

THE OFFICIAL NEWSLETTER OF  
APFNet ALUMNI NETWORK

# APFNet ALUMNI NEWSLETTER



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# Wish You a Wonderful Spring Season!

## *Spring has Sprung*

As we enter 2022, we would like to wish you and your family good health, happiness, and success, along with our heartfelt gratitude for your efforts and contributions to our network. We also hope that our network will be more successful in encouraging alumni engagement, connection, and participation, as well as in developing a strong network of research and experience sharing in forestry and sustainable forest management.

Greetings from your  
APFNet Alumni Network Family

# Wish You a Wonderful Spring Season!



I would like to say thanks to APFNet Alumni Network. The newsletter is a great platform where alumni can share our achievements and be in touch with our peers. My dear APFNet alumni, I wish you a very happy 2022. The last years were tough for us, but we improved knowledge and honed our skills. So, I hope this year will be different with good news.



There are three wishes I want to make for APFNet Alumni Network in 2022. Firstly, as the COVID-19 is still going on, I hope all of you and your family are safe and sound. Secondly, wherever you guys are, I'm sure all of you might be facing some challenges. I wish all could overcome those challenges and barriers with strength and wisdom. Finally, I wish to meet you guys at any APFNet Alumni Network activities. I'm sure there are many stories to share.



It is a great opportunity to contribute to APFNet Alumni Network Newsletter which is a great platform of sharing experience and updates on sustainable forestry management. In the year 2022, I wish the alumni network to obtain more success in facilitating exchanges and connections in the forestry sector.

# Enhance the Role of Forestry at COP 26



More than 140 world leaders have been dedicated to acting jointly to halt and reverse forest loss and land degradation by 2030 through the Glasgow Leaders' Declaration on Forests and Land Use — a major pledge in the 26th Conference of Parties (COP26) of the United Nations Climate Change Conference. Transformative actions were called for through shared efforts to conserve forests, promote sustainable trade and development policies, reduce human vulnerabilities, redesign agricultural policies, and increase financial incentives.

The leaders agreed on working collectively to halt and reverse forest loss and land degradation by 2030 while delivering sustainable development and promoting an inclusive rural transformation.

The agreement will focus on the following points:

- Conserve forests and other terrestrial ecosystems and accelerate their restoration.
- Facilitate trade and development policies, internationally and domestically, that promote sustainable development, and sustainable commodity production and consumption, that work to economies' mutual benefit, and that do not drive deforestation and land degradation.
- Reduce vulnerability, build resilience and enhance rural livelihoods, including through empowering communities, the development of profitable, sustainable agriculture, and recognition of the multiple values of forests, while recognizing the rights of Indigenous Peoples, as well as local communities, following relevant national legislation and international instruments, as appropriate.
- Implement and, if necessary, redesign agricultural policies and programs to incentivize sustainable agriculture, promote food security, and benefit the environment.

- Reaffirm international financial commitments and significantly increase finance and investment from a wide variety of public and private sources, while also improving its effectiveness and accessibility, to enable sustainable agriculture, sustainable forest management, forest conservation and restoration, and support for Indigenous Peoples and local communities;
- Facilitate the alignment of financial flows with international goals to reverse forest loss and degradation, while ensuring robust policies and systems are in place to accelerate the transition to an economy that is resilient and advances forest, sustainable land use, biodiversity, and climate goals.

The financial pledges totaling \$19.2 billion will be spent to help protect and restore forests globally. And it contains \$1.7 billion to support indigenous peoples and local communities to exercise decision-making in climate change. However, it's worth noting that several economies with high rates of forest loss have not yet signed the Glasgow Declaration, including Cambodia, Laos, and India.

APFNet also contributes a fair share in climate change adaptation and mitigation initiatives. One of the organization's goals is to help enhance forest carbon stocks and improve forest quality and productivity by promoting the rehabilitation of existing but degraded forests. In addition, many demonstration projects implemented and to be rolled out were related with forest-based emissions, forest carbon storage potential, carbon measurements, carbon mapping, and useful data for its member economies' carbon reporting and monitoring.



# Alumni Spotlight



"To begin with, I'd like to express my gratitude to APFNet for providing me with such a fantastic chance to pursue my master's degree at Nanjing Forestry University in 2015 through the APFNet Scholarship Program." My name is Phomsanh Chantharangstone, and I'm currently employed as a lecturer at the National University of Laos' Faculty of Forest Science."

**Phomsanh Chantharangstone,  
Laos APFNet Alumnus 2015, NFU**

The year after my master's graduation in 2017, I started my Ph.D. study at Kunming University of Science and Technology, China. This was a great chance for me to further conduct my research in geotourism, which is a slight diversion from my master's major in forestry, but I can confidently affirm that my experiences accumulated in NFU under ASP is completely useful in my higher level of studies. The National Geographic Society defines geotourism as "tourism that sustains or enhances the geographical character of a place—its environment, culture, aesthetics, heritage, and the well-being of its residents." Conserving geological heritage is indispensable because it does not only save natural resources and ensures sustainability, but also minimizes ecological degradation and destruction.

