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## Curriculum vitae

Dr. Markku Kanninen is Research Director and Professor Emeritus at the Department of Forest Sciences of the University of Helsinki, Finland. He is an expert in tropical forestry, climate change, forest ecology, and forest management. He has published over 350 publications, including over 100 internationally peer-reviewed scientific articles.

He has been involved in tropical forest research for about 40 years. Prior to his current position, he was Director of Viikki Tropical Resources Institute (VITRI) (2010-2020); Director of the Environmental Services and Sustainable Use of Forests Program of CIFOR (2003-2010); Deputy Director General of CATIE (Costa Rica) (1996-2003); and earlier the Director of The Finnish Research Program on Climate Change (1990-1995).

He has been involved in science policy dialogue on forests and climate change for more than 30 years, and he has been actively involved in the work of the Intergovernmental Panel on Climate Change (IPCC) since 1990. He was a Lead Author of the recent IPCC Special Report on 1.5 Degrees. From 2011 to 2019, he was member of the Finnish Climate Panel.

Since 2004, he has been a member of the Finnish Academy of Sciences and Letters. He contributed to the Nobel Peace Prize 2007 for Intergovernmental Panel on Climate Change (IPCC).

## Publications

### **Synergies and trade-offs between biodiversity and carbon in ecological compensation**

Yirdaw, E., Kanninen, M. & Monge Monge, A. A., 3 Aug 2023, In: Sustainability. 15, 15, 14 p., 11930.

### **The role of private philanthropy in sustainability standards Harmonization: A Case Study**

Camargo, M., Sarsfield, R., Kanninen, M. & Cashore, T., 5 Jul 2023, In: Sustainability. 15, 13, 15 p., 10635.

### **Hyytiälän kesä 1973 - Kuvakavalkadi**

Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T., 2023, *Puoli vuosisataa metsäisillä taipaleilla. Hyytiälän kurssi 65 mukana murroksissa*. Kanninen, M., Päivinen, R., Koskimäki, A. & Rajala, P. T. (eds.). Helsinki: Hyytiälän kurssi 65, p. 46-60 15 p.

### **Hyytiälästä mieleen jäänyttä**

Kanninen, M. & Väisänen, E., 2023, *Puoli vuosisataa metsäisillä taipaleilla. Hyytiälän kurssi 65 mukana murroksissa*. Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T. (eds.). Helsinki: Hyytiälän kurssi 65, p. 104-106 3 p.

### **Lukijalle**

Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T., 2023, *Puoli vuosisataa metsäisillä taipaleilla. Hyytiälän kurssi 65 mukana murroksissa*. Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T. (eds.). Helsinki: Hyytiälän kurssi 65, p. 6-8 3 p.

### **Meksikon kautta maailmalle**

Kanninen, M., 2023, *Puoli vuosisataa metsäisillä taipaleilla. Hyytiälän kurssi 65 mukana murroksissa*. Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T. (eds.). Helsinki: Hyytiälän kurssi 65, p. 190-197 8 p.

### **Metsätieteen yliopisto-opinnot nyt ja 50 vuotta sitten**

Kanninen, M., 2023, *Puoli vuosisataa metsäisillä taipaleilla. Hyytiälän kurssi 65 mukana murroksissa*. Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T. (eds.). Helsinki: Hyytiälän kurssi 65, p. 98-103 6 p.

**Metsätutkinon luonteesta (Alkuperäinen julkaisu: Metsäylioppilas 1974(3):4. Julkaistu uudelleen Metsäylioppilaat ry:n luvalla)**

Kanninen, M., 2023, *Puoli vuosisataa metsäisillä taipaleilla. Hyytiälän kurssi 65 mukana murroksissa*. Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T. (eds.). Helsinki: Hyytiälän kurssi 65, p. 108-109 2 p.

#### **Metsäylioppilaiden kuusikauppa käynnistyy**

Rajala, P. T., Kanninen, M. & Väisänen, E., 2023, *Puoli vuosisataa metsäisillä taipaleilla: Hyytiälän kurssi 65 mukana murroksissa*. Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T. (eds.). Helsinki: Hyytiälän kurssi 65, p. 109-111 3 p.

#### **Nimet Impivaaran seinissä**

Kanninen, M., 2023, *Puoli vuosisataa metsäisillä taipaleilla. Hyytiälän kurssi 65 mukana murroksissa*. Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T. (eds.). Helsinki: Hyytiälän kurssi 65, p. 61-63 3 p.

#### **Presidentin kuusi ja Metsäylioppilaat ry:n kannanotto 1974 (Kannanoton alkuperäinen julkaisu: Metsäylioppilas 1974(4): 16-17. Julkaistu uudelleen Metsäylioppilaat ry:n luvalla)**

Kanninen, M., 2023, *Puoli vuosisataa metsäisillä taipaleilla. Hyytiälän kurssi 65 mukana murroksissa*. Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T. (eds.). Helsinki: Hyytiälän kurssi 65, p. 111-112 2 p.

#### **Puoli vuosisataa metsäisillä taipaleilla. Hyytiälän kurssi 65 mukana murroksissa**

Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T., 2023, Helsinki: Hyytiälän kurssi 65.

#### **Syyskuu Brnossa - Tiedettä ja viiniä**

Kanninen, M., 2023, *Puoli vuosisataa metsäisillä taipaleilla. Hyytiälän kurssi 65 mukana murroksissa*. Kanninen, M., Koskimäki, A., Päivinen, R. & Rajala, P. T. (eds.). Helsinki: Hyytiälän kurssi 65, p. 185-189 5 p.

#### **Leveraging the Power of Forests and Trees for Transformational Adaptation**

Djoudi, H., Dooley, K., Duchelle, A. E., Libert-Amico, A., Locatelli, B., Balinga, M. B., Brockhaus, M., Colloff, M., Djenontin, N. I., Dirk, C., Duguma, L., Baa, O. E., Fedele, G., Gitz, V., Kachamba, D., Kanninen, M., Lavorel, S., Mbow, C., Meybeck, A., Minang, P. A., & 7 others Mugabowindekwe, M., Munera, C., Pramova, E., Shackleton, S., Sonwa, D., Pinto, L. S. & Candotti, S. W., 7 Nov 2022, In: SSRN - Social Science Research Network. p. 1-26 26 p.

#### **Financial attractiveness of wood production in smallholder plantations of Central Vietnam in the context of developing carbon markets**

Arvola, A. M., Ha, H. T., Kanninen, M., Malkamäki, A. & Simola, N., 2021, In: Journal of Tropical Forest Science. 33, 2, p. 137-148 12 p.

#### **Kokemuksia kansainvälisen tutkimuksen kentiltä [Notes from international research arena]**

Kanninen, M., 2021, *Suomalaiset maailman metsissä oppimassa ja opettamassa*. Rajala, P. T. & Simola, A-L. (eds.). Nurmijärvi: Metsähistorian seura, p. 280-285 6 p.

#### **Maailman ruokajärjestelmä isojen haasteiden edessä [Global food system facing huge challenges]**

Kanninen, M., 2021, In: Kehittyvä Elintarvike. 5/2021, p. 14-15 2 p.

#### **Study on EU forest policy. Task 3 - Impact assessment on demand-side measures to address deforestation. Final report.**

Bougas, K., Cherrier, V., Constantine, L., Calasso, M. P., McAndrew, K., Gilbert, J., Beznea, A., Whiteoak, K., Williams, R., Giannis, G., Finney, H., Dyson, J., Aerts, E., van den Berg, J., Kanninen, M. & Womack, L., 2021, Wood E&IS GmbH, Trinomics, Ricardo Energy and Environment, Wageningen University and Research, Tyrsky, UNEP-WCMC, 276 p.

#### **Avikoituminen uhkaa miljoonien ihmisten ruokaturvaa ja terveyttä**

Kanninen, M. T. & Kaarakka, V., 19 Oct 2020, In: Helsingin Sanomat.

#### **Antibacterial potential of the Rubiaceae species *Xeromphis nilotica* (Stapf) and *Gardenia lutea* Fresen**

Salih, E., Kanninen, M., Luukkanen, O., Vuorela, H. & Fyhrquist, P. J., 1 Jul 2019, p. 1-1. 1 p.

#### **Boswellia and Commiphora Species as a Resource Base for Rural Livelihood Security in the Horn of Africa: A Systematic Review**

Hassan, B. A., Glover, E. K., Luukkanen, O., Kanninen, M. & Jamnadass, R., 1 Jul 2019, In: Forests. 10, 7, 15 p., 551.

**Mountain Farming Systems' Exposure and Sensitivity to Climate Change and Variability: Agroforestry and Conventional Agriculture Systems Compared in Ecuador's Indigenous Territory of Kayambi People**

Córdova, R., Hogarth, N. & Kanninen, M., 1 May 2019, In: Sustainability. 11, 9, 30 p., 2623.

**Payments for adding ecosystem carbon are mostly beneficial to biodiversity**

Larjavaara, M., Davenport, T. R. B., Gangga, A., Holm, S., Kanninen, M. & Nguyen, D. T., May 2019, In: Environmental Research Letters. 14, 5, 9 p., 054001.

**Greening the Dark Side of Chocolate: A Qualitative Assessment to Inform Sustainable Supply Chains**

Camargo, M. C., Hogarth, N. J., Pacheco, P., Nhantumbo, I. & Kanninen, M., Mar 2019, In: Environmental Conservation. 46, 1, p. 9-16 8 p.

**Metsien hakkuiden kasvattaminen ei ole ilmastoteko**

Seppälä, J. & Kanninen, M. T., 2019, In: Talous & yhteiskunta. 47, 1, p. 20-27 8 p.

**Skenaarioanalyysi metsien kehitystä kuvaavien mallien ennusteiden yhtäläisyyksistä ja eroista**

Kalliokoski, T., Heinonen, T., Holder, J., Lehtonen, A., Mäkelä, A., Minunno, F., Ollikainen, M., Packalen, T., Peltoniemi, M., Pukkala, T., Salminen, O., Schelhaas, M.-J., Seppälä, J., Vauhkonen, J. & Kanninen, M., 2019, Suomen ilmastopaneeli . 88 p. (Suomen ilmastopaneeli. Raportti; no. 2/2019)

**Stand growth scenarios for jabon (*Anthocephalus cadamba* Miq.) plantation management in Indonesia: Agriculture and Natural Resources**

Krisnawati, H., Kallio, M. H. & Kanninen, M., 2019, In: Kasetsart Journal : Natural Science. 53, 2, p. 120-129 10 p.

**Terminalia laxiflora and Terminalia brownii contain a broad spectrum of antimycobacterial compounds including ellagitannins, ellagic acid derivatives, triterpenes, fatty acids and fatty alcohols**

Salih, E. Y. A., Julkunen-Tiitto, R., Lampi, A.-M., Kanninen, M., Luukkanen, O., Sipi, M., Lehtonen, M., Vuorela, H. & Fyhrqvist, P., 5 Dec 2018, In: Journal of Ethnopharmacology. 227, p. 82-96 15 p.

**A systematic review of the socio-economic impacts of large-scale tree plantations, worldwide**

Malkamäki, A., D'Amato, D., Hogarth, N. J., Kanninen, M., Pirard, R., Toppinen, A. & Zhou, W., Nov 2018, In: Global Environmental Change. 53, p. 90-103 14 p.

**Ellagitannins in antimycobacterial extracts of *Combretum hartmannianum*, a savannah woodland tree**

Salih, E. Y. A., Kanninen, M. T., Julkunen-Tiitto, R., Sipi, M. H., Luukkanen, M. O., Vuorela, H. J. & Fyhrqvist, P. J., 27 Aug 2018. 1 p.

**Land management in rural Burkina Faso: the role of socio-cultural and institutional factors**

Etongo, D., Epule, T. E., Djenontin, I. N. S. & Kanninen, M., Aug 2018, In: Natural Resources Forum. 42, 3, p. 201-213 13 p.

**Impact of agroforestry parklands on crop yield and income generation: case study of rainfed farming in the semi-arid zone of Sudan**

Fahmi, M. K. M., Dafa-Alla, D.-A. M., Kanninen, M. & Luukkanen, O., Jun 2018, In: Agroforestry Systems. 92, 3, p. 785-800 16 p.

**Sustainability of Smallholder Livelihoods in the Ecuadorian Highlands: A Comparison of Agroforestry and Conventional Agriculture Systems in the Indigenous Territory of Kayambi People**

Córdova, R., Hogarth, N. J. & Kanninen, M., Jun 2018, In: Land. 7, 2, 31 p., 45.

**Assessing the effectiveness of joint forest management in Southern Burkina Faso: A SWOT-AHP analysis**

Etongo, D., Kanninen, M., Epule, T. E. & Fobissie, K., May 2018, In: Forest Policy and Economics. 90, p. 31-38 8 p.

**From divide to nexus: Interconnected land use and water governance changes shaping risks related to water**  
Räsänen, A., Nygren, A., Monge Monge, A. A., Käkönen, M., Kanninen, M. & Juhola, S., Jan 2018, In: *Applied Geography*. 90, p. 106-114 9 p.

#### **Global variation in the cost of increasing ecosystem carbon**

Larjavaara, M., Kanninen, M., Ruesta, H. G., Koskinen, J., Kukkonen, M., Käyhkö, N., Larson, A. M. & Wunder, S., Jan 2018, In: *Nature Climate Change*. 8, 1, p. 38-42 5 p.

#### **Cross-Chapter Box 7: Land-Based Carbon Dioxide Removal in Relation to 1.5°C of Global Warming**

Warren, R., Buckeridge, M., Fuss, S., Kanninen, M., Rogelj, J., Seneviratne, S. I. & Slade, R., 2018, *Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*. Intergovernmental Panel on Climate Change, p. 268-270 3 p.

#### **Ilmastopaneelin näkemykset pitkän aikavälin päästövähennystavoitteen asettamisessa huomioon otettavista seikoista: Ilmastopaneelin muistio asunto-, energia- ja ympäristöministeri Kimmo Tiilikaisen pyyntöön**

Ollikainen, M. M. O., Asikainen, A., Järvelä, M., Kanninen, M. T., Kopsakangas-Savolainen, M., Kulovesi, K., Lanki, T., Laukkanen, M., Liimatainen, H., Linnanen, L., Regina, K., Ratinen, I., Seppälä, J. & Viisanen, Y., 2018, Suomen ilmastopaneeli. 28 p.

