

MEGA*florestais*
USA 2023



MegaFlorestais 2023

Meeting Synopsis

Transforming Forest Management
Delivering Climate and Conservation Solutions

Lake Tahoe, California | June 26-30, 2023

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A scenic landscape featuring a calm lake with a white sailboat, rocky shores, and snow-capped mountains under a blue sky. The water is a vibrant turquoise color, and the sky is a clear, deep blue. The overall scene is peaceful and serene.

INTRODUCTION

Since 2006, forest agency leaders from the most forested countries in the world have been gathering for annual meetings under the MegaFlorestais banner. Previous meetings have been hosted by the heads of forest agencies in Brazil, Cameroon, Canada, China, Indonesia, Mexico, Peru, Russia, Sweden, and the United States. This group of top forest agency leadership manages more than 50 percent of the world's forests and is uniquely positioned to influence and accelerate change within the forestry sector.

MegaFlorestais provides a platform for forest agency leaders to reflect on the sector's evolution, share knowledge and achievements, and identify challenges and opportunities. These discussions are presented by agency leaders themselves and top forestry experts from the public, private, and civil society sectors.

The 2023 meeting was hosted by Chief Randy Moore and Associate Chief Angela Coleman of the United States Forest Service (USFS); MegaFlorestais Co-Chairs Sally Collins, former Associate Chief of the USFS, and Herman Sundqvist, Director General of the Swedish Forest Agency; and Solange Bandiaky-Badji, RRI Coordinator.

The meeting's key objectives were to:

1. Learn about forest management programs, innovations, and strategies directly from the leaders who implement them;
2. Share major trends in forest policy, management, and markets;
3. Strengthen relationships between agency leaders and create new opportunities for international cooperation;
4. Expand the collective knowledge and technical expertise of forest leadership; and
5. Promote strategic and innovative thinking.

We also welcomed resource advisors from Canada, India, Kenya, Peru, the Philippines, and the United States, in addition to senior leaders from the USFS Washington, DC office and the Pacific Southwest Region and the Yurok Confederated Tribe of California. The meeting was held under the Chatham House Rule to ensure all participants could speak freely without pressure of politics.

The Lake Tahoe Basin served as a fitting backdrop for this meeting given the main topic of discussion: climate impacts and solutions. Megafires in California continue to grow in size, duration, and intensity due to climate change, development, decades of fire suppression, the banning of cultural burnings by Native American communities, and other factors. The meeting included a field trip to the Eldorado National Forest area where members toured several sites managed by USFS to understand the context of megafires and hear from USFS staff and partners about their challenges and preparations for the future.

Throughout the meeting's four days, country delegates reflected on multiple themes related to their work, such as forest resiliency, emergency protocols, policies, social forestry, international markets, and multi-sector partnerships. The sessions were curated to bring about a wide range of experiences, from the boreal forests of the north to the dense and humid rainforests of the tropics.

An aerial photograph of a river with clear, turquoise water. The riverbed is covered with numerous smooth, rounded rocks of various sizes. A small white boat is visible in the lower right quadrant of the river. The surrounding landscape includes trees with green and yellow foliage, and a sandy bank on the left. A white rectangular box is overlaid on the upper portion of the image, containing the word "SESSIONS" in a bold, green, sans-serif font.

SESSIONS

DAY 1 | Welcome session

The 14th MegaFlorestais meeting started with a warm welcome to Lake Tahoe by **Angela Coleman**, Associate Chief of USFS and co-host, who greeted delegates and resource advisors from 11 countries, including representatives from China who attended virtually.

Jen Eberlien, regional forester for USFS's Pacific Southwest Region, recognized the meeting location as being within the traditional territories of the Washoe tribe. Her statement acknowledged the harmful history of the United States' relations with tribal nations and the Forest Service's commitment to the recognition and engagement of tribal nations in the conservation of their lands.

On behalf of the Forest Service, I'd like to acknowledge that the land on which we gather to discuss the future of forest stewardship is the ancestral territory of the Washoe people. Washoe translates to 'the people from here.' Washoe have always been a part of the land and environment, so every aspect of their lives is influenced by the land. They have and continue to be the original stewards of this special landscape.

Lake Tahoe is the center of the Washoe world, both geographically and spiritually. We acknowledge our complicated and tragic past in the removal of Indigenous Peoples from what we know as our National Forests. We, as an agency, strive to be better, to honor the original Peoples of California, and to build lasting relationships with our tribal communities as we move into our shared future. The Washoe see every aspect of the environment as sentient beings that are deserving of respect and cooperation if humans are to survive. May our brief time in connection with one another as leaders be rooted in truth and integrity. And may our work reflect the needs of those future generations of plant, animal, and human communities.

Jen Eberlien, USFS Regional Forester for the Pacific Southwest Region

Herman Sundqvist, MegaFlorestais co-chair and Director General of the Swedish Forest Agency, set the tone for the meeting, explaining the Chatham House Rule to create an environment of transparency. He also shared the objectives of MegaFlorestais:

- 1) Address the most pressing issues facing the forestry sector and encourage learning and innovation;
- 2) Promote new practices and policies for strengthening forest governance and forest agencies; and
- 3) Foster strong relationships and empower forest leaders to become agents of change within their agencies and across ministries.

Arvind Khare, resource advisor and MegaFlorestais co-founder, explained the creation of MegaFlorestais in 2005 as a space for forest agency leaders to freely discuss the challenges they faced and work together to find solutions.

Co-chair **Sally Collins** reviewed the minutes of previous MegaFlorestais meetings hosted by forest agencies in 11 countries. Both co-chairs also discussed other MegaFlorestais activities, including the Next Generation Leaders workshop, study tours, and papers reviewing changes in the forest sector.

DAY 2 | *Forging a global community to address climate challenges and advance sustainable forest management*

The first day of discussions focused on current challenges for forest management. Within Canada, the United States, and other countries around the world, these include the increase in scale and damage of wildfires. Panels featured experts from all sectors of society developing strategies to implement climate solutions, conservation finance, cultural practices, and address other key topics within the climate sector.