I went back to my home economy in 2019 and just as everybody else restrained from traveling back to my university due to the pandemic. I resorted to writing papers at the comfort of my home and hopefully could earn my doctorate degree in 2022. My dissertation focuses on the geotourism comparison of Yunnan limestone forest (China) and The Phuphaman limestone (Laos). It assesses the similarities and differences on geotourism between these two tourist destinations. Drawing on China's lessons, I hope to distill from my research recommendations of suitable geotourism strategies in Laos. I wish to make a difference through research to improve people's awareness of smart tourism and geotourism for the sustainable management of environment and its resources.

# Research Corner

**Environment is extremely significant in every economy for its populations' existence. Today's world is experiencing warmer temperatures which resulted in climate change and extreme weather. Several papers have attributed the changes to enormous contribution of anthropogenic activities. In terms of land use, agriculture is one of the major contributors to global warming. Carbon dioxide is the major greenhouse gas emitted into the atmosphere.**



Mr. Thongsouk Sompouviset is an APFNet alumni from Laos. After receiving his master's degree from Northwest A&F University (NWAUFU) in 2021, he got an offer for continuing to pursue a Ph.D. degree at NWAUFU. His major is Plant Nutrition and is now studying at the College of Natural Resources and Environment, NWAUFU. Regarding his ongoing academic career, he said “I am interested in environmental science, specifically the relationship between global warming and agriculture. My current study has provided me with the opportunity to meet excellent climate change researchers and professors, and allowed me to embark on a research journey on climate change and global warming. I believe it will be an astonishing experience that will provide me with vital professional skills that will enable me to adapt to my home economy in the future.”

Mr. Thongsouk is researching how agriculture affects greenhouse gas emissions in apple orchards. The research was carried out at NWAUFU's Baishui Apple Experimental Site in Baishui County, Weinan District, Shaanxi Province, China. Started in December 2021, Mr Thongsouk's research examines the use of various fertilizers in the apple-growing process and investigates the numerous factors that influence greenhouse gas emissions. The values of N<sub>2</sub>O, CO<sub>2</sub>, CH<sub>4</sub>, SOC, NO<sub>3</sub>, and NH<sub>4</sub> emitted daily were measured using air and soil samples. Sampling done once a week were meticulously measured and can be used as a reference for journal articles, dissertations, and other relevant information on global warming caused by agriculture in the Asia-Pacific region.

**Mr. Thongsouk Sompouviset  
Ph.D. Student at NWAUFU**

“It is obvious for all scientists that global warming is very imperative because every economy in the world is dealing with this challenge. Global temperatures are rising every year and their effects are causing changes in ecosystems, forests, and wildlife, and contribute to natural disasters”. Mr. Thongsouk mentioned, “Agriculture is a big contributor to global warming, and is still the primary industry in Laos. That is why I chose this topic and believe that this research will provide me with valuable experience and expertise in this field. It is vital to both me and my economy.”



# Research Corner

**Among four alumni who graduated from Nanjing Forestry University (NFU) in the summer of 2021, Suwash Kunwar - a forest official from Nepal, stood out with his outstanding research achievements of two papers published in the year of graduation. Obtaining this admirable success, he is thankful for ASP to offer him a great opportunity to acquire research-based studies that would help him to flourish in his academic career.**



**Suwash Kunwar**  
**APFNet Alumnus 2019**  
**Nanjing Forestry University**

When APFNet Alumni Network interviewed Mr. Suwash Kunwar, he is delighted to introduce his research, “Research is the principle of all innovation and exploration. With continuous investigation, we can establish advanced concepts for this world. Forestry has developed into the most significant part of the global carbon cycle that shares 70-90 percent of terrestrial aboveground and belowground biomass. My research chiefly focuses on the association between forest diversity and ecosystem functioning to achieve ecological conservation, sustainable forest management, and climate change mitigation through increasing carbon storage.”

As an active member of the Forest Ecology and Management Lab under the supervision of Professor Dr. Arshad Ali at NFU, Mr. Suwash Kunwar lay out the objectives for his research to evaluate the effects of diversity facets on forest function as well as the elevational gradients in the tropical forests of Nepal. He further explained the methodologies used in his lab work: “I attempted to examine the underlying ecological mechanisms to define biodiversity and forest functioning relationships. Consequently, I put forward some practical suggestions for the better management and conservation of these forests based on the outcomes of my empirical study”.

