Second International Forest Policy Meeting (2IFPM),

11-13 April 2018, Wageningen

Wageningen University, Forest and Nature Conservation Policy Group

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	Wednesday 11 April	Thursday 12 April	Friday 13 April
9:00	Arrival & registration	Keynote Maria Brockhaus	Keynote Bhaskar Vira
9:30	Coffee & registration		
10:00		Break (30min)	3IFPM Copenhagen
10:30	Opening	Panel sessions 3	Panel sessions 4
11:00	Keynote Rob Busink		
11:30			
12:00	Lunch (1:30hr)		
12:30		Lunch	Lunch
13:00			
13:30	Panel Session 1	Poster sessions	
14:00		Lecture on Kroondomein	Return home
14:30		Excursion to Kroondomein	
15:00	Break		
15:30	Panel Sessions 2		
16:00			
16:30			
17:00	Free evening in Wageningen		
17:30			
18:00			
18:30		Drinks & Conference dinner at Kasteel Doorwerth	
		21:30 - Return to Wageningen	

REGISTERATION & FREE TIME

KEYNOTE SPEAKERS

PANEL SESSIONS

EXCURSION

POSTER SESSIONS

BREAK

LUNCH & DINNER

KEYNOTES

Forests and the SDGs: the need for an integrated approach

Rob Busink, Ministry of Economic Affairs

Avoiding deforestation and the politics of (un)sustainability: insights from REDD+ and the New York Declaration on Forests

Maria Brockhaus, University of Helsinki

Forests for Food and Nutrition: exploring the linkages and understanding the tradeoffs

Bhaskar Vira, University of Cambridge

ADDITIONAL ACTIVITIES

Workshops collaborative European projects
Thursday & Friday (April 12, 13), 11:30 -12:30
Various collaborative project consortia

Meeting to discuss future collaboration
Thursday, April 12, 19:00 (during conference dinner)
Scientific board, organisation committee, representatives of the forest policy networks

Invitation to 3IFPM 2020
Friday, April 13, 10:00 (following keynote)
Lisbet Christoffersen, University of Copenhagen

2IFPM SESSIONS
Thematic tracks

Panel/Track	FOREST GOVERNANCE	INTERNATIONAL POLICY & POLITICS	COMMUNITY & SOCIETY	CONFLICT & CONTROL
Session 1 (Wed 11-4)	Forest governance & reform	*Cancelled*	PFM in tropical countries	Steering forest owners
Session 2 (Wed 11-4)	Exploring governance outcomes	Forest policy in the EU	Livelihoods & communities	Increasing state control
Session 3 (Thu 12-4)	Innovation in forest governance	FLEGT & Traceability	Forest & society	Forestry & Forest ownership
Session 4 (Fri 13-4)	Actors & governance networks	Bio-economy	Communities & tropical forestry	Conflict & opposing views

WIFI: user = pavilion / password: wur100years

Location: *Wisdom & Wonder Pavilion, Campus Wageningen University, the Netherlands*

PANEL SESSIONS 1
Wednesday 11 april, 13:30-15:00

FOREST GOVERNANCE

PANNEL SESSION 1: FOREST GOVERNANCE AND REFORM

Mustalahti, Hyle, Zamora, Devkota & Tokola (University of Eastern Finland): Towards "two way responsibilization" in responsive forest governance: learnings from Tanzania Nepal and Mexico (climate change, decentralization).

Much of the climate change agenda seems to be generated in international forums and delegated to national governments for amendment and implementation, while the citizens of the country in question often become passive entities in the various policy processes. Yet these are the same people who are and will be impacted by mitigation and adaptation interventions, for example related to the forest governance. In the extensive literature on forest governance, scholars have demonstrated that the interventions of decentralization of forest governance also have constraints and unexpected impacts: Expectations of power transfer have not been fully achieved in such cases, and powerful actors have maintained their positions of domination and control over resources through various social and political practices. The conceptual framework of our research in Nepal, Tanzania and Mexico closely adheres to that of the Responsive Forest Governance Initiative1, which argued that democratic representation takes place when a leader is responsive to the needs and aspirations of her or his community. In the RFGI definition, democracy occurs when leaders are responsive to their people, and the people under their jurisdiction are able to hold them to account. Our research reveals the limitations of "two ways of responsibilization" in processes of decentralization of forest governance and democratization efforts. For this reason, it is important to find ways to assess responsive governance in-country. In this paper, we argue in case of forest governance that democratic and responsive governance could challenge power relations so that citizens of the country in question are able to be responsive and responsible in the various governance processes. In order for justice in decentralization, the dispersing of power and functions, to be possible local level representation and administration burdens need to match the demands of the decentralized duties and have to be in balance.

Reonaldus (WUR-PAP, Netherlands): Comparative Analysis on the Implementation of the Indonesian Forest Moratorium and Provincial Moratorium at District Level.

The implementation of national and provincial climate change policies at district level in Indonesia is a complex political process. Indonesian decentralization law of 2004 gives a powerful mandate to district government to manage their natural resources. Moreover, district government has own social, political and economic ambitions which may challenge, ignore, support or reformulate the national and provincial climate change policies. Given these facts, this paper aims to get better understanding on the implementation process of the Indonesian (national) forest moratorium and the

East Kalimantan (provincial) moratorium at two districts: Kutai Kartanegara and Kutai Timur. The national moratorium instructs the head of districts to not granting a new permit in moratorium area which cover peat land and primary forest since 2011. The national moratorium is a follow-up of the Letter of Intent between Indonesia and Norway government in May 2010 to implement Reducing Emissions from Deforestation and Forest Degradation in Indonesia. Moreover, the provincial moratorium asks the head of districts in East Kalimantan to not issuing a new permit in forestry, plantation and mining sectors between 2013-2015. These two districts are chosen because their development heavily depended on land based sectors. Coal mining and palm oil industries also expand massively at these districts . Moreover, many environmental NGOs and aid agencies work on climate change related issue in these districts.

Applying two study cases research design, this paper intents to addressing main research question: how do state and non-state actors affect the implementation process of national and provincial moratorium at district level? Data are generated by interviewing government officers, NGOs and private sectors from international, national, provincial and local levels, and reviewing news, report and policy paper. Data will be analysed by applying comparative analysis with the assistance of Atlas ti. Emerging themes will be compared, linked and discussed critically.

Kavaliauskas (Aleksandras Stulginskis University, Lithuania): Analysis of Forest Policy Processes implement reform of state forest enterprises in Lithuania.

Lithuanian state importance forests are administrated by 42 self-financing state forest enterprises (SFEs) controlled by Directorate General of State Forests under Ministry of the Environment. No radical reform was implemented after independence was regained in 1990. However, attempts to reform the system suggesting various state forest administrative management models over 20 years didn't succeed due to weak political will and powerful opposition. After the elections in the end 2016, the process reforming state forest enterprises by government was initiated offering merging them into one administrative self-financing entity with status of state enterprise. Hard decisions ruining deep tradition state forestry administration without proper preparation posed serious problems on the implementation process of the reform.

This study aims scrutinizing policy processes towards reform of state forest enterprises in Lithuania. Retrospective analysis is carried out revealing not only key decisions but also outcomes since the initiation of the reform started. Assuming SFEs administration was validated in Forest Act, Ministry of Environment started amending procedure with the purpose gaining executive power. This legal procedure was hardly struggled by non-governmental organizations representing SFEs employees. Participatory based processes in decision making processes were only imitated. The Forestry Advisory Board representing stakeholders traditionally functioning under Department of Forestry was totally ignored while NGOs exclusively suggesting stopping reform without any reasonable alternatives were not also taking into consideration. The process of amending Forest Act by Parliament in some cases violated legal procedures. Rapid and enforced reform of SFEs lacking proper discussions as well as ignoring participatory based process confronted stakeholders and decision makers resulting new oppositional movements within public.

Hasnaoui & Krott (University of Goettingen, Germany/ Laboratory of Silvo-Pastoral Resources, Tunesia): Forest governance within the Arab Spring: Case of State Forests in Tunesia

Since the end of the 19th century, there have been three main periods of forest management evolution in Tunisia. (i) the French colonial period (1881-1956) characterized by a coercive and authoritarian management system. (ii) the postcolonial period (1956-2011) during which state forest administration fostered this coercive and police management despite the attempts to adopt an integrated forest management in the 90´s. (iii) The revolution in 2011 which claimed to make legislative and strategic reforms for a more sustainable forest management. The paper analyzes the performance of forest administration before the occurrence of the revolution and the postulations of post-revolution forest policy programs about improving this performance. To answer these questions, the three-layer model is applied to evaluate the performance of state forest institutions comprehensively before the revolution and the evolution of this performance assumed by new policy programs. The postulations of the new forest policy programs goals are later discussed based on causative factors that might affect the implementation stage in practice and which are not taken into consideration. Data were collected in 2016-2018 by experts' interviews and public and non-public documents (strategies, reports, projects). Our results show that post-revolution programs claim to improve the performance of state forest institutions while our causative evaluation shows that these programs do not consider that the different goals have different implementation terms. Pushing market orientation is much faster than producing new forest stands which would affect sustainability. In addition, producing forest management plans and inventories would not solve the problem of increasing wildfires and illegal logging as assumed while the forest administration suffers from a lack of personnel in the field. To conclude, the weak linking of policy programs goals to the causative factors could affect the performance of the state forest institutions managing more than 90% of Tunisian forests and representing the first responsible for implementing these new policies.

Keywords: Arab spring, Forest management, state forest institutions, Three-layer model

COMMUNITY & SOCIETY

PANNEL SESSION 1: PARTICIPATORY AND SUSTAINABLE FOREST MANAGEMENT IN TROPICAL COUNTRIES

Degnet, van der Werf, Ingram & Wesseler (WUR-AEP/FNP, The Netherlands): Do locals have a say? Local participation in governance of forest plantations in Tanzania and Mozambique.

With the expansion of large-scale forest plantations in developing countries, concerns are rising about their relation and integration with adjacent local communities. Local participation in forest governance can potentially affect the distributional effects of plantations' benefits and mitigate possible adverse effects. Using data from villages adjacent to forest plantations in Tanzania and Mozambique, we explore differences in local participation between plantations. In Tanzania, we assess if there are differences in local participation in private and state-owned plantations. In Mozambique, we compare local participation in certified private plantations with local participation in a conventionally managed private plantation to examine the relation between certification standards and local forest governance outcomes. Our quantitative analysis shows that households in villages adjacent to private certified plantations are more likely to have a say in the activities of the plantations than households in villages adjacent to non-certified private and state owned plantations. We use insights from access theory to explain our findings: private plantations may have more incentives to involve local people to guarantee their investments in plantations than state-owned plantations. Certification requirements may also strengthen these incentives by requiring plantations to comply with national regulations and international conventions to identify and uphold customary rights of local communities and address their concerns. While households in villages adjacent to certified private forest plantations in Tanzania are more likely to report that they are satisfied with their say, we did not find a significant result in Mozambique. We further found that some social groups (male-headed, with more education and those who work for plantations) are more likely to have a say in plantations activities than their counterparts in both countries. We emphasize that improved and fair local participation in governance of plantations is vital in terms of the sustainability of large-scale plantations and integrating them in rural landscapes.

Malkamäti, Ylä-Antilla, Korhonen-Kurki & Toppinen (University of Helsiniki, Finland): Weaving with the flow of information: transaction costs as endogenous drivers of network structure in South African tree plantation policy.

With a worldwide increasing demand for wood fibre, the global extent of tree plantations is expected to double by 2050. However, reconciliation between environmental and developmental goals as regards to tree plantations and associated industrial activities is considered necessary. To our knowledge, however, there are no previous studies that would have explored the endogenous drivers of collaborative institutional arrangements in complex and conflictual policy processes in the context of tree plantations. Setting out hypotheses from the transaction cost theory of politics, resource-depend-

ency theory, and game-theoretic experiments, we use exponential random graph modelling to examine how transaction costs – opportunity structures, perceived influence and interest group homophily – shape policy actors' choices on with whom to establish contacts and exchange information to exert influence and build coalitions. These hypotheses are tested empirically, using interview data from networked organisations actively involved in tree plantation policy in South Africa (N=57). Our findings show that policy actors in the given institutional context do consider transaction costs in their choices of with whom to exchange critical information. In particular, policy-relevant committees as institutional opportunity structures have been harnessed to overcome the burden of transaction costs. In addition, the multiple hypotheses tested indicate that there are multiple avenues for how policy networks are structured. Therefore, further case studies from similar contexts are needed to test and strengthen theoretical predictions on policy processes.