Randy Moore, USFS Chief, presented the week's key themes and explained why California was chosen as the location for this year's MegaFlorestais meeting. California is exceptionally vulnerable to climate change, especially the threat of wildfires which continue to grow in scale and impact and are a major threat to communities. Chief Moore experienced these challenges firsthand as a regional forester in California. Chief Moore emphasized the need for forests to be valued for their full range of contributions to social, environmental, and economic stability. Their many benefits include water supply, wood products, recreation, clean air, wildlife habitats, and carbon storage.

He shared that these values need stronger consideration compared to the continued hyper-emphasis on timber production that has been traditionally placed on forests in the United States. National forests in the United States provide more than 370,000 jobs and contribute US\$35 billion to the country's Gross Domestic Product. Chief Moore also emphasized the need to honor the knowledge of Indigenous Peoples and understand the disproportionate impact of climate change on vulnerable and underserved communities. New challenges demand new ways of working and new partnerships, including ones forged by MegaFlorestais leaders. These times have been chaotic, but also offer opportunities.

After Chief Moore's remarks, participants highlighted the following key points in a group discussion:



Chief Randy Moore takes a moment during the field trip to speak with USFS crew carrying out a prescribed burning.

We have a bottom-up approach—not arriving with a plan but asking the communities what they want. We must sit around the table, not at the head of the table. We're learning how to engage with the public. We're finding that we need a different set of skills than what we currently have. We are looking for people that know how to bring communities together and share decision spaces.

Randy Moore, *United States Forest Service Chief*

Wildfires

- Effective wildfire management requires alternatives to weather stations that capture local weather patterns. They should incorporate the knowledge of the people living in the affected regions who understand unique local conditions. Flexibility and willingness to learn must be embraced.
- The forests of the Congo Basin in Africa are naturally dense and humid but are drying due to the impact of climate change. Its inhabitants have not yet had to contend with forest fires but will need to adapt. MegaFlorestais provides an opportunity to learn best practices and forge partnerships.
- Fires can be a useful friend or a detrimental foe depending on the situation. Burning plans must consider regional impacts when communities are involved.
- The smoke from this summer's wildfires in Canada reached as far as the east coast in the United States and San Francisco, receiving international attention by political leaders and underscores the urgency of forest management for the health of the general population. Forestry knowledge must be better communicated to help people reimagine the outdoors and to demonstrate the impacts and benefits of forests on people's lives.
- Management of situations like isolated fires, which communities may be unequipped to independently handle, must be communicated to local agencies and elected officials. The Incident Command System (ICS) in the United States is an emergency management protocol used to address extended emergencies like wildfires and other disasters; it is also applicable to other types of crises. During the discussion, there was an interest among participants to learn more about ICS.

Working with Indigenous Peoples and local communities

- Yurok tribal conversations about land, nature, and people observe current paradigm shifts and provide forecasts for the next 100 years. The science-based skill and agency practices of the United States Department of Agriculture (USDA) should be studied in addition to how Indigenous Peoples and tribes can support USFS initiatives (and vice versa). When addressing the government's relationship with Indigenous Peoples, the first step is to right past wrongs and injustices. Tribal members should be consulted and entrusted with the effective management of their lands. Historical contexts and means to effect change (e.g., legislation, policy) must be considered, including the education of Forest Service staff on treaty rights and responsibilities to uphold them.
- Forests around the world are not empty spaces; they are inhabited by communities whom we need to engage with before making decisions. What is needed is a Forest Service that can foster relationships and understand human needs, not just provide forestry expertise. Considering that 85 percent of forest agency staff around the world are still professional foresters, we must provide them with training and the capability to work with a broad range of people with diverse backgrounds.

Panel 1 | *Managing wildfires and creating forest resilience*

The speakers in the first panel delved into the science, policies, and customary practices that have shaped California's landscapes over centuries. The presentations initiated a broader dialogue on shifts in forest management to reduce the impacts of wildfires on communities, the environment, the economy, and the climate.

Paul Hessburg, Senior Research Ecologist for USFS, has studied the science behind wildfires for decades, specializing in landscape restoration and resilience. Paul explained how decades of fire suppression policies, timber harvesting, the introduction of grazing, and climate change itself have increased tree density, resulting in larger fires. He demonstrated the efficiency of traditional burnings by Indigenous communities, and the impact of thinning and prescribed burning on reducing forest fuel, which over time, decreases the spread and intensity of wildfires, human and wildlife losses, and the severity of wildfire smoke on communities.

Jennifer Eberlien, Regional Forester for the United States Pacific Southwest Region, oversees 20 million acres of national forests with a team of 5,000 people. Jennifer spoke on the diversity of California's population and the need for partnerships across jurisdictional boundaries to guide their work. The agency strives to honor and collaborate with tribal nations and Native Peoples who have historically stewarded these lands. To fight the threats of megafires and climate change, the USFS developed a 10-year Wildfire Crisis Strategy. Eberlien acknowledged that more prescribed fire—not less—is needed in some landscapes as this practice was historically used by Indigenous Peoples to support healthy forests for shelter, food, water, and medicine. The current challenge is reducing fuel loads and forest density in an ecologically and economically sensible manner. This also supports the local timber industry by making available some economically viable wood products. However, challenges remain on how to create more economic value from the vast amounts of low value woody biomass that is produced during forest thinning projects. This could offset the costs of forest thinning and create new economic opportunities within communities.

Keynote Speech | *Wade Crowfoot, Secretary of Natural Resources for California*

Secretary Wade Crowfoot centered his presentation on California initiatives that are addressing social, environmental, and climate challenges. California is on the frontline of climate impacts, facing droughts, floods, and intense wildfires that lead to air pollution, evacuations, and the loss of entire towns. These challenges have required thoughtful collaboration with civil society, American Indian tribes, and government agencies. Since 2021, California has made an unprecedented US\$2.7 billion three-year investment in wildfire resilience, launching over 1,200 fuel reduction, forest health, defensible space, and home hardening projects throughout the state. Its 2022 investment in wildfire resilience can dramatically limit damage and devastation, and the Governor's wildfire taskforce is helping statewide leaders and groups build sustained regional plans to maintain this momentum in the coming years. The state has also committed to early, often, and meaningful consultation with American Indian tribes in all aspects of natural resource management. This year, it committed US\$70 million through the newly created Tribal Nature-Based Solutions Grant Program to support tribal priorities that advance climate and biodiversity goals, including the purchase and return of ancestral lands and co-management initiatives.

