Markku Kanninen

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PROFILE

Dr. Markku Kanninen is an expert in tropical forestry, climate change, forest ecology, and forest management. He has published over 350 publications, including over 100 internationally peerreviewed scientific articles. He holds a Dr.Sc. degree from the University of Helsinki, Finland.

He has been involved in tropical forest research since 1979. Prior to his retirement, he was professor of Tropical Silviculture and director of the Viikki Tropical Resources Institute (VITRI), University of Helsinki, Department of Forest Sciences (2010-2020). He was the Director of the Environmental Services and Sustainable Use of Forests Program of Center for International Forestry Research (CIFOR) (2003-2010) and the Deputy Director General of Tropical Agriculture Research and Higher Education Centre CATIE (Costa Rica) (1996-2003).

Markku is a pioneer of research on climate change and natural resources. He was the Director of The Finnish Research Program on Climate Change (1990-1995), and he has been involved in science policy dialogue on forests and climate change since the early 1990's. He has been actively involved in the work of the Intergovernmental Panel on Climate Change (IPCC) since 1990. He was a Lead Author in The IPCC Special Report on 1.5 degrees (2018), and member of the 15-person Finnish Climate Panel (2011-2019).

Markku is a member of the Finnish Academy of Sciences and Letters. He has received the Nobel Peace Prize as a member of the IPCC in 2007.

PERSONAL

Date of Birth October 22, 1952, Jyväskylä, Finland

Citizenship **Finnish**

Degrees

28 March 1977 M.For.

05 May 1977 M.Sc. (Forestry) 09 December 1982 Lic.Sc. (Forestry) 28 April 1985 Dr.Sc. (Forestry)

All at the University of Helsinki

Finnish (mother tongue), English (excellent), Spanish (excellent), Bahasa Languages

Indonesia (good), Swedish (good), German (some), Portuguese (some)

Expertise Tropical forestry, tropical forest ecosystems in the context of climate

change adaptation and mitigation, carbon sequestration, management

of tropical forests, plantations, and landscapes

CURRENT POSITION

01 June 2022 Research Director (part time), University of Helsinki, Department of Forest

Sciences. to present

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01 November 2020 Professor emeritus, Viikki Tropical Resources Institute (VITRI), University of

Helsinki, Department of Forest Sciences. to present

EMPLOYMENT HISTORY (past 35 years)

EMPLOTIMENT HISTORY (past 35 years)		
01 July 2010- 31 October 2020	Professor of Tropical Silviculture & Director of Viikki Tropical Resources Institute (VITRI), University of Helsinki, Department of Forest Sciences.	
01 March 2003- 31 December 2010	Director, Environmental Services and Sustainable Use of Forests Program - Center for International Forestry Research (CIFOR).	
01 January 2002- 31 January, 2003	Deputy Director General (Vice Rector), CATIE-Tropical Agriculture Research and Higher Education Centre.	
01 January 1996- 31 December, 2001	Director, Research Program, CATIE-Tropical Agriculture Research and Higher Education Centre.	
01 January- 31 December 1995	Secretary General, Research Council on Environment and Natural Resources, Academy of Finland.	
01 October 1993- 30 June 1994	Acting Professor of Tropical Silviculture, Department of Forest Ecology, University of Helsinki.	
01 - 31 May 1991	Acting Professor of Silviculture and head of the department, Department of Forest Ecology, University of Helsinki.	
01 March 1990- 31 December 1995	Project manager, The Finnish Research Program on Climate Change (SILMU).	
01 October 1985- 28 February 1990	Research manager, Foundation for Research of Natural Resources in Finland.	

OTHER PROFESSIONAL PRACTICE

Selected activities (past 25 years+)

2021-2023	Senior Advisor, Tapio, provider of forest management related advisory services in Finland.
2017-2018	IPCC, Lead Author (Chapter 5), Contributing Author (Chapter 3) of the IPCC Special Report on 1.5 degrees.
2013-2017	European Forests Institute (EFI), member of the Scientific Advisory Board.
2008-2017	UNFCCC Adaptation Fund Board, Member of the Board.
2011-2014	IUFRO: Co-Chair of the Task Force on Climate Change.
2011-2019	Finnish Climate Panel, Member.
2006-2010	Collaborative Partnership on Forests (CPF) - Joint Initiative on Science and Technology. Member of the Steering Committee.
2006	IPCC, Reviewer of 2006 IPCC Guidelines for National Greenhouse Gas Inventories.
2002-2003	IPCC, Lead Author (Chapter 4.3) of IPCC Good Practice Guidance for Land-Use, Land-Use Change and Forestry.
2001-2010	IUFRO: World Forests, Society and Environment (WFSE), Special Project. President, Scientific Advisory Council.
1994-1995	European Union/DG XII. Representative of Finland in the Programme Committee of the Research Programme on Environment and Climate.
1992-1993	Ministerial Conference on the Protection of Forests in Europe, co-chair of the working group on "Strategies for a process of long-term adaptation of forests of Europe to climate change".
1991-1995	IPCC, Representative of Finland in IPCC (Intergovernmental Panel on Climate Change), working group III.
1990-1993	Finnish representative in IPCC, Working Group III, Agriculture and Forestry subgroup.