Nchanji (University of Eastern Finland): Engendering collaborative forest management in selected protected areas in Cameroon: Reality versus Ideas.

Nowadays, one cannot talk about addressing forest-related issues without involving the social dimensions related to it, for it is said "the fate of forest people is as important as that of the biological resources on which these people depend". In developing countries, forest resource governance and management has undergone many profound changes in the past century. For example this management/governance system has changed from a central state system of control to a community-based approach and presently a collaborative management approach which is a co-constructed governance system. An ethnographic study was carried out for three months in the Korup National Park which, aims to address natural resource governance structure in national parks and seeks to understand how it affects the socio-political reality of the people as they manage the resources in their environment. Preliminary findings show that despite the changes in management systems over time, the forest management process in this protected area is still a top-down approach wherein, communities are not directly involved in the decision making process. Rather, committees - such as the village forest management committee (VFMC) - created via the co-management concept, are a medium through which communities are informed and directed on what to do by the park management - which is the Ministry of Forestry and Wildlife (MINFOF). This shows that though forest management and governance has changed on paper over the past years, in reality a centralised state system is still operational in national parks in Cameroon. I recommend that the community via the VFMC be actively involved in the decision making process, so the voice of the community can be an integral part of resource management in national parks.

Faggin & Behagel (WUR-FNP, The Netherlands): Institutional bricolage of SFM implemented in rural settlements in Caatinga biome, Brazil.E

Sustainable Forest Management (SFM) implementation strategies articulate different aims, goals and interests across different scales of governance and social-ecological contexts. When SFM is implemented in common pool or public forests, governmental initiatives often play a central role in defining formal institutions that will interact with the local social-ecological context. Previous research shows that local populations and communities as well as ecological context

play key-factor shaping SFM practices. This paper applies a critical institutionalism lens to analyse how interactions between institutions linked to SFM implementation strategies with already existent institutions on the ground result in (un) expected governance outcomes. Using Caatinga biome, in Northeast Brazil, as a case study, we show how local actors (bricoleurs) perform institutional bricolage processes, rejecting, adapting or integrating institutions linked to SFM implementation strategies to their social-ecological contexts. The paper is based on the qualitative analysis of twenty interviews with local and governmental actors, and site visits. From our analysis of governmental initiatives that support SFM implementation in rural settlements in Caatinga we conclude, first, that formal institutions do not align with all the different roles that forests resources have in the livelihood of local actors, being mostly focused on the production of forest biomass for energy supply. Second, we conclude that local communities nevertheless adapt the implementation of SFM to be better aligned with the way they socially organize their activities. Finally, we found that the success of SFM implementation is highly dependent on the quality and number of interactions among local actors in a specific social-ecological context, achieving positive results only when these interactions help to face challenges, specifically those linked to bureaucracy and to technical capacity.

CONFLICT & CONTROL

PANNEL SESSION 1: PARTICIPATORY AND SUSTAINABLE FOREST MANAGEMENT IN TROPICAL COUNTRIES

Andersson & Keskitalo (SLU/Umeå University, Sweden): Constructing subjectivity and governing forest: the distant consumer in Swedish forestry.

Increasing diversification, urbanization, economic restructuring, and less economic dependence on forestry are changing the characteristics of forest ownership, and may also be mirrored in varying management foci amongst owners. Given this potential shift in forest owner priorities, this study reviews how forest owners in Sweden are constructed trough the forestry organizations, and thereby how forest owners, in a time of change and increasing distances, are rendered governable in specific ways. Although these shifts in forest owners' characteristics, the limited change in forest management and use partly reflect the strong technologies and institutions of Swedish forestry. The study shows that forest owners are largely constructed as consumers (rather than for instance timber suppliers) that are in need of specific forms of guidance and knowledge that is seen as correct and relevant (the historically dominant timber supply role). Governing at a distance is instituted amongst other drawing on digitalization of technologies of government, as traditional techniques are no longer sufficient under social change and an increasing distance between forest owners and their areas. However, more traditional and new technologies, largely intended to make the forest owner more active, such as forest management plans and forest webs, are to great extent reproduced and produced as places and means of consumption without challenging the dominant timber production rationales and logics. By emphasising the shift in subjectification of forest owners, the result highlights the need to pay closer attention to the organisations and sale processes of forestry within forest research and policy. It also underlines the effect on the subject positions and agency of different groups of forest owners and its direct and potential implications on power relations, dominant rationales and forest management in Swedish forestry.

Makrickiene, Mozgeris, Brukas, Brodrechtova, Sedmak & Salka (Aleksandras Stulginskis University, Lithuania/Technical University Zvolen, Slovakia): Analysis of command-and-control forest governance model in Lithuania and Slovakia.

Although both Lithuania and Slovakia passed the transition phase from planned to market economy, in both countries forest sector still stays under the command-and-control governance model. Regardless the growing amount of private forest properties, in both countries there is a strictly centralized forest management system, denying the decision freedom of forest managers and private forest owners. This study is aimed to theorise on criteria suitable to judge the degree to which forestry in a given country is steered by command-and-control as opposed to the more adaptive forms of

governance and to apply the devised analytical framework for the selected case countries, Lithuania and Slovakia. The analysis of 5 criteria (Efficiency, Equity, Participation, Transparency and Adaptiveness) revealed both existing differences and similarities between forest governance models in case countries. The study is based on the data from EU Horizon 2020 project ALTERFOR.

Maier (State Forest Research Institute Baden-Württemberg, Germany): At the front lines in public forests – a street-level perspective on forest policy implementation in Germany and the US Pacific NorthWest.

"Implementation […] is seen as following upon and subordinate to the preceding stages of agenda-setting and policy formation. Hence, implementation is often addressed as 'the rest'." (Hupe and Hill, 2016). Research in a variety of policy fields has proven this view to be inadequate and insufficient to understanding policy outcomes. Within the scientific literature, local level policy implementation has come to be considered an intricate part of policy making processes and a necessary element in their analysis. It's assumed that it may not be that a "policy determines its execution" (Hupe, 2011, 67), but that execution shapes a policy. Starting in the 1970s, street-level bureaucrats – nurses, teachers, social workers and others working in public service – have been the subjects of a growing body of academic studies. Scholars have examined a range of potential influences on street-level bureaucrats decision-making, in particular their use of available discretion. This thesis aims to shed light on policy implementation by a particularly sparsely studied 'species' of street-level public servants: forest management agency staff, more specifically forest rangers. Earlier works described them as fairly autonomous actors in strictly hierarchical forest management agencies. Yet starting in the 1960s, changing societal demands towards forest have broadened forest management objectives; at the same time, traditional, top-down approaches in public administration have been replaced by more bottom-up, network based modes of governance emphasizing interdependence between state and non-state actors . Elements of this development have found their way into forest management agencies in Germany and the US, where forest rangers today are faced with diverse societal demands and management objectives, and are expected to implement policy in an inclusive manner. This is particularly true for publically owned forests – the focus of this thesis – which tend to be assigned a particular responsibility to serve the public's interests. How is forest policy implemented given the diversity of management objectives and multitude of actors involved? Based on rich empirical evidence from case studies in German and the US this thesis sheds light on this issue by examining the perception of forest policy by those in charge of its implementation. Particular attention is paid to the following key elements of current forest policy: (1) management objectives related to nature conservation in public forests, and (2) inclusive processes – such as public participation in decision-making processes and (inter)agency collaboration.

Lodin & Brukas (SLU, Sweden): Ideal vs Real forest management: Challenges towards implementing production oriented forest management ideals in the small-scale forestry in Sweden.

Silvicultural research, operative guidelines and legal prescriptions often focus on ideal management schemes that aim to

"guide" a forest stand towards the fulfilment of explicitly or implicitly defined objectives. However, based on empirical data it is evident that substantial cohorts of forest owners or managers do not follow the prescribed ideals, resulting in substantially different forest management outcomes in practice. Investigating this divergence can highlight areas characterised by conflicting interests or implementation deficits, where policy makers might be tempted to intervene and steer the forest management behaviour in a desired direction. It also constitutes an interesting arena for cross-disciplinary research that would contribute to a better understanding of the various factors shaping forest management practices. In our paper, we provide a conceptualisation of ideal and real forest management that can be used in similar studies in other countries. Building on qualitative interviews with forestry advisors and forest management statistics, we also depict the deviation between ideal and real forest management in the small-scale forestry of southern Sweden and investigate the factors causing the witnessed deviation. In doing so, we exemplify the challenges that forestry advisors are facing in their efforts to promote traditional profit oriented forest management ideals among an increasingly heterogeneous group of private forest owners, that not are dependent on the incomes from forestry to support their livelihood.

FOREST GOVERNANCE

PANNEL SESSION 2: EXPLORING GOVERNANCE OUTCOMES

Fischer & Günter (Thünen Institute, Germany): Governance effects on de- and reforestation in the tropics.

Forest Governance is commonly defined as a broad regulatory framework related to forest use and conservation (e.g. Giessen and Buttoud, 2014). Several methodological approaches for assessing it through indicators for single governance components have been published. Many authors find positive effects of single governance components on forest cover and conservation. However, there is still debate on which components are the most important ones and whether the context i.e. other non-governance related drivers modify the effects goals (Wehkamp et al., 2018). We aim to analyze if the paradigm of good governance leading to reduced deforestation in general holds true and, if yes, to detect the potentially decisive governance components. Further objectives are to find out whether the methodology applied or the scale considered in the respective studies influence the results and if the context of other deforestation drivers plays a role. In this study we conduct a systematic key word search for scientific articles on governance and deforestation in Scopus. From a total of 810 articles we concentrate on the most frequently cited publications and on those that provide empirical evidence on the subject. The resulting 32 papers are analyzed by content analysis methods using MAXQDA for text coding and by applying the governance indicators tool of the World Resource Institute as categories (Davis et al., 2013). A Lickert scale is applied for the quantification of governance effects. The findings consistently show positive effects of good governance. Mostly classical governance components such as law enforcement, institutions, participation and tenure are studied in the 32 publications. Surprisingly there are hardly any studies analyzing governance in law-making institutions, state forests, concessions or in the private sector. Principal component analysis shows that it is primarily the presence of any governance component and not a specific mix of components that has an effect on deforestation. As concerns additional drivers, external development inputs, education and technological improvements have positive effects like governance. In contrast, road infrastructure and population effects on one side and timber and agricultural land use effects including illegal logging on the other side show more negative effects. Finally we discuss the results in order to conclude if structure - agency theory is a useful theoretical framework supporting our findings.

Nago, Krott, Ongolo & Giessen (University of Göttingen/EFI Germany): Forest diplomacy in Congo basin: the failure machine?

With the second largest tropical forest areas after the Amazon, Congo basin countries (Cbc) are one of the most emblematic actor group of forest diplomacy within the Coalition for Rainforests Nations3. Since the rise of forest

governance in global environmental agenda in early 1990s, many international public and private actors approach Cbc within international negotiation arenas for technical or financial cooperation. However, despite the density of this forest diplomacy in the Cbc, an in-depth immersion in the backstage of their negotiations reveals that Cbc's forest diplomacy seems to function as a planned failure machine. The substantial contribution of this paper is to scrutinize the causes of the Cbc forest diplomacy failures, and explain why this situation seems to be irreversible? The research approach used was thus qualitative rooted both on the rational choice and organizational behavior theories as well as on an extensive empirical work including document analysis, participant observation, group discussions and in-depth expert interviews. . The majority of data used in this paper were collected during: (i) climate change negotiations' rounds (Bonn/Germany in Mai and November 2017), and (ii) a Congo Basin countries CoP23 preparation workshop (Brazzaville/Congo, August 2017). As main result, this research reveals that the repetitive failures observed within Cbc forest diplomacy seems as being planned by the actors involved. Indeed, due to the limitation in negotiation´s human and financial resources of Cbc on one side and to their silencing by developed countries through their financial assistance to negotiation on the other side, it seems as existing no possibility for a success story of forest diplomacy in Congo Basin at least in terms of conservation.