Although the COVID-19 hampered him from conducting his research smoothly in the fieldwork as well as in the laboratory, Suwash Kunwar managed to have his graduation on time with three research papers, with two published (IF>3) and one under review in a Q1 factor journal. Suwash Kunwar thinks high regard of ASP due to its role in giving students a research platform from where they can groom themselves for becoming successful researchers in the future.

Please find out more information on his publications here:

1. Kunwar, S., Wang, L.-Q., Chaudhary, R., Joshi, P. R., & Ali, A. 2021. Evolutionary diversity and species richness predict aboveground biomass better than tree size variation in local-scale tropical forest types of Nepal. *Forest Ecology and Management*, 490: 119146.

<https://doi.org/10.1016/j.foreco.2021.119146>

2. Kunwar, S., Wang, L. Q., Chaudhary, R., Joshi, P. R., & Ali, A. 2021. Stand density of co-existing species regulates above-ground biomass along a local-scale elevational gradient in tropical forests. *Applied Vegetation Science*, 24(2): e12577.

<https://doi.org/10.1111/avsc.12577>

# APFNet Alumni Winning Awards at 2021 International Academic Forum on Green, Low- Carbon and Sustainable Development

The 2021 International Academic Forum on Green, Low-Carbon and Sustainable Development was held virtually on November 4-5, 2021. The event was co-hosted by Nanjing Forestry University and the University of British Columbia. The forum was broadcast on several online platforms, attracting more than 1,200 international students from 30 different economies. Among the participants were the current APFNet students and alumni, among which four presented their research works during the forum. The event initiated a meaningful discussion on the role of wood materials and forestry in achieving a low-carbon and environmentally friendly economy to address sustainable forest management and climate change adaptation in the 21st century.

At the end of the forum, two APFNet students and alumnus from the economies of Malaysia and Myanmar won the third place in their respective research about aboveground biomass estimation and forest protection. The academic forum brought together experts, researchers, and students to exchange ideas and experiences to contribute to the attainment of sustainable forest management.

The screenshot displays a virtual conference interface. The main stage features a dark blue background with a stylized building and a network of green and blue spheres connected by lines. On the left, the Nanjing Forestry University logo and name are visible. The central text reads: "2021 International Academic Forum on Green, Low-Carbon and Sustainable Development". Below this, it states "NOVEMBER 4-5, 2021 NANJING, CHINA". Further down, it mentions "Sponsored and Organized by College of International Education, Nanjing Forestry University, China" and "Faculty of Forestry, University of British Columbia, Canada". A "Supported by" section includes logos for Nanjing Forestry University, the International Education College, and the Forestry sector. On the right side, a vertical list of participants is shown, including a sunflower icon, a screen shared by Nanjing Forestry University, and several individuals: H Xiao, John Innes, PhamThiTrang, PhytoSan(6319207), and Saw Maung Theim (6319214). A blue circle with the number 14 is also present.



## Highlights of APFNet Alumni Research

- The spread of COVID-19 in Malaysia has disrupted economic activities that resulted in the closure of many workplaces and people losing livelihoods.
- Forest offense cases were 54 in 2018 and increased to 62 cases in 2021.
- In 2018, the total arrests (person) were 11 cases and during the pandemic were 12 cases(2020) and 8 cases (2021), respectively.
- The forest charges collection has declined from 1.4 million Malaysia Ringgit to 779 thousand Malaysian Ringgit during the pandemic. The
- pandemic showed no significant difference in forest offense cases in Terengganu State Forestry Department, Malaysia.



**Nor Halizah Binti Abd Halim (Malaysia)**

**Third prize**

**Topic:** *Impacts of COVID-19 on Forest Offence Cases: Challenges and Strategies*



**Phyto Wai (Myanmar)**

**Third prize**

**Topic:** *Estimating Aboveground Biomass in Two Different Forest Types of Myanmar from Sentinel-2 data with Machine Learning Algorithms.*

- Global climate change is the major environmental problem globally, and the central consensus is evolved to mitigate and reduce climate change effects.
- The use of spatial information on the distribution of aboveground biomass in tropical forests is fundamental for mitigation and in maintaining carbon stock.
- It is still a challenge for most economies like Myanmar to ensure high-quality and accurate reporting on forest carbon stock.
- Remote-based aboveground biomass could provide useful information towards sustainable forest management and the attainment of SDG 15 for Myanmar.



**Lin Htike (Myanmar)**

**Topic:** *Biochar: Current Status and Future Potential for Environmental Management*

- Mitigating greenhouse gas emissions and ensuring adequate global food supplies represent two of the last decade's most difficult challenges.
- Biochar could improve the physical and chemical properties of soil. Consecutive dosage treatment using 1g/L Biochar dosage is effective for the removal of phenol and tannic acid from an aqueous solution.
- Despite the potential of Biochar in reducing trace elements in plants and increasing plant growth, there is still insufficient empirical evidence to support Biochar's amendment to the soil in mitigating climate change.