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Expert in development projects

Summary

1982-2000 In total app. 36 months of field work as short-term expert in project evaluation, (short-term) preparation and implementation in the following countries: Brazil, Mexico, Nepal,

Nicaragua, Burkina Faso, Sierra Leone, SADD Region in Southern Africa (regional),

Central America (regional).

Details

(1 month)

1998-2000 Nicaragua. Environmental Program in Nicaragua. Support to implementation of

international convention on climate change and Montreal protocol. CATIE/Finnish (2 weeks/year)

Environment Institute. Consultant on climate change.

Nepal. Finnish International Development Agency (FINNIDA). Review and identification 1995 mission for co-operation in the forestry sector between Nepal and Finland. Team (1 month)

leader.

1995 Spain, France, Portugal. European Forest Institute (EFI). Planning mission for co-

operation in forest research in South-Western Europe. Expert (one-man team). (1 month)

1995 Nicaragua. Finnish International Development Agency (FINNIDA). Identification mission for co-operation in the environmental sector between Nicaragua and Finland. (1 month)

Team leader.

1994 Nicaragua, Swedish International Development Authority (SIDA) and Swedish Agency (1 month)

for Research Co-operation with Developing Countries (SAREC). Identification mission for co-operation in research and undergraduate studies in renewable natural

resources management between Nicaragua and Sweden. Team leader.

Mexico, Ministry of Agriculture and Hydraulic Resources/University of Helsinki, 1990-1995

> Department of Forest Mensuration and Management. Strengthening the Development and Planning of the Forestry Sector in Mexico. Expert in forest

plantations.

Project field work: 05 - 18 February 1990; 25 - 30 May 1992 / 01 - 05 February 1993; 02 - 05 May 1993 / 21 - 31 October 1993; 1 - 10 May 1994 / 17 - 24 July 1994; 31

October - 11 November 1994

1990-1992 SADCC Region, Africa (Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia,

Swaziland, Tanzania, Zambia and Zimbabwe), Finnish International Development Agency (FINNIDA). Strengthening of forestry research and forestry research

institutions in the SADCC Region. Member of the Project Core Team.

Project field work: 05 - 18 March 1992: Angola, Mozambique

1990 Central America (Costa Rica, Nicaragua, Honduras, Guatemala), Finnish International

Development Agency (FINNIDA). Appraisal of The Regional Forestry Programme for

Central America. Head of the appraisal mission.

1989 Central America (Costa Rica, Nicaragua, Honduras, Guatemala), Finnish International (1 month)

Development Agency (FINNIDA). Identification of possible development projects in

forestry sector. Head of the project identification mission.

Mexico, Ministry of Agriculture and Hydraulic Resources/University of Helsinki, 1987-1989 Department of Forest Mensuration and Management. Strengthening the

Development and Planning of the Forestry Sector in Mexico. Expert in silviculture and

forest management.

Project field work: 31 July - 07 August 1989; 17 - 22 April 1989 / 28 January - 11 February 1989; 12 - 29 June 1988 / 17 - 28 January 1988; 23 August - 04 September

1987 / 24 March - 03 April 1987

Nicaragua, Finnish International Development Agency (FINNIDA). Smallholder Cattle 1988

Development Study in Region V in Nicaragua. Team member, project identification

Field missions: 03 April - 01 May 1988; 28 January - 19 February 1988

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30 Nov. 1986- Mexico, Ministry of Agriculture and Hydraulic Resources/University of Helsinki, 08 Dec. 1986 Department of Forest Mensuration and Management. Strengthening the Development and Planning of the Forestry Sector in Mexico. Project identification mission.

Mexico, Ministry of Agriculture and Hydraulic Resources/University of Helsinki, Department of Forest Mensuration and Management. Joint Mexican-Finnish Program for the Development Plan of Forestry and Forest Industries in the State of Guerrero, Mexico. Plan for plantation management and silviculture. Expert in silviculture and forest management.