Mijailoff, Burns & Giessen (National University of La Plata Argentina/EFI Germany): The role of the World Bank in an international environmental conflict: The case of the pulp mill conflict between Argentina and Uruguay.

The rapid expansion of plantation forests with exotic species observed since the beginning of the 90s is mainly concentrated in the southern hemisphere, where they are becoming one of the main land use changes. In the south of Latin America, this expansion was promoted by international actors, like the World Bank and the Food and Agriculture Organization (FAO), by means of funding and capacity building with the aim of creating a pulp production region in Argentina, Uruguay, Chile and Brazil. These interventions came at a time when the global forest industry went through numerous changes, characterized mainly by internationalization with the resulting increase in foreign direct investments in developing countries. However, in Argentina this process was stopped when two pulp mill projects, from Finnish and Spanish companies, were approved in Uruguay over the margin of a shared river, leading to a big bilateral conflict promoted by environmental organizations and local actors. The aim of this study is to analyze, by means of process tracing, the environmental conflict caused after the approval of two pulp mill projects over the shared Uruguay river, identifying the relevant actors, their positions and interests. In particular the role of the World Bank will be analyzed, as the international organization involved in the development of the plantation forests as well as funding both pulp mill projects. In order to identify the main actors and their positions a search in a national newspaper article was performed. In total over 2800 articles, over the period, 2001 – 2017 were analyzed which were also used to perform a time line of the main events and actors. To understand the role of the World Bank, additional documents and interviews were used. Our results showed that several actors from different levels were involved in the conflict (international, national and local) with conflicting positions and interests. The World Bank, by funding the pulp mills, played an important role resulting in different winners and losers.

INTERNATIONAL POLICY AND POLITICS

PANNEL SESSION 2: FOREST POLICY IN THE EU

Yakusheva & Brockhaus (University of Helsinki, Finland): Whose voices are heard and why? Exploring LULUCF negotiations in the European Union

The Paris Agreement set a new milestone in the global climate governance, encouraging all countries to adhere to new ambitious mitigation and adaptation commitments. The EU is looked upon as a future leader in implementing post-Paris climate commitments. However, not all EU member states seem to agree on how and when to cut their emissions (Ellison et al. 2014). The ongoing negotiations on integrating the greenhouse gas (GNG) emissions from land-use, land-use change and forestry (LULUCF) into the EU 2030 Climate and Energy Framework is a particularly interesting example for uncovering the variety of actors' interests and discussions on approach to reducing emissions. The initial EU Commission's proposal was presented as a technical issue that aimed to simplify and upgrade existing methodology in accounting and calculating GNG emissions from agriculture and forestry. However, implicitly and explicitly, the proposal touched upon diverse interests of multiple actors and quickly became highly political. This paper aims to gain insights on how and with which means actors coalitions influence decision-making at the EU level. In particular, I explore who forms LULUCF policy network and how different factors (access, power, resources, coalitions within network) enable (or constrain) lobbying efforts of involved actors. This study draws from selected notions of multi-level governance and policy network literature, widely used for exploring the EU processes (e.g. Marks and Huge, 2001; Knill and Liefferink 2007). The methods applied in the paper include a combination of social network analysis (SNA), to identify and assess coalitions and power relations within this policy domain, and document analysis (meeting reports, position and policy papers) to put the obtained network data into context. The expected results will bring conceptual contributions in advancing understanding of the role policy networks play in shaping decision-making in multi-level governance and may help to shed a light on implications for governance principles (transparency, inclusion, accountability). The paper will also provide empirical insights into representation of organized interests in the EU LULUCF negotiations.

Böhling (TU Munich, Germany): Forest policy in the EU: Driven by climate policy?

 There is no common forest policy but a range of forest-related funding schemes, regulations, strategies and action plans in the EU. This standard starting point about the state of forest policy in the EU triggered insightful research about its paradoxical nature (Winkel & Sotirov 2016), its causes and consequences for policy-makers and forest owners (Bjärstig 2013; Jürges & Newig 2015; Weber & Christophersen 2002) as well as about options to address underlying conflicts of interests (Pülzl & Lazdinis 2011). Moreover, the implications of Europe's fragmented forest policy field for the governing authority over forests in member states attracts much attention in both research and practice (Hogl et al., 2016; Lazdinis et al. 2009). The present paper proposal seeks to analyze how climate policy affects the complex field of forest-related policy-making in the EU. The dynamism of this field is put at the center with a view to better understanding its impli-

cations for decision-making over forest use across the multiple governance levels in the EU (Pülzl & Dominguez 2013). The EU Council and Parliament are currently deciding on accounting rules for greenhouse gas emissions in the land use and land use change and forestry sector (LULUCF) as part of the EU's 2030 climate and energy framework. Legislation for the inclusion of LULUCF in Europe's climate mitigation strategies was proposed in July 2016 and is currently being concluded. Although climate accounting for forests was also conducted under the Kyoto Protocol, the significance of the Commission proposal relates to the introduction of a mandatory accounting system across Europe that treats forests as carbon sinks to increase their mitigation potential and contribute to staying below the 2°C goal of the Paris agreement (COP 21). With the LULUCF ordinance, the EU signals to act on the Paris agreement. Climate action is a topical issue at international as well as at European level – through, among others, SDG 13 and Commission president Jean-Claude Juncker's list of policy priorities. Kingdon's multiple stream and Sabatier's advocacy coalition approaches are combined (see Sotirov et al. 2017; Storch & Winkel 2013) to enrich our understanding about the sources and consequences of dynamism in the EU's forest policy field. Data from a content analysis of the LULUCF policy process and semi-structured interviews informs the analysis of:

a. how the Paris agreement opened a window of opportunity for forest-related policy in the EU,
b. whether other actors than the 'usual suspects' in the forestry and nature conservation coalitions drive this process, and
c. what consequences the potential rise of new actor constellations may have for the governing authority over forest use in member states.

Baulenas (Freiburg University, Germany): Policy integration between the water and forest sectors across the EU28: not all policies are created equal.

The field of research for the current study is forest and water policy in the context of sustainable management of natural resources. The dynamics of implementing a governance principle as it is the case of policy integration has been studied in a cross-sectoral longitudinal study across these two natural resources. Using Qualitative Comparative Analysis (QCA) we have observed which conditions are related to the choice for a certain policy integration type. The study follows a two-stage approach: firstly, it consists on a European-wide descriptive study on the type of policy integration between the forest and water sectors at national level. Following this first stage, countries are categorized by type of policy integration, becoming this output the dependent variable of the second stage of the study. This stage, in which QCA plays a key role, consists on observing which conditions have led to different outputs. Accordingly, the research questions are, "What type of policy integration between the forest and water sectors is observed at national level?" and, "What are the conditions which lead to the distinct types of policy integration?". The data has been compiled through an expert survey distributed to national regulators and natural and social sciences researches in the field of water and/or forest policy. The mapped policies have been grouped in communicative, procedural, organizational and management policies and countries have been categorized based on which policy mixes they have implemented. The tested hypothesis is that the relative strength of the forest and water sectors can lead to different types of policy integration.

Wilkes-Allemann & Lieberherr (ETH Zuerich,Switzerland): How National Forest Programs affect policy change: A Swiss Experience.

Inspired by sustainable development initiatives at the international level, several countries have been experimenting with new governance approaches in resource and environmental policy (Bevir, 2011; Zingerli and Zimmermann, 2006; Howlett and Rayner, 2006). Traditional forms of hierarchical political steering have been complemented with new governance forms of cooperation and self-regulation (Bevir, 2011; Zingerli and Zimmermann, 2006). NFPs are such a new governance form. They incorporate a wide range of approaches that contribute to the formulation, planning and implementation of forest policy at national and subnational levels (FAO, 2017). In Switzerland, a NFP is defined as an action program at the federal level, which outline the state's activities in the forestry sector and define the cross-sectoral cooperation (SAEFL, 2004). Since the Earth Summit in 1992, two Swiss NFPs have been developed: the "Forest Program Switzerland" from 2004-2008, and the Swiss Forest Policy 2020 from 2012 – until today. Both had the aim of securing sustainability and multifunctional forest management. However, only the second program had the necessary effect for policy change, as it triggered the adaptation of forest laws and ordinances. The question thus arises about why and how NFPs trigger policy change? The empirical analysis compares both Swiss NFPs. To analyze the effect of NFPs on national forest policy we draw on the Advocacy Coalition Framework (Sabatier and Weible, 2007). This framework enables identifying crucial triggers that foster policy change. Based on expert interviews at the federal level and text analysis of scientific articles, 'political articles' and press releases from diverse stakeholders, we find that the following aspects play a crucial role in triggering policy change: current challenges such as climate change and hazardous organisms, the results of international agreements (e.g. Paris agreement), the differing beliefs of stakeholders, as well as stakeholder involvement in decision-making. The findings further show that the level of decision-making (e.g. the signing authority) played a crucial role in supporting and allowing for policy change. The results presented may contribute to understand how multilevel forest governance and new governance forms in a federal state work and what the triggers are that foster policy change.

COMMUNITY & SOCIETY

PANNEL SESSION 2: LIVELIHOODS AND COMMUNITIES

Afriyie, Zabel & Damnyag (Bern University of Applied Sciences, Switzerland/Forestry Research Institute, Ghana): Survive or perish. Coping strategies of Ghanian cocoa farmers under climate change.

During recent years, cocoa yields have decreased for many farmers in Ghana as a consequence of various effects related to climate change. Cocoa trees, which grow either in the shade of other larger trees or in full-sun, are perennial crops, which create path dependencies for farmers and require longterm management strategies. Farmers' livelihoods to a large extent depend on cocoa, which makes adaptation to climate change immensely important. This paper presents empirical findings on farmers' experiences of climate change, the coping strategies they have used and the factors that influenced their adaptation decisions. It further investigates farmers' adaptation options for future risk occurrences. Primary data were collected through a structured survey of 313 households in 20 communities in Dormaa West and Bia East districts. The econometric analysis of the data shows that more than 90% of cocoa farmers have been exposed to negative impacts of climate change. This resulted in severe and very severe effects on their cocoa production and livelihood. Regarding the effects of the change, yield reduction ranked first followed by income reduction. This resulted in reduced purchasing power leading to difficulty to enjoy decent livelihoods. The study further revealed that the most important adaptation measures farmers have used were basic farm management followed by reliance on food crops. Among other factors, farmers' experiences of risks and cocoa's contribution to their income had a significant influence on their adaptation decision. Farmers revealed that in future, they will look for alternative livelihoods or rely on food crops as the most prominent adaptation strategies to climate change. The policy recommendations from these findings, especially in light of the sustainable development goals 1 and 13 which seek to end poverty and combat climate change and its impacts, are to strengthen farmers' adaptive capacity by introducing alternative forms of livelihood and rainfall insurance, that promise financial support during crop failure. Another option is to build the capacity of agricultural extension officers to train farmers on sustainable agricultural practices and adaptation measures.

Gordillo (Thünen Institute, Germany): Estimating households' WTP for forest conservation in Ecuador: results from a national CV survey.