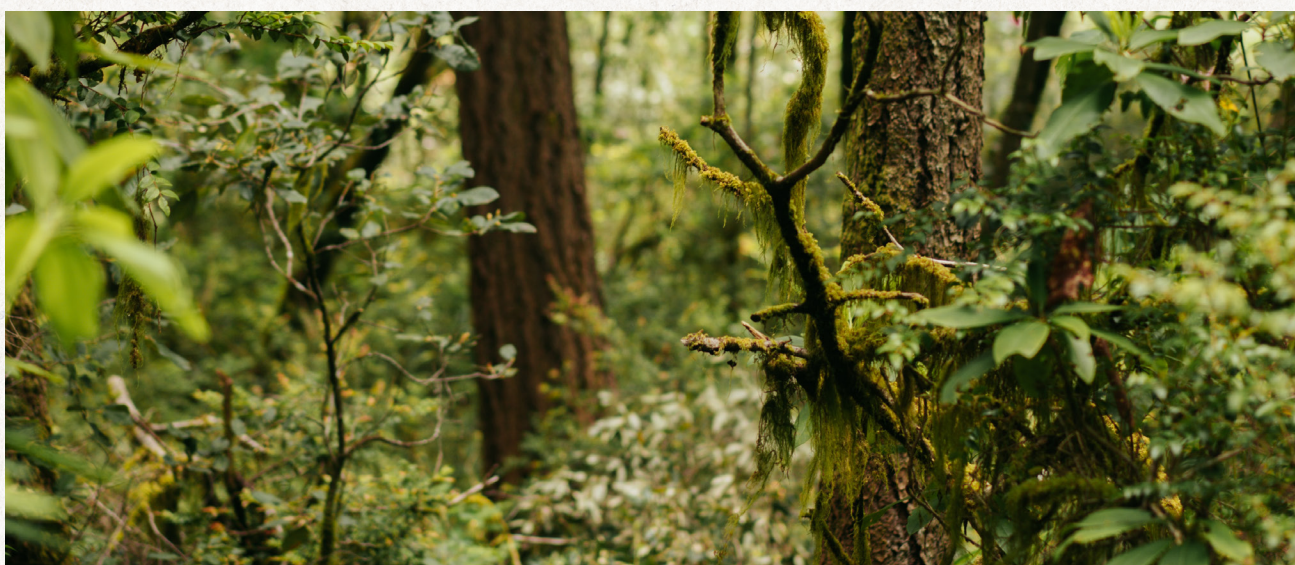
Panel 2 | Conservation finance

International climate and biodiversity goals have provided immense opportunities to advance funding for ecosystem management. Investments from the private and public sectors are now being redirected toward nature-based solutions related to forest conservation and management. This panel provided an overview of the different modalities, terminology, best practices, and case studies involving climate and conservation finance.

Andrea Johnson, Program Officer for the Climate and Land Use Alliance (CLUA), provided an overview of the opportunities and risks of carbon markets, including REDD+ for avoided deforestation, voluntary markets (VCM), compliance markets, and high-integrity carbon credits. Andrea reinforced the need to respect the rights of Indigenous Peoples and local communities in these processes. One of the greatest opportunities lies in using jurisdictional approaches, including investments in monitoring and better forest governance processes in coordination with rightsholders who are involved in negotiations for benefit-sharing agreements. Risks to this include allowing a “business-as-usual” approach to fossil fuel emissions, their impacts, and conflict with Indigenous and local communities due to poor project management and implementation.

Javier Kinney, member and representative of the Yurok Tribe in northern California, shared how through its carbon markets program, the Yurok tribe has repurchased and restored its traditional lands. The tribe has also invested in various community benefits by purchasing a mill, a golf course, an ecotourism company, and investing in other businesses. The Yurok develop 100-year forecasts for the social and economic well-being of the tribe and think in innovative ways while also respecting the traditional knowledge of the elders who have managed the land for decades. The Yurok have also been engaged in developing business practices in new trades as well as managing new agreements with government agencies.

Mac Cloyes is Chief of Staff at Blue Forest, a nonprofit that manages investor capital in a Forest Resilience Bond (FRB), which funds restoration projects on private and public lands. Blue Forest has partnered with the USFS on forest restoration and management needed to avoid catastrophic wildfires. The injection of private funding and multisector partnerships has increased the pace and scale of forest management projects in the North Yuba Forest in northern California. They are also working in other places across the country and internationally (a new project is being explored with the USFS International Programs Office).



DAY 3 | *Field trip*

One of the highlights of the meeting was a day-long field trip to the Eldorado National Forest and Lake Tahoe Basin. Participants learned strategies from USFS leaders who are at the frontlines of forest protection, including fire emergency management and long-term resiliency techniques, and how to build a strong and supportive agency for their teams.

Stop 1 | *Echo Summit*

At the first stop, **Rita Mustatia**, Forest Silviculturist for Tahoe National Forest, summarized the impact of the Angora and Caldor fires on the Tahoe region, including social and economic damages to the local population. Rita noted the forest service work with public education and collaboration with communities. **Jeff Marsolais**, Associate Deputy Chief for Fire, State, Private, and Tribal Forestry, recounted what it was like to live through catastrophic fires and how to manage resources to avoid the worst impacts.

Stop 2 | *Sierra at Tahoe Ski Resort*

At this stop, **Joe Stout**, Forest Supervisor of the Eldorado National Forest, and **Scot Rogers**, Placerville District Ranger, spoke on the importance of public and private partnerships and their collaboration with Sierra at Tahoe in post-fire recovery efforts in the Eldorado National Forest. **John Rice**, General Manager of Sierra at Tahoe, recounted how the community came together to make the ski resort operational post-fire, organizing fundraisers, supporting employees who lost their jobs, helping avoid major job loss, and planting trees.

Stop 3 | *Meyers neighborhood*

The next stop was the Meyers neighborhood located at the edge of the forest. **Erick Walker**, Forest Supervisor of the Lake Tahoe Basin Management Unit, showed participants the location where the fire came extremely close to homes, and illustrated the difference between areas that had and had not gone through fuel removal, which has a tremendous impact on protecting houses and infrastructure. Erick also talked about the challenges of coordinating fire prevention efforts, such as tree removal with non-forest entities including municipalities and electric companies.