Field work: 27 February 1984 -11 March 1984 / 25 October - 19 November 1982

SCHOLARLY AND PROFESSIONAL ACTIVITIES

Executive positions - International

UNCCD (United Nations Convention to Combat Desertification), Conference of the Parties COP 14. Member of the Finnish Delegation, 2019

European Forest Institute (EFI), Member of the Scientific Advisory Board, 2013-2017

UNFCCC Adaptation Fund Board - Member of the Board, 2008-2017

www.forestsclimatechange.org - Member of the Editorial Advisory Board, 2014-2016

IUFRO: Co-Chair of the Task Force on Climate Change, 2011-2014

European Forest Institute (EFI) - Chair of the External Evaluation Panel, 2010-2011

Collaborative Partnership on Forests (CPF), Joint Initiative on Science and Technology, Member of the Steering Committee, 2006-2010

IUFRO: Member of the Extended Board, 2003-2007

IUFRO: World Forests, Society and Environment (WFSE), Special Project. Chair, Scientific Advisory Council, 2001-2010; Member of the Scientific Advisory Council, 2000-2001

IUFRO: The Role of Forests in Carbon Cycles, Sequestration and Storage Task Force. Member 2001-2005

IUFRO: Global Forest Information Service (GFIS) Task Force. Member of the Core Group, 1998-2003 IUFRO (International Union of Forest Research Organizations) World Congress 1995, Tampere, Finland. Member of the Congress Organizing Committee 1990-1994

Nordic Course on Forests and Forestry in Developing Countries: Member of the organizing committee, 1980-1983 and 1993.

Executive positions - Finland

University of Helsinki, Faculty of Agriculture and Forestry - Member of the Faculty Council, 2018-2020.

University of Helsinki, Faculty of Agriculture and Forestry - Director of the Master's Program in Forest Sciences, 2017-2019.

 $Finnish\ University\ Partnership\ for\ International\ Development-UniPID,\ Chairman\ 2012-2014.$

The Finnish Committee for IIASA – Member (2012-2014)

Arctic Centre (Rovaniemi, Finland): Member of the International Scientific Advisory Committee, 1993-1995

The Ibero-American Foundation (Finland): Founding Member of the Board, 1992-1995

The Finnish National IGBP Committee: General Secretary, 1990-1995

Society of Development Studies (Finland): Member of the executive board, 1988-1990

Finnish Biological Society Vanamo (Finland): Member of the executive board, 1987-1990

The Finnish Society of Forest Science (Finland): Secretary, 1985-1990

Association of the Helsinki University Assistants (Finland): Member of the board, 1981-1984

Association of the Forestry Students (Finland): Chairman, 1974-1975.

Scientific editorial work

EarthScan Forest Library: Editor, 2012-2017

Silva Fennica: Member of the Editorial Board, 2004-2008

Forest Ecology and Management: Member of the Editorial Advisory Board, 2004-2007

Silva Fennica and Acta Forestalia Fennica: Editor-in-Chief, 1985-1990

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Reviewer of scientific journals (2011-2022)

Agriculture, Ecosystems and Environment; Agroforestry Systems; Ambio; Carbon Balance and Management; Climate Change; Climate Policy; Current Opinion in Environmental Sustainability; Forests; Forest Ecology and Management; Forest Policy and Economics; Frontiers in Forests and Global Change; Journal of Geophysical Research; Mitigation and Adaptation Strategies for Global Change; Nature Communications; Plos One; Scientific Reports.

Membership in governmental committees and policy-making bodies in Finland/Europe

Ministry of Agriculture and Forestry: Committee on international natural resources policy, member, 2019-

The Finnish Climate Panel: member, 2011-2019

Ministry of Agriculture and Forestry: Committee on forest research policy, member, 1994-1995.

Ministry of Agriculture and Forestry: Committee on international forestry and forest policy, member, 1993-1995.

Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC): Member of the delegation of Finland, 1991-1995.

Ministry of Environment: Permanent expert of "The CO₂-committee" and "The climate committee", 1991-1995.

Finnish National Committee for UNCED: Member of the sub-committee I, 1991-1992.

Thesis supervision

Doctoral students (total 13)

University of Helsinki (12)