Our study reports results from a national survey examining households´ values for conserving forests. The resource being valued is a public program aimed at stopping an annual deforestation of 500 km2. We performed a contingent valuation analysis in a geographically representative sample of 976 households across the three main regions of Ecuador, covering urban as well as rural areas. Our study found that households have a high awareness level of forests importance and threats. About 76% of households voted in favor to pay for a forest conservation program. Our preliminary results show that for forest conservation, households on average are willing to pay monthly USD 2.88. We conducted a series of tests for checking the robustness of results, including the identification of protest and truezero responses, embedding

effect, and anchoring bias. We also controlled for income effect and distance decay effects. We aimed to disaggregate this value for different regions, areas, and types of forest; our results, however, do not show considerable variation among them. Results suggest, however, that households preferred prioritizing conservation program (1) for primary forest and (2) in the coastal area. These preferences, nonetheless, suggest differences across regions and types of forests. Our results may help designing household-funded payment for ecosystem services schemes in line with effectiveness and efficiency objectives.

PANNEL SESSION 2: INCREASING STATE CONTROL

Vukotic (University of Copenhagen, Denmark): Forestry and Environmental Rule in Serbia

Since the 1990s the processes of post-socialist transition coincided with broader global environmental developments to influence significant changes in Serbian forestry, bringing about new rationalities for reworking forest governance and management. However, while post-socialist transformation prompted privatization, decentralization and democratization of forestry in other postsocialist countries, Serbian forestry has been re-centralizing. And while developments caused by growing global concerns over climate change, the state of environment and sustainable development prompted increasing involvement of local communities and markets in environmental governance; state control over forests has been strengthening in Serbia. There has been raising concern about sustainability and environmental change, such as deforestation and forest degradation, and introduction of new policies with express objectives of sustainable forest management and multifunctional forestry to combat these changes. However, these have been accompanied by increasing state control over forests, and continued focus on timber production even in protected areas. This study seeks to understand policy interventions and (incongruous) outcomes in Serbia by using "environmental rule" (McElwee, 2016) as a framework for analysis. Drawing on fieldwork, interviews, observations, and document analysis, this study examines how forests have been characterized and problematized, and directions that were given to shape their management and use. It shows that Serbian forest policy is not aimed (only) at improving and protecting forests, but is rather aimed at other social and economic goals: dealing with shifting responsibility for large areas of private forests in post-socialist setting, avoiding unemployment in shrinking public sector, retaining wood supplies for industry, or gaining access to international funding. Forest policies are often assumed to be primarily aimed at improving natural world, a tool to shape and manage forests. This study shows that this assumption can sometimes be wrong, policy interventions are not always exclusively about managing forests, but about managing people as well.

Dobsinska, Zivojinovic, Salka, Weiss, Jarsky, Nedeljkovic, Petrovic & Sarvasova. (TU Zvolen, Slovakia, et al.): Actors and interests related to restitution in the forestry sectors in selected countries in transition.

The transformation process of political and economic reforms has significantly influenced forestry institutional reforms in all former socialist countries. Restitution process was initiated with the aim of recognizing private property rights, and it was one of the major changes with which forestry sector was faced. This process was followed by many changes of forest policies and regulations, and was influenced by many different forces and interests. Using the actor centred power theory we analysed the restitution process and the power relations of forestry actors in the restitution process in selected countries: Czech Republic, Slovak Republic and Serbia. The methodological approach combined multiple research methods. Document analysis was used in order to identify main interest organizations and actors involved in the resti-

tution process. The main data sources for the qualitative part were expert structural interviews following an interview guideline developed by the authors. The results of the restitution has been the creation of a large number of small scale forest owners, who often lack the knowledge, skills and resources needed for sustainable forest management. Their power was not so strong compared to other actors, in all countries there were no financial incentives to help them in the restitution process and they were burdened by administrative problems and high costs. The entire restitution process was conducted in a relatively broad consensus of political representation, government and liable entities.

Secco, Masiero & Pettenella (University of Padova, Italy): Strengthening the role of Central states in forest resources management: a new trend?

Our assumption is that, after the experiences of decentralization of responsibilities to local authorities associated with the enlargement of the private actors' role in forest resources management, the governance of the sector is heading – in some European countries - towards models that rediscover the role of State central authorities and traditional command and control instruments. After discussing the potential driving forces (e.g., the emergence of nationalism, the speding reviews associated with public budget cuts, etc.), Italy is analyzed as an example of this new trend. In Italy, the administrative decentralization led to the transfer of forest responsibilities to the Regions. In the '80s-90s, with the expansion of public spending, most of them were engaged in strengthening their administrative structure and reforming their legislation. After 2000 and during the 2008 crisis, there was a gradual reduction of official commitments and public spending, and their administrative structures were dismantled or weakened. Since 2016-2017 a re-centralization process is underway: a new National Forest Act was approved stressing the role of the State in coordination, a new General Direction of Forests was created, a new unit responsible for the control of forest was created under the military police (the Carabinieri). This unit is in charge of the controls related e.g. to the EU Reg. 995/2010 (Timber Regulation), CITES, criminal activities connected to forest fires. There are elements of contradiction in this reform. On the one hand, the new institutional arrangements are recovering the missed links between the international context (in particular the European Union) and the local one (Regions). On the other hand, this model is reinforcing the role of the State in the passive control of the sector in a context where active management and public-private partnership should be supported to contrast the process of forest resources abandonment and degradation.

PANEL SESSIONS 3
Thursday 12 april, 10:30-12:30

FOREST GOVERNANCE

PANNEL SESSION 3: INNOVATIONS IN FOREST GOVERNANCE

Rogelja, Ludvig, Weiss & Secco (University of Padova, Italy/EFICEEC-EFISEE, Austria): Implications of policy framework conditions for the development of forestry based social innovation in Slovenia.

Social innovation (SI) has a potential for reducing the negative effects of the increasing pressures on forest resources. With the aim to contribute to the overall wellbeing of society (i.e. inclusion, nature conservation), SI initiatives create innovative governance arrangementsi and establish new relationships aligning diverging stakeholders' interestsii in forest uses and management practices. For developing innovative forest governance arrangements, we need to understand the implications of relevant policy programs on forest-based SI initiatives. For this purpose, we analyzed national policy framework conditions for SI in Slovenia. We carried out content analysis of 18 documents from cohesion, social enterprise, rural development, forestry, and environmental policy programs. To validate the content analysis results, we conducted in-depth interviews with relevant Slovenian policy experts. Preliminary results indicate that cohesion, social enterprise (SE), and rural development programs address SI only through measures supporting SE. SE is seen mostly as a tool for contributing to the goals of the employment, inclusion, and sustainable development. Forest and environmental policy programs do not mention SI nor SE. Nevertheless, Slovenia has a comprehensive framework for regulating SE. In 2017 there were 252 registered SE from which the only one was registered for forestry-related services. We conclude that existing framework conditions support the establishment of SE. Nevertheless, understanding of SI solely through SE is insufficient for the development of other types of forest-based SI initiatives (e.g. hubs, networks).

Primmer, Krause, Mann, Stegmaier, Varumo, Paloniemi, Brogaard, Geneletti, Sattler, Kluvankova & Schleyer (Finnish Environment Institute et al.): A framework for the analysis of institutions conditions innovations for forest ecosystem service provision.

The sustainable development goals put a new emphasis on rights and distribution of benefits produced by ecosystem services. Developing transitions and pathways to sustainable development goals will crucially depend on the innovation capacity of governance systems and constellations of public and private actors contributing to the innovation processes. Forests in Europe have traditionally been managed with a dual aim to secure timber production and support multiple functions. This combination of a specific production target and consideration of co-benefits, reflected in European forest policy, has recently been challenged with new considerations of the full range of ecosystem services. Biodiversity, bioeconomy, bioenergy, climate and green infrastructure policies reflect the increasing demand for eco-

system service provision and the emergence of new markets and business opportunities. We propose that the ways in which these opportunities can be tackled by actors operating in and around the forest sector will be conditioned by institutions. The paper will lay out an initial framework for an institutional mapping for forest ecosystem service governance innovations in the 27 EU countries as part of the H2020 Innovation Action "InnoForESt". The focus is on Finland, Sweden, Germany, Austria, Italy, the Czech Republic and Slovakia. In addition to identifying the ecosystem services and their beneficiaries, the framework will consider policies, actors and management regimes. In particular, the framework captures the ways in which different actors' rights to ecosystem services are addressed, with the idea that business and policy innovations will necessarily redefine and reorganize the rights to use, access and enjoy ecosystem services as well as the rights and responsibilities of managing and governing the forest ecosystem. Contributing to the understanding of the essential role of rights and distribution of benefits in the sustainable development goals, our framework will support the evaluation of the institutional conditions of forest governance advancing sustainability transition.

Lovrić, Lovrić, & Mavsar (EFI Finland): Innovations enabling the forest sector transition towards bioeconomy.

Transition towards bioeconomy is seen as one of the most important pathways towards diminishing the dependence of fossil resources. However, socio-economic knowledge on the firm-level transitions towards bioeconomy is very rare. This study provides a first attempt to map the innovations within the context of forest bioeconomy, and to provide insight to factors that support and impede their development. Forest bioeconomy is participatory defined based on input from five senior experts and based on results from six previous research capacity mapping exercises. Outputs of innovation such as number of patents and revenue are treated as dependent variables, while independent variables are grouped onto descriptors of innovation, internal organizational variables and variables external to organizations. Sample is drawn from all companies that have participated in FP7 and H2020 that thematically fall within forest-bioeconomy; which led to 1333 unique project participations and 172 responses to the survey. Results show that sustainability assessments, forest management, wood supply chains, bioenergy and biorefineries are topics with increasing presence in EC's framework programmes. Most frequent types of innovations are in development of production methods, followed by goods and services. However, there are few innovation cases in later stages of development, while more disruptive and complex innovations are usually more successful ones. Successful innovations also critically depend on the adequate organizational leadership and external financial support. Vast majority of companies considers EU framework projects as useful tool for supporting development of innovations.

Buijs (WUR-FNP, The Netherlands): Active citizens and urban forestry: fostering the diversy of stewardship through mosaic governance.

The governance of urban forestry comes with special challenges, related to its environmental, social as well as institutional fragmentation. Meanwhile, the role of urban dwellers appears to be crucial for the environmental, social, and institutional resilience of cities. Based on 20 cases studies from across Europe, we investigate how mosaic governance

can foster horizontal and vertical integration across cities. Horizontal integration relates to collaborations between active citizens and governments, while horizontal integration relates to the ecological and the social connectedness across the city. Based on this analysis, we argue for developing modes of 'mosaic governance' that allow for effective collaborations across the array of people, institutions, and spatial practices associated with active citizenship. Mosaic governance suggest an enabling and stimulating governance style that harnesses the transformative potential of active citizenship to maximise social and environmental outcomes of active citizenship.

Susilawati (Australian National University): Compliance of small holder timber value chains in East Java with Indonesia's timber legality verification system.

The Indonesian Timber Legality Verification System (SVLK) has been developed to comply with the European Union's Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan. While SVLK was catalysed by concerns about the legality of wood originating from natural forests, it applies to all wood production in Indonesia, including that from small-holders. This study investigates SVLK implementation in value chains originating from smallholder forests on private land in East Java Province, Indonesia. The study followed value chains from two districts in East Java for each of two manu-factured wood products, blockboard and plywood. Results reveal the strengths and weaknesses of SVLK architecture in relation to smallholder value chains, variation in compliance practices, and points of legalization of non-compliant wood within the value chains. The blockboard and plywood value chains studied have similar structures, and market brokers are active in each. There are specific SVLK requirements for each actor along the chains, from grower to final processor, other than for market brokers. In each of the product value chains studied, one case study chain was SVLK-compliant and one not. Non-compliance was the result of the non-compliance of particular, rather than all, actor groups. However, all case study chains claimed compliance; consequently, a process of timber legalization is happening in some of the timber value chains. Given that the smallholder trees from which these value chains originate are being harvested legally, the non-compliance is more of an administrative problem for SVLK than a fundamental one. However, if similar legalization happens in other value chains, with wood deriving from other forest tenures and the possibility of illegally-harvested wood, the primary goal of SVLK would be compromised.

Heukels (WUR-FNP, The Netherlands): Implementation of VPA/Flegt in Ghana: Legality, traceability and transparency in the timber production chain.