#### **Impacts of 1.5°C Global Warming on Natural and Human Systems**

Hoegh-Guldberg, O., Jacob, D., Bindi, M., Brown, S., Camilloni, I., Diedhiou, A., Djalante, R., Ebi, K., Engelbrecht, F., Guiot, J., Hijioka, Y., Mehrotra, S., Payne, A., Seneviratne, S. I., Thomas, A., Warren, R., Zhou, G., Halim, S. A., Achlatis, M., Alexander, L. V., & 67 others Allen, M., Berry, P., Boyer, C., Byers, E., Brilli, L., Buckeridge, M., Cheung, W., Craig, M., Ellis, N., Evans, J., Fischer, H., Fraedrich, K., Fuss, S., Ganase, A., Gattuso, J. P., Greve, P., Bolaños, T. G., Hanasaki, N., Hasegawa, T., Hayes, K., Hirsch, A., Jones, C., Jung, T., Kanninen, M., Krinner, G., Lawrence, D., Lenton, T., Ley, D., Liverman, D., Mahowald, N., McInnes, K., Meissner, K. J., Millar, R., Mintenbeck, K., Mitchell, D., Mix, A. C., Notz, D., Nurse, L., Okem, A., Olsson, L., Oppenheimer, M., Paz, S., Petersen, J., Petzold, J., Preuschmann, S., Rahman, M. F., Rogelj, J., Scheffele, H., Schleussner, C-F., Scott, D., Séférian, R., Sillmann, J., Singh, C., Slade, R., Stephenson, K., Stephenson, T., Sylla, M. B., Tebboth, M., Tschakert, P., Vautard, R., Wartenburger, R., Wehner, M., Weyer, N. M., Whyte, F., Yohe, G., Zhang, X. & Zougmore, R. B., 2018, *Global warming of 1.5°C. : An IPCC Special Report*. Masson-Delmotte, V., Zhai, P., Pörtner, H. O., Roberts, D., Skea, J., Shukla, P. R., Pirani, A., Moufouma-Okia, W., Péan, C., Pidcock, R., Connors, S., Matthews, J. B. R., Chen, Y., Zhou, X., Gomis, M. I., Lonnoy, E., Maycock, T., Tignor, M. & Waterfield, T. (eds.). IPCC Secretariat, p. 175-311 137 p.

#### **Sustainable development, poverty eradication and reducing inequalities**

Roy, J., Tschakert, P., Waisman, H., Halim, S. A., Antwi-Agyei, P., Dasgupta, P., Hayward, B., Kanninen, M., Liverman, D., Okereke, C., Pinho, P. F., Riahi, K. & Rodriguez, A. G. S., 2018, *Global warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*. Masson-Delmotte, V., Zhai, P., Pörtner, H. O., Roberts, D., Skea, J., Shukla, P. R., Pirani, A., Moufouma-Okia, W., Péan, C., Pidcock, R., Connors, S., Matthews, J. B. R., Chen, Y., Zhou, X., Gomis, M. I., Lonnoy, E., Maycock, T., Tignor, M. & Waterfield, T. (eds.). Intergovernmental Panel on Climate Change, p. 445-538 94 p.

#### **Technical Summary**

Allen, M. R., de Coninck, H., Dube, O. P., Hoegh-Guldberg, O., Jacob, D., Jiang, K., Revi, A., Rogelj, J., Roy, J., Shindell, D., Solecki, W., Taylor, M., Tschakert, P., Waisman, H., Halim, S. A., Antwi-Agyei, P., Aragón-Durand, F., Babiker, M., Bertoldi, P., Bindi, M., & 54 others Brown, S., Buckeridge, M., Camilloni, I., Cartwright, A., Cramer, W., Dasgupta, P., Diedhiou, A., Djalante, R., Dong, W., Ebi, K. L., Engelbrecht, F., Fifita, S., Ford, J., Forster, P., Fuss, S., Hayward, B., Hourcade, J-C., Ginzburg, V., Guiot, J., Handa, C., Hijioka, Y., Humphreys, S., Kainuma, M., Kala, J., Kanninen, M., Kheshgi, H., Kobayashi, S., Kriegler, E., Ley, D., Liverman, D., Mahowald, N., Mechler, R., Mehrotra, S., Mulugetta, Y., Mundaca, L., Newman, P., Okereke, C., Payne, A., Perez, R., Pinho, P. F., Revokatova, A., Riahi, K., Schultz, S., Séférian, R., Seneviratne, S. I., Steg, L., Rodriguez, A. G. S., Sugiyama, T., Thomas, A., Vilariño, M. V., Wairiu, M., Warren, R., Zhou, G. & Zickfeld, K., 2018, *Global warming of 1.5°C : An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*. Masson-Delmotte, V., Zhai, P., Pörtner, H. O., Roberts, D., Skea, J., Shukla, P. R., Pirani, A., Moufouma-Okia, W., Péan, C., Pidcock, R., Connors, S., Matthews, J. B. R., Chen, Y., Zhou, X., Gomis, M. I., Lonnoy, E., Maycock, T., Tignor, M. & Waterfield, T. (eds.). Intergovernmental Panel on Climate Change, p. 27-46 20 p.

**LC-MS/MS Tandem Mass Spectrometry for Analysis of Phenolic Compounds and Pentacyclic Triterpenes in Antifungal Extracts of *Terminalia brownii* (Fresen)**

Salih, E. Y. A., Fyhrqvist, P. J., Abdalla, A. M. A., Abdelgadir, A. Y., Kanninen, M. T., Sipi, M. H., Luukkanen, M. O., Fahmi, M., Elamin, M. H. & Ali, H. A., Dec 2017, In: *Antibiotics*. 6, 18 p., 37.

**Assessing use-values and relative importance of trees for livelihood values and their potentials for environmental protection in Southern Burkina Faso**

Etongo, D., Djenontin, I. N. S., Kanninen, M. & Glover, E. K., Aug 2017, In: *Environment, Development and Sustainability*. 19, 4, p. 1141-1166 26 p.

**Identifying mismatches between institutional perceptions of water-related risk drivers and water management strategies in three river basin areas**

Räsänen, T. A., Juhola, S. K., Monge Monge, A. A., Käkönen, M-N. E., Kanninen, M. T. & Nygren, A. K., 31 May 2017, In: *Journal of Hydrology*. 550, p. 704–715 12 p.

**Tutkijoiden pääviestit metsien käytön ilmastovaikutuksista**

Seppälä, J., Asikainen, A., Kalliokoski, T. K., Kanninen, M. T., Koskela, S., Ratinen, I. & Routa, J., 17 May 2017, Suomen ilmastopaneeli. 18 p. (Raportti; no. 1/2017)

**The socioeconomic impacts of large-scale tree plantations on local communities: A systematic review protocol**

Malkamäki, A., D'amato, D., Hogarth, N., Kanninen, M. T., Pirard, R., Toppinen, A. M. K. & Zhou, W., Mar 2017, *CIFOR Working Paper 222*. Bogor: Center for International Forestry Research, p. 1-18 18 p.

**CarboScen: A tool to estimate carbon implications of land-use scenarios**

Larjavaara, M., Kanninen, M. T., Alam, S. A., Mäkinen, A. & Poeplau, C., 28 Feb 2017, In: *Ecography*. 40, 7, p. 894–900 7 p.

**Synergies among social safeguards in FLEGT and REDD+ in Cameroon**

Tegegne, Y. T., Ramcilovic-Suominen, S., Kalame, F. B., Visseren-Hamakers, I. J., Lindner, M. & Kanninen, M., Feb 2017, In: *Forest Policy and Economics*. 75, p. 1-11 11 p.

**Can conservation funding be left to carbon finance? Evidence from participatory future land use scenarios in Peru, Indonesia, Tanzania, and Mexico**

Ravikumar, A., Larjavaara, M., Larson, A. & Kanninen, M., Jan 2017, In: *Environmental Research Letters*. 12, 1, 11 p., 014015.

**Special issue: Drought and Dryland Management - a commentary**

Yirdaw, E., Kanninen, M., Elfadl, M. & Tsegai, D., 2017, *Silva Fennica: Special issue: Drought and Dryland Management*. Finnish Society of Forest Science, Vol. 51. p. 1-2 (Silva Fennica; vol. 51, no. 1B).

**Special issue: Drought and Dryland Management**

Yirdaw, E. (ed.), Kanninen, M. T. (ed.), Elfadl, M. A. (ed.) & Tsegai, D. (ed.), 2017, 1B ed. Suomen Metsätieteellinen Seura. (Silva Fennica; vol. 51, no. 1B)

**Tannins, flavonoids and stilbenes in extracts of African savanna woodland trees *Terminalia brownii*, *Terminalia laxiflora* and *Anogeissus leiocarpus* showing promising antibacterial potential**

Salih, E. Y. A., Kanninen, M., Sipi, M., Luukkanen, O., Hiltunen, R., Vuorela, H., Julkunen-Tiitto, R. & Fyhrqvist, P., 2017, In: *South African Journal of Botany*. 108, p. 370-386 17 p.

**Impacts of land use and land use changes on the resilience of beekeeping in Uruguay**

Malkamäki, A., Toppinen, A. & Kanninen, M., Sep 2016, In: *Forest Policy and Economics*. 70, p. 113-123 11 p.

**Evolution of drivers of deforestation and forest degradation in the Congo Basin forests: Exploring possible policy options to address forest loss**

Tegegne, Y. T., Lindner, M., Kalame, F. & Kanninen, M., Feb 2016, In: *Land Use Policy*. 51, p. 312-324 13 p.

#### **Multifaceted Impacts of Sustainable Land Management in Drylands: A Review**

Marques, M. J., Schwilch, G., Lauterburg, N., Crittenden, S., Tesfai, M., Stolte, J., Zdruli, P., Zucca, C., Petursdottir, T., Evelpidou, N., Karkani, A., AsliYilmazgil, Y., Panagopoulos, T., Yirdaw, E., Kanninen, M., Luis Rubio, J., Schmiedel, U. & Doko, A., Feb 2016, In: *Sustainability*. 8, 2, 34 p., 177.

#### **A Systematic Approach to Strengthening Capacities on Climate Change and Natural Resource Management in West Africa**

Fobissie Blese, K., Kanninen, M. T. & Etongo, D., 2016, Helsinki: Viikki Tropical Resource Institute, University of Helsinki. 7 p. (VITRI Brief; no. 2)

#### **Climate change, multiple stressors and human vulnerability: a systematic review**

Räsänen, A., Juhola, S., Nygren, A., Kähkönen, M., Kallio, M., Monge Monge, A. & Kanninen, M., 2016, In: *Regional Environmental Change*. 16, 8, p. 2291-2302 12 p.

#### **Exploring Opportunities for Promoting Synergies between Climate Change Adaptation and Mitigation in Forest Carbon Initiatives**

Chia, E. L., Fobissie Blese, K. & Kanninen, M., 2016, In: *Forests*. 7, 1, 16 p., 24.

#### **Forest Carbon Initiatives Better Planning Needed for Maximizing Mitigation and Adaptation Synergies**

Chia, E. L., Fobissie Blese, K. & Kanninen, M. T., 2016, Viikki Tropical Resource Institute, University of Helsinki. 8 p. (VITRI Brief; no. 1)

#### **Polyphenol-rich extracts of Terminalia laxiflora and Terminalia brownii give promising anti-Candida activity.**

Salih, E. Y. A., Kanninen, M. T., Vuorela, H. J., Luukkanen, M. O., Sipi, M. H., Julkunen-Tiitto, R. & Fyhrqvist, P. J., 2016.

#### **Poverty and Environmental Degradation in Southern Burkina Faso: An Assessment Based on Participatory Methods**

Etongo Bau, D., Djenontin, I. N. S. & Kanninen, M. T., 2016, In: *Land*. 5, 3, 23 p., 20.

#### **Suomi voi käyttää metsiä ilmastoviisaasti**

Seppälä, J., Kanninen, M. T., Vesala, T. V. & Ollikainen, M. M. O., 16 Dec 2015, In: *Helsingin Sanomat*. 16.12.2015, p. B12

#### **Land tenure, asset heterogeneity and deforestation in Southern Burkina Faso**

Etongo, D., Djenontin, I. N. S., Kanninen, M., Kalame, F., Korhonen-Kurki, K. & Djoudi, H., Dec 2015, In: *Forest Policy and Economics*. 61, p. 51-58 8 p.

#### **African Traditional Medicinal Plants from Savannah Woodland in Sudan and their antimicrobial potential: In: International Doctoral Programme in Bioproducts Technology (PAPSAT)**

Salih, E. Y. A., Sipi, M. H., Hiltunen, R. V. K., Fyhrqvist, P. J., Luukkanen, M. O. & Kanninen, M. T., 23 Nov 2015, *International Doctoral Programme in Bioproducts Technology (PAPSAT)*. Helsinki: International Doctoral Programme in Bioproducts Technology (PAPSAT), International Doctoral Programme in Bioproducts Technology (PAPSAT)

#### **Identification of corilagin, punicalagin and ellagic acid derivatives from antibacterial and antioxidative extracts of African**

Salih, E. Y. A., Kanninen, M. T., Luukkanen, M. O., Sipi, M. H., Hiltunen, R. V. K., Fyhrqvist, P. J. & Julkunen-Tiitto, R., 27 Aug 2015, In: *Planta Medica*. 2015, 81 - PM\_63

#### **Smallholders' Tree Planting Activity in the Ziro Province, Southern Burkina Faso: Impacts on Livelihood and Policy Implications**

Etongo, D., Djenontin, I. N. S., Kanninen, M. & Kalame, F., Aug 2015, In: *Forests*. 6, 8, p. 2655-2677 23 p.

#### **An integrated approach to capacity development in forestry and climate change in West Africa**

Fobissie, K. & Kanninen, M., 2015, *XIV World Forestry Congress 2015: Technical papers and posters*. Rome: FAO, 6 p.

**Characterization of antibacterial flavonoids and stilbenes of the root extract of *Anogeissus leiocarpus* by UHPLC-MS-QTOF**

Salih, E. Y. A., Kanninen, M. T., Julkunen-Tiitto, R., Sipi, M. H., Luukkanen, M. O., Vuorela, H. J. & Fyhrqvist, P. J., 2015, *Planta Medica*. Georg Thieme Verlag, Vol. 81 - PM\_77.

**Determinants and constraints of integrating natural acacias into mechanised rain-fed agricultural schemes Sennar State, Sudan**

Fahmi, M., Mohamed, E. S., Kanninen, M., Luukkanen, O., Kalame, F. B. & Eltayeb, A. M., 2015, In: *GeoJournal*. 80, 4, p. 555-567 13 p.

**Ilmastosopeutumisen merkitys tropiikin metsäisille maille**

Kanninen, M., 2015, *Vuosisadan metsäbiologi: Peitsa Mikolan juhlakirja*. Kauppi, P. & Kotilehto, J. (eds.). Espoo: Suomen Tiedeseura, p. 168-173 6 p. (Bidrag till kännedom av Finlands natur och folk; no. 197).

**Institutional interplay between REDD+ and FLEGT-VPAs: Options for Synergies in Congo Basin Countries**

Tegegne, Y. T., Lindner, M., Fobissie Blese, K. & Kanninen, M., 2015, *XIV World Forestry Congress 2015: Technical papers and posters*. Rome: FAO, 6 p.