Stop 4 | *Meyers Fire Station*

At the Meyers Fire Station, **Dionne Uzes**, District Ranger at the Pacific District for the District Eldorado National Forest, talked about the fire response during the Caldor fire and how the forest service engaged with the community while also dealing with evacuations in their own homes and towns. Dionne's experience sparked a conversation on the role of Forest Service staff beyond forest management and the importance of investing in people, both in the organization and the community. It was an eye-opening personal reflection on our vulnerability to climate change and extreme weather patterns.

Stop 5 | *Prescribed burning site*

On the day of the field trip, a USFS crew was implementing a small, prescribed burning to remove fuel that they had started to burn in the morning and were putting out at the end of the day. This was a great opportunity to witness the Forest Service team in action and we were fortunate to be able to speak to the crew who answered questions about the project.

DAY 4 | *Global perspectives on trends and opportunities regarding markets, international policies, land tenure, equity, and social forestry*

Don Roberts, CEO of Nawitka Capital Advisors and expert in forest products and sustainability markets, opened Day 4 of the meeting with a feature presentation. Don touched on topics of interest to forest managers and the state of the global market and innovation for forest products. He shared how the woodchip market reached an all-time high in 2022 due to rising demands from China, and how wood pellets also reached an all-time high in the same year due to an increased demand for biomass. It is likely that this increased demand is also due to the ongoing war in Ukraine which is causing an energy crisis in Western Europe due to Russian sanctions.

Roberts concluded his presentation by sharing opportunities for carbon neutrality with Biogenic Carbon Capture (Bio-DAC) in pulp and paper mills that can benefit net-zero and Environmental, Social and Governance (ESG) goals. Bio-DAC projects hope to increase and diversify revenue and enter voluntary carbon markets, promising a higher permeance and verifiability rate than nature-based solution projects for countries with the right geology. This could be a game changer for the forestry sector if countries adequately prepare.

Steven Koehn is the Director of Cooperative Forestry for the USDA Forest Service State, Private, and Tribal Forestry. Steve, who is responsible for wood innovation in the USFS, presented innovations and opportunities in forest product markets including new markets beyond traditional timber, although he noted that new mills are advancing to consider very small (six to eight inches in diameter) logs. New mass timber technology using Cross Laminated Timber (CLT) allows smaller wood to be used in larger, taller buildings. Over 1,753 projects in the United States have used mass timber. Furthermore, new markets are emerging for biofuels and biomass, which can help to cost-effectively utilize large piles of fuel in forests that are typically disposed of by burning. Biomass power and biochar are other possible destinations for fuel on the forest floor and can be used for heating, cooling and combined heat and power systems, and carbon sequestration, among other things. The USFS is currently giving US\$43 million in community wood innovation and energy grants, with a large percentage going to underserved communities in the US.

Herman Sundqvist, Director General of the Swedish Forest Agency, offered reflections after the first two presentations on:

Public perception

- We need to change society's perception of forestry. The current perception of biomass is very poor in Europe, and CO2 removal can change how society views forestry and its substitution of coal in the energy transition to renewables.

Bioenergy and investors

- Use "financial storytelling" for investors by building a narrative around forest health and demonstrating the why behind the numbers (this why could be to reduce climate change/CO2 removal; reduce fire risk; ensure sustainable water supply).
- Study innovation from carbon leaders in various continents, such as i) Europe, especially Scandinavian countries like Finland and Sweden; ii) Brazil; iii) North America; and iv) Asia. For example, in Scandinavia, investors are now accepting more risk to invest in forest products at local and regional levels.

- Delivery and transportation represent 75–80 percent of the cost of wood globally. While we are getting good at geospatial data, governments are not yet good at sharing information; governments should make information available to investors who should not make decisions without it.
- Pulp and paper have gone down in demand, but can come back with new revenue streams. Big market players are looking into how certain power plants are using low quality wood pellets. At the same time, we must do better than biomass; burning materials should not be our best option.

Product innovation

- The expansion of Cross Laminated Timber (CLT) is encouraging on the supply side although it is still in early market development. CLT provides the benefit of carbon capture and long-term storage, but most of its emissions come from the transportation of fuel. It can also use small diameter dimensional timber, accelerating forest fuels reduction and fire resilience work.
- The Denver Airport and major companies like Walmart and Under Armour are investing in CLT and mass timber for their campuses. For green corporations that want all-sustainable fuel, like Alaska Air, working with companies in the forest sector is a great business decision. There is already a strong demand for biogenic emission sources that produce very little emissions.
- In tropical and mega diverse countries, wood products are not the main industry; super fruits from forests, the cosmetics industry, and food production are growing rapidly. These sustainably produced non-timber forest products are important for forest protection in the United States and around the world and should be highlighted at future meetings.

Panel 3 | *Delivering climate solutions from policy to implementation*

After discussing market opportunities for forest products, the conversation shifted to international policy. The first speaker was **Magnus Viklund**, Head of the Policy Analysis Unit at the Swedish Forest Agency, who opened his presentation showing the tremendous potential for forest restoration around the world.

Magnus summarized international restoration and reforestation initiatives, including the Bonn Challenge in 2011 with the goal of restoring 20 million hectares; the UN Climate Summit in 2014; CoP20 in Lima, Peru; and the Bonn Challenge 2.0 in 2015 for the European Union nature restoration law. The recently approved European Union deforestation-free supply chains legislation will also have a significant impact on the global market for forest products and is an opportunity to expand the sustainable forestry sector. He illustrated how Sweden is implementing scalable forest landscape restoration with its partners in six countries applying a local, bottom-up approach that improves livelihoods for people living in and around forests.

Doris Capistrano, a senior adviser to ASEAN-Swiss Partnership on Social Forestry and Climate Change, is a researcher with years of experience working on forest management projects. She presented an overview of how governments cooperate to establish frameworks and develop strategies for social forestry projects in Southeast Asia. Eight out of 10 countries in Asia and Southeast Asia have social forestry programs that have advanced significantly in recent years, partially due to an influx of new legal reform initiatives since 2016. Doris described some of the elements of successful social forestry initiatives and their contribution to reducing deforestation and degradation, carbon sequestration, and improved livelihoods. Their presentation also connected social forestry to countries' National Determined Contributions (NDCs) and the UN's Sustainable Development Goals (SDGs).

Panel 4 | *The contribution of land tenure and customary rights in forest conservation*



A USFS prescription burning crew welcomed a spontaneous field trip stop and shared their day-to-day experiences reintroducing fires for healthier forests.