Deforestation and illegal logging are generally considered the two key problems of the tropical timber sector around the world. Weak governance structures have often been indicated as the underlying driver. Since 2008, Ghana has entered a Voluntary Partnership Agreement (VPA) with the European Union on the adoption of the Forest Law Enforcement Governance and Trade (FLEGT) action plan to stop illegal logging activities. The agreement comes with the set-up of a traceability system called the Wood Tracking System (WTS) to monitor and ensure that harvested logs come from legal sources and go through the entire documentation process before entering the domestic or international market. Once this tracing system is established and logs are proven to be correctly felled and processed, these receive a FLEGT license. The objective of this research is to elucidate how this WTS is being implemented, and how the concepts of legality, traceability and transparency are shaping this implementation. Due to the explorative nature of this study, it will use a semi-inductive approach through grounded theory. For data collection, several interviews were conducted in Ghana,

with stakeholders from various backgrounds, throughout the timber production chain. The traceability system works through control points, where documentation on the legality of the product is assessed. The custodians responsible for these control points have been the main subjects for interviews, as well as NGOs closely involved in VPA implementation. It is expected that there will be a strong link between legality and traceability for realizing FLEGT timber. Only if the source and documentation can be traced for the final product, its legality can be assured. Transparency of the VPA implementation by the industry and forestry sector is also crucial in increasing credibility.

Derous & Verhaeghe (Centre for EU Studies, Belgium): Delving into the nexus of a nexus: The VPAs.

The Voluntary Partnership Agreements (VPAs) are voluntary trade agreements between the EU and timber producing countries and constitute the 'external leg' of the EU's wider Forest Law Enforcement, Governance and Trade (FLEGT) initiative. Covering topics such as law reform and enforcement, corruption, stakeholder participation and timber verification, the FLEGT VPAs are in a nexus of trade, development and environmental policy. The VPAs' wide scope and highly ambitious agenda is however not fully reflected in the scholarship on FLEGT. While the VPAs have attracted a substantial amount of scholarly attention, we find the scholarship to be rather narrow drawing on a limited number of arguments. We argue that there is much more to be studied and theorized regarding the VPAs, not the least when taking into account the existing literature on EU trade and development policy. In this paper, we will structure the existing FLEGT & VPA (related) literature according to its main arguments and methods. The paper will continue to engage with both the EU trade and development policy literature. We consider some key learnings from these studies which can help us understand and analyze the VPAs. Moreover, we argue that this also works the other way around. The study of FLEGT and the VPA has much to add to the trade and development policy literature. We conclude with our own research agenda which focuses on comparative research on the one hand, and critical theory on the other.

Mammadova (University of Padova, Italy): Deforestation Risk of Leather Trade Between Brazil and Italy. Analysing discourses, traceability models and changing environmental governance on the way to zero deforestation.

The list of forest-risk commodities keeps expanding to include those with exposed risk of deforestation in supply chains. In view of increasing deforestation rates in Brazil, demand side interventions and sustainable sourcing of these commodities are considered as important stepping stones. In this regard, being a byproduct of cattle, leather is gaining more attention as a commodity with embedded deforestation in the production system. There is a growing expectation from the downstream actors to put forward deforestation related policies and commitments. However, this discourse is confronted by those who focus only on after-slaughterhouse environmental impacts and consider leather a waste product that would bear no further responsibilities for farm level impacts. By employing the qualitative research data collected through interviews, literature review, field visit and observations this research aims to explore how the discourses are being articulated and how mobilization of bias in the language lead to power structures, knowledge claims and finds its manifestation in strategies and practices. Leather "as a forest-risk commodity" and leather "as a virtuous example

of circular economy" have been identified as two prevalent discourses different parties adhere to. Although there is still a need for more field data and insights, the past and recent developments show ongoing boundary work, meaning articulation, identity management and discourse coalition disintegration and re-integration among the stakeholders. The power struggles for meaning articulation are creating major bottleneck against coordinated action and positive changes on the ground.

COMMUNITY & SOCIETY

PANNEL SESSION 3: FOREST & SOCIETY

Mallow & Pülzl (EFICEEC, Austria): Navigating the value jungle – societal perceptions of forest ES and its policy implications.

Ecosystem Services have gradually made their way into forest decision-making and implementation since the publication of the Millennium Ecosystem Assessment and are often referred to as Forest Ecosystem Services (FES). Revealing trade-offs between FES to assist policy decisions is almost unanimously identified as a crucial endeavour. However, while the literature reports a great variety of approaches to valuation of rather economic nature, the meaning of values associated with and towards benefits obtained through forest ecosystems, despite being of crucial importance, remains unclear. Our paper therefore focuses on the analysis of the meaning of values with regards to FES taking a broader social science perspective by also integrating values research from the fields of sociology and psychology. This is to understand how social sciences approach values and FES including societal and cultural values, and to systematically study the meaning of values and benefits associated to forest ecosystems in the existing FES literature, consequently leading to a better understanding of the dominant value allocations by researchers. These alternative approaches clearly differ from economic approaches to value and valuation, often not going beyond instrumental and thus monetary values of FES. Social values and the socio-cultural value system, i.e. intrinsic, fundamental, and eudaemonistic values, cannot be adequately captured by quantitative methodology, used in the context of economic studies. Therefore, there is a need to address this problem with qualitative research methods. The article is based on a systematic literature review and the analysis follows the principles of qualitative content analysis assisted by Atlas.ti, i.a. for thematic analysis as well as cross-researcher validation of outputs. The results provide insights into how especially societal and cultural values are accounted for in the context of FES. Consequently, these insights can contribute to a policy appraisal of the Ecosystem Services approach to serve society's needs more comprehensively.

Dobrovolsky (Saint Petersburg State Forest Technical University, Russia): Features of forest use for religious activities in Russia.

One of the most pressing issues of contemporary socio-political life in Russia is the place and role of religion (primarily the Russian Orthodox Church). In the last two decades, there has been a steady trend in Russia: the strengthening of the role of Orthodoxy in public life after a long anti-Christian period during Soviet time. According to sociological research, the Church is among the leaders among state and public structures in terms of the degree of population confidence. Russian forestry legislation contains provisions that give a number of advantages to religious associations for using forests in comparison with other users. According to the current legislation, forests are transferred for use mainly on the basis of a lease agreement (for private companies and persons) or a contract of permanent perpetual use (for state institutions and municipalities). However, for the use of forests for religious activities is a special type of contract - agreement on

the uncompensated use of a forest plot. Based on Russian legislation, in almost all cases of forest use, it is necessary to develop a forest management project - the document that is the main one in the system for monitoring the activities of any forest users. But according the Russian Forest Code, in cases of forests use for religious purposes, the development of a forest management project is not required. This eliminates the need to protect and reproduce forests, and make the necessary reporting. It also turns out that the inspecting executive bodies do not have the ability to monitor what is happening on forest lands handed over to religious organizations. Thus, in the current Russian forest legislation there are actually no clear rules the use of forests under religious activities, at the same time amount of such agreements rise year by year.

Elands & Remmerswaal (WUR-FNP, Netherlands): Responsibility for nature starts from childhood experiences in nature areas.

One of the Sustainable Development Goals is aimed at making cities and human settlements inclusive, safe, resilient and sustainable. This includes environmental sustainability. Urbanization, however, is an ongoing force separating humans from the natural environment. This limited access to nature results in less direct contact with nature. Some researchers even warn for the "extinction of experience", arguing that due to the loss of interaction with nature, interpreted as outdoor activities in nature, positive attitudes towards nature protection, emotions and pro-environmental behaviour will decline. As environmentalism is often traced back to memorable childhood experiences in nature, one may wonder what would happen if children would not have those experiences anymore. The disconnection between children and the natural world has left author Richard Louv, and many more with him, to wonder where the future stewards of this earth will come from. Recently, several interventions aimed at reconnecting children with nature, through real life nature experiences, have been initiated. Examples of these interventions are: the greening of children's playing environment at nurseries, school and during leisure time and the introduction of nature experience programess for primary school children. In this presentation, we will present results from studies in the Netherlands that have investigated the impact of different types of interventions on children's nature connectedness and responsibility towards nature. All children experience a green playing and learning environment positive. The results indicate that activities outside school are more influential than nature lessons in the classroom and that more natural environments stimulate nature connectedness stronger than park-like environments. Influential adults, such as parents, teachers and supervisors, play a crucial role in especially children's responsibility towards nature. Our research seems to indicate that sustainability can only be achieved through the creation of future stewards. Therefore, both nature policies and educational policies should be "nature experience" inclusive.

Konczal (EFI Germany): Societal dimensions and driving paradigms of Polish forestry. Anthropological contribution to forest policy studies in Poland.

During last years forestry in Poland has received special attention of domestic and international audiences. The conflict relating to the Białowieża Forest in North-Eastern Poland is widely covered by the media. There is a lack of understanding

relating to the societal ideologies that drive forest policy in Poland. Moreover, there are only few publications on the topic, and there is also little empirical work on the current major conflicts in the Polish forest sector. This presentation uses an anthropological approach to analyse main driving paradigms and social dimensions of forestry in Poland. It draws upon long-term research on Polish forestry and foresters conducted in 2012-2017. The main argument is that, as a consequence of historical, economic, political and social conditions in Poland, and especially as a result of opportunities brought by the transformation of the year 1989 (fall down of the central economy regime and socialism), foresters gained a dominant position in regard to nature management – in political, economic and discursive dimensions. This unique position is currently under massive pressure as foresters are accused by the media and a waste part of the society of insufficient forests protection, too economic orientated management and high profits kept inside the organisation. Conceptually, the research builds upon environmental anthropology approach. It uses a combination of ethnographic methods (participant observation, ca. 120 in-depth qualitative interviews) and reviews of media resources as well as of grey literature and legal documents. The analysis was conducted at two levels: 1. institutional and political level ('instituting the nature', Mathews, 2011) and 2. practical level of foresters' actions in forests. Next to presenting a general overview of the current characteristic of Polish forestry and a brief description of methodological approach, findings will be presented and critically discussed in view of recent developments in the country.

Ambrose-Oji, Dunn & Stringer (Forest research, UK/Gloucestershire Wildlife Trust): Investigating attitudes to the reintroduction of pine marten in the Forest of Dean: The role of evidence in forest governance

The European pine marten (Martes martes) is a forest specific mustelid found across Europe, from Ireland to Russia. However, due to historical trapping by Victorian gamekeepers its range in Britain was severely reduced. The pine marten is still the second rarest carnivore in the UK and a UK S41 priority species. Pine marten reintroduction is being considered in forests in Britain. This is not only for conservation benefits. Recent research has also suggested that pine martens can assist in the control of the non-native, invasive grey squirrel (Sciurus carolinensis) which are a serious forestry pest and displace native red squirrel (Sciurus vulgaris) populations. The Forest of Dean (FoD) is an area where pine marten reintroduction has been proposed. For reintroduction to be successful there needs to be a level of support from the local population. However, the situation in the FoD is complicated because of the recent illegal release of wild boar (Sus scrofa) which occurred without consultation, and which has led to starkly polarised local opinions about reintroductions. The paper discusses social action research and engagement with stakeholders and the public in the Forest of Dean over the last 2 years which has explored their knowledge, perceptions and attitudes towards the idea of reintroducing pine martens. Data from over 800 people included in five different evidence gathering exercises shows a broad level of support for reintroduction, but, subject to certain conditions such as proper monitoring and mitigation measures. The paper looks at how evidence gathering was used as an engagement tool, and how it was used in the process of forest governance and decision making in the FoD and Wye Valley area.

PANNEL SESSION 3: FORESTRY & FOREST OWNERSHIP

Põllumäe (Estonian University of Life Sciences): Discourses on the development of private forestry in Estonia: is there consistency between policy implementation and inner views?