Offiversity of I	 · , ,
2020	Raúl Córdova: "Climate change adaptation in smallholder agroforestry systems in the
	Northern Andes of Ecuador: A case study in the Indigenous Territory of Kayambi
	People". Main supervisor.
2020	Anne Arvola: "Key factors in the enabling environment for smallholder tree growing –
	experiences from the Global South". Main supervisor.
2019	Arttu Malkamäki: "On the human impacts and governance of large-scale tree
	plantations". Supervisor (member of the supervisory committee).
2017	Mustafa Fahmi: "Climate, trees and agricultural practices: Implications for food
	security in the semi-arid zone of Sudan". Main supervisor.
2016	Yitagesu Tekle Tegegne: "FLEGT and REDD+ synergies and impacts in the Congo
	Basin: lessons for global forest governance". Main supervisor.
2016	Johanna Eklund: "Setting priorities for conservation: protected area effectiveness,
	management, and quality of governance". Supervisor (member of the supervisory
	committee).
2016	Daniel Etongo Bau: "Deforestation and forest degradation in Southern Burkina Faso:
	Understanding the drivers of change and options for revegetation". Main supervisor.
2013	Maarit Kallio: "Factors influencing farmers' tree planting and management activity in
	four case studies in Indonesia". Main supervisor.
2013	Mesele Tesemma Negash: "Indigenous agroforestry systems of the south-eastern Rift
	Valley escarpment, Ethiopia: Their biodiversity, carbon stocks, and litterfall".
	Supervisor.
2013	Salla Rantala: "The winding road from exclusion to ownership: Governance and social
	outcomes in contemporary forest conservation in northeastern Tanzania". Main
	supervisor.
2011	Fobissie Blese Kalame: "Forest governance and climate change adaptation: Case
	studies of four African countries". Main supervisor.
2005	Diego Pérez: "Stand growth scenarios for Tectona grandis plantations in Costa Rica".
	Main supervisor.

CATIE-Centro Agronómico de Investigación y Enseñanza, Costa Rica (1)

2000 Lucio Pedroni: "Estimation and Use of Modified Prior Probabilities for Digital Classification Improvement of Tropical Forests". Principal supervisor.

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M.Sc. students (total 39)

University	οf	Нρ	lcinki	(24)	ı
University	ΟI	пе	ISHIKI	(24)	1

2022 Henri Honkanen: MODIS NDVI and additional variables in estimating tree species richness in moist tropical evergreen forests in West Kalimantan, Indonesia. Supervisor. Anna Jaurimaa: How to address and assess climate change adaptation? Results-based 2020 climate change adaptation and the role of trees and forests in projects funded by Adaptation Fund. Supervisor. Antti Simppula: Village-level changes in landscapes, land use and rural livelihoods: A 2020 case study of three villages in Nambak district, Lao PDR. Co-supervisor. 2019 Christa Vilkki: Tropical rainforest restoration on Imperata grasslands under fastgrowing plantations in South Kalimantan, Indonesia. Supervisor. Eedla Makkonen: Preliminary Assessment of Socioeconomic Impacts and Plantation 2019 Performance of Stora Enso's Village Program in Southern Laos. Supervisor. Antti Luoma: Ecosystem services in UPM's intensively managed plantation 2018 landscapes in Uruguay. Supervisor. Cary Miller: "Qualitative Assessment of Key Factors Shaping the Development of 2017 Community Forestry Enterprises in Mexico". Supervisor. Shingo Masuda: "Indonesian wooden furniture value chain and impacts of EU 2017 policies". Supervisor. Juho Penttilä: "Influence of smallholder woodlot management on tree growth and 2016 quality. Case study of pine plantations in Iringa and Njombe regions, Tanzania". Supervisor. Elina Hirvonen: "Ecosystem Services from Industrial Eucalypt Plantation Landscapes: 2016 Case of Stakeholders of UPM Uruguay". Supervisor. Tabi Agbor, Ferdinand: "Sustainability of community forest management in Burkina 2015 Faso: The Case of CAF Cassou". Supervisor. 2015 Gordillo Ruesta, Harold: "What drives land use – land cover change leading to deforestation? A study case of the Tambopata Natural Reserve Buffer Zone, Madre de Dios, Peru". Supervisor. Malkamäki, Arttu: "Governance of global commodity chains: Case of Uruguayan 2015 beekeeping and sustainable livelihoods". Co-supervisor. 2014 Pienimäki, Arttu: "Carbon stocks for six different land use classes in Niassa province, Mozambique". Supervisor. 2014 Juntheikki, Joni: "Estimation of eucalyptus forest plantations carbon sequestration potential in Uruguay with the CO2fix model". Supervisor. 2014 Harjuniemi, Aliisa: "Effects of Intensive management in the Restoration of Northeastern Atlantic Forest in Brazil; Survival, Growth and Carbon Sequestered 8 Years after Planting". Co-supervisor. Matleena Vuola: "Regional markets for non-timber forest products in eastern 2013 Brazilian Amazon". Supervisor. 2013 Gideon Shu: "Forest degradation mapping and carbon assessment in South Cameroon using remote sensing data and field measurements". Supervisor. 2012 Bosaze Rufinga Shange: "Community forest management and policy implications for the Biosphere Reserve of Luki, Democratic Republic of Congo". Supervisor. Lari Saukko: "Improving rooting of Eucalyptus cuttings by controlling the stock plant 2012 temperature in Montes del Plata nursery, Uruguay". Supervisor. 2011 Eveliina Varis: "Stand growth and management scenarios for Paraserianthes falcataria smallholder plantations in Indonesia". Supervisor. 2003 Pekka Puolakka: "Profitability of Costa Rican teak plantations. A case study on the management and maintenance of two existing tree plantation enterprises". Supervisor. Anne Arvola: "Growth and management of Terminalia Amazonia in small-farm 2002 plantations in southern Costa Rica". Supervisor. 2000 Kaisa Korhonen: "The silvicultural state of planted forests in southern Costa Rica as affected by farmers' motivation for reforestation: Evaluation of forest incentive programs". Supervisor.