**Metsien hyödyntäminen ja ilmastonmuutoksen hillintä: Forest use in mitigation of climate change**

Seppälä, J. (ed.), Vesala, T. (ed.) & Kanninen, M. (ed.), 2015, Helsinki: Suomen ilmastopaneeli. 59 p. (Ilmastopaneelin raportti; vol. 4/2015)

**Metsien hyödyntämisen ilmastovaikutukset ja hiilinielujen kehittyminen: The climate effects of forest use and development of carbon sinks**

Seppälä, J., Kanninen, M. T., Vesala, T., Uusivuori, J., Kalliokoski, T. K., Lintunen, J., Saikku, L., Korhonen, R. & Repo, A., 2015, Helsinki: Suomen ilmastopaneeli. 43 p. (Ilmastopaneelin raportti; vol. 3/2015)

**Modeling biomass and soil carbon sequestration of indigenous agroforestry systems using CO2FIX approach**

Negash, M. & Kanninen, M., 2015, In: *Agriculture, Ecosystems & Environment*. 203, p. 147-155 9 p.

**Assessment and prediction of above-ground biomass in selectively logged forest concessions using field measurements and remote sensing data: Case study in South East Cameroon**

Neba, S. G., Kanninen, M., Atyi, R. E. & Sonwa, D. J., 2014, In: *Forest Ecology and Management*. 329, p. 177-185 9 p.

**National-level FLEGT VPA and REDD+ interactions, Congo Basin**

Tekle Tegegne, Y., Ochieng, R. M., Visseren-Hamakers, I. J., Lindner, M., Kalame, F. B. & Kanninen, M., 2014, *Linking FLEGT and REDD+ to Improve Forest Governance*. Broekhoven, G. & Wit, M. (eds.). Wageningen: Tropenbos International, p. 18-24 7 p. (ETFRN news; no. 55).

**Scientists rebut NYTimes op-ed 'To Save the Planet, Don't Plant Trees'**

Nepstad, D., Asner, G., Angelsen, A., Artaxo, P., Baethgen, W. E., Boer, R., Brando, P., Bustamente, M., Campbell, B., Canadell, J., Chambers, J., Costa, M., DeFries, R., Fernandes, K., Field, C., Foley, J., Goddard, L., Hergoualc'h, K., Herold, M., Kanninen, M., & 10 others Martius, C., Matson, P., Murdiyarso, D., Nobre, C., Rosswall, T., Sheil, D., Smith, P., Verchot, L., Victoria, R. & Vitousek, P., 2014, Mongabay

**Allometric equations for biomass estimation of *Ensete ventricosum* grown in indigenous agroforestry systems in the Rift Valley escarpment of southern-eastern Ethiopia**

Negash, M., Starr, M. & Kanninen, M., 2013, In: *Agroforestry Systems*. 87, 3, p. 571-581 11 p.

**Allometric equations for estimating aboveground biomass of *Coffea arabica* L. grown in the Rift Valley escarpment of Ethiopia**

Negash, M., Starr, M., Kanninen, M. & Berhe, L., 2013, In: *Agroforestry Systems*. 87, 4, p. 953-966 14 p.

**Analysis of Global Challenges and Future Research Needs in the Context of Low-income Countries. Report to Swedish International Development Cooperation Agency (SIDA)**

Pakkasvirta, J., Kanninen, M., Koivusalo, M., Uusikylä, P., Rönkkö, M., Moore, A. & Pasanen, J., 2013, Helsinki. 127 p.

**Energiajärjestelmä ja päästövähennystoimet - yhteenvetoraportti**

Savolainen, I., Airaksinen, M., Cantell, H., Kanninen, M., Luostarinen, S., Peltonen-Sainio, P., Pingoud, K., Regina, K., Rinne, S., Seppälä, J. & Syri, S., 2013, Suomen ilmastopaneeli. 32 p. (Suomen ilmastopaneelin selvityksiä; no. Raportti 5/2013)

**Global emission reduction potential of additional mitigation measures**

Halonen, M., Ryyänänen, E., Sorasahi, H., Vihma, A. & Kanninen, M., 2013, Helsinki: Gaia Consulting Oy. 96 p.

**Metsien käytön ja metsäbioenergian ilmastovaikutukset**

Pingoud, K., Savolainen, I., Airaksinen, M., Seppälä, J., Kanninen, M. & Kilpeläinen, A., 2013, Suomen ilmastopaneeli. 25 p. (Suomen ilmastopaneelin selvityksiä; no. Raportti 2/2013)

**Phytochemistry and antimicrobial studies of Terminalia laiflora, Terminalia brownii and Anogeissus leiocarpus**

Salih, E. Y. A., Sipi, M. H., Kanninen, M. T., Fyhrqvist, P. J. & Luukkanen, M. O., 2013, *PaPSaT*. Vol. PaPSaT edition. Pp 128-131..

**Vegetation structural characteristics and influence of topographic factors in the remnant moist Afromontane forest of Wondo Genet, south central Ethiopia**

Kebede, M., Kanninen, M., Yirdaw, E. & Lemenih, M., 2013, In: Journal of forestry research. 24, 3, p. 419-430 12 p.

**Impacts of forest and land management on biodiversity and carbon**

Kapos, V., Kurz, W. A., Gardner, T., Ferreira, J., Guariguata, M., Koh, L. P., Mansourian, S., Parrotta, J. A., Sasaki, N., Schmitt, C. B., Barlow, J., Kanninen, M., Okabe, K., Pan, Y., Thompson, I. D. & Vliet, N. V., 2012, *Understanding Relationships between Biodiversity, Carbon, Forests and People: The Key to Achieving REDD+ Objectives. A Global Assessment Report. Prepared by the Global Forest Expert Panel on Biodiversity, Forest Management, and REDD+*. Parrotta, J. A., Wildburger, C. & Mansourian, S. (eds.). Vienna: International union of forest research organizations, p. 53-80 28 p. (IUFRO World Series; no. 31).

**Mangrove adalah salah satu hutan terkaya karbon di kawasan tropis**

Donato, D. C., Kauffman, J. B., Murdiyarso, D., Kurnianto, S., Stidham, M. & Kanninen, M., 2012, In: CIFOR Brief. 13, 12 p.

**Overview of research funding for the different elements of the assessment**

Kanninen, M., 2012, *Understanding Relationships between Biodiversity, Carbon, Forests and People: The Key to Achieving REDD+ Objectives. A Global Assessment Report. Prepared by the Global Forest Expert Panel on Biodiversity, Forest Management, and REDD+*. Parrotta, J. A., Wildburger, C. & Mansourian, S. (eds.). Vienna: International union of forest research organizations, p. 145-146 2 p. (IUFRO World Series; no. 31).

**Rừng ngập mặn trong những kiểu rừng giàu trữ lượng các-bon nhất ở vùng nhiệt đới**

Donato, D. C., Kauffman, J. B., Murdiyarso, D., Kurnianto, S., Stidham, M. & Kanninen, M., 2012, In: CIFOR Brief. 13, 12 p.

**Smallholder teak plantations in two villages in Central Java: Silvicultural activity and stand performance**

Kallio, M. H., Kanninen, M. & Krisnawati, H., 2012, In: Forests, Trees and Livelihoods. 21, 3, p. 158-175 18 p.

**Soil Seed Bank and Seedlings Bank Composition and Diversity of Wondo Genet Moist Afromontane Forest South Central Ethiopia**

Kebede, M., Kanninen, M., Yirdaw, E. & Lemenih, M., 2012, In: International Journal of Botany. 8, 4, p. 170-180 11 p.

**Modified Taungya System in Ghana: A win-win practice for forestry and adaptation to climate change?**

Kalame, F. B., Aidoo, R., Nkem, J., Ajayi, O., Kanninen, M., Luukkanen, O. & Idinoba, M., Jun 2011, In: Environmental Science & Policy. 14, 5, p. 519-530



**Acacia mangium Willd.: Ecology, silviculture and productivity**

Krisnawati, H., Kallio, M. & Kanninen, M., 2011, Bogor: Center for International Forestry Research. 15 p.

**Aleurites moluccana (L.) Willd.: Ecology, silviculture and productivity**

Krisnawati, H., Kallio, M. & Kanninen, M., 2011, Bogor: Center for International Forestry Research. 11 p.

**Anthocephalus cadamba Miq.: Ecology, silviculture and productivity**

Krisnawati, H., Kallio, M. & Kanninen, M., 2011, Bogor: Center for International Forestry Research. 11 p.

**Anthocephalus cadamba Miq. Ecology, silviculture and productivity**

Krisnawati, H., Kallio, M. H. & Kanninen, M. T., 2011, Bogor, Indonesia: Center for International Forestry Research.

**Farmers' timber tree planting activity in Indonesia: case studies in the provinces of Java, Riau, and South Kalimantan**

Kallio, M. H., Kanninen, M. T. & Rohadi, D., 2011, In: Forests, Trees and Livelihoods. 20, 2-3, p. 191-210 20 p.

**Mahogany and Kadam planting farmers in South Kalimantan: The link between silvicultural activity and stand quality**

Kallio, M. H., Kanninen, M. T., Krisnawati, H. & Rohadi, D., 2011, In: Small-Scale Forestry. 10, 1, p. 115-132 18 p.

**Making the National Adaptation Programme of Action (NAPA) More Responsive to the Livelihood Needs of Tree Planting Farmers, Drawing on Previous Experience in Dryland Sudan**

Kalame, F. B., Luukkanen, O. & Kanninen, M., 2011, In: Forests. 2, 4, p. 948-960

**Mangroves among the most carbon-rich forests in the tropics**

Donato, D. C., Kauffman, J. B., Murdiyarsa, D., Kurnianto, S., Stidham, M. & Kanninen, M., 2011, In: Nature Geoscience. 4, 5, p. 293-297 5 p.

**Paraserianthes falcataria (L.) Nielsen: Ecology, silviculture and productivity**

Krisnawati, H., Varis, E., Kallio, M. & Kanninen, M., 2011, Bogor: Center for International Forestry Research. 13 p.

**Potential synergies of the main current forestry efforts and climate change mitigation in Central Africa**

Sonwa, D. J., Walker, S., Nasi, R. & Kanninen, M., 2011, In: Sustainability Science. 6, 1, p. 59-67 9 p.

**Productivity, Growth and Timber Yield of Hyeronima alchorneoides Allemao (Pilón) Plantations in Costa Rica**

De los Santos-Posadas, H. M., Montero-Mata, M., Valdez-Lazalde, J. R. & Kanninen, M., 2011, *Restoring degraded landscapes with native species in Latin America*. Montagnini, F. & Finney, C. (eds.). New York, NY: Nova Science Publishers, p. 97-112 16 p.

**Resilience and vulnerability in the face of potential climate change: The case of Sudan (abstract of oral presentation delivered by Edmund Asare)**

Asare, E., Luukkanen, O. & Kanninen, M., 2011, *Tropentag 2011: Development on the margin (book of abstracts)*. Becker, M., Kreye, C., Ripken, C. & Tielkes, E. (eds.). Bonn: University of Bonn, p. 477

**Summary and synthesis: The EU wood chain in a globalised world – impact of trade and policy factors for sustainability of wood chains between the EU and developing countries**

Arets, E., Moiseyev, A., Solberg, B., Louman, B., Marien, J. N., Kanninen, M. T. & Roda, J-M., 2011, *Report by INCO partners on selected policy changes in TWC and Europe*. European Forest Institute, Vol. 45. p. 5-15 (EFI Technical Report; vol. 45).

**Swietenia macrophylla King: Ecology, silviculture and productivity**

Krisnawati, H., Kallio, M. & Kanninen, M., 2011, Bogor: Center for International Forestry Research. 14 p.

**The Role of *Boswellia* and *Commiphora* Species in Rural Livelihood Security and Climate Change Adaptation in the Horn of Africa: Case Study of North-Eastern Kenya**

Hassan, B. A., Glover, E. K., Luukkanen, O., Chikamai, B., Jamnadass, R., Iiyama, M. & Kanninen, M., 2011, In: *International Journal of Social Forestry*. 4, 1, p. 86-112 27 p.

**The Role of *Boswellia* and *Commiphora* species in rural livelihood security and climate change adaptation in the Horn of Africa: Case study of northeastern Kenya**

Hassan, B. A., Glover, E. K., Luukkanen, O., Chikamai, B., Jamnadass, R., Iiyama, M. & Kanninen, M., 2011, In: *International Journal of Social Forestry*. 4, 1, p. 86-112. 27 p.

**Can adaptive policy address forestry and climate change adaptation in Africa?**

Kalame, F. B., Luukkanen, O. & Kanninen, M., 2010, *2nd Global conference on environmental governance and democracy: Strengthening institutions to address climate change and advance a green economy..* [New Heaven]: UNITAR and Yale University, p. 85

**Carbon storage in mangrove and peatland ecosystems: a preliminary account from plots in Indonesia**

Murdiyarto, D., Donato, D., Kauffman, J. B., Kurnianto, S., Stidham, M. & Kanninen, M., 2010, Center for International Forestry Research. 35 p. (CIFOR Working Paper)

**Ecosystem goods and services from plantation forests**

Bauhus, J., Van der Meer, P. & Kanninen, M., 2010, London, UK: Earthscan. 240 p.

**Forests and Climate Change Toolbox**

Angelsen, A., Baur, H., Haskett, J., Kanninen, M. T., Lasco, R., Locatelli, B., Murdiyarto, D., Santoso, L., Smith, P., Swallow, B., van Noordwijk, M. & Wertz-Kanounnikoff, S., 2010

**Forests and Society – Responding to Global Drivers of Change**

Mery, G., Katila, P., Galloway, G., Alfaro, R. I., Kanninen, M., Lobovikov, M. & Varjo, J., 2010, Vienna: International union of forest research organizations. 509 p. (IUFRO World Series)

**Harnessing forests for climate change mitigation through REDD+**

Kanninen, M., Brockhaus, M., Murdiyarto, D. & Nabuurs, G.-J., 2010, *Forest and society - responding to global drivers of change*. Mery, G., Katila, P., Galloway, G., Alfaro, R. I., Kanninen, M., Lobovikov, M. & Varjo, J. (eds.). Vienna: International union of forest research organizations, p. 43-54 12 p. (IUFRO World Series; no. 25).

**Landscape-scale variation in the structure and biomass of the hill dipterocarp forest of Sumatra: Implications for carbon stock assessments**

Laumonier, Y., Edin, A., Kanninen, M. & Munandar, A. W., 2010, In: *Forest Ecology and Management*. 259, p. 505-513 9 p.

**Plantation forests: global perspectives**

Kanninen, M. T., 2010, *Ecosystem Goods and Services from Plantation Forests*. Bauhus, J., Van der Meer, P. & Kanninen, M. (eds.). Earthscan, p. 16-42

**Servicios ecosistémicos y adaptación al cambio climático**

Locatelli, B. & Kanninen, M., 2010, *Adaptación al cambio climático y servicios ecosistémicos en América Latina. Libro de actas del Seminario Internacional sobre Adaptación al Cambio Climático: el Rol de los Servicios Ecosistémicos (SIAASE 2008)*. Martínez-Alonso, C., Locatelli, B., Vignola, R. & Imbach, P. (eds.). Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), Vol. 99. p. 11-20 10 p. (Serie técnica. Manual técnico).