The development of forest owners' cooperation has been quite successful in Estonia during the past decade – joint wood marketing, silvicultural activities, training and extension services are almost an integral part of an everyday life of a forest owners' association (FOA). Compared to many other transition countries FOA membership is more common in Estonia – approximately 10% of forest owners are members of such organizations covering some 46% of all private forests in Estonia. Much of this success however is embedded in a history of quite strong state support. Various public support has been present since the beginning of 1990-ies. Also a number of different institutions have emerged – either in the form of formal organizations (non-profit and economic ones) or informal relations (e.g. social capital). In the light of these developments the public sector is very much reconsidering its functions and role in private forestry. Hence the direction is towards a sustainable and self-sufficient private forest sector. But the sector is not there yet and the public support system is very much influencing the output of the sector. There have been several policy changes with the aim to decrease the role of the state and increase the role of private initiatives. The aim of this project is to find out the representatives' perceptions towards the future of their organizational development in the light of the existing public support system and possible changes in it. A qualitative dataset including 8 semi-structured interviews conducted between October and November 2017 is the base for it. A private forestry discourse is built from the interview data i.e. how the representatives construct the private forestry realm in the times of change.

Neitzel, Feil & Seintsch (Thünen-Institute Germany): Climate protection in small private forests – forest owners and society .

The structural change in agriculture, amongst other things, has led to changes in lifestyle that affect motivations and attitudes towards the forest in Germany. This research aims at identifying forest management objectives that are of interest for both, small private forest owners (representing about one-fourth of the forest area) and non-forest owners (society). Research questions:

(i)   What are forest management objectives of forest owners compared to society?

(ii)   How to explain the action (past) and willingness to act (future) of forest owners?

To reproduce the underlying processes influencing human decisions behavior, we use an approach from Pregernig (1999) and complement it with social milieu theory. This model includes three sets of variables: (i) objective environment, (ii) selection instances and (iii) intervening variables. Collectively these variables are likely to explain the dependent variable: act respectively willingness to act. We created the necessary database through a nationwide representative telephone survey in 2017. The survey resulted in two samples: forest owners (n=1.203) and society (n=1.202). The analysis

of the samples takes place in two steps: (i) descriptive analysis and (ii) econometric modelling. The results indicate that forest owners are not a homogenous group of a certain milieu. However, the milieu composition of forest owners is different from society with consequences for the mitigation of conflicting interests.

Selter, Sonnhoff & Kleinschmit (Freiburg University, Germany): In the jungle of deregulation: Path-dependence and path-creation in forest extension services and support in Baden-Wuerttemberg.

Competition law and anti-monopoly regulations raise the call for deregulation of the forest sector in Germany. In this context the federal state of Baden-Wuerttemberg is obliged to change its policy referring to extension services and support regarding to private and municipal forest owners. Many actors perceive this policy change as a loss of stability and continuity. Besides the formal goals of reorganisation and -structuration, the interventions towards deregulation open room for manoeuvre for informal goals. Each actor is interested to create the process according to ones needs and to avoid the loss of power and resources. Based on the approach of actor centered institutionalism, capabilities and orientations, constellations and interaction of forest actors will be analyzed to describe path dependencies and possibilities for path creation of actors within the forest sector. Especially new developed or adopted cooperation between different forest owners, private and state foresters and enterprises along the value added chain is in the focus of the presented study. The results base on group discussions and qualitative interviews with private and municipal forest owners, forest officers and private service provider. Beyond the theoretical approach, the paper is looking for a set of factors and arrangements which facilitate the development of independent and reliable forest owner associations.

Stens & Mårald (Umeå University, Sweden): What's the problem with forest property rights?

In recent years there has been an extensive debate around forest property rights among private landowners in Sweden. Organized landowners argue that Swedish state-intervention is ever increasing, with stronger conservation policies, claims on public access to land and other societal objectives connected to sustainable development policy. From the landowners' perspective, it is the long-term and secure private tenure that creates sustainable forestry in Sweden. Other stakeholders turn against this argument by claiming that forests are so important to all living creatures, that they should be controlled jointly, at least to some extent. From a historical perspective, it may seem like a paradox that forest property rights are conceived as threatened. Former historical research shows that the deregulation of the Swedish Forestry Act in 1993, following a principle of "freedom with responsibility", resulted in a strong position of the forest owner – a position similar to the independent position of forest owners in the liberal 19th century. Additionally, according to the International Property Right Index (IPR), Sweden is ranked number three in the world regarding strong property rights, including physical property. So how do we understand the current tensions around forest property rights in Sweden? In this paper we are presenting a first case study from our research project, "Are property rights under threat? A historical comparative study of the boundaries around private property rights to forest land", funded by the Swedish Forest Foundation (Stiftelsen Skogssällskapet). It is an analysis of the current media debate around forest property rights in Sweden.

The empirical focus is on identifying stakeholders in the debate and how they define concepts of forest owners, and forest ownership, and how they obtain problems and solutions regarding property rights. Theoretically, we are inspired by conceptual history and Carol Bacchi's "What's the problem represented to be"-approach to policy analysis.

Erkkilä, Hujala & Mustalahti (University of Eastern Finland): Young people as forest owners: challenges for policy and research

In Finland, young people are increasingly worried about their future due to environmental risks such as climate change. When this concern is combined with the fact that some 15 million hectares of forestland in Finland are owned by 600,000 families, it is clear that young people could have a say in forest management and policy either as forest owners directly or via their extended families. In the coming decades, this could have significant impact on sustainable well-being. However, the values, capabilities (Sen 1993), and involvement of young forest owners are poorly known. Our research group is part of a research consortium called "All youth want to rule their world (ALL-YOUTH)" funded by the Strategic Research Council at the Academy of Finland. ALL-YOUTH involves young people aged 16 to 25 years in co-creating solutions together with scholars, policy makers and other actors. Tentatively, we have distinguished three specific challenges regarding young forest owners: i) understanding young forest owners', or future owners, intrinsic views on forests, bioeconomy, and the environment; ii) interaction of knowledge and views between forest owner generations; and iii) incorporation of young forest owners' perspectives in forest policy processes, especially relating to the update of the National Forest Strategy 2025. Our project will tackle these topics in a theoretical framework built around capability approach and using participatory action research (PAR) in close collaboration with practice partners, such as the Finnish Forest Centre (FFC), the Ministry of Agriculture and Forestry, and the Finnish 4H Organisation.

Báliková, Šálka & Dobšinská (TU Zvolen, Slovakia): Implementation and Evaluation Analysis of Economic Instruments for Ensuring Forest Ecosystem Services.

Forest ecosystem services have public good characteristics that make them difficult for being marketed and which justifies public policies to ensure their production. We distinguish public (state), mixed (public-private) and private (market) mechanisms. In Slovakia we use tax relief, subsidies which are national (f.e. forestry support for ecosystem services of forests) and European (f.e. EU funding for RDP) and refunds on the restriction of ownership rights, which are public mechanisms. The implementation analysis is the sequence of steps, that contains: analysis of current state of chosen economic instruments in Slovakia, identification of relevant actors and policy arena and analysis of policy impacts and policy outcomes. The evaluation analysis consists of the analysis of the efficiency of chosen instruments and identification of factors causing implementation shortcomings in terms of formulation, implementation and actors behavior. The thesis is methodically based on the combination of scientific methods and approaches: the qualitative and quantitative analysis of documents (legislation, municipal budgets, RDP, evaluation reports...), standardized interviews with experts and stakeholders and case studies. The outcome will be general conclusions and recommendations for stakeholders. The result of the proposed project will be implementation and evaluation studies of selected economic policy instruments. The work is supported by the Research and Development Support Agency of the Slovak Republic on the basis of contract No. APVV-15-0715.

Aggestam, Konczal, Schuck, Lindner & Winkel (EFI Germany): Establishing an Integrated Forest Management Learning Architecture – Introducing INFORMAR.

Integrated Forest Management represents a key strategy to embed nature conservation objectives into managed forests. Changing socio-economic and environmental driving forces impacting the uptake of integrative approaches are however only partly understood. This makes questions of how to combine nature conservation objectives and wood production under a changing climate particularly important. In addition, it is imperative to address barriers in science-policy-practice communication regarding the implementation of integrative approaches. INFORMAR (Integrated Forest Management Learning Architecture) is a new project, led by EFI's Bonn Resilience Programme, that sets out to tackle these specific challenges. Its main objectives are to understand and map socio-economic and environmental driving forces of Integrated Forest Management and to understand and demonstrate how successful integrative approaches are in incorporating nature conservation, especially under conditions of climate change and related risks. The project also sets out to build and maintain a learning architecture between scientists, policy-makers and practitioners to derive policy-related conclusions for a favourable socio-political framework for the uptake of integrative approaches in Europe. INFORMAR has two main areas of work. The first is scientific, focusing on the analysis of existing knowledge relating to the project objectives, including the analysis of best practices case studies across Europe in order to address knowledge gaps related to Integrated Forest Management. The second is to create networks between scientists, policy-makers and

practitioners interested in integrative approaches to forest management, facilitating the exchange between experts, and organising field trips and training events. INFORMAR will strive towards connecting the scientific, practical and political debate relating to Integrated Forest Management in Europe and beyond, and to hence facilitate mutual learning across these spheres. The project is founded by the German Federal Ministry of Food and Agriculture (BMEL).

Kang & Weber (TU Dresden, Germany): The dynamics of policy network in the international development cooperation forest project between South Korea and Mongolia.

A large number of policy actors participate in the decision making process of international development cooperation projects, especially in the forest sector. It is because not only society and industry in developing countries are highly dependent on forests, but also forests are an important theme for sustainable development, a global concern. This study analyzes the policy process of a bilateral cooperation project between Korea and Mongolia, which is a $1.5 million project to prevent desertification in a village in Mongolia from 2010 to 2013. The purpose of this study is to identify the characteristics of policy network of a bilateral development cooperation project. Furthermore, this study attempted to identify the dynamics of policy networks and to determine causal relationships between policy network and policy output, which are not discussed in previous network studies of international forest projects. The data was collected through a review of the official documents created during the project, analyzed using UCINET, and visualized with Netdraw. The result of analysis shows that the most influential among the 10 actors were the government agency that provided financial support and the contractor who was contracted by government agencies for technical support. In the implementation phase, where policy actors are constantly interacting with each other, higher density and centralization was found than the formation phase. In addition, this study confirmed that network structure changes such as the emergence of new actors and changes in the role of existing actors have caused re-interpretations in the contents of the project in the policy process. This study deals with a small-scale policy network at the project level. However, this study suggests that a comprehensive approach, including the qualitative analysis of policy environment as well as the quantitative analysis of network, is necessary to effectively understand the policy process of international development cooperation projects.

Begemann, Giessen & Winkel : Frontiers of global forest governance – a Delphi assessment

A huge variety of global forest governance initiatives exists today. All of them follow distinct rationales of how forest governance should operate. These initiatives have, however, not been able to reverse trends of deforestation and forest degradation in the tropics, despite this being the main objective for many of them. Existing instruments like REDD+ and FLEGT are facing major obstacles throughout the design and implementation process. New initiatives such as forest landscape restoration programs and private business-driven zero deforestation commitments are broadening the perspective, yet their impacts are not clear to date. Factors such as population growth, economic growth and globalization, as well as developments in adjacent policy sectors, e.g. relating to the implementation of the Sustainable Development Goals, influence the increasingly fragmented forest governance regime. Against this background, the recently started research project FuGo (New frontiers in global forest GOvernance – from lessons learnt to FUture options), funded

by the German Federal Ministry of Food and Agriculture, implements a three stages Delphi approach with a panel of around 30 experts from research, policy making and the private sector to assess 1) major challenges and lessons learnt in different initiatives of global forest governance and 2) possible pathways for future global forest governance. In the first round, expert interviews explore the field. An online questionnaire (2nd round) and a workshop (3rd round) will follow. The Delphi study will result in a transdisciplinary multi-author paper by all interested panelists. With FuGo the Delphi methodology is, to our knowledge, for the first time applied to the issue of global forest governance. This will be interesting in terms of both methodology and findings. The poster introduces the approach in more detail and outlines first experiences in the implementation of the method.

Garcia, Burns & Goya (National University of La Plata Argentina): Actors' power in defining SFM: implementation of criteria and indicators at the local level.