This session was facilitated by Solange Bandiaky-Badji, Coordinator of Rights and Resources Initiative (RRI) and President of Rights and Resources Group, the coordinating mechanism of RRI. This panel focused on how legal recognition of customary lands can help meet multiple forest and climate objectives, including fighting deforestation and illegal activities while contributing to local development.

Solange kicked off the session presenting the results of the second edition of RRI's new study, *Who Owns the World's Land?* which monitors advances in Indigenous Peoples' and local communities' land tenure. Even though there has been significant progress in land tenure for Indigenous and local communities since 2015, most of these gains have occurred due to reforms in a handful of countries with little support from governments or development institutions.

The report also shows a huge potential to expand the legal recognition of community lands by 260 million hectares in 19 countries if existing laws are properly implemented. Community-based land tenure is fundamental to achieving global climate and biodiversity goals, but reforms still face many challenges such as limited access to direct funding and increased risks to communities' basic rights from threats like government-supported commercial projects targeting natural resources.

This panel employed a Q&A format to facilitate interactive dialogue between panelists and participants. The three panelists were: Rosalie Matondo, Minister of Forest Economy from the Republic of Congo; Bambang Supriyanto, Director General of Social Forestry and Environmental Partnership, Ministry of Environment and Forestry of Indonesia; and Peter A. Minang, Director for Africa at CIFOR-ICRAF.

Panel 5 | *Social equity, diversity, and inclusion in forest management: Why does this matter?*

The final panel touched on a topic that permeated several conversations throughout the week: the importance of centering people and the forest service, both inside and outside of the agency. Panelists spoke to the critical role forest agencies play in ensuring that their projects promote the well-being and livelihoods of local, Indigenous, Afro-descendant, vulnerable, and marginalized communities.

Angela Coleman, Associate Chief of USFS, started the presentations by reviewing the United States' unjust history toward American Indians, African Americans, Chinese Americans, Japanese Americans, Latinos, and women, and how these communities are often the most impacted by environmental and economic issues. She highlighted the USFS's commitment to correct unjust agreements and relationships of the past, particularly in its relationship with Indigenous tribes and First Nations. She highlighted how people and communities are being promoted in all aspects of the agency's work, which is increasingly becoming bottom-up and collaborative.

Luis Alberto Gonzáles Zúñiga Guzmán, Executive Director of Peru's National Forest and Fauna Service (SERFOR), spoke about Peru's unique challenges with regards to high deforestation rates caused by people migrating to forests and the expansion of agricultural frontiers. His agency has been developing innovative projects to meet these challenges, including liaising with new partners such as smallholder farmers and local communities in both urban and forest landscapes. Its program, which combines forest and agriculture management, benefits up to 250,000 families, reduces deforestation, and improves the livelihoods of the target region's general population.



Joe Stout (USFS), Scot Rogers (USFS), and John Rice (General Manager of Sierra at Tahoe) demonstrate the spread of the 2021 Caldor fire that nearly put the resort out of business.

A scenic view of a lake surrounded by a dense forest of evergreen trees and snow-capped mountains under a clear blue sky. The lake's surface is calm, reflecting the surrounding landscape. In the foreground, several large, light-colored boulders are scattered across a grassy slope. The background features a prominent mountain peak with patches of snow, partially obscured by the forest. The overall atmosphere is serene and natural.

CLOSING REFLECTIONS & NEXT STEPS

The 14th MegaFlorestais meeting delivered on its mission to create a valuable and inspiring space for everyone present. All the speakers, facilitators, delegates, and resource advisers were fully engaged and prepared to make thoughtful contributions to the discussions.

Things need to be talked about before they can be changed. There is no success if there is no equity in how opportunities are flowing.

Leslie Weldon, Deputy Chief of the National Forest System, USDA Forest Service

Some topics recurred throughout the meeting and seemed to resonate with many members. Even for agency members from dramatically different geographies—North America, Southeast Asia, and Africa—certain topics generated similar interest, such as understanding carbon markets and creating economic opportunities for forest communities and forest products. Over the course of the four days, members discussed wide-ranging topics from climate resilience and carbon markets to forest product markets, social forestry, equity within the forestry section, international policy, and multi-sector partnerships.

Below is a summary of key takeaways from the meeting. These topics offer ideas and learnings for further exploration and MegaFlorestais gatherings:

Building trust

Engaging the public in educational campaigns and partnerships was a major theme of the meeting. Members from several countries referenced work in this area, ranging from agroforestry projects to community consultations and co-management. This requires teams to learn new skills and expand ones they already have to effectively build the relationships necessary to lead bottom-up processes and implement cooperative projects across industries and geographics. Questions explored on this theme include:

- How to effectively build trust, communication, and engagement (social license) with local natural resource-dependent communities, and/or with the people who live in these forests?
- How to foster more cooperative work, collaboration, sharing of knowledge, and equitable partnerships?

Social forestry

Climate and conservation goals are directly tied to Indigenous Peoples and local communities due to their significant contribution to conservation worldwide. This is why climate initiatives and forest management projects must ensure that they benefit these communities, promoting their rights, livelihoods, and traditional knowledge. Questions explored include:

- What has evolved over the last decade? What are the core elements and what are best practices?
- How to identify outcomes, design, and metrics for tracking beneficial change for both forest conditions and the welfare of communities?

Capacity building

Strong forest agencies depend on strong teams who manage the day-to-day work. Effective capacity building and leadership development will ensure that people are prepared for change management and can adapt to climate change and extreme weather events as they arise and create visionary long-term strategies. Questions considered include:

- What are the strategies needed to build support and capacity in forest management organizations that will enable success in leading and sustaining major, long-term changes in policy and operations?
- How do we reconcile staff development needs with available resources and priorities?

Carbon markets

Carbon markets, NDCs, and net-zero commitments present a big opportunity to channel investments into forest management. International funding mechanisms and private investors are ready to fund nature-based solutions. However, the sector is slow to develop, it lacks successful case studies, and is poorly regulated, offering substantial risks and failing to adequately address the needs of Indigenous Peoples, local communities, and civil society organizations. Questions explored include:

- What are the opportunities for the public sector to benefit from the influx of international and private funding to nature-based solutions?
- How to create and implement effective and just long-term plans for carbon market projects?