**Sustainability of wood supply: risk analysis for a pulp mill in Guangxi, China**

Varmola, M., Kanninen, M., Li, N. & Xu, D., 2010, *Forest and society - responding to global drivers of change*. Mery, G., Katila, P., Galloway, G., Alfaro, R. I., Kanninen, M., Lobovikov, M. & Varjo, J. (eds.). Vienna: International union of forest research organizations, p. 385-398 14 p. (IUFRO World Series; no. 25).

**What is a REDD+ pilot? A preliminary typology based on early actions in Indonesia**

Madeira, E. M. M., Sills, E., Brockhaus, M., Verchot, L. V. & Kanninen, M., 2010, In: CIFOR Brief. 26, 8 p.

**A Comparison of Damage Due to Logging under Different Forms of Resource Access in East Kalimantan, Indonesia**

Iskandar, H., Snook, L. K., Toma, T., MacDicken, K. G. & Kanninen, M., 2009, *The Decentralization of Forest Governance*. Moeliono, M., Wollenberg, E. & G., L. (eds.). London: Earthscan, p. 173-191 19 p.

**Counting on forest and accounting for forest contribution in national climate change actions**

Nkem, J., Oswald, D., Kudejira, D. & Kanninen, M., 2009, Bogor, Indonesia: Center for International Forestry Research. (CIFOR Working Paper)

**Evaluating whether protected areas reduce tropical deforestation in Sumatra**

Gaveau, D. L. A., Epting, J., Lyne, O., Linkie, M., Kumara, I., Kanninen, M. & Leader-Williams, N., 2009, In: *Journal of Biogeography*. 36, p. 2165-2175 11 p.

**Forest degradation: it is not a matter of new definitions**

Guariguata, M. R., Nasi, R. & Kanninen, M., 2009, In: *Conservation Letters*. 2, p. 286-287 2 p.

**Forest, development cooperation, and climate change: is there room for win-win situations?**

Kanninen, M., 2009, *Rethinking development in a carbon-constrained world: development cooperation and climate change*. Palosuo, E. (ed.). Erweko Painotuote Oy: Ministry for Foreign Affairs of Finland, p. 134-142 9 p.

**Inisiatif pemanfaatan limbah kayu sebagai sumber penghasilan di tingkat masyarakat**

Iskandar, H., Santosa, K. D., Kanninen, M. & Gunarso, P., 2009, *Pengelolaan sumberdaya hutan di era desentralisasi: pelajaran yang dipetik dari hutan penelitian Malinau, Kalimantan Timur, Indonesia*. Gunarso, P., Setyawati, T., Sunderland, T. C. H. & Shackleton, C. (eds.). Bogor, Indonesia: Center for International Forestry Research, p. 125-137 13 p.

**Matching national forest policies and management practices for climate change adaptation in Burkina Faso and Ghana**

Kalame, F. B., Nkem, J., Idinoba, M. & Kanninen, M., 2009, In: *Mitigation and Adaptation Strategies for Global Change*. 14, 2, p. 135-151 17 p.

**Pembalakan ramah lingkungan: Manfaat dan hambatan**

Priyadi, H., Sist, P., Gunarso, P., Kanninen, M., Kartawinata, K., Sheil, D., Setyawati, T., Dwiprabowo, H., Siswoyo, H., Silooy, G., Siregar, C. A. & Dharmawan, W. S., 2009, *Pengelolaan sumberdaya hutan di era desentralisasi: pelajaran yang dipetik dari hutan penelitian Malinau, Kalimantan Timur, Indonesia*. Gunarso, P., Setyawati, T., Sunderland, T. C. H. & Shackleton, C. (eds.). Bogor, Indonesia: Center for International Forestry Research, p. 87-103 17 p.

**Realising REDD+: National strategy and policy options**

Angelsen, A., Brockhaus, M., Kanninen, M., Sills, E., Sunderlin, W. D. & Wertz-Kanounnikoff, S., 2009, Bogor, Indonesia: Center for International Forestry Research. 361 p.

**The future of forests and orangutans (*Pongo abelii*) in Sumatra: predicting impacts of oil palm plantations, road construction, and mechanisms for reducing carbon emissions from deforestation**

Gaveau, D. L. A., Wich, S., Epting, J., Juhn, D., Kanninen, M. & Leader-Williams, N., 2009, In: *Environmental Research Letters*. 4, p. - 11 p.

**The impacts and opportunities of oil palm in Southeast Asia: What do we know and what do we need to know?**

Sheil, D., Casson, A., Meijaard, E., van Noordwijk, M., Gaskell, J., Sunderland-Groves, J., Wertz, K. & Kanninen, M., 2009, Occasional Paper 51: Center for International Forestry Research. (Occasional Paper; vol. 51)

**Tropiikin metsäkato saa vihdoin huomioita ilmastopoliitikassa [Tropical deforestation finally recognized as a part of international climate policy]**

Marttila, V. & Kanninen, M. T., 17 Jan 2008, In: *Helsingin Sanomat*. Vieraskynä, 17.1.2008, p. A2

### **An Outlook for Asian Forests in the New Climate Regime**

Murdiyarso, D. & Kanninen, M., 2008, *Climate Change Negotiations: Can Asia Change the Game?*. Loh, C., Stevenson, A. & Tay, S. (eds.). Hong Kong: Civic Exchange, p. 74-87 14 p.

### **Facing an Uncertain Future? How forests and people can adapt to climate change**

Locatelli, B., Kanninen, M., Brockhaus, M., Pierce Colfer, C. J., Murdiyarso, D. & Santoso, H., 2008, Bogor, Indonesia: Center for International Forestry Research. 86 p. (Forest Perspectives)

### **How can we monitor, report and verify carbon emissions from forests?**

Wertz-Kanounnikoff, S., Verchot, L. V., Kanninen, M. & Murdiyarso, D., 2008, *Moving Ahead with REDD: Issues, Options and Implications*. Angelsen, A. (ed.). Bogor, Indonesia: Center for International Forestry Research, p. 87-98 12 p.

### **How do we measure and monitor forest degradation?**

Murdiyarso, D., Skutsch, M., Guariguata, M. R., Kanninen, M., Luttrell, C., Verweij, P. & Martins, O. S., 2008, *Moving Ahead with REDD: Issues, Options and Implications*. Angelsen, A. (ed.). Bogor, Indonesia: Center for International Forestry Research, p. 99-106 8 p.

### **Le palmier à huile, Dr Jekyll pour l'énergie, Mr Hyde pour la biodiversité**

Levang, P., Sheil, D. & Kanninen, M., 2008, In: *Liaison énergie-francophonie*. Numero Special, p. 26-31 6 p.

### **Methods and Tools for Assessing the Vulnerability of Forests and People to Climate Change: An Introduction**

Locatelli, B., Herawati, H., Brockhaus, M. & Kanninen, M., 2008, Center for International Forestry Research.

### **Prioritisation for Adaptation in Tropical Forest Ecosystems**

Nkem, J., Idinoba, M., Santoso, H., Perez, C. J., Forner, C., Locatelli, B. & Kanninen, M., 2008, Bogor: Center for International Forestry Research. 21 p. (CIFOR Working Paper)

### **Do trees grow on money?: the implications of deforestation research for policies to promote REDD**

Kanninen, M. T., Murdiyarso, D., Seymour, F., Angelsen, A., Wunder, S. & German, L., 2007, Center for International Forestry Research. 61 p. (Forest Perspectives; no. 4)

### **Hyeronima alchorneoides: ecología y silvicultura en Costa Rica**

Montero M., M., Posadas, H. D. L. S. & Kanninen, M., 2007, Turrialba, Costa Rica: Centro Agronómico Tropical de Investigación y Enseñanza (CATIE). 50 p. (CATIE, Série Técnica, Informe Técnico)

### **Landscape Mosaics: Integrating Forest Management and Environmental Services in Tropical Landscapes**

Kanninen, M., 2007, *Biodiversity Conservation Corridors Initiative: International Symposium*. Carew-Reid, J., Salazar, R. & Spring, S. (eds.). Bangkok: Greater Mekong Subregion Environment Operations Center, Asian Development Bank, p. 25 1 p.

### **Reduced impact logging: benefits and constraints**

Priyadi, H., Sist, P., Gunarso, P., Kanninen, M., Kartawinata, K., Sheil, D., Setyawati, T., Dwiprabowo, H., Siswoyo, H., Silooy, G., Siregar, C. A. & Dharmawan, W. S., 2007, *Managing forest resources in a decentralized environment: lessons learnt from the Malinau research forest, East Kalimantan, Indonesia*. Bogor, Indonesia: Center for International Forestry Research, p. 87-105 19 p.

### **Revitalizing the United Nations forum on forests: critical issues and ways forward**

Capistrano, D., Kanninen, M., Guariguata, M. R., Barr, C., Sunderland, T. & Raitzer, D., 2007, Forests and Governance Programme 10: Center for International Forestry Research.

### **The Quantification and Use of Wood Waste for Community-Level Income Generation Initiatives.**

Iskandar, H., Dwi Santosa, K., Kanninen, M. & Gunarso, P., 2007, *Managing Forest Resources in a decentralized Environment. Lessons Learnt from the Malinau Research Forest, East Kalimantan Indonesia*. Bogor, Indonesia: Center for International Forestry Research, Vol. Technical Report of ITTO Project PD 39/00 Rev. 3 (F). p. 119-132 14 p.

**Using Tropical Forest Ecosystem Goods and Services for Planning Climate Change Adaptation with Implications for Food Security and Poverty Reduction**

Nkem, J., Santoso, H., Brockhaus, M., Kanninen, M. & Murdiyarso, D., 2007, *Journal of SAT Agricultural Research*. (Journal of SAT Agricultural Research; vol. 4, no. 1).

**A comparison of damage due to logging under different forms of resource access in East Kalimantan, Indonesia**

Iskandar, H., Snook, L. K., Toma, T., MacDicken, K. G. & Kanninen, M., 2006, In: *Forest Ecology and Management*. 237, 1-3, p. 83-93 11 p.

**Allometric models for estimating aboveground biomass of shade trees and coffee plants grown together**

Segura, M., Kanninen, M. & Suárez, D., 2006, In: *Agroforestry Systems*. 68, p. 143-50

**Biomass of teak plantations in Tamil Nadu, India and Costa Rica compared**

Buvaneshwaran, C., George, M., Perez, D. & Kanninen, M., 2006, In: *Journal of Tropical Forest Science*. 18, p. 195-197 3 p.

**Dynamic dominant height growth curves for *Terminalia amazonia* (Gmel.) Excell in Costa Rica**

De los Santos-Posadas, H. M., Montero-Mata, M. & Kanninen, M., 2006, In: *Agrociencia*. 40, 4, p. 521-532 12 p.

**Funciones diversificadas de los bosques plantados. CD-rom**

Varmola, M., Lee, D., Montagnini, F., Saramäki, J., Gautier, D., Kanninen, M., Mery, G., Pérez Cordero, L. D. & Trevin, J., 2006, The International Union of Forest Research Organizations (IUFRO).

**Methods and procedures for defining best silvicultural practices and management regimes for fast-growing tree plantations**

Kanninen, M. & Pérez, D., 2006, *Multipurpose Trees in the Tropics: Assessment, Growth and Management*. Tewari, V. P. & Srivastava, R. L. (eds.). Scientific Publishers of India, p. 407-404

**Metsädialogin tarve ja mahdollisuudet maailmalla [Multi-stakeholder dialogue in global forestry - needs and challenges]**

Kanninen, M., 2006, *Viisastu visioista, usko unelmiin. Päätäjien Metsäakatemia 10 vuotta*. Helström, E. (ed.). Helsinki: Suomen Metsäyhdistys ry., p. 39-40 2 p.

**Silvia: a flexible system for integrated forest management**

Vallejo, A., Viquez, E., Montero, M. & Kanninen, M., 2006, *Multipurpose Trees in the Tropics: Assessment, Growth and Management, 22 – 25 November 2004*. Tewari, V. P. & Srivastava, R. L. (eds.). Jodhpur, India: Scientific Publishers, Jodhpur, India, p. 422-427 6 p.

**The Development of Baseline and Project Scenarios of Small-scale A/R CDM Project Activities in Indonesia using CO2Fix Models**

Iskandar, H., Murdiyarso, D. & Kanninen, M., 2006, 53 p. (Asian Development Bank Technical Assistance Report TA 4137-INO)

**Allometric models for tree volume and total aboveground biomass in a tropical humid forest in Costa Rica**

Segura, M. & Kanninen, M., 2005, In: *Biotropica*. 37, 1, p. 2-8 7 p.

**Bosques para el Nuevo Milenio: Bosques que benefician a la gente y sustentan la naturaleza**

Mery, G. (ed.), Alfaro, R. (ed.), Kanninen, M. (ed.), Lobovikov, M. (ed.), Vanhanen, H. (ed.) & Pye-Smith, C., 2005, Helsinki, Finland: Ministry of Foreign Affairs of Finland & International Union of Forest Research Organizations.

**Changing Paradigms in Forestry: Repercussions for People and Nature**

Mery, G., Alfaro, R., Kanninen, M. & Lobovikov, M., 2005, *Forests in the Global Balance - Changing Paradigms*. Mery, G., Alfaro, R., Kanninen, M. & Lobovikov, M. (eds.). Helsinki: International union of forest research organizations, p. 13-20 (IUFRO World Series; no. 17).

### **Des forêts pour le nouveau millénaire: Des forêts à gérer dans l'intérêt des gens et de la nature**

Mery, G. (ed.), Alfaro, R. (ed.), Kanninen, M. (ed.), Lobovikov, M. (ed.), Vanhanen, H. (ed.) & Pye-Smith, C. (ed.), 2005, Helsinki, Finland: Ministry of Foreign Affairs of Finland & International Union of Forest Research Organizations.

### **Determination of sustainable management of natural tropical forests using SYMFOR modelling framework**

Sianturi, P. & Kanninen, M., 2005, *International Congress on Modelling and Simulation Advances and Applications for Management and Decision Making*. Zerger, A. & Argent, R. M. (eds.). Modelling and Simulation Society of Australia and New Zealand Inc. (MSSANZ), Vol. MODSIM05. p. 1977-1984

### **Effect of thinning on stem form and wood characteristics of teak (*Tectona grandis*) in humid tropical site in Costa Rica**

Perez, D. & Kanninen, M., 2005, In: *Silva Fennica*. 39, 2, p. 217-225 9 p.

### **Environmental Services of Native Tree Plantations and Agroforestry Systems in Central America**

Montagnini, F., Cusack, D., Petit, B. & Kanninen, M., 2005, In: *Journal of Sustainable Forestry*. 21, 1, p. 51-67 17 p.