After the Rio Summit in 1992 a growing number of international policies and regimes addressing forests and their sustainability have progressed in defining, promoting and implementing sustainable forest management (SFM) at different levels, from international to local. These international efforts called for the formulation of scientifically sound criteria and indicators (C&I) as a framework for evaluating SFM with a political consensus resulting in several initiatives for different types of forests and different levels. Inclusion of local actors and communities in forest management and conservation is a key component of SFM requiring the interpretation of local needs and goals. C&I frameworks can serve as the medium within which social values merge with scientific knowledge of environmental conditions to monitor and influence trends in forest practices, especially at the forest management unit. However, the degree of influence in management decisions at the forest management unit may vary with the actors' power. The aim of this study is to analyze how the different actors' power influences SFM at the forest management unit within a C&I framework. In order to understand how the interests and needs of local actors are considered within a C&I framework we selected a case study in northern Argentina. This area is of particular interest as its part of the Atlantic Forest ecoregion, one of the most deforested regions in the world, with high biodiversity values and a combination of multiple actors with different interest. The forest management unit selected is managed by the national state government. The C&I proposed by the Center International for Forest Research (CIFOR) was used as a framework. Data collected included both documents, such as forest management plans, and interviews. In order to identify all relevant actors a snowball sampling technic was used. The power of actors was defined by the power theory and methodology proposed by Krott et al. (2014).

FOREST GOVERNANCE

PANNEL SESSION 4: ACTORS & NETWORKS IN FOREST GOVERNANCE AND MANAGEMENT

Maier & Wirth (FVA Freiburg, Germany): The world(s) we live in: inter-agency collaboration in forest management.

Academics and politicians alike have argued for greater inter-agency collaboration to address sector-crossing policy issues, such as health care, policing, or natural resource management. Nevertheless, in reality, it remains a rare occurrence. We examine local-level (street-level) collaboration in the context of public forest management in Germany where, historically, public forests were solely under the forest management agency's authority. With the establishment of a nature conservation agency and subsequent legislative changes, responsibilities and authorities were increasingly distributed among both agencies. Today, the two agencies are connected through a system of approval procedures and expected to collaborate to further nature conservation objectives. We aim to understand how the mandate to collaborate is put into practice, what factors are influencing agency relationships, and what the implications are for public forest management. We find a diversity of local level agency relationships and identify a combination organizational cultures and the nature of rules guiding each agency's actions hindering closer inter-agency exchange.

Teder & Kaimre (Estonian University of Life Sciences): Environmental vs forestry views on and stakeholders' satisfaction with recent Estonian forest policy processes: Estonian 'Forest war' 2016 - 2018.

The article explains the stakeholders' interactions and satisfaction with their participation in the forest policy processes in Estonia. The interactions during the policy formulation and decision-making stages are observed with special attention to the role of scientists. Representatives of three target groups were interviewed: forestry officials, stakeholders and forestry scientists. To evaluate scientists' participation in policy processes, we use the idealised role models of Pielke (2007). The stakeholders tend to believe their main form of participation in policy processes is decision-making, not realising that the final decisions are made by forestry officials or by politicians: the minister, government or Parliament. Consensual proposals or decisions are important because these usually form the basis for final formulations in policy documents. The policy processes are mostly facilitated by forestry officials whose mediation skills need improvement. There is a major conflict between stakeholders representing timber production and environmental protection. In policy discussions, the environmentalists should provide more analysis, otherwise their viewpoints are ignored. Forestry scientists fall short in their most important role as honest brokers; they must learn how to integrate themselves

into policy processes. Very often scientists act as observers, but other participants expect them to actively bring scientific information and knowledge into discussions. In addition to the face-to face meetings, new communication tools (e-consultation and e-participation) are available, but they are underused in the policy formulation processes. Additionally the update of important Estonian forest policy discussions in 2016 – March 2018 will be given, e.g. the formulation of the new national forestry programme was initiated in December 2017.

Putkowska-Smoter (Polish Academy of Sciences): The Change in the unchangeable: Moose conservation and forestry in Poland, 1919-2017.

From legal perspective, little has changed in the status of moose conservation in Poland over the years 1919 – 2017. After World War I, only few moose survived on the territory of Poland and there was a strong political will to restore the population mainly because it was perceived as a native animal as well as an important hunting species. For the next ten decades, moose was almost permanently portrayed in different legal regulations as a species strictly limited for hunting which led to a considerable increase in its numbers in Poland. Main groups of stakeholders which took part in this process were: policy makers (Ministry of the Environment), foresters (represented by the public forest agency the State Forests Holding), hunters, scientists and environmentalists. Although a legal situation of the species was not changing over the years, the composition of actors in the policy field did transform. New stakeholders joined the discussions promoting different visions of moose and the management of the species. This led to the permanent "back and forth" discussions around moose protection in Poland which at some point escalated to conflicts. The aim of the presentation is to analyse the moose conservation process in Poland by using the institutional approach as a theoretical framework. The main point of investigation is a socio-political context of controversies around moose conservation in Poland, with a particular focus on the role and involvement of foresters and the State Forests Holding. Following Arts and Leroy's Policy Arrangement Approach, the analysis focuses on important actors and the relations between them, their discourses on moose management, formal and informal "rules of the game" around moose conservation as well as differences between actors in terms of their power to intervene in the process of policy-making. The analysis is based on desk research triangulated with 10 semi-structured interviews with key individuals involved in moose management in Poland.

Schultz (Colorado State University, USA): Policy Design to Address Scale Mismatches and Related Challenges: Lessons from US Forest Governance

Recent literature has highlighted a growing array of scale-related challenges in environmental governance and begun to delineate design principles for improved approaches. A next step is to understand policy design strategies to support greater scale-sensitivity. This paper reviews the array of scale mismatches relevant in environmental governance and situates them in the context of forest governance. We discuss governance strategies, including greater use of partnerships and networks, that are valuable for pursuing multi-level and multi-scale approaches. We then tackle the matter of policy design, by reviewing policy research on two contemporarily important issues in forest governance, collaborative

landscape restoration and multi-level monitoring for ecological integrity, each of which presents distinct challenges related to scale matching and coordination. The research reveals multiple policy strategies, with specific examples, for addressing scale-related challenges. Findings suggest that policy innovations are supporting greater scale-sensitivity and use of partnerships and networks. Successful strategies balance requirements to work across scales and levels, with flexibility to tailor approaches to local contexts. Organizational changes will be needed to capitalize on the space afforded by policy innovations. Future research should seek to understand the tradeoffs of working at particular scales and continue to explore examples of how design principles for 20 adaptive governance manifest in policy and practice.

INTERNATIONAL POLICY & POLITICS

PANNEL SESSION 4: BIO-ECONOMY

Lovrić, Lovrić, & Mavsar (EFI Finland): Mapping forest bioeconomy research capacities and activities in Europe .

The EU has taken a strategic turn towards bioeconomy, which has also influenced the EU research and development orientation that has emphasized the same topic in its framework programmes. To remain relevant and competitive the European forest research should be responsive to address these structural changes. This means that it should develop capacities and research infrastructures, which will be able to address questions relevant in the new policy setting. Although a number of forest research capacity mapping exercises have been conducted at EU level it remains unclear how far the bioeconomy research is addressed in these mapping exercises. The goal of this study is to map research capacities and innovations in the field of forest bioeconomy, draw conclusions about overlapping and missing activities, and on trends and shifts in research focus. Forest bioeconomy is participatory defined based on input from five senior experts and topics addressed in six previous research capacity mapping exercises, which have also been used to map research capacities in the field. Data on research activity is drawn from EC's data base on projects funded through its framework programmes, covering 2006 – 2017 period. The sample includes 387 projects worth 1.4 billion Euros with participation of 1978 organizations from 66 countries. Results show that each European region has capacities in each segment of the forest bioeconomy supply chain, but that capacities increase from South-East to North-West Europe, and that they also increase along the supply chain. EC's financing also increases through time and through the supply chain, but that there is more capacities than financing in its beginning and less capacities than financing towards its end. Results also show that forest bioeconomy is a not a field on its own, as different and unconnected actors dominate its different segments. This indicates to a need to change the structure of the future EC's funding calls to engage in processes from varying stages of incorporation to economy, e.g. relation between provision of ecosystem services and fostering biomass usage in biorefineries.

Beer & Böcher (Otto-von-Guericke-Universität Magdeburg): Political processes of bioeconomy between economy and ecology: The role of wood as resource for bioenergy production in the bioeconomy.

Future economic growth in all sectors must be compatible with the SDGs. Forest policy faces the challenge of balancing different claims: Besides the provision of wood, forests contribute to recreation and health, biodiversity protection and climate protection. Approximately 60% of global GHG emissions can be assigned to the energy sector, making it the dominant contributor to anthropogenic climate change. Thus, transforming the current fossil resource-based energy system to a sustainable system based on renewables is a key challenge the world community faces today (SDG 7). Besides traditional use, today there are new ways of processing wood as a resource for energy generation conform to

the bioeconomy concept (gasification, biorefineries). Bioeconomy describes a knowledge-based and high-tech oriented economic system based on sustainable utilization of recent biomass, both material and energetic. The central aim is to ensure further economic growth while protecting the natural environment. In our contribution, we present interim results of the joint research project Bio-Ecopoly: Political processes of bioeconomy between economy and ecology, where we explore policies regulating the generation and use of bioenergy (power and heat) in Germany. The Bio-Ecopoly project aims to reveal causal relationships and complex interrelations of multi-level political processes connected to bioeconomy. Our analytical framework is based on public policy analysis and highlights the role of institutions, actors, policy instruments and problem structures as independent variables influencing policy outcomes.We present first case study results that rely on extensive document analyses, expert interviews and a workshop with German bioeconomy stakeholders. The aim of the presentation is to reveal existing political conflicts around forestry and bioeconomy and to estimate their political implications in regard to the use of forestry biomass for energetic use as potential contribution to sustainable energy production.

Giurca (Freiburg University Germany): The networks "we have" vs the networks "we see" in Germany's wood-bioeconomy.

Previous studies on bioeconomy networks in Germany have been mainly descriptive and have tended to attribute certain network characteristics to particular forms of observed cooperation (e.g., innovation networks). Moreover, most of these studies are revolving around network structure and fall short of explaining qualitatively complex issues such as actor beliefs, strategies or underlying reasons for actors' participation in these networks. The present study aims to reconcile some of these shortcomings and proposes a rethinking of the wood-based bioeconomy network (WBN). Through a series of semi-structured interviews with key actors in the network, this study attempts to 'untangle' the WBN by putting greater emphasis on the discourse of networking and on the strategic content of networking as practice and process. Empirically, this study seeks to: (i) understand what is it that actors network about (i.e., the nature and scope of the WBN) and (ii) explore what kind of beliefs and strategies these central actors bring forward. Theoretically, the discussion endeavors to (partly) reconcile some elements of the old structure vs agency debate in network studies and systematically reflect on the relationship between network discourse and the practices of the 'observable' WBN.

Ranacher (Kompetenzzentrum Holz Austria): Analysis of online news media coverage on forest management: depicting the peril not the potential.

Forests can play an increasing role in bioeconomy policies providing the material for bio-based products. However, public opinion regarding forest management in Europe is contested which is considered a potential drawback for the social license to operate of the forest-based sector. News media articles on forest management are considered an important source of information for public opinion building processes. Therefore, this study investigates how online news media report on forest management and thereby explores what kind of information is communicated to the general public. The state of online news media coverage on the term "forest management" was investigated with a qualitative content

analysis. German speaking articles were collected over a period of one year (13.1.2016 – 12.1.2017) with Google Alert using the search term "Forstwirtschaft" (engl. forest management). In total, 631 articles from online national and local newspapers, as well as other online news media platforms, were analyzed with an inductive coding scheme. The results show that the online news media coverage on forest management can be condensed to eight core topics: state of forests, work force, new technologies, forest products, events, politics, economic performance, and forest conservation. There are differences in terms of communication frequency and weight of topics across different media. In national newspapers articles mainly referred to "state of forest" and "economic performance", whereas regional newspaper mainly communicated about "events" and "work force". In conclusion, the study shows that online news media coverage on forest management is dominated by damages and threats to forests, whereas the contribution to bioeconomy and climate change mitigation only plays a minor role. Thus, in order to support public opinion building processes regarding forests' potential for bioeconomy, a shift in the publicly communicated topics regarding forest management is required.