CATIE-Centro Agronómico de Investigación y Enseñanza, Costa Rica (14)

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2006	Manuel Serrano: "Evaluación y planificación del manejo forestal sostenible en escala
	de paisaje en Hojancha, Costa Rica". Member of the committee.
2006	Álvaro Vallejo "Maia - software para el monitoreo de proyectos de remoción de carbono bajo el Mecanismo para un Desarrollo Limpio del Protocolo de Kyoto". Member of the committee.
2002	Edgar Bámaca Figueroa "Dinámica del carbono en los residuos forestales producidos durante el aprovechamiento y el aserrio en la Reserva de Biosfera Maya, Peten, Guatemala". Principal supervisor.
2002	William Arreaga "Cuantificación del carbono almacenado en bosques con manejo forestal sostenible y aprovechamiento tradicional, Reserva de Biosfera Maya, Peten, Guatemala". Principal supervisor.
2001	Chelsia Morais "Almacenamiento de carbono en diferentes fases sucesionales del bosque secundario". Principal supervisor.
2000	Ana Mollinedo Pastrana: "Beneficios sociales y rentabilidad del manejo forestal comunitario en una cooperativa y una concesión en la reserva de la Biosfera Maya, Petèn, Guatemala". Principal supervisor.
1999	Milena Segura Madrigal: "Valoración económica y determinación del servicio de fijación y almacenamiento de carbono en bosques naturales protegidos del Área de Conservación Cordillera Volcánica". Principal supervisor.
1999	Harland Rivas Cooper: "Estudio comparativo del impacto del Huracán Mitch en rodales intervenidos y no intervenidos en tres bosques comunales, en el Norte de Honduras". Principal supervisor.
1998	Luis Diego Pérez Cordero: "Relación de la composición de la biomasa de copa con el crecimiento y productividad de <i>Tectona grandis, Bombacopsis quinata</i> y <i>Gmelina arborea</i> y evaluación de costos de su manejo intensivo en Costa Rica". Member of the committee.
1998	Bruno Solíz Saucedo: "Valoración económica del almacenamiento y fijación de carbono en el bosque Chiquitano de Lomerio, en Santa Cruz de la Sierra, Bolivia". Member of the committee.
1998	Alejando López Musalem: "El aporte de la raíces finas y el suelo al secuestro de CO ₂ por un sistema silvopastoril con laurel y pasto guinea en el trópico húmedo de Costa Rica". Member of the committee.
1997	Jorge Oviedo Machuca: "Determinación del turno óptimo financiero y ambiental para cinco especies en plantaciones forestales de Costa Rica". Member of the committee.
1997	Liseth Rodríquez: "Implicaciones económicas del almacenamiento del CO ₂ almacenado en un bosque húmedo tropical en Costa Rica, bajo diferentes estrategias de intervención". Member of the committee.
1997	Juan Carlos Godoy: "Análisis económico y financiero de los incentivos a la reforestación otorgados por el gobierno de Costa Rica". Member of the committee.
	Vageningen, the Netherlands (1)
2005	Arjan de Bruijn: "Carbon dynamics simulation in Malinau Research forest".
	Supervisor.

Thesis examination/review

Doctoral thesis external examiner/opponent in doctoral dissertation (total 6)

Ductor ar tries	is external examiner/opponent in doctoral dissertation (total o)
2022	Wageningen University (The Netherlands), opponent: Ph.D. thesis by Tina N. Bauer
	"Social-ecological systems under a changing climate: the case of Tacana forest
	communities in the Bolivian Amazon and the role of forest capital in responding to an
	extreme weather event".
2018	AgroParisTech (France) & University of Copenhagen (Denmark) (joint degree), external
	examiner: Ph.D. thesis by Andes Rozak "Towards better estimates of carbon stocks in
	Bornean logged-over Dinterocarn forests"

Bornean logged-over Dipterocarp forests".

2014 <u>University of Melbourne</u> (Australia), external examiner: Ph.D. thesis by Thu Ba Thi Huynh "Can REDD+ Turn Rainbow? REDD+ and Climate Change Adaptation Policies in Vietnam".