Other topics

- Dealing with complex political dynamics that involve different agencies and levels of government;
- Managing change, crises, and emergencies;
- Incorporating traditional and Indigenous knowledge into our work;
- Improving knowledge transfer, access to research, and skills development; and
- Making the financial case for investing in forest and natural resource management and protection while demonstrating its benefits.

In conclusion, MegaFlorestais co-chairs, **Sally Collins** and **Herman Sundqvist**, said it was a pleasure to host such an amazing group of people in South Lake Tahoe. They thanked the USFS team for delivering an inspiring field trip to the Eldorado National Forest and Tahoe Basin region, one that will inevitably leave a lasting impression. They also gave special thanks to the country delegates and resource advisors who each brought their unique perspectives and knowledge to the meeting.



**ANNEX 1: DISCUSSION
COMMENTARY**

Public awareness and engagement

- Amid growing acknowledgment of the role forests play in carbon storage, participants discussed how California's powerful environmental NGOs' response to forest thinning differ from responses in Europe. There seems to be more support for forest health treatments such as thinning and prescribed burning to reduce fire risk in California where citizens have historically been more exposed to wildfires.
- Forest management to sequester carbon and protect old growth trees are interconnected. Carbon optimization must be a priority, not just for long-term preservation but also for long-term resilience.
- The Yurok purchased a mill to explore regenerative industries and support the paradigm shift from extractive to regenerative industry, thus incorporating previously marginalized people into an inclusive problem-solving economy.

Forest products

- Innovations are needed to expand the use of small-diameter, low-value, and non-traditional species in applications for wood products, including creating items of value that store carbon. In Sweden, for example, the minimum wood diameter processed in their mills is eight centimeters, thus applying technology in their mills that maximizes use and carbon storage from very small trees and woody materials.

Reforestation and restoration

- The participants questioned whether reforestation and controlled fires affect wood quality. The USFS reforests, especially for watershed management and to ensure water quality by reducing erosion, thus reducing the siltation of rivers, lakes, and reservoirs. It was noted that reforesting also accelerates the recovery of fish and wildlife habitats.
- How should we address the millions of acres that need reforestation each year with the limited number of seedlings available? While new funding has become available to increase reforestation capabilities such as expanding tree nurseries, questions remain regarding which species best support forest resilience to climate change and fires. More discussions on the future ecological makeup of forests and landscapes is needed.
- Carbon markets generally focus on the interactions between fire, water, traditional practices, blue carbon (i.e., carbon sequestration), and how investments generate benefits for both current and future generations. Former practices with centuries of proven success should be revisited, revitalized, and integrated with new technological developments.
- Most natural ecosystems in Africa are dryland forests that have adapted to fires over time. In Kenya, which has suffered from some of the worst forest fires in Africa's history, attempts fire tracing but not currently on a sufficient magnitude. There is a need for more technical exchanges with the Center for International Forestry Research (CIFOR) to improve fire management globally as grazing and invasive species are also affecting these ecosystems.
- One major challenge to investing in restoration is the re-burning of reforested areas within one or two years. The forests most in need of restoration should be carefully considered with attention given to the most fire-resistant species.
- More investments in research are needed to be able to make data-driven decisions. Some countries, such as Peru, lack research to support policy implementation.

Keynote speech discussion

Public engagement and equity

- Managing diverging interests from agencies and stakeholders requires solutions at all levels—individual, local, regional, and global. Importantly, the answers are not found in the halls of Washington, DC or Sacramento, but within local communities on the ground.
- Participants discussed trust-building and maintaining social license, agreeing that consultation after the fact is not buy-in. Buy-in entails co-creation of strategies, listening with intention, learning directly from communities, and clarifying agreements to ensure consistent and transparent communication.
- **Question: In the Philippines, there is the greater issue of poverty in addition to management. How can investments be made in sustainable forest management with this added level of complexity?** California has not invested enough in forest management. To date, it has been very reactive where more money has been dedicated to fighting forest fires than prevention. With President Joe Biden in office from 2021 – 2025, more money is now increasingly becoming available for the latter. In the United States, a fair amount of forestry is happening sustainably. The timber industry is a partner and non-profits want to be involved. Better communication with the public is needed regarding the impact of forests on well-being.

Forest product markets

- The potential value of low-quality wood remains unexplored as state regulations in the United States do not currently permit the use of forest wood for biomass energy. How can we manage inter-agency relationships to solve problems like these? There is a big difference between biomass and other sources of energy. If not used, we will spend a lot more on pile burning and mitigating impacts. If limitations on the use of “wood to energy” programs in the United States are changed, costs of resilience treatments could be reduced and new markets created, unleashing job opportunities in some low-income areas.
- Even though the relative cost of biomass energy may be high in 2023, its contributions to reducing firefighting costs, protecting water sources, and reducing risks for communities and other ecosystems must be considered.
- California’s energy agency has five times more funding than the Natural Resources Agency. This is something the governor should address, but energy transitions cannot occur without integrating biomass. Forest management will be overlooked until the outbreak of major fires, at which moment other sectors will defer to the agency’s experience. These moments are opportunities to advance proposals.
- The production of ethanol from corn offers an opportunity to convert wood into biofuels. However, we need political support to create economic value for wood piles that result from fuels reduction projects. We need better policies to create market opportunities that can put biomass to good use.
- In the Republic of Congo, where industry is less developed, wood is used for domestic fuel, such as cooking. Forests could be planted and used to produce domestic fuel, but the technology to do this is not yet available in the region, so the regeneration needed to produce biomass energy is very expensive. A proposed tax credit is being considered to support technology transfer and training in this sector.

Keynote speech discussion (cont.)

- **Question: How can we create sustainable revenue from non-timber products?** In Sweden, smaller logs are used. There is much debate in the European Union about sustainability and whether forest management is indeed sustainable. There is no consensus yet on the question of what is sustainable and what is not. In Sweden, entire cities use biomass energy for heating, and biomass energy is more used more prominently than hydropower, nuclear energy, and fossil fuels.

Carbon markets

- **Question: Does California receive carbon finance for ecosystems services?** California's environmental policy provides different models to support technology transfer through capital investments. The carbon market is small in California, and the state does benefit from it, but not significantly. However, tribal governments have been effective in securing carbon finance, and we must collectively find a way to make conservation finance work long-term.