### **Forests for the New Millennium: Making forests work for people and nature**

Mery, G. (ed.), Alfaro, R., Kanninen, M. (ed.), Lobovikov, M. (ed.), Vanhanen, H. (ed.) & Pye-Smith, C. (ed.), 2005, Helsinki, Finland: Ministry of Foreign Affairs of Finland & International Union of Forest Research Organizations.

### **Forests in the global balance – changing paradigms**

Mery, G., Alfaro, R., Kanninen, M. & Lobovikov, M., 2005, Helsinki: International union of forest research organizations. (IUFRO World Series; vol. 17)

### **High Input Plantations of Costa Rica**

Pérez, L. D. & Kanninen, M., 2005, *Quality Timber Products of Teak from Sustainable Forest Management. Proceedings of the International Conference on Quality Timber Products of Teak from Sustainable Forest Management*. Bhat, K. M., Nair, K. K. N., Bhat, K. V., Muralidhara, E. M. & Sharma, J. K. (eds.). Peechi: Kerala Forestry Research Institute, p. 236-242 7 p.

### **Landscape mosaics: Integrating forest management and environmental services in tropical landscapes**

Kanninen, M., 2005, *Integrated Management of Environmental Services in Human-Dominated Tropical Landscapes. Abstracts of the 4th Henry Wallace/CATIE Inter-American Scientific Conference Series, 1-3 Nov 2005*. CATIE (ed.). Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), p. 41 1 p.

### **Presentation to the book**

Kanninen, M., Robledo, C. & Pedroni, L., 2005, *Tropical forests and adaptation to climate change: In search of synergies*. Bogor: Center for International Forestry Research, p. 1-4 4 p.

### **Silvia: a flexible system for integrated forest management**

Vallejo, A., Viquez, E., Montero, M. & Kanninen, M., 2005, In: *Série Técnica*. 35, p. 68-72 5 p.

### **Stand growth scenarios for *Tectona grandis* plantations in Costa Rica**

Perez, D. & Kanninen, M., 2005, In: *Forest Ecology and Management*. 210, 1-3, p. 425-441 17 p.

### **Tropical forests and adaptation to climate change: in search of synergies**

Robledo, C., Kanninen, M. & Pedroni, L., 2005, Bogor, Indonesia: Center for International Forestry Research.

### **Agroforestry Systems and Carbon Sequestration: Potential and Perspectives**

Kanninen, M., 2004, *1st World Congress of Agroforestry, Working Together for Sustainable Land Use Systems*. Vol. Book of Abstracts. p. 13 1 p.

### **CO2FIX V 3.1 A modelling framework for quantifying carbon sequestration in forest ecosystems**

Schelhaas, M. J., Esch, P. W. V., Groen, T. A., Jong, B. H. J. D., Kanninen, M., Liski, J., Masera, O., Mohren, G. M. J., Nabuurs, G. J., Palosuo, T., Pedroni, L., Vallejo, A. & Vilen, T., 2004, In: *Alterra-rapport*. 1068, p. 1-122 122 p.

### **CO2FIX Version 3.1**

Schelhaas, M. J., Esch, P. W. V., Groen, T. A., Jong, B. H. J. D., Kanninen, M., Liski, J., Masera, O., Mohren, G. M. J., Nabuurs, G. J., Palosuo, T., Pedroni, L., Vallejo, A. & Vilen, T., 2004

### **Forest plantations in Costa Rica and Nicaragua: performance of species and preferences of farmers**

Piotto, D., Montagnini, F., Kanninen, M., Ugalde, L. & Viquez, E., 2004, In: Journal of Sustainable Forestry. 18, 4, p. 59-77  
19 p.

### **Heartwood, sapwood and bark content of *Bombacopsis quinata* in Costa Rica**

Pérez, D., Kanninen, M., Matamoros, F., Fonseca, W. & Chavez, E., 2004, In: Journal of Tropical Forest Science. 16, 3, p. 318-327 10 p.

### **Intensity and timing of the first thinning of *Tectona grandis* plantations in Costa Rica: results of a thinning trial**

Kanninen, M., Pérez, D., Montero, M. & Viquez, E., 2004, In: Forest Ecology and Management. 203, 1-3, p. 89-99 11 p.

### **Pure and mixed forest plantations with native species of the dry tropics of Costa Rica: a comparison of growth and productivity**

Piotto, D., Viquez, E., Montagnini, F. & Kanninen, M., 2004, In: Forest Ecology and Management. 190, 2-3, p. 359-372 14 p.

### **A preliminary pruning program for *Tectona grandis* plantations in Costa Rica**

Pérez Cordero, L. D., Viquez, E. & Kanninen, M., 2003, In: Journal of Tropical Forest Science. 15, 4, p. 557-569 13 p.

### **Aboveground biomass of *Tectona grandis* plantations in Costa Rica**

Pérez Cordero, L. D. & Kanninen, M., 2003, In: Journal of Tropical Forest Science. 15, 1, p. 199-213 15 p.

### **Costa Rican metsät tuottavat ympäristöpalveluja. [Costa Rican forests deliver environmental services]**

Myatt-Hirvonen, O. & Kanninen, M. T., 2003, In: Metsätieteen aikakauskirja. 1/2003, p. 73-76

### **Growth and effects of thinning of mixed and pure plantations with native trees in humid tropical Costa Rica**

Piotto, D., Montagnini, F., Ugalde, L. & Kanninen, M., 2003, In: Forest Ecology and Management. 177, 1-3, p. 427-439 13 p.

### **Heartwood, sapwood and bark content, and wood dry density of young and mature teak (*Tectona grandis*) trees grown in Costa Rica**

Cordero, L. D. P. & Kanninen, M., 2003, In: Silva Fennica. 37, 1, p. 45-54 10 p.

### **Modeling carbon sequestration in afforestation, agroforestry and forest management projects: the CO2FIX V.2 approach**

Masera, O. R., Garza-Caligaris, J. F., Kanninen, M., Karjalainen, T., Liski, J., Nabuurs, G. J., Pussinen, A., Jong, B. H. J. D. & Mohren, G. M. J., 2003, In: Ecological Modelling. 164, 2-3, p. 177-199 23 p.

### **Performance of forest plantations in small and medium-sized farms in the Atlantic lowlands of Costa Rica**

Piotto, D., Montagnini, F., Ugalde, L. & Kanninen, M., 2003, In: Forest Ecology and Management. 175, 1-3, p. 195-204 10 p.

### **Provisional equations for estimating total and merchantable volume of *Tectona grandis* trees in Costa Rica**

Pérez Cordero, L. D. & Kanninen, M., 2003, In: Forests, Trees and Livelihoods. 13, 4, p. 345-359 15 p.

### **Stand growth scenarios for *Bombacopsis quinata* plantations in Costa Rica**

Pérez Cordero, L. D., Kanninen, M. & Ugalde Arias, L. A., 2003, In: Forest Ecology and Management. 174, 1-3, p. 345-352 8 p.

### **Índice de sitio para Terminalia amazonia en Costa Rica**

Montero, M. & Kanninen, M., 2003, In: *Agronomía Costarricense*. 27, 1, p. 29-35 7 p.

### **Beneficios sociales y económicos del bosque en la reserva de la Biosfera Maya, Petén, Guatemala [Social benefits and financial profitability of community forest management in the Biosfera Maya reserve, Guatemala]**

Mollinedo, A. D. C., Campos, J. J., Kanninen, M. & Gómez, M., 2002, Turrialba: Centro Agronómico Tropical de Investigación y Enseñanza (CATIE). 37 p. (CATIE, SérieTécnica, Informe Técnico; vol. 327)

### **Biomasa y carbono en plantaciones de Terminalia amazonia en la zona Sur de Costa Rica**

Montero, M. & Kanninen, M., 2002, In: *Revista forestal centroamericana*. 39-40, p. 50-55 6 p.

### **CO2FIX V 2.0: Manual of a modelling framework for quantifying carbon sequestration in forest ecosystems and wood products**

Nabuurs, G., Garza-Caligaris, J. F., Kanninen, M., Karjalainen, T., Lapvetelainen, T., Liski, J., Masera, O., Mohren, G. M. J., Olguin, M., Pussinen, A. & J., S. M., 2002, In: *Alterra-rapport*. 445, p. 1-44 44 p.

### **CO2FIX Version V 2.0**

Nabuurs, G., Garza-Caligaris, J. F., Kanninen, M., Karjalainen, T., Lapvetelainen, T., Liski, J., Masera, O., Mohren, G. M. J., Olguin, M., Pussinen, A. & J., S. M., 2002

### **Comportamiento de las especies y preferencias de los productores Plantaciones forestales en Costa Rica y Nicaragua**

Piotto, D., Montagnini, F., Kanninen, M., Ugalde Arias, L. A. & Viquez, E., 2002, In: *Revista forestal centroamericana*. 38, p. 59-66 8 p.

### **Composición florística y estructura de los bosques secundarios en el municipio de San Carlos, Nicaragua**

Moraes Ferreira, C., Finegan, B., Kanninen, M., Delgado, L. D. & Segura, M., 2002, In: *Revista forestal centroamericana*. 38, p. 44-50 7 p.

### **Decision Support System for sustainable ECOSystem MANAGEMENT in Atlantic Rain Forest Rural Areas**

Lourenço, N., Harum, T., Pereira, J. L., Kanninen, M., Lieberei, R., González, A. & Feoli, E., 2002, 4 p.

### **Estimación del volumen comercial a diámetros y alturas variables para Tectona grandis L.F. en Costa Rica**

Pérez, L. D. & Kanninen, M., 2002, In: *Revista forestal centroamericana*. 39-40, p. 56-59 4 p.

### **Land use changes and carbon flows in Central America: options for carbon management**

Kanninen, M., Myatt-Hirvonen, O., Salinas, Z., Segura, M. & Berninger, F., 2002, *Understanding the Global System. The Finnish Perspective*. Käyhkö, J. & L., T. (eds.). Turku: Finnish Global Change Research Programme FIGARE, p. 201-205 5 p.

### **Wood specific gravity and aboveground biomass of Bombacopsis quinata plantations in Costa Rica**

Perez Cordero, L. D. & Kanninen, M., 2002, In: *Forest Ecology and Management*. 165, 1-3, p. 1-9 9 p.

### **Beneficios sociales y económicos del bosque en la reserva de la Biosfera Maya, Petén, Guatemala**

Mollinedo, A. D. C., Campos, J. J., Kanninen, M. & Gómez, M., 2001, In: *Revista forestal centroamericana*. 34, p. 57-60 4 p.

### **CO2Fix Version 2: A cohort model for calculating the above-ground carbon sequestration in tropical forests and agroforestry systems**

Kanninen, M., 2001, In: *Revista Forestal Iberoamericana*. 1, 1, p. 88-91 4 p.

### **Costa Rica country case study: Impacts and responses to the 1997-98 El Niño event**

Jones, J., Wesselman, S., Kanninen, M., Jiménez, F., Lok, R., Ramírez, P., Zarate, E., Jiménez, M. & García, E., 2001, *Once burned, twice shy? Lesson learned from the 1997-1998 El Niño*. Glanz, M. (ed.). Hong Kong: United Nations University, p. 57-66 10 p.



### **Forest Set-Asides and Carbon Sequestration**

Sohngen, B., Sedjo, R. A., Kanninen, M. & Mery, G., 2001, *World Forests, Markets and Policies*. Palo, M., Uusivuori, J. & Mery, G. (eds.). Dordrecht: Springer Netherlands, p. 61-69 9 p.

### **Relación del índice de sitio con los factores que influyen en el crecimiento de *Tectona grandis* L. F. y *Bombacopsis quinata* (Jacq.) Dugand, en Costa Rica**

Montero M., M., Ugalde Arias, L. A. & Kanninen, M., 2001, In: *Revista forestal centroamericana*. 35

### **SILVIA: Una nueva herramienta para la planeación forestal**

Kanninen, M., Vallejo, A., Montero, M. & Viquez, E., 2001, In: *Revista forestal centroamericana*. 34, p. 94 1 p.

### **Almacenamiento y fijación de carbono en bosques de bajura de la zona atlántica de Costa Rica**

Segura, M., Kanninen, M., Alfaro, M. & Campos, J. J., 2000, In: *Revista forestal centroamericana*. 30, p. 23-28 6 p.

### **Daños causados por el huracán Mitch en rodales intervenidos y no intervenidos**

Rivas, H., Kanninen, M., Louman, B., Finegan, B. & Galloway, G., 2000, In: *Revista forestal centroamericana*. 30, p. 58-62

### **Desarrollo de escenarios de crecimiento para plantaciones de teca (*Tectona grandis*) en Costa Rica**

Pérez Cordero, L. D., Ugalde Arias, L. & Kanninen, M., 2000, In: *Revista forestal centroamericana*. 31, p. 16-22 7 p.

### **Globalización ambiental y libre comercio [Environmental globalization and free trade ]**

Kanninen, M., 2000, *Comercio e integración en las Américas*. Vilasuso, J. M., Trejos Solórzano, R. & Rojas R., M. (eds.). San José: IICA, p. 51-54 4 p.

### **Secuestro de Carbono en los Bosques: El papel de los bosques en el Ciclo Global de Carbono**

Kanninen, M., 2000, *Intensificación de la ganadería en Centroamérica: Beneficios económicos y ambientales*. Pomareda, C. & Steinfeld, H. (eds.). Turrialba: CATIE, FAO, SIDE, p. 137-149 13 p.

### **Análisis de los programas de incentivos a la reforestación implementados en Costa Rica**

Godoy, J. C., Kanninen, M., Ramírez, O. & Gómez, M., 1999, *Logros de la investigación para el nuevo milenio. Actas IV Semana Científica del CATIE. 6-9 de abril, 1999. Serie Técnica. Reuniones Técnicas 5*. Turrialba, Costa Rica, p. 392-395 4 p.

### **CO2FIX For Windows: a dynamic model of the CO2-fixation in forests; Version 1.2**

Mohren, G. M. J., Garza Caligaris, J. F., Masera, O., Kanninen, M., Karjalainen, T., Pussinen, A. & Nabuurs, G. J., 1999, In: *IBN Scientific Contributions*. 99, 1, 33 p.

### **Cuantificación del carbono almacenado en el suelo de un sistema silvopastoril en la zona Atlántica de Costa Rica.**

López, A., Schlönvoigt, A., Ibrahim, M., Kleinn, C. & Kanninen, M., 1999, In: *Agroforestería en las Américas*. 6, 23, p. 51-53 3 p.

### **Cuantificación del carbono almacenado en un sistema silvopastoril en la zona atlántica de Costa Rica**

López Musalem, A., Schlönvoigt, A., Ibrahim, M., Kleinn, C. & Kanninen, M., 1999, *Logros de la investigación para el nuevo milenio. Actas IV Semana Científica del CATIE. 6-9 de abril, 1999. Serie Técnica. Reuniones Técnicas 5*. Turrialba, Costa Rica, p. 263-267 5 p.