COMMUNITY & SOCIETY

PANNEL SESSION 4: INCLUSION OF LOCAL COMMUNITIES IN TROPICAL FORESTRY

Christoffersen (University of Copenhagen, Denmark/Forests of the World): Spaces of repression, resistance and accommodation. An enthographically informed history about a contested consultation.

With increasing extractive activities and related infrastructures in the Bolivian lowland, land disputes rise with corresponding frequencies. Consultation based on the principle of Free, Prior and Informed Consent (FPIC) has been a long-standing demand of indigenous peoples, now adopted in national legislation and deployed in cases of interventions on native community lands. This paper chronicles a contested FPIC-process in the Indigenous Territory and National Park Isiboro-Sécure, TIPNIS. Based on own empirical material, the study aims to understand how FPIC entered a broader indigenous struggle for secure livelihoods, land and self-determination. The case displays the built-in paradoxes of FPIC, i.e. the presuppositions of equality that assumes away the very structural conditions of inequality and power imbalances that it is meant to resolve, and casts light on the implications of the event for the involved, its interpretations and how it affected a subsequent consultation law. It also depicts fundamentally different visions for the young Plurinational State, with the wish of national level strengthening of an extractivist state on the one side, and the strive for creation of self-governed collective entities in the other. Finally, glimpses of a possible contribution of FPIC to emancipatory politics are seen on the ground in the face-to-face interactions between frontline officials and local people. I argue that the implications of FPIC are ambiguous for the lowland peoples. On the one hand, consultations help legitimise resource extraction and associated activities in indigenous territories. On the other, the adaptation of FPIC as a mandatory procedure will continuously be invoked by affected peoples with enhanced negotiation-experience and possible ability to re-politicise the principle. While realising that FPIC did not become the opening space for indigenous peoples to influence decisions, it will thus remain a mobilising tool among other for them in their continued struggle for self-determination.

Den Besten, Arts & Behagel (WUR-FNP, The Netherlands): Spiders in the web: understanding the evaluation of REDD+ in SouthWest Ghana.

The implementation of the global programme on Reducing Emissions from Deforestation (REDD+) is slow and riddled by challenges. It lacks a robust financial mechanism and is widely criticised for producing too little positive impact for climate, nature, and people. In many countries with tropical forests however, a variety of REDD+ projects continue to develop on the ground. This paper fills in some of the gaps in our understanding of the dynamic relation between global policymaking and implementation of REDD+ on the ground. Using the introduction of REDD+ in Southwest Ghana as an example, we apply a practice-based approach to analyse the different roles that local actors and global-local intermediaries played in the introduction of REDD+ in Southwest Ghana. Our results show a more balanced picture than polarised

debates at the global levels suggest. Existing local practices helped REDD+ 'land' locally but also transformed REDD+ to resemble such local practices. In turn, this has led to the development of REDD+ initiatives that absorbed elements from established community-based conservation, forest restoration, and sustainable agro-forestry practices.

Devkota (University Eastern, Finland): Social inclusion and deliberation in response to REDD+ in community forestry: Evidence from Nepal's Terai region.

Reducing Emissions from Deforestation and Forest Degradation (REDD+) in developing countries is an emerging policy instruments, not only because it is a means of reducing greenhouse gas emissions, but also because of its potentiality to sustainable use of forest resources and livelihoods with improved forest governance. This study explores how REDD+ through the principle of social inclusion enhance deliberation for the less powerful and deprived users in community forestry. For the study, eighty one in-depth interviews were conducted in two community forest user groups in Nepal. After the implementation of REDD+, deprived communities have secured their position in decision making structures. Community forests are better managed, transparent and responsible towards global objective of sustainable forest management. After the implementation of REDD+, there have been positive changes in the working modality of the community leaders, but the institutional and social benefits of REDD+ have not trickled down to the community level. Though the representation of poor, Dalit and marginalized communities in key decision making position has increased, it has so far failed to influence the decisions in their favour. Deliberation has been effective, and the users are facilitated by the committee leaders. The power of local politics has negatively influenced the management of community forests. The study recommends that for better deliberation, social inclusion should be adopted as the necessary condition in community forestry.

Wahyudi, Wicaksono, Damayanti & Kenrosa (GIZ Indonesia, et al.): Creating Fiscal Incentive Mechanism for REDD+ through Village Funds in Aceh Province, Indonesia.

Creating fiscal incentive for local actors to reduce emission has become an essential part and one of the most challenging elements of Reducing Emissions from Deforestation and Forest Degradation (REDD+). Scholars believe that the success of REDD+ in achieving its objectives will depend largely on how its fiscal incentive mechanisms are designed and implemented. In the context of public finance in Indonesia, some funding devices under intergovernmental fiscal transfer system have the potential to become instruments for the fiscal incentive mechanisms. One such device is village funds. In order to realize this opportunity, an assessment of village fund in Aceh province was conducted. Aceh province chosen as the locus of the assessment because of its significant tropical rain forest resources and about 50% of total villages (6,474 villages) are located surrounding forest estate. This assessment used a qualitative approach to: (1) develop possible options for creating fiscal incentive mechanisms for REDD+, and (2) determine the preferences of key local stakeholders regarding the proposed options. Determination of the key local stakeholders' preferences was conducted by a public deliberation process with Harvard Case Method modified in such a way according to the local context. The possible options for creating fiscal incentive mechanism were proposed on allocation and distribution aspects of village

funds. In allocation aspect, key local stakeholders proposed to integrate ecological indicators in channeling the funds from national to districts and district to villages. In distribution aspect, they proposed two points: (1) improving the quality of village plans and budgets in order to ensure village funds used appropriately based on village potential and typology, and (2) encouraging district government to issue decrees determining percentages of village funds for REDD+. Linking the options in the village fund allocation and distribution aspects will generate an integrated and sustained fiscal incentive mechanism for REDD+.

CONFLICT & CONTROL

PANNEL SESSION 4: CONFLICTS AND OPPOSING VIEWS IN FORESTRY

Bethmann & Simminger (FVA Freiburg, Germany): Louder than words. Form and function of speech acts in a forest conflict.

Based on a study of communication between forestry administrations and 'ordinary citizens' in Germany, we explore and categorize the speech acts that social actors perform in conflict situations. Verbal practices like narrating, arguing, or falling silent have specific forms and functions that are indicative of a) actors' strategies in dealing with dissent and b) underlying interpretative frames and values. The objective of the presentation is to exemplify the methodological challenges of such an analysis by drawing on praxeological theory in the tradition of American pragmatism, and on positioning analysis as a method with particular regard for the actions implied in speech.

Dubrovskis Vanaga, Seļezņovs, Krūmiņš, Silamiķele (LLV, Latvia): Challenges for increase of forest management efficiency in Latvia.

How to increase the efficiency of forest management? The results of the analysis of Latvian forest resources condition and value change dynamics indicate the need to carry out a serious liberalization of regulatory acts, which affects changes in the rules for tree felling and reforestation. However, changes proposed by the forest industry are sharply criticized by non-governmental environmental organizations. Arguments related to sustainable economic and social development are offset by concerns about the preservation of biodiversity. The views and actions of the opposing sides have been widely reflected in Latvian media. The aim of the study is to carry out a scientific analysis of the arguments and opinions expressed by the opposing parties during the process of discussions for necessary changes in regulatory acts for forest management. During the study opinion building technologies and tools of the society are evaluated.

Cosyns, Joa, Mikoleit, Krumm, Schuck, Winkel, & Schulz (WSL Switzerland/Freiburg University Germany/EFI Germany): The role of beliefs and expertise in solving trade-offs between economic and ecological objectives in forest management: a thinning exercise.

If national and international biodiversity protection targets in forests are to be reached, it will be crucial to not only strive for strictly protected forest reserves but to also to integrate nature conservation measures in forests managed for commodity production. For the latter, policies at different levels have been formulated over the last few decades (e.g. targets for minimum amounts of dead wood). Whereas overarching policy objectives are mostly set, developing effective and efficient implementation schemes remains a challenge. In current study, we go the lowest level of implementation,

the selection of trees during thinning (including habitat trees). By examining the differences between groups of foresters and nature conservationists with respect to selecting habitat trees for retention and trees to be cut for economic purposes we emphasize the importance of professional expertise and personal beliefs for solving the trade-off between ecological and economic objectives. We have collected data during a marteloscope exercise on a one hectare forest patch that is used for silvicultural practice training. Within that hectare most important tree and plot characteristics have been measured. Applying a mixed-methods approach, we are able to link survey data with qualitative reasoning and finally with different decision-making outcomes at tree and stand level. We are thus able to establish clear differences between groups of differing expertise and beliefs. The study thus demonstrates how the outcomes of a policy measure can be influenced by implementer's characteristics and we discuss its consequences for the practical integration of nature conservation into managed forests.

Brukas, Stanislovaitis, Kavaliauskas & Gaižutis (SLU, Sweden/ Aleksandras Stulginskis University, Lithuania): Protecting or destructing? Local perceptions of environmental considerations in Lithuanian forest management.

Environmental consideration is an important facet of modern forestry. However, its perceptions by those who own and manage the forest are seldom investigated. This study scrutinizes the attitudes towards environmental consideration, based on qualitative interviews of Lithuanian private forest owners (PFOs), state forest managers, forest management planners and other local forest stakeholders. We find a considerable increase of environmental consideration since 1990, with emphasis on forestland zoning at landscape level. Most of the interviewed forest managers and PFOs are aware of and compliant with the legal demands, however, their judgment of environmental consideration appears to be strongly affected by the degree of the faced restrictions. Informants who manage forest areas with a high share of non-commercial forest zones assess the current restrictions as excessive. Though the Lithuanian forestland zoning overall can be seen as a successful example of implementing multiple use forestry at landscape level, deep qualitative interviews expose several critical issues. Hastily performed zoning entails many mistakes, where the forest or landscape characteristics do not match the intended purpose. Even more critically, severe forest management restrictions around the nests of rare birds lead to widespread destructions of nests in private forests. The most important recommendations of our study are: (i) introducing a fair system of compensations for the economic losses inflicted on PFOs; and (ii) gradual rezoning of forestland, with radically improved consideration of local specifics, including on site assessments and genuine involvement of the local stakeholders.

Niedzialkowski & Shkaruba (Polish Academy of Sciences/Central European University Hungary/3Erda RTE, Netherlands): Can FSC certification succeed and fail in the same forest? Institutional politics of forest management in transboundary Bialowieza Forest.

FSC certification has in recent three decades developed into the most important global sustainable forest management scheme. It is a multi-actor, transnational, private-led market instrument based on networks of public and private actors,

which diverges from the previous top-down policies and can be interpreted as a step towards more sustainable, inclusive and equitable governance of forest resources. FSC governance, implementation and effects have been vigorously studied, however, there is little evidence on the mechanisms and impacts of certification in transboundary forest areas. We aim at filling in this gap by investigating FSC process in the Bialowieza Forest - a 142.000 hectare Belarusian-Polish old-growth forest, designated as a UNESCO World Heritage Site. Although both parts of the forest have undergone FSC certification only the Belarussian part was finally certified. Based on data from desk research and semi-structured interviews, we explore political dimensions of the process. We interpret them against the concept of "institutional politics", which focuses on the relationships between power and institutional stability and change. We suggest that in Poland the long-term conflict between conservationists, pressing for preservation of the forest, and foresters, defending sustainable harvesting, resulted in the failure of the scheme, as it required some institutional and discursive changes unwanted by the key economic actor. In Belarus, despite some conflicts in the past, the scheme was successful due to the strong support of the scheme from the state authorities.