From left to right: Javier Kinney, Minister Rosalie Matondo, Chief Randy Moore, Sally Collins, Wade Crowfoot, Fabiola Munoz Doderro, Solange Bandiaky-Badji, and Jennifer Eberlien after Secretary Crowfoot's keynote speech.

Carbon cost and value for investors

- **How do we create value in forest conservation with the support of Indigenous Peoples and local communities?** The Yurok tribe in the United States is looking at the richest American families who, over the nation's history, have benefited from extraction on formerly Indigenous-owned lands to better understand how they manage financial markets, investors, risk analysis, and risk assessment. The Yurok tribe is also trying to position themselves effectively within the financial world. They offer unique knowledge of conservation methods and land management, including ceremonial aspects integrated into their work. The Yurok also partner with other Indigenous communities on conservation projects.
- **How do we create value for investors?** Blue Forests has a market rate with financial returns and value, as well as philanthropy. It has been an attractive model for investors with a rate of investment return and concrete actions resulting.
- **What is the price of carbon per ton?** Carbon credits were US\$5–6 per ton, but the price varies dramatically by region, carbon type, and integrity level. CC03 is US\$17–18 for the golden high integrity. Voluntary carbon market prices should increase to offset net-zero commitments. The Forest Trends Ecosystem Marketplace monitors the price of carbon and additional information is available [on their website](#). Their State of Carbon Market report provides the most independent, up-to-date data on carbon markets.
- **How do we scale investment bonds beyond pilot projects?** It works like mortgage back bonds: you package small transactions into larger ones to get economies to scale. Transparency is key. The fund manager is responsible for conducting due diligence and the heavy lifting of selecting and managing the smaller partnerships.

Who benefits from carbon markets?

- **What is the sensitivity within communities around carbon markets?** Developing countries grapple with the question of forest ownership, and there is no guarantee that communities will benefit from carbon markets, especially in places where proper infrastructure does not exist. Those investing in climate finance have not yet resolved the question of who carbon markets benefit.
- USFS does not participate in carbon markets because forests “belong” to all people in the country. There is a debate on whether Congress should explicitly authorize use of national forests for carbon. In other words, can the government sell something they do not have the authority to do so? Right now, USFS is measuring and monitoring carbon, and is considering (non-market) ways to enhance carbon sequestration and storage, including partnerships with corporations that want to fund restoration work and reduce its carbon footprint.
- Indigenous Peoples are currently being criminalized and killed all over the world while advocating for their legitimate rights. When land acknowledgements are given, the number of hectares or acres going to that community should also be clarified, and that acknowledgment should be supported with concrete and measurable actions.

Implementation in various geographies

- In the Republic of Congo, the World Bank began discussions on the stratification of forests and benefit sharing with the communities that live in and around the forests for development and conservation initiatives. This has interesting potential for communities; while tenure rights are a means to an end, what happens after rights are established has enormous potential to help communities economically.
- The Government of Indonesia rectified the Paris Agreement by creating a national and subnational agreement, which includes a social forestry registry. Kalimantan has US\$110 million allocated for a 5-year period. While the price of carbon depends on supply and demand, negotiations between the government and investors are ongoing. Indigenous Peoples protect their forests but do not benefit from carbon credits because the land is owned by the state.
- In Africa, two scenarios exist: Kenya is advanced in terms of number of carbon credits for privately-owned ranches in voluntary carbon markets. The Blue Forest model involves private capital and public money. In the rest of the continent, public capital is spent on private projects, with public money used to de-risk private investments.
- The United States has a long history of private actors acting on public lands (e.g., providing recreation services and harvesting trees) and USFS has a role to play in using public funds on private and state-owned lands as well. The United States has what is called a Forest Legacy Program to maintain private forests as “forests” through conservation easements. Individual states do something similar with tax incentives. Increasingly, both private and public capital are helping private land stewardship and sustainable forest management in the United States.
- The next generation of forest leaders value forests and water conservation; they are pursuing education and careers in conservation and sustainability. This could be key to encouraging future leaders to begin their careers in these professions.



From left to right: Javier Kinney, Roger Mbété, Solange Bandiaky-Badji, Minister Rosalie Matondo, and Felicité Mayinguidi before boarding the shuttle to the farewell dinner by the lake.



From left to right: Glenn Hargrove, Magnus Vikland, Richard Barhydt, Leslie Weldon, Don Roberts, Fabiola Munoz Doderó, and Javier Kinney before the farewell dinner at Riva Grill on Lake Tahoe.

Panel 3 | *Discussion on delivering climate solutions from policy to implementation*

Livelihoods and sustainable economies

- There have been major advances in the recognition that forests include people living in them. Agroforestry presents an opportunity for small producers in low and lower-middle income countries and will be interesting to see the shift in perspective on the value of forests in creating sustainable jobs in the years ahead.
- We must change not only our business models but also our approaches to the forest sector to consider sustainable jobs, restoration, and challenges unique to each country and region.
- Multiple types of social forestry exist and funding sources must create opportunities for new types of organizations and grants, such as institutional set-up, long-term sustainable forest management, microfinancing, incentives for markets to succeed, and education.
- In one example, a social forestry project gave money to communities to buy stock in a collectively owned company. Years later, it became a large enterprise where the communities shared the profits and received support with group formation and technology knowledge transfer.
- Smallholder producers and farmers are key stakeholders for just energy transitions and meeting the challenge of climate change.

Policy

- Markets are changing with increased demand for sustainability (e.g., the new European Union import policy) that can have positive impacts on communities.
- There is an opportunity to rethink regulations with a clearer focus on rights and transparency, such as improving information systems for reporting and monitoring.
- There is still a major challenge of bridging the agricultural and forestry sectors, especially considering that small producers cannot be viable in agriculture or forestry if their plots are too small.
- International institutions are increasingly focused on social forestry. The Food and Agriculture Organization of the United Nations (FAO) has increased its efforts to link agriculture and forestry, providing recommendations to member states and tracking advances annually. New policies start at the regional level through a political process, and member states translate these into national guidelines.
- We must shift how governments separate forestry from development, climate, and economic opportunities, demonstrating how sustainable forest management can benefit several areas of government. Forestry means more than just timber in Peru; it is important for food security and Indigenous health, livelihood, and well-being.