### **Desarrollo de escenarios preliminares de crecimiento para plantaciones de *Tectona grandis* y *Bombacopsis quinata* en Costa Rica**

Pérez, L. D., Ugalde, L. & Kanninen, M., 1999, *Logros de la investigación para el nuevo milenio. Actas IV Semana Científica del CATIE. 6-9 de abril, 1999. Serie Técnica. Reuniones Técnicas 5*. Turrialba, Costa Rica: CATIE, Turrialba, p. 332-335 4 p.

#### **El balance de carbono y su valor económico en un bosque subhúmedo estacional de Santa Cruz, Bolivia**

Solíz, B., Kanninen, M., Campos, J. J. & Aguirre, J., 1999, *Logros de la investigación para el nuevo milenio. Actas IV Semana Científica del CATIE. 6-9 de abril, 1999. Serie Técnica. Reuniones Técnicas 5.* Turrialba, Costa Rica: CATIE, Turrialba, Vol. 5. p. 405-408 4 p.

#### **Evaluación económica del servicio de sumidero de carbono en diferentes ecosistemas forestales**

Ortiz, R. & Kanninen, M., 1999, *Logros de la investigación para el nuevo milenio. Actas IV Semana Científica del CATIE. 6-9 de abril, 1999. Serie Técnica. Reuniones Técnicas 5.* Turrialba, Costa Rica: CATIE, Turrialba, p. 401-404 4 p.

#### **Foliage biomass - sapwood (area and volume) relationships of *Tectona grandis* L.F. and *Gmelina arborea* Roxb.: silvicultural implications**

Morataya, R., Galloway, G., Berninger, F. & Kanninen, M., 1999, In: *Forest Ecology and Management.* 113, 2-3, p. 231-239 9 p.

#### **Forest Plantations and Carbon Sequestration in Chile**

Mery, G. & Kanninen, M., 1999, *Forest Transitions and Carbon Fluxes. Global Scenarios and Policies.* Palo, M. (ed.). Helsinki: UNU-Wider, p. 74-100. (World Development Studies; vol. 15).

#### **Modeling the growth and development of teak (*Tectona grandis*) using process-based models**

Berninger, F. & Kanninen, M., 1999, *Logros de la investigación para el nuevo milenio. Actas IV Semana Científica del CATIE. 6-9 de abril, 1999. Serie Técnica. Reuniones Técnicas 5.* Turrialba, Costa Rica: Catie, Vol. 5. p. 341-344 4 p. (Serie Técnica. Reuniones Técnicas).

#### **Proporción de madera de durámen en árboles de *Tectona grandis* y *Bombacopsis quinata* en Costa Rica**

Pérez, L. D., Ugalde, L. & Kanninen, M., 1999, *Logros de la investigación para el nuevo milenio. Actas IV Semana Científica del CATIE. 6-9 de abril, 1999. Serie Técnica. Reuniones Técnicas 5.* Turrialba, Costa Rica: CATIE, Turrialba, p. 328-331 4 p.

#### **The Current and Future Role of Long-Term Observations in Forestry (Preface)**

Kanninen, M., 1999, *Long-Term Observations and Research in Forestry, February 23-27, 1999.* Kleinn, C. & Köhl, M. (eds.). Catie, p. iv

#### **Índice de sitio para *Tectona grandis* y *Bombacopsis quinata* en Costa Rica y su relación con variables fisiográficas, climáticas, edáficas y foliares**

Montero, M., Ugalde, L. & Kanninen, M., 1999, *Logros de la investigación para el nuevo milenio. Actas IV Semana Científica del CATIE. 6-9 de abril, 1999. Serie Técnica. Reuniones Técnicas 5.* Turrialba, Costa Rica: CATIE, Turrialba, p. 336-340 5 p.

#### **Networking the research in biotechnology and forest tree improvement in Central America and the Caribbean**

Kanninen, M., Aguilar, M. E., Navarro, C. & Cote, F., 1998, *Recent Advances in Biotechnology for Tree Conservation and Management, Proceedings of an IFS Workshop in Florianopolis, Brazil, 15-19 September 1997. Pp. 319-327.* Burns, S., Mantell, S., Trägårdh, C. & Viana, A. M. (eds.). International Foundation for Science (IFS), p. 319-327

#### **Agroforestry in China: Present State and Future Potential**

Huang, W., Kanninen, M., Xu, Q. & Huang, B., 1997, In: *Ambio.* 26, 6, p. 394-398 5 p.

#### **El sector forestal en Finlandia: el desarrollo del manejo sustentable de bosques de pequeños productores**

Kanninen, M., 1996, In: *Revista forestal centroamericana.* 15, 1, p. 25-33 9 p.

#### **Reseña (Book Review): Planificación y Gerencia de la Investigación Forestal (Eds. R. Guevara, B. Finegan, J.J. Campos) Curso de Autoaprendizaje. 1995. IUFRO, Vienna and CATIE, Turrialba**

Kanninen, M., 1996, In: *Revista forestal centroamericana.* 15, 1, p. 56 1 p.

#### **Tutkimus [Research]**

Kanninen, M., 1996, *Ilmastomuutos ja Suomi [Climate Change and Finland].* Kuusisto, E., Kauppi, L. & Heikinheimo, P. (eds.). Helsinki: Yliopistopaino, p. 253-256.

**Effects of Vapour Pressure Deficit and Soil Water Content on Leaf Water Potential between Selected Provenances of Eucalyptus microtheca in an Irrigated Plantation, Eastern Kenya**

Tuomela, K. & Kanninen, M., 1995, In: *Silva Fennica*. 29, 3, p. 217-224 8 p.

**Evaluation of STEP and EPOCH Programmes (1989-1993): Science and Technology policy series**

Zanchi, C., Blundell, D., Fontan, J., Gerstengarbe, F. W., Heip, C., Kanninen, M. & Terradas, J., 1995, European Commission, 84 p.

**La Sabana: Experiencia de 20 años de una plantación forestal comercial. Evaluación del proyecto de plantaciones forestales en La Sabana, Oax.**

Acevedo Herrera, A., Kanninen, M. & Korhonen, E., 1995, (Acuerdo de Cooperación en Materia Forestal entre México y Finlandia. Informes técnicos; vol. 34)

**Needs for Geo-referenced Information on European Forests for Global Change Studies**

Kanninen, M., 1995, *Proceedings International Workshop Designing a System of Nomenclature for European Forest Mapping*. (Eds. P.J. Kennedy, R. Päivinen & L. Roihuvuo). European Forest Institute, Joensuu, Finland, 13-15 June, 1994. European Commission, Joint Research Centre, Institute for Remote Sensing Applications. Report EUR 16113 EN ed. Joensuu: European Forest Institute, p. 11-19 9 p.

**The Finnish Research Programme on Climate Change SILMU**

Heikinheimo, P. & Kanninen, M. T., 1995, *Climate Change Research: Evaluation and Policy Implications*. Zwerver, S., van Rompey, R. S. A. R., Kok, M. T. J. & Berk, M. M. (eds.). Amsterdam: Elsevier Science B.V., Vol. 65B. p. 1419 1422 p.

**La Sabana: Experiencia de 20 años de una plantación forestal comercial**

Acevedo Herrera, A., Kanninen, M. & Korhonen, E., 1994, *Memoria. IV Reunión nacional de plantaciones forestales*. Mexico, D.F., p. 377-422

**Lectio precursori**

Kanninen, M., 1994, "*Tässä seison enkä muuta voi*". *Kokoelma väitösölektioita vuosilta 1984-83*. Hari, P. (ed.). p. 5-8 4 p. (Helsingin yliopiston metsäekologian laitoksen julkaisuja 9. University of Helsinki, Department of Forest Ecology, Publications 9).

**Metsäsanasto Espanja-Suomi-Espanja. Terminología Forestal Español-Finlandés-Español**

Kanninen, M. T. & Mery, G., 1994, Helsinki: Suomen Metsätieteellinen Seura. 218 p.

**The Finnish Research Programme on Climate Change (SILMU). Second Progress Report**

Kanninen, M. & Heikinheimo, P., 1994, Helsinki. 414 p. (Publications of the Academy of Finland)

**Ilmastopimus väljänäkin vaikea toteuttaa [Even with low-ambition commitments a climate deal will be difficult to reach]**

Kanninen, M. T., 1 Dec 1993, In: *Helsingin Sanomat*. Vieraskynä (Yliö), 1.12.1993, p. A2

**Carbon Balance of World's Forested Ecosystems. Towards a Global Assessment: Proceedings of the IPCC AFOS Workshop in Joensuu, Finland, 11 to 16 May, 1992**

Kanninen, M. (ed.), 1993, Helsinki: Painatuskeskus Oy. 271 p. (Publications of the Academy of Finland)

**Comparison of the radiative forcings due to the CO2 emissions caused by fossil fuel and forest management scenarios in Finland**

Kanninen, M., Korhonen, R., Savolainen, I. & Sinisalo, J., 1993, *Proceedings of the IPCC WG III Workshop on Carbon balance of world's forested ecosystems: towards a global analysis*. Publications of the Academy of Finland 3/93. p. 240-251 12 p.

**Techniques for Developing Regional Climatic Scenarios for Finland: Report of an International Workshop held in Espoo (Hanasaari), Finland, 2-4 June 1993**

Carter, T. R. (ed.), Holopainen, E. (ed.) & Kanninen, M. (ed.), 1993, 63 p. (Publications of the Academy of Finland)

### **Ilmakehänmuutosten tutkimus**

Kanninen, M., 1992, *Muuttuva ilmakehä. Ilmasto, luonto, ihminen. Katsaus ilmakehänmuutosten peruskysymyksiin.* Kanninen, M. (ed.). Helsinki: VAPK-kustannus, p. 155-158 4 p.

### **Ilmastonmuutosten maailmanlaajuiset vaikutukset**

Kanninen, M., 1992, *Muuttuva ilmakehä. Ilmasto, luonto, ihminen. Katsaus ilmakehänmuutosten peruskysymyksiin.* Kanninen, M. (ed.). Helsinki: VAPK-kustannus, p. 57-65 9 p.

### **Muuttuva ilmakehä. Ilmakehä, luonto, ihminen. Katsaus ilmakehänmuutosten peruskysymyksiin. [Changing atmosphere - book]**

Kanninen, M. (ed.), 1992, VAPK-Publishing. 163 p.

### **Onko ilmasto lämpenemässä?**

Kanninen, M., 1992, *Mitä, Missä, Milloin 1993.* Helsinki: Kustannusosakeyhtiö Otava, p. 342-345 4 p.

### **Patterns in aboveground carbon allocation and tree architecture that favor stem growth in young Scots pine from high latitudes**

Kuuluvainen, T. T. & Kanninen, M., 1992, In: *Tree Physiology.* 10, 1, p. 69-80 12 p.

### **Suomalainen ilmakehänmuutosten tutkimusohjelma SILMU. Tutkimusten väliraportit**

Kanninen, M. & Anttila, P., 1992, Helsinki. (Suomen Akatemian julkaisuja)

### **The Finnish Research Programme on Climate Change (SILMU). Progress Report**

Kanninen, M. & Anttila, P., 1992, Helsinki. (Publications of the Academy of Finland)

### **Torjunnan ja sopeutumisen keskeisiä kysymyksiä**

Kanninen, M., Carter, T., Karjalainen, T., Laine, J., Mela, T., Pietarinen, M., Pipatti, R., Pirilä, P., Savolainen, I. & Valsta, L., 1992, *Muuttuva ilmakehä. Ilmasto, luonto, ihminen. Katsaus ilmakehänmuutosten peruskysymyksiin.* Kanninen, M. (ed.). Helsinki: VAPK-kustannus, p. 155-158 4 p.

### **Ilmastonmuutokset ja niiden seurausvaikutukset [Climatic changes and their effects]**

Kanninen, M., 1991, In: *Paperi ja Puu.* 1991, 6, p. 497-502

### **Ilmastonmuutosten vaikutukset**

Kanninen, M., 1991, *Ilmastonmuutos ja Suomi - kohti kansallista toimintastrategiaa.* Anttila, P. (ed.). VAPK-kustannus, Vol. 4/91. p. 27-33 7 p. (Suomen Akatemian julkaisuja).

### **Havupuiden pituuskasvu**

Kanninen, M., 1990, *Johdatus metsien perustuotantobiologiaan.* Lahti, T. & Smolander, H. (eds.). p. 183-206 24 p.

### **Ilmastomuutos ja Suomen metsien tulevaisuus [Climate change and the future of Finnish forests]**

Kanninen, M., 1990, In: *Metsänhoitaja.* 1991, 2, p. 4-7 4 p.

### **Manual para el manejo de semillas de coníferas**

Kanninen, M., Hernandez Mendez, H., Alho, P., Mejia Fernández, L. & Mastache Mondragón, A., 1990, México, D.F.: Secretaría de Agricultura y Recursos Hidráulicos, Subsecretaría Forestal, Dirección General de Protección Forestal. 68 p.

### **SILMU tutkii ilmakehänmuutosten syitä ja seurauksia**

Kanninen, M., 1990, In: *Ympäristö ja terveys.* 1990, 9-10, p. 632-635 4 p.

### **Shoot growth and its clonal variation in Pinus kesiya**

Sirikul, W. & Kanninen, M., 1990, In: *Silva Fennica.* 24, 2, p. 303-313 11 p.

**Tree ring analysis of Araucaria angustifolia in Southern Brazil: Preliminary results**

Seitz, R. & Kanninen, M., 1989, In: IAWA Journal. 10, 2, p. 170-174 5 p.

**Kaukokartoitus metsätaloudessa (Remote sensing in forestry)**

Häme, T. (ed.), Ihalainen, A. (ed.) & Kanninen, M. (ed.), 1988, Metsäntutkimuslaitoksen Tiedonantoja 319. 69 p. (Metsäntutkimuslaitoksen Tiedonantoja)

**New techniques in crop physiology of forest trees**

Kanninen, M., 1988, *Simposio bilateral Brasil-Finlandia sobre actualidades florestais, 16 a 22 de Outubro de 1988*. Curitiba, Brazil: UFPR/IBDF, p. 28-42 15 p.

**Tree architecture in young Scots pine: properties, spatial distribution and relationships of components of tree architecture**

Kuuluvainen, T., Kanninen, M. & Salmi, J. P., 1988, In: Silva Fennica. 22, 2, p. 147-161 15 p.

**Tree ring analysis of Araucaria angustifolia in Southern Brazil: Preliminary results**

Seitz, R. & Kanninen, M., 1988, In: Floresta. 18, 1-2, p. 55-61 7 p.

**Meille jokaiselle kasvaa melkein hehtaari metsää**

Kanninen, M., 1987, In: Metsälehti. 1987, 23, p. 2-3 2 p.

**Metsäylioppilaiden kaukomatkat: turhaa vai tarpeellista?**

Kanninen, M., 1987, In: Yliopisto : Helsingin yliopiston tiedelehti. 1987, 23, p. 5-7 3 p.

**Suomi kehittämässä Meksikon metsä- ja puutaloutta.**

Kanninen, M. & Simula, M., 1987, In: Metsä ja Puu : metsätaloudellinen aikakauslehti. 1987, 5, p. 36-37 2 p.