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2012 <u>University of Eastern Finland</u>, Faculty of Science and Forestry, opponent (External examiner) appointed by the faculty: Doctoral dissertation of M.Sc. Lawrence Damnyag" Valuation of ecosystem services for assessment of cost of deforestation, and analysis of its drivers with implications for sustainable forest management in Ghana".
 2006 University of Turku, Faculty of Natural Sciences, opponent (External examiner)

One University of Turku, Faculty of Natural Sciences, opponent (External examiner) appointed by the faculty: Doctoral dissertation of M.Sc. Antti Marjokorpi "Biodiversity management in fast-growing tree plantations: a case study from West Kalimantan, Indonesia".

1990 <u>University of Joensuu</u>, Faculty of Forestry: opponent (External examiner) appointed by the faculty: Doctoral dissertation (Forestry) of Lic.Sc. Heikki Hänninen. "Modelling bud dormancy release in trees from cool and temperate regions".

Doctoral thesis pre-examiner (16)

University of Helsinki, Faculty of Science, pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation of M.Sc. Edward Amara "Woody Above Ground Biomass and Its Drivers in Mosaic Landscapes in West and East Africa".

2019 <u>University of Eastern Finland</u>, Faculty of Science and Forestry, pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation of M.Sc. Bishnu Devkota "From participation to responsiveness: The changing priorities of community forestry governance in Nepal's Terai".

2016 <u>University of Helsinki</u>, Faculty of Biological and Environmental Sciences, pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation of M.Sc. Johanna Eklund "Setting priorities for conservation: protected area effectiveness, management and quality of governance".

2011 <u>University of Helsinki</u>, Faculty Biological and Environmental Sciences, pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation of M.Sc. Mari Bieri "Ecological sustainability and FSC certification in Honduran community forestry".

2010 <u>University of Turku</u>, Faculty of Natural Sciences, pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation of M.Sc. Petteri Vihervaara "Impact of the globalizing forest industry on ecosystem services: Corporate responsibility and the sustainable management of coupled human-environment systems".

2007 <u>University of Helsinki</u>, Faculty of Agriculture and Forestry, pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation (Forestry) of M.Sc. Teija Reyes. "Agroforestry systems for sustainable livelihoods and improved land management in the East Usambara Mountains, Tanzania".

2002 <u>University of Helsinki</u>, Faculty of Agriculture and Forestry, pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation (Forestry) of M.Sc. Eshetu Yirdaw. "Restoration of the native woody-species diversity, using plantation species as foster trees, in the degraded highlands of Ethiopia".

2000 <u>University of Helsinki</u>, Faculty of Agriculture and Forestry, pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation (Forestry) of M.Sc. Riikka Otsamo. "Integration of indigenous tree species into fast-growing forest plantations on *Imperata* grasslands in Indonesia – Silvicultural solutions and their ecological and practical implications".

1999 <u>University of Helsinki</u>, Faculty of Agriculture and Forestry, pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation (Forestry) of M.Sc. Chungyang Li. "Drought adaptation and genetic diversity in *Eucalyptus microtheca*".

1996 <u>University of Helsinki</u>, Faculty of Agriculture and Forestry, pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation (Forestry) of M.Sc. Pekka Nöjd. "The Effects of Emissions from a Nickel-Copper Smelter in Monchegorsk, northwestern Russia, on the Radial Growth of Scots Pine".

1996 <u>University of Helsinki</u>, Faculty of Agriculture and Forestry, pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation (Forestry) of M.Sc. Abdelrasul Fadelmula Mustafa. "Regeneration of Acacia seyal forests on the dryland of the Sudan clay plain".

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1996 University of Joensuu, Faculty of Natural Sciences, pre-examiner (Reviewer): Doctoral dissertation (Biology) of L.Sc. Markus Lindholm. "Growth response in forest-limit pine to climatic factors and reconstruction of summer temperatures from ring-width chronologies of *Pinus sylvestris* L. in Northern Fennoscandia". <u>University of Helsinki</u>, Faculty of Agriculture and Forestry, pre-examiner (Reviewer): 1995 Doctoral dissertation (Forestry) of M.Sc. Pekka Nygren. "Carbon and nitrogen dynamics in Erythrina poeppiaiana (Leaiminosae: Phaseoleae) trees managed by periodic prunings". University of Joensuu, Faculty of Forestry: pre-examiner (Reviewer) appointed by the 1993 faculty: Doctoral dissertation (Forestry) of M.Sc. Tapani Repo. "Impedance spectroscopy and temperature acclimation of forest trees". University of Helsinki, Faculty of Agriculture and Forestry: pre-examiner (Reviewer) 1992 appointed by the faculty: Doctoral dissertation (Forestry) of Lic.For. Eero Nikinmaa. "Analysis of Scots Pine growth: formation of structure from functional considerations". 1987 University of Helsinki, Faculty of Agriculture and Forestry: pre-examiner (Reviewer) appointed by the faculty: Doctoral dissertation (Forestry) of Lic.Sc. (Tech.) Annikki Mäkelä. "Models of pine stand development: an eco-physiological systems analysis". Doctoral thesis - Chair/member of the Grading committee (5) 2020 University of Helsinki, Faculty of Agriculture and Forestry, chair of the grading committee appointed by the faculty: Doctoral dissertation of M.Sc. Anne Arvola "Key factors in the enabling environment for smallholder tree growing - experiences from the Global South". 2020 University of Helsinki, Faculty of Agriculture and Forestry, chair of the grading committee appointed by the faculty: Doctoral dissertation of M.Sc. Badal Hassan "Trees for sustainable livelihoods in the Horn of Africa: Studies on aromatic resins and other non-wood forest products in Somalia and Kenya". 2019 University of Helsinki, Faculty of Agriculture and Forestry, chair of the grading committee appointed by the faculty: Doctoral dissertation of M.Sc. Mawa Karambiri "Where is local democracy?". 2019 University of Helsinki, Faculty of Agriculture and Forestry, chair of the grading committee appointed by the faculty: Doctoral dissertation of M.Sc. Enass Salih