Science and capacity building

- Backing up policy with rigorous research is important; policy makers must consider the science behind the decisions they take.
- How do we deal with the lack of skills required for agroforestry projects? We must create training programs that build on local knowledge and exchange, so they contribute more to collective rather than individual development. Capacity building is never wasted, even if the project fails.
- We must also customize training to the community's experience instead of bringing pre-packaged learning materials.

Panel 4 | *Discussion on the contribution of land tenure and customary rights in forest conservation*

Governments have land but not resources to manage that land sustainably; communities wait for titling for decades while companies gain rights in less than a year. **What are your ideas for working in such difficult contexts?**

- Governments will not invest in forests if they do not understand their value to the economy. We must identify the right people in government who will listen to communities' ideas.
- There are examples of companies successfully working on non-timber forest products. This has brought banks to the table, who see value in small businesses.
- A good strategy is to pass social forestry legislation. With the Adat people in Indonesia, we were able to mainstream projects with local communities and recognize women's ownership even though traditionally, women are not heads of households.

Land titling: What is the status of certification for Indigenous Peoples in Indonesia?

- Legal certification for Adat communities exists even in national parks because there is a consensus that the Adat people can manage their forests autonomously and local wisdom is proven to contribute to conservation. We need agrarian reform to make the process of certification simpler for communities. Low certification rates occur because it is difficult to be verified when entities other than communities also hold titles to those territories.

Carbon markets

In Zimbabwe, the government has stipulated that all projects should be registered with the central government and very little profit has gone to communities (50 percent to government, 30 percent to companies, and 20 percent to communities). **Do you see similar practices in your countries for carbon markets?**

- We see an urgency to engage governments as a whole, but while they see carbon markets as an opportunity to get funds, they do not want to invest the time and knowledge into what is needed to make them work. Zambia is one example where carbon projects are moving at a good pace with good understanding, but we do not see that happening elsewhere.
- In Indonesia, governments have said no to carbon investments but are considering 27 carbon proposals from 10,000 farmer groups. Certain issues await clarification, such as how carbon is counted to avoid leakage in the calculation. They have also received US\$10 million from the United States Global Climate Fund; these funds are primarily an investment into local livelihoods and carbon storage is a bonus.
- Carbon projects should consider the traditional knowledge and customary rights of Indigenous and local communities to capacity and local practices. If you do not strengthen a community, it will not profit. The Republic of Congo's new Forest Code aims to share the benefits from carbon in natural and planted forests; each has its own category for benefit sharing. But while people in the forests continue to live in poverty, it will be difficult to preserve the forests. Most financing that arrives for preserving forests goes to international organizations, not to the government. It is important that conservation organizations consider the importance of poverty eradication in conservation areas.

Panel 4 | *Discussion on the contribution of land tenure and customary rights in forest conservation (cont.)*

Are there good examples where Indigenous Peoples who have received legal titles are now thriving?

- We have research that cites good examples, but the main question is how do you move these good experiences forward and scale them up? That is where we need to do more work. The important things are: i) scale up investments. Currently, only a small percentage of climate finance (14 percent) goes to land and forest issues, and even less in the case of Africa; and ii) current 30x30 strategies for protected areas are not working. To achieve the 30x30 target, community rights recognition must be a priority. With rapidly growing commercial and extractive activities on their lands, land rights recognition is essential to help communities negotiate with the public and private sector effectively.
- Titling is expensive for communities. The approach we are looking for is not individual titling, but a collective approach.

What gives you hope?

- The potential of forestry and land management in transforming communities and reducing poverty.
- The way we see Indigenous Peoples, Afro-descendent Peoples, and local communities improve with support from government and private/strategic allies.
- More and more people are realizing that communities are equal partners, especially when it comes to the public and private sector.

Panel 5 | Discussion on social equity, diversity, and inclusion in forest management

What are the causes of demographic disparity within SERFOR and its forestry work, recruitment, and training?

- There is a combination of reasons. There is already disparity on who gets natural resources education in colleges and universities. Other roles require skills that cannot be learned from formal education in natural resources. Barriers have already shifted, from once requiring people to be just foresters to now requiring other skills and abilities. Discrimination in the natural resources sector remains a key barrier and must be addressed through systemic and cultural change.

In Peru's experience working with smallholders and local communities, what can they expect from the agency?

- We work with the Ministry of Agriculture and private sector to ensure that smallholder producers and farmers receive the assistance they need, including legal titles to operate as a smallholder. We expect that SERFOR will learn a lot about social forestry and agroforestry. It will be extremely difficult since we are talking about 700,000 families and many competing political interests; we are not used to working with them and there has been internal resistance.

About MegaFlorestais

MegaFlorestais—Portuguese for “those with the greatest forests”—is a network of public forest agency leaders created in 2005 by Rights and Resources Initiative (RRI), the State Forestry Administration (SFA) of China, and the Chinese Center for Agriculture Policy (CCAP) to discuss public forest tenure reform. Since 2006, the group has expanded to include forest agency leaders from the world’s most forested countries. Its annual meetings provide the network’s members a platform for sharing ideas, discussing challenges, and learning from one another in an informal, honest, and safe environment, one not dictated by politics or political correctness (or driven solely by ministerial priorities and positions) and placed under the Chatham House Rule. RRI acts as the secretariat of MegaFlorestais and works closely with the MegaFlorestais co-chairs involved in the network’s leadership and key decision-making processes. For more information, please visit www.megaflorestais.org.

About Rights and Resources Initiative (RRI)

The Rights and Resources Initiative is a global Coalition of more than 150 organizations dedicated to advancing the forest, land, and resource rights of Indigenous Peoples, Afro-descendant Peoples, local communities, and the women within these groups. Members capitalize on each other’s strengths, expertise, and geographic reach to achieve solutions more effectively and efficiently. RRI leverages the power of its global Coalition to amplify the voices of local peoples and proactively engage governments, multilateral institutions, and private sector actors to adopt institutional and market reforms that support the realization of rights. By advancing a strategic understanding of the global threats and opportunities resulting from insecure land and resource rights, RRI develops and promotes rights-based approaches to business and development and catalyses effective solutions to scale rural tenure reform and enhance sustainable resource governance.

RRI is coordinated by the Rights and Resources Group, a non-profit organization based in Washington, DC. For more information, please visit www.rightsandresources.org.



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