**The organization, financing, and planning of Finnish forestry research**

Kanninen, M., 1987, *Proceedings of the Symposium on the cooperation of forestry sector between Finland and Brazil, August 10-11, 1987*. Parviainen, J. (ed.). The Finnish Forest Research Institute, Vol. 273. p. 116-123 8 p. (The Finnish Forest Research Institute Research Papers).

**Espanjassa metsitetään ja torjutaan eroosiota**

Kanninen, M., 1986, In: Metsä ja Puu : metsätaloudellinen aikakauslehti. 1986, 1, p. 34-35 2 p.

**Forest-based socio-economic development and deforestation in developing countries**

Palo, M., Kanninen, M., Mery, G. & Selby, A., 1986, *Congress Report. 18th IUFRO World Congress*. International union of forest research organizations, p. 553-551

**Guerreron metsähanke. Metsäyhteistyötä Meksikossa**

Kanninen, M., 1986, In: Kehitysyhteistyö. 1986, 1, p. 13-15 3 p.

**Kaksituhatta metsäntutkijaa kokonntui Jugoslaviassa**

Kanninen, M., 1986, In: Metsä ja Puu : metsätaloudellinen aikakauslehti. 1986, 4, p. 44 1 p.

**The maturation of Scots pine seeds in relation to climate in Northern Finland**

Henttonen, H., Kanninen, M., Nygren, M. & Ojansuu, R., 1986, In: Scandinavian Journal of Forest Research. 1, 2, p. 243-249 7 p.

**A photographic system for measuring shoot elongation in tree seedlings and relation to solar radiation and temperature**

Kanninen, M., Pohja, T. & Siivola, E., 1985, In: Growth, Development, and Aging. 49, p. 44-50 7 p.

**La investigación y la información como base de la política forestal**

Kanninen, M., 1985, p. 1. 11 p.

**Shoot elongation in Scots pine: diurnal variations and response to temperature**

Kanninen, M., 1985, In: *Journal of Experimental Botany*. 36, p. 1760-1770 11 p.

**The annual cycle of forest trees: The Sarvas approach revisited**

Hänninen, H., Kanninen, M. & Smolander, H., 1985, *Crop physiology of forest trees*. Tigerstedt, P. M. A., Puttonen, P. & Koski, V. (eds.). Finland: Helsinki University Press, p. 195-201 7 p.

**Studies on the shoot elongation in Scots pine: diurnal variations in relation to temperature. (Dissertation)**

Kanninen, M., 1984, Helsinki: University of Helsinki, Department of Silviculture. 69 p.

**Tree growth as a dynamic system: Time-series analysis of diurnal variations in growth response to temperature**

Kanninen, M., 1983, In: *Revue de Bio-Mathématique*. 84, p. 39-52 14 p.

**A dynamic model for above ground dry matter production of a plant community**

Kanninen, M., Hari, P. & Kellomäki, S., 1982, In: *Journal of Applied Ecology*. 19, p. 465-476 12 p.

**A simulation model for daily growth of shoots, needles, and stem diameter in Scots pine trees**

Pietarinen, I., Kanninen, M., Hari, P. & Kellomäki, S., 1982, In: *Forest Science*. 28, 3, p. 573-581 9 p.

**Metsikön varhaiskehityksen dynamiikka. Summary: Dynamics of early development of tree stand**

Hari, P., Kellomäki, S., Mäkelä, A., Ilonen, P., Kanninen, M., Korpilahti, E. & Nygren, M., 1982, In: *Acta forestalia Fennica*. 177, p. 1-42 42 p.

**Book review: Tropical forests, utilization and conservation (Ed. by F. Mergen)**

Kanninen, M., 1981, In: *Scandinavian forest economics*. 22/23, p. 39-43 5 p.

**Eco-physiological studies on young Scots pine stands: II. Distribution of needle biomass and its application in approximating light conditions inside the canopy**

Kellomäki, S., Hari, P., Kanninen, M. & Ilonen, P., 1980, In: *Silva Fennica*. 14, 3, p. 243-256 14 p.

**Eco-physiological studies on young Scots pine stands: IV. Allocation of photosynthates for crown and stem growth**

Kellomäki, S. & Kanninen, M., 1980, In: *Silva Fennica*. 14, 4, p. 397-408 12 p.

**A method for approximating the photosynthetic production of stand members inside the canopy**

Kellomäki, S., Salminen, R., Hari, P., Ventilä, M., Kanninen, M., Kauppi, P. & Smolander, H., 1979, In: *Journal of Applied Ecology*. 16, p. 243-252 10 p.

**An automatic system for measurements of gas exchange and environmental factors in a Scots pine stand, with special reference to measuring principles**

Hari, P., Kanninen, M., Kellomäki, S., Luukkanen, O., Pelkonen, P., Salminen, R. & Smolander, H., 1979, In: *Silva Fennica*. 13, 1, p. 94-100 7 p.

**Inherent growth rhythm of some Larix-species grown in a plastic greenhouse**

Koskimäki, A., Hari, P., Kellomäki, S. & Kanninen, M., 1979, In: *Silva Fennica*. 13, 1, p. 108-114 7 p.

**On distribution of growth in crown system of some young Scots pine stands**

Ilonen, P., Kellomäki, S., Hari, P. & Kanninen, M., 1979, In: *Silva Fennica*. 13, 4, p. 316-326 11 p.

**An electronic auxanometer for field use**

Hari, J., Kanninen, M. & Hari, P., 1978, In: *Silva Fennica*. 12, 4, p. 275-279 5 p.

**The above ground growth rate of a dwarf shrub community**

Kellomäki, S., Hari, P., Vuokko, R., Väisänen, E. & Kanninen, M., 1977, In: Oikos. 29, p. 143-149 7 p.

## Projects

**CLIDEV: Strengthening Climate Change Education for Sustainable Development in Vietnam**

Yirdaw, E., Chakma, D., Hogarth, N., Monge Monge, A. A., Bui, C., Webb, E. L. & Kanninen, M.

01/09/2020 → 31/08/2024

**The impact of habitat regulatory policies on ecological protections and rural livelihoods: The case of giant panda protected areas in China**

Hogarth, N. & Kanninen, M.

01/01/2018 → 31/12/2022

**FORHEAL: Forestry Higher Education Advancement in Laos**

Kanninen, M., Chakma, D., Hogarth, N. & Monge Monge, A. A.

01/10/2017 → 31/08/2021

**HEI ICI PARFORM: Partnership for Forestry Higher Education Cooperation in Mekong Region**

Kanninen, M., Chakma, D., Yirdaw, E., Hogarth, N., Monge Monge, A. A., Lakkala, M., Ilomäki, L., Starr, M., Siddall, R. & Rekola, M.

01/03/2017 → 30/03/2020

**Climate-smart bioeconomy, Sub-Project 2: Comparison of models on forest carbon stock development**

Kanninen, M. & Kalliokoski, T.

01/01/2018 → 30/06/2019

**FinCEAL+ Continuation: Developing Finnish Science, Technology and Innovation Cooperation between Europe, Africa, Asia and the LAC Region**

Kanninen, M. & Ekroos, K.

15/11/2016 → 31/03/2019

**Economically viable forest production in smallholder plantations of Central-Vietnam in the context of developing carbon markets**

Arvola, A. M., Kanninen, M. & Malkamäki, A.

01/09/2018 → 31/03/2019

**Intergovernmental Panel on Climate Change (IPCC) Special Report on 1.5 Degrees**

Kanninen, M.

01/01/2017 → 31/12/2018

**Hiilifiksi järjestö (Climate-smart NGO)**

Kanninen, M. & Jaurimaa, A. K.

01/05/2018 → 30/11/2018

**GET-LDC: Green Economy Transitions in the Least Developed Countries**

Kanninen, M., Kallio, M., Chakma, D. & Hogarth, N.

SUOMEN AKATEMIA

01/09/2014 → 31/08/2018

**BIODEV: Building Biocarbon and Rural Development in West Africa (BIODEV) VITRI component**

Kanninen, M., Kalame, F. B. & Etongo Bau, D.

01/01/2013 → 31/12/2017

**CIFOR: Carbon, biodiversity and climate adaptation: Carbon, biodiversity and climate adaptation: trade-offs at the landscape scale**

Kanninen, M. & Larjavaara, M.  
01/06/2016 → 31/12/2017

**HEFSESE: Higher Education for Food security and Environmental Sustainability in Eritrea (HEFSESE)**

Kanninen, M., Elfadl, M., Lakkala, M., Ilomäki, L. & Muukkonen, H.  
01/12/2015 → 31/12/2017

**ENVGGOV: Environmental vulnerability, social resilience and multi-scale governance, research project funded by HENVI/University of Helsinki**

Nygren, A., Juhola, S. & Kanninen, M.  
Journal of Society and Natural Resources  
01/01/2015 → 31/12/2017

**CIFOR Secondment II: CIFOR Secondment II**

Kanninen, M.  
01/09/2016 → 31/08/2017

**EBF/CIFOR: Evidence Based Forestry: Socioeconomic impacts of large-scale tree plantations on local communities. Examining the empirical evidence.**

Kanninen, M., Malkamäki, A., D'amato, D., Toppinen, A. & Hogarth, N.  
01/04/2016 → 31/08/2017

**Metsäbiomassan käyttö ilmastomuutoksen hillinnässä**

Kanninen, M.  
01/09/2014 → 30/06/2017

**ACCUCARBON: Combining growth models and multi-date satellite imagery inventory for improved carbon prediction of tropical forest**

Kanninen, M. & Larjavaara, M.  
01/03/2015 → 28/02/2017

**UNCCD Drought: Drought and Dryland Management**

Yirdaw, E., Kanninen, M., Elfadl, M., Monge Monge, A. A. & Kalame, F. B.  
01/02/2016 → 31/12/2016

**FinCEAL+: Developing Finnish Science, Technology and Innovation Cooperation between Europe, Africa, Asia and the LAC Region**

Kanninen, M. & Ekroos, K.  
Opetus- ja kulttuuriministeriö  
01/10/2014 → 31/12/2016

**CIFOR Secondment: CIFOR Secondment**

Kanninen, M.  
01/09/2015 → 31/08/2016

**Forest Landscape Rehabilitation in the Mekong River Basin**

Yirdaw, E., Chakma, D., Monge Monge, A. A. & Kanninen, M.  
01/03/2013 → 31/03/2016

**FoLAFI: Forestry higher education cooperation between Laos and Finland**

Kanninen, M. & Chakma, D.  
ULKOASIAINMINISTERIÖ  
01/07/2014 → 29/02/2016



### **Learning from REDD+: An Enhanced Global Comparative Analysis**

Kanninen, M. & Larjavaara, M.  
01/01/2013 → 31/12/2015

### **Landscape Management Planning and Training for the Environment in South Sudan**

Kanninen, M., Laxen, J. & Elfadl, M.  
01/05/2013 → 31/12/2015

### **Metsien hyödyntämisen ilmastovaikutukset ja hiilinielujen kehittyminen**

Kanninen, M.  
01/11/2014 → 31/08/2015

### **Private Agricultural Investments and Land Use Change Impact on The Adaptive Capacity of Local Communities to Climate Change in Mozambique**

Yirdaw, E., Kanninen, M., Monge Monge, A. A., Horne, P., Kerkelä, L. & Kniivilä, M.  
01/01/2013 → 31/12/2014

### **FinCEAL: Developing Finnish Science, Technology and Innovation Cooperation between Europe, Africa and the LAC Region**

Kanninen, M. & Ekroos, K.  
Opetus- ja kulttuuriministeriö  
05/11/2012 → 31/12/2013

### **GERES Biomass monitoring and harvest planning system for sustainable supply of renewable energy**

Kanninen, M.  
20/10/2011 → 31/12/2013

### **Energiajärjestelmä ja päästövähennystoimet**

Kanninen, M.  
14/09/2012 → 31/03/2013

## **Activities**

### **Puut, metsät ja ilmastokestävä kehitys Afrikassa [Trees, forests and climate resilient development in Africa]**

Markku Kanninen (Invited speaker)  
11 Oct 2023

### **Perspective on the Paris Agreement and Global Climate Objectives**

Markku Kanninen (Speaker)  
26 Sep 2023

### **HEI ICI CLIDEV Practical training in CarboScen and CO2FIX tools**

Markku Kanninen (Speaker: Presenter)  
14 Aug 2023 → 17 Aug 2023

### **Practical training on CarboScen and CO2Fix tools**

Dipjoy Chakma (Member of organizing committee) & Markku Kanninen (Speaker: Chair)  
14 Aug 2023 → 16 Aug 2023

### **Lao and Thai staff exchange to University of Helsinki**

Dipjoy Chakma (Secretary of organizing committee), Nick Hogarth (Chair of organizing committee), Adrian A. Monge Monge (Member of organizing committee), Edward Layman Webb (Member of organizing committee), Eshetu Yirdaw (Member of organizing committee), Markku Kanninen (Speaker: Presenter), Mike Starr (Speaker: Chair), Vanessa Louise Fuller (Speaker: Presenter) & Johanness Jamaludin (Speaker: Presenter)

24 Apr 2023 → 5 May 2023

#### **Vietnamese staff exchange to University of Helsinki**

Dipjoy Chakma (Secretary of organizing committee), Adrian A. Monge Monge (Member of organizing committee), Chi Bui (Member of organizing committee), Nick Hogarth (Member of organizing committee), Edward Layman Webb (Member of organizing committee), Johanness Jamaludin (Speaker: Presenter), Markku Kanninen (Speaker: Presenter), Eshetu Yirdaw (Chair of organizing committee), Mike Starr (Speaker: Presenter) & Vanessa Louise Fuller (Speaker: Presenter)  
24 Apr 2023 → 5 May 2023

#### **Field course Tropical Forests and Agroforests**

Dipjoy Chakma (Member of organizing committee), Edward Layman Webb (Chair of organizing committee), Eshetu Yirdaw (Member of organizing committee) & Markku Kanninen (Member of organizing committee)  
5 Jan 2023 → 20 Jan 2023

#### **National University of Laos**

Dipjoy Chakma (Visiting researcher) & Markku Kanninen (Visiting researcher)  
5 Jan 2023 → 18 Jan 2023

#### **HEI ICI CLIDEV Project consortium meeting**

Dipjoy Chakma (Secretary of organizing committee), Eshetu Yirdaw (Chair of organizing committee), Adrian A. Monge Monge (Member of organizing committee), Edward Layman Webb (Member of organizing committee), Nick Hogarth (Member of organizing committee), Markku Kanninen (Attendee) & Chi Bui (Member of organizing committee)  
5 Dec 2022 → 9 Dec 2022