and Anogeissus species (Combretaceae) growing naturally in Sudan".

2018 <u>University of Helsinki</u>, Faculty of Agriculture and Forestry, member of the grading committee appointed by the faculty: Doctoral dissertation of M.Sc. Mila Sell "Innovation Capacity and Women Empowerment. Identifying constraints and pathways toward sustainability, improved productivity and livelihoods of small-scale farmers in Africa".

"Ethnobotany, phytochemistry and antimicrobial activity of Combretum, Terminalia

Doctoral thesis – Chair/member of the Thesis committee (1)

2021 <u>University of Helsinki</u>, Faculty of Agriculture and Forestry, member of the Thesis committee (follow-up group) appointed by the faculty: Doctoral student Hugh Brown.
 2020 <u>University of Helsinki</u>, Faculty of Agriculture and Forestry, member of the Thesis committee (follow-up group) appointed by the faculty: Doctoral student Geethanjali Mariaselvam.

Reviewer of Lic. Sc. and M.Sc. theses (37)

2023	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
	thesis of Ms. Elina Savolainen.
2022	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
	thesis of Mr. Henri Honkanen.
2020	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
	thesis of Mr. Anna Jaurimaa.
2020	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
	thesis of Mr. Antti Simppula.

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2019	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.) thesis of Ms. Eedla Makkonen.
2018	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
2018	thesis of Ms. Noora Simola <u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
2017	thesis of Mr. Antti Luoma <u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
2017	thesis of Mr. Harri Onali <u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
2017	thesis of Mr. Gary Miller <u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
	thesis of Mr. Shingo Masuda
2016	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.) thesis of Ms. Elina Hirvonen.
2016	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.) thesis of Mr. Juho Penttilä.
2015	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.) thesis of Mr. Harold Gordillo Ruesta.
2015	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
2015	thesis of Mr. Tabi Agbor. <u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
2014	thesis of Mr. Arttu Malkamäki. University of Helsinki , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
2014	thesis of Mr. Arttu Pienimäki. <u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
2014	thesis of Mr. Joni Juntheikki. <u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
	thesis of Mr. Aliisa Harjuniemi.
2013	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.) thesis of Ms. Heidi Teittinen.
2013	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.) thesis of Ms. Matleena Vuola
2013	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.) thesis of Mr. Gideon Shu.
2012	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.) thesis of Mr. Lari Saukko.
2011	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.) thesis of Ms. Eveliina Varis.
2010	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
2003	thesis of Ms. Nora Sylvander. University of Helsinki , Faculty of Agriculture and Forestry, examiner: L. Sc. (For.)
2000	thesis of Mr. Kari Leppänen. <u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. thesis of
1996	Ms. Nina Saalismaa. University of Helsinki, Faculty of Agriculture and Forestry, examiner: M. Sc. (For.)
1994	thesis of M.Sc. Paula Kankkunen. University of Helsinki, Faculty of Agriculture and Forestry, examiner: L. Sc. (For.)
	thesis of M.Sc. Kari Tuomela.
1994	<u>University of Turku</u> , Faculty of Philosophy, examiner: L. Sc. thesis of M. Sc. Maarit Puhakka.
1994	<u>University of Joensuu</u> , Faculty of Forestry, examiner: L. Sc. (For.) thesis of M. Sc. Timo Karjalainen.
1994	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: M. Sc. thesis of Mr. Jarkko Koskela.
1994	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry, examiner: L. Sc. (For.) thesis of M.Sc. Vesa Kaarakka.
1993	University of Joensuu, Faculty of Forestry, examiner: M. Sc. thesis of Mr. Markku Kähkönen.
	RUINOTICII.

