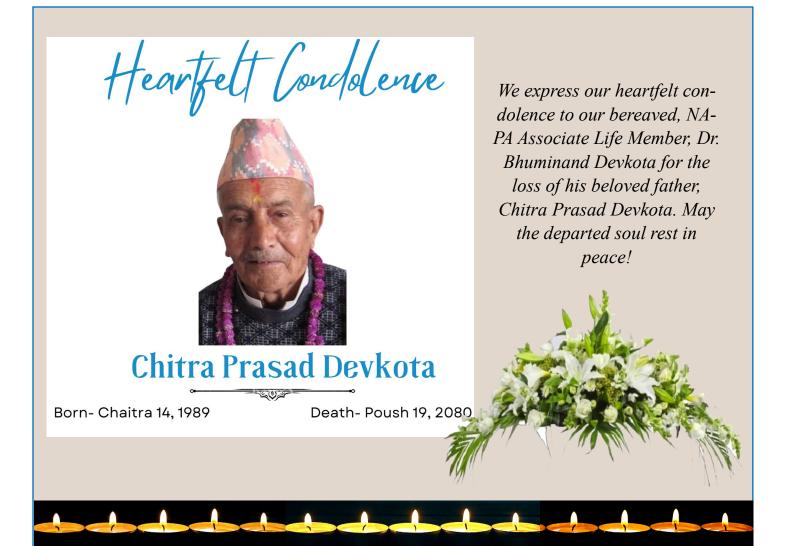
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आधिकांश समय अध्ययनमै व्यतित भएकाले घुम्ने अवसर नजुरेको उहाँको अनुभव छ। तैपनि धेरै ठाउँका मानिसहरु भेट्दा विविध साँस्कृतिक आयामको आभास भएको उहाँ मान्नुह्न्छ।

सफलता के हो भन्ने प्रश्नको जवाफमा कैलाश भन्नुहुन्छ, "मेरो लागि विकास (ग्रोथ) नै सफलता हो। केही अविरल सिकाई भईरहेको छ भने, बाहिरी तवरमा जे-जस्तो देखिएपनि त्यसलाई सफलता मान्नुपर्छ। आफ्नो कार्यमा प्रशन्नता भएमा पनि सफल भएको बुझ्नुपर्छ।" प्रेम र कर्ममा तालमेल गर्न सके जीवन सहज एवं सुन्दर हुने कैलाश मान्नुहुन्छ। इमान्दारिता नै प्रधान गुण ठान्ने उहाँ, यसलाई जिवनयापनदेखि वैज्ञानिक खोजकार्यमा समाहित गर्नुपर्ने बताउनुहुन्छ। कुराकानीको अन्त्यमा मानिस कस्तो हुनुपर्छ भन्ने प्रश्नको जवाफ फर्काउँदै उहाँले भन्नुभयो, "मानिस यस्तो होस् कि, उसको मन कविको जस्तो होस्, जसले मानवीय संवेदना राम्ररी केलाउने क्षमता राखोस्। त्यसैअनुरुप, मस्तिष्क वैज्ञानिकको जस्तो होस्, जसले तथ्यहरूको आधारमा विचार निर्माण गर्दै जीवनका जटिलताहरूबाट निकास दिलाओस्।"

कैलाशजस्तै सिप एवं ज्ञान हाँसिल गरि, स्वदेश फर्किन उद्दत युवाहरूको जमात बढेमा, नेपालमा पनि छिट्टै विकासको मुल फुट्ने आशा राख्न सिकन्छ।

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#### **कविता** - डा. भरतमान श्रेष्ठ

#### आउ दिनदिनै मनाउँ वातावरण दिवस

सगरमाथाको देश मेरो, हिमालमा हिउँ छैन कृषि प्रधान देश भन्थे, बारीमा छर्ने बीउ छैन लाग्यो कि सराप सतीको हेर, किन जुनेलो फल्दैन न घारमा मौरी, न गोठमा गौरी, भकारीमा धान छैन। गरेमा के हुन्न नेपालमा हाम्रो, तीन बाली वर्षमा मकै र भटमास, कोदो र फापर सँगसँगै पाटामा अनाजमा आफै बलिया भए, कसैले हेप्दैन अक्कल बिना, नक्कलले खुर्सानी नि फल्दैन।

जोगाउन सकेनन् कसैले माटो, कंकृटको जंगल भो विदेश बाटो भो जुझारु युवाको, गैरी खेत बाँझै भो नैतिकताको खडेरी किसानीमा नि, नाफा नै कमाउने बारीमा तिम्ले हालेको त्यो वीषले हामी नै हो रोगाउने।

जैविक मलले माटो सजिव, जल जिमन शुद्ध स्वादिला तरकारी फलफूल, गाईवस्तु तन्दुरस्त अर्गानिक भोजन, निरोगी शरीर स्वस्थ र चुस्त साकार हुन्छ, बाचौं र बचाऔं हाम्रो मूल मन्त्र।

हाम्ले पहिल्यै जानेका गरौं, विदेशी चाहिन्न रैथाने प्रजाति छन् झन राम्रा, विकासे चाहिन्न असुरो, पाती, निमका पातले रोगिकरा सम्हारी बाबियो डोरी, पाटका दाम्लो, निगाले भकारी। उत्सर्जन हुन्न हरितग्यास वातावरण जोगिनेछ तिमीले हाँसे हिमाल हाँस्छ, डाँफे, मुनाल नाच्नेछ मनन गरौँ यी गहन कुरा भोलिका पिँढीलाई सम्झेर एक दिन होइन, दिन दिनै मनाउँ वातावरण दिवस।

(सन्दर्भ: विश्व वातावरण दिवस, जुन ५, २०२३)

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