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1990	University of Helsinki, Faculty of Agriculture and Forestry: examiner: L. Sc. (For.)
	thesis of M.Sc. Pasi Miettinen.
1990	<u>University of Joensuu</u> , Faculty of Forestry: examiner: L. Sc. (For.) thesis of Ms. Anneli
	Jalkanen.
1988	University of Helsinki, Faculty of Agriculture and Forestry: examiner: M. Sc. thesis of
	Mr. Jorma Peltonen.
1982	<u>University of Helsinki</u> , Faculty of Agriculture and Forestry: examiner: M. Sc. thesis of
	Mr. Gerardo Mery.

Summer Schools/Short courses organized

<u>University of Helsinki Summer School</u>: Coordinator of the Summer School "Designing Sustainable Forest Landscapes" (Annually 2011-2018). Approximately 20-25 participants from various countries.

<u>CATIE</u>: Coordinator of the "Latin-American training course on CDM (Clean Development Mechanism) in Forestry and Energy Sectors". (One course per year, 1999-2002) with approximately 20-25 participants from different Latin-American countries.

Member of selection committee for professor positions

2018	University of Helsinki, Faculty of Arts – Assistant Professor / Associate Professor/
	Professor position in African studies.
2018	University of Helsinki, Faculties of Science and Agriculture and Forestry – Assistant
	Professor /Associate Professor/ Professor position in Global atmosphere-Earth
	surface feedbacks.

Referee for adjunct professor ("docent") positions

Referee for adjunct professor (docent) positions		
2007	University of Helsinki, Faculty of Agriculture and Forestry – tropical silviculture: Dr.	
	Mohammed Eldafl.	
2001	University of Helsinki, Faculty of Agriculture and Forestry – environmental	
	conservation in developing countries: Dr. Anja Nygren.	
1992	University of Helsinki, Faculty of Agriculture and Forestry – forest ecology: Dr. Pekka	
	Kauppi.	

	Mohammed Eldafl.
2001	University of Helsinki, Faculty of Agriculture and Forestry – environmental
	conservation in developing countries: Dr. Anja Nygren.
1992	University of Helsinki, Faculty of Agriculture and Forestry – forest ecology: Dr. Pekka
	Kauppi.
Other qualifica	tions
2004-	Finnish Academy of Sciences and Letters. Invited as a Foreign Member.
2003-	Centro Agronómico de Investigación y Enseñanza (CATIE). Affiliated Faculty Member.
2002-2005	University of Idaho, School of Natural Resources. Affiliated Faculty Member.
2001	CIFOR-Center for International Forestry Research. Short-listed (among 4 out of 80
	applicants) for the position of Director General of CIFOR.
1996-2003	Centro Agronómico de Investigación y Enseñanza (CATIE). Professor and Member of
	the Faculty.
18 Jan. 1988	University of Helsinki, Faculty of Agriculture and Forestry: Adjunct Professor
	("dosentti" in Finnish) of silviculture.
03 Dec. 1987	University of Helsinki, Faculty of Agriculture and Forestry: Qualified for the assistant
	professorship of silviculture.
24 Jan. 1985	University of Helsinki, Faculty of Agriculture and Forestry: Approval of doctoral
	dissertation (grade: magna cum laude approbatur).
14 Dec. 1984	University of Helsinki, Faculty of Agriculture and Forestry: Public defense of doctoral
	dissertation.

Honors and prizes

2018	Knight First Class of the Order of the White Rose of Finland (Suomen Valkoisen Ruusun I luokan ritarimerkki), The President of the Republic of Finland.
2018	Influencer of the Year (Vuoden vaikuttaja) 2018, University of Helsinki, Faculty of Agriculture and Forestry.
2007	Nobel Peace Prize – a as member of the IPCC, Intergovernmental Panel on Climate Change.
2001	The Finnish Society of Forest Science: Achievement Award ("Suomen Metsätieteellisen Seuran Mitali").

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PUBLICATIONS

Google Scholar: h-index 55, i10-index 157, 15968 citations (September 2023).

In total, 388 publications:

Scientific publications

Original papers in refereed scientific journals	112	
Books and monographs		
Chapters in books		
Papers in conference proceedings	59	
	268	
Other publications		
Papers in technical (trade) journals	48	
Development or research reports	41	
Articles in periodicals, magazines and newspapers	14	
Textbooks, manuals & academic reports	11	
Computer software & on-line courses and materials		
•	120	

Complete list of publications:

https://blogs.helsinki.fi/kanninen/files/2023/01/Kanninen-List-of-Publications-2023.pdf Google Scholar:

https://scholar.google.com/citations?user=4kKnU0oAAAAJ&hl=en

(September 2023)