#### **Erasmus+ FRAME project Lao and Thai Staff Exchange to University of Helsinki**

Dipjoy Chakma (Secretary of organizing committee), Nick Hogarth (Chair of organizing committee), Adrian A. Monge Monge (Member of organizing committee), Edward Layman Webb (Member of organizing committee), Markku Kanninen (Member of organizing committee), Eshetu Yirdaw (Member of organizing committee), Mike Starr (Speaker: Presenter), Roy Siddall (Attendee), Vanessa Louise Fuller (Speaker: Presenter) & Johanness Jamaludin (Speaker: Presenter)  
3 Oct 2022 → 14 Oct 2022

#### **Deforestation and forest degradation: Impacts on Biodiversity and Climate Change**

Markku Kanninen (Invited speaker)  
15 Sep 2022

#### **Environmental protection, biodiversity conservation and Forest Landscape Restoration: Current state and future challenges**

Markku Kanninen (Keynote speaker)  
7 Sep 2022

#### **Frontiers in Forests and Global Change (Journal)**

Markku Kanninen (Reviewer)  
18 May 2022

#### **Zero Deforestation Value Chains and Food Systems: Role of EU consumption**

Markku Kanninen (Speaker)  
22 Mar 2022

#### **Woody Above Ground Biomass and Its Drivers in Mosaic Landscapes in West and East Africa**

Markku Kanninen (Pre-examiner)  
2022

#### **Efectos del cambio climático sobre los ecosistemas forestales [Impacts of climate change on forest ecosystems]**

Markku Kanninen (Speaker)  
8 Dec 2021

**Euroopan vastuu tropiikin metsistä [Responsibility of EU for tropical forests]**

Markku Kanninen (Keynote speaker)

8 Oct 2021

**Metsät globaalina ilmatoratkaisuna [Forests as a global nature-based solution of climate crisis]**

Markku Kanninen (Keynote speaker)

1 Oct 2021

**Global climate crisis – no time to waste**

Markku Kanninen (Keynote speaker)

23 Sep 2021

**Tapion päivän seminaari 23.9.2021 - Metsäasiantuntijat ilmasto- ja metsäkeskustelun keskiössä**

Markku Kanninen (Speaker)

23 Sep 2021

**FORHEAL closing event**

Dipjoy Chakma (Secretary of organizing committee), Nick Hogarth (Chair of organizing committee), Markku Kanninen (Speaker: Presenter) & Adrian A. Monge Monge (Member of organizing committee)

24 Aug 2021

**Ilmastokestävä kehitys ja ruokajärjestelmän haasteet [Climate-resilient development is challenging global food systems]**

Markku Kanninen (Invited speaker)

21 Apr 2021

**Ruokajärjestelmän uudet suunnat dialogiwebinaari**

Markku Kanninen (Speaker)

21 Apr 2021

**Toiminta kestäväksi! Työkaluja järjestöjen ilmasto- ja ympäristötyöhön**

Markku Kanninen (Speaker)

28 Jan 2021

**Climate change and sustainable development**

Markku Kanninen (Speaker)

30 Sep 2020

**Research highlights**

Markku Kanninen (Speaker)

17 Sep 2020

**Maan kunnan heikkeneminen ja aavikoituminen - katsaus nykytilaan [Land degradation and desertification - an overview of the current situation]**

Markku Kanninen (Invited speaker)

4 Sep 2020

**Panelist - COVID-19 pandemic and the changing operational environment for development cooperation**

Markku Kanninen (Speaker)

11 Jun 2020

**Introduction to resilience: Resilience as an evolving concept**

Markku Kanninen (Speaker)

9 Jun 2020

**Swiss National Science Foundation (SNSF) (External organisation)**

Markku Kanninen (Assessment)

Jun 2020

**European Research Council (ERC) (External organisation)**

Markku Kanninen (Assessment)

May 2020

**Invited speaker: Metsät ja ilmastonmuutos [Forests and climate change]**

Markku Kanninen (Speaker)

12 Feb 2020

**Climate change adaptation in smallholder agroforestry systems in the Northern Andes of Ecuador: A case study in the Indigenous Territory of Kayambi People**

Markku Kanninen (Supervisor)

2020 → ...

**How to address and assess climate change adaptation? Results-based climate change adaptation and the role of trees and forests in projects funded by Adaptation Fund**

Markku Kanninen (Supervisor)

2020

**Key factors in the enabling environment for smallholder tree growing – experiences from the Global South**

Markku Kanninen (Member of thesis committee / follow-up group)

2020

**Trees for sustainable livelihoods in the Horn of Africa: Studies on aromatic resins and other non-wood forest products in Somalia and Kenya**

Markku Kanninen (Member of thesis committee / follow-up group)

2020

**Village-level changes in landscapes, land use and rural livelihoods: A case study of three villages in Nambak District, Lao PDR**

Markku Kanninen (Supervisor)

2020

**Invited key note: Informe especial del IPCC sobre el calentamiento global de 1.5 °C**

Markku Kanninen (Speaker)

6 Nov 2019

**Pyödetty lausunto Eduskunnan ympäristövaliokunnalle [Written statement to the Environment Committee of the Finnish parliament]**

Markku Kanninen (Participant)

2 Oct 2019

**FORHEAL-mid-term meeting**

Dipjoy Chakma (Member of organizing committee), Adrian A. Monge Monge (Secretary of organizing committee), Markku Kanninen (Chair of organizing committee) & Nick Hogarth (Member of organizing committee)

18 Jun 2019 → 20 Jun 2019

**Epäreilu ilmasto [Unfair climate]**

Markku Kanninen (Speaker)

21 Mar 2019

**Field course "Tropical Forests and Agroforests"**

Dipjoy Chakma (Member of organizing committee), Markku Kanninen (Chair of organizing committee), Eshetu Yirdaw (Member of organizing committee), Nick Hogarth (Member of organizing committee), Adrian A. Monge Monge (Member of organizing committee) & Chi Bui (Attendee)

3 Jan 2019 → 20 Jan 2019

**Ethnobotany, phytochemistry and antimicrobial activity of Combretum, Terminalia and Anogeissus species (Combretaceae) growing naturally in Sudan**

Markku Kanninen (Member of thesis committee / follow-up group)

2019

**From participation to responsiveness: The changing priorities of community forestry governance in Nepal's Terai**

Markku Kanninen (Pre-examiner)

2019

**IPCC, 2019: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems (Journal)**

Markku Kanninen (Reviewer)

2019 → ...

**On the human impacts and governance of large-scale tree plantations**

Markku Kanninen (Co-supervisor)

2019

**Preliminary Assessment of Socioeconomic Impacts and Plantation Performance of Stora Enso's Village Program in Southern Laos**

Markku Kanninen (Supervisor)

2019

**Scientific Reports (Journal)**

Markku Kanninen (Reviewer)

2019

**Tropical rainforest restoration on Imperata grasslands under fast-growing plantations in South Kalimantan, Indonesia**

Markku Kanninen (Supervisor)

2019

**Where is local democracy?**

Markku Kanninen (Member of thesis committee / follow-up group)

2019

**Towards better estimates of carbon stocks in Bornean logged-over Dipterocarp forests**

Markku Kanninen (Opponent)

29 Nov 2018

**World Food Day Seminar 2018**

Tino Petri Johansson (Member of organizing committee), Mila Sell (Member of organizing committee), Markku Tapani Kanninen (Member of organizing committee) & Sanna-Liisa Taivalmaa (Member of organizing committee)

10 Oct 2018

**Key findings of the IPCC Special report on 1.5. degrees**

Markku Kanninen (Speaker)

8 Oct 2018

**Land-use, Ecosystem Carbon and Biodiversity in Tropical Landscapes**

Markku Kanninen (Speaker)

12 Jun 2018

**Measuring the contribution of forest and environmental income in rural livelihoods**

Markku Kanninen (Teacher)

25 Feb 2018 → 2 Mar 2018

**E Carbon stocks and sequestration potential of smallholder Acacia hybrid plantations in Hue, Vietnam**

Markku Kanninen (Supervisor)

2018

**Ecosystem services in UPM's intensively managed plantation landscapes in Uruguay**

Markku Kanninen (Supervisor)

2018

**Faculty of Agriculture and Forestry (Organisational unit)**

Markku Kanninen (Board member)

2018 → ...

**Faculty of Arts (Organisational unit)**

Markku Kanninen (Board member)

2018

**Faculty of Science (Organisational unit)**

Markku Kanninen (Board member)

2018

**Innovation Capacity and Women Empowerment. Identifying constraints and pathways toward sustainability, improved productivity and livelihoods of small-scale farmers in Africa**

Markku Kanninen (Member of thesis committee / follow-up group)

2018

**FORHEAL-Kick off meeting**

Dipjoy Chakma (Member of organizing committee), Markku Kanninen (Chair of organizing committee), Adrian A. Monge Monge (Secretary of organizing committee) & Nick Hogarth (Member of organizing committee)

21 Nov 2017

**Pedagogical training (period 1)—developing pedagogical practices in Mekong higher education institutions**

Liisa Hannele Ilomäki (Speaker: Presenter), Minna Helena Lakkala (Speaker: Presenter), Markku Tapani Kanninen (Chair of organizing committee), Dipjoy Chakma (Secretary of organizing committee), Nicholas Hogarth (Member of organizing committee) & Adrian Antonio Monge Monge (Member of organizing committee)

13 Nov 2017 → 17 Nov 2017

**Practical training on CarboScen**

Markku Tuomas Larjavaara (Speaker: Chair), Markku Tapani Kanninen (Chair of organizing committee), Dipjoy Chakma (Secretary of organizing committee), Nicholas Hogarth (Member of organizing committee) & Adrian Antonio Monge Monge (Member of organizing committee)

10 Oct 2017

**CarboScen training**

Markku Kanninen (Teacher) & Markku Tuomas Larjavaara (Teacher)

28 Sep 2017

**Faculty of Agriculture and Forestry (Organisational unit)**

Markku Kanninen (Chair)

1 Aug 2017 → ...

**HEI ICI PARFORM Kick-Off Meeting**

Markku Tapani Kanninen (Chair of organizing committee), Dipjoy Chakma (Secretary of organizing committee), Nicholas Hogarth (Member of organizing committee) & Adrian Antonio Monge Monge (Member of organizing committee)

26 Jun 2017 → 27 Jun 2017

**La Economía Forestal Sostenible, Pucallpa, Peru**

Markku Kanninen (Invited speaker)

14 Jun 2017

**CarboScen training**

Markku Kanninen (Teacher)

12 Jun 2017

**Intensive training on "Academic writing in English"**

Roy Siddall (Speaker: Chair), Markku Tapani Kanninen (Chair of organizing committee), Dipjoy Chakma (Secretary of organizing committee), Nicholas Hogarth (Member of organizing committee) & Adrian Antonio Monge Monge (Member of organizing committee)

12 Jun 2017 → 16 Jun 2017

**CarboScen training**

Markku Kanninen (Teacher) & Markku Tuomas Larjavaara (Teacher)

26 May 2017

**Siti Nurbaya**

Markku Kanninen (Host)

7 Apr 2017

**Green Economy Tranistions in Least Developed Countries**

Markku Tapani Kanninen (Chair of organizing committee), Nicholas Hogarth (Speaker: Presenter) & Dipjoy Chakma (Member of organizing committee)

5 Jan 2017

**Tropical Forests & Agroforests**

Markku Tapani Kanninen (Chair), Eshetu Yirdaw Eshetu (Attendee), Nicholas Hogarth (Attendee), Adrian Antonio Monge Monge (Attendee) & Dipjoy Chakma (Attendee)

3 Jan 2017 → 20 Jan 2017

**Climate, trees and agricultural practices: Implications for food security in the semi-arid zone of Sudan**

Markku Kanninen (Supervisor)

2017

**Indonesian wooden furniture value chain and impacts of EU policies**

Markku Kanninen (Supervisor)

2017

**Intergovernmental Panel on Climate Change (IPCC), Lead Author of Special Report on 1.5 Degrees (External organisation)**

Markku Kanninen (Assessment)

2017 → 2018

**Qualitative Assessment of Key Factors Shaping the Development of Community Forestry Enterprises in Mexico**

Markku Kanninen (Supervisor)  
2017

**Dryland Management and Climate Change Nexus**

Eshetu Yirdaw (Chair of organizing committee), Mohamed Ahmed Elfadol (Member of organizing committee), Adrian Antonio Monge Monge (Member of organizing committee) & Markku Kanninen (Member of organizing committee)  
14 Dec 2016

**Green Solutions 2016, Cancun, Mexico - Shaping green policy for a low carbon economy**

Markku Kanninen (Invited speaker)  
5 Dec 2016 → 7 Dec 2016

**Swiss National Science Foundation (SNSF) (External organisation)**

Markku Kanninen (Assessment)  
Dec 2016

**Center for International Forestry Research (CIFOR)**

Markku Kanninen (Visiting researcher)  
1 Sep 2016 → 31 Aug 2017

**Sustainable forest landscapes – innovations and competitive advantages**

Markku Kanninen (Chair of organizing committee), Adrian Antonio Monge Monge (Member of organizing committee), Mika Olavi Rekola (Member of organizing committee) & Anne Maarit Kristiina Toppinen (Member of organizing committee)  
17 Aug 2016

**Swiss National Science Foundation (SNSF) (External organisation)**

Markku Kanninen (Assessment)  
Jun 2016

**The Finnish Climate Panel (Ilmastopaneeli) (External organisation)**

Markku Kanninen (Member)  
21 Jan 2016 → 31 Dec 2019

**Carbon Balance and Management (Journal)**

Markku Kanninen (Reviewer)  
2016

**Current Opinion in Environmental Sustainability (Journal)**

Markku Kanninen (Reviewer)  
2016 → ...

**Deforestation and forest degradation in Southern Burkina Faso: Understanding the drivers of change and options for revegetation**

Markku Kanninen (Supervisor)  
2016

**Ecosystem Services from Industrial Eucalypt Plantation Landscapes: Case of Stakeholders of UPM Uruguay**

Markku Kanninen (Supervisor)  
2016

**Evaluation Panel, Eduardo Mondlane University (External organisation)**

Markku Kanninen (Member)  
2016



**FLEGT and REDD+ synergies and impacts in the Congo Basin: lessons for global forest governance**

Markku Kanninen (Supervisor)  
2016

**Forest Ecology and Management (Journal)**

Markku Kanninen (Reviewer)  
2016

**Forests (Journal)**

Markku Kanninen (Reviewer)  
2016

**Influence of smallholder woodlot management on tree growth and quality. Case study of pine plantations in Iringa and Njombe regions, Tanzania**

Markku Kanninen (Supervisor)  
2016

**Setting priorities for conservation: protected area effectiveness, management and quality of governance**

Markku Kanninen (Pre-examiner)  
2016

**Forests, landscapes, climate and sustainable development: The evidence we need for the future we want**

Markku Kanninen (Speaker: Presenter)  
3 Dec 2015

**Course: Research Proposal Writing**

Markku Kanninen (Chair of organizing committee)  
26 Oct 2015 → 28 Oct 2015

**Center for International Forestry Research (CIFOR)**

Markku Kanninen (Visiting researcher)  
1 Sep 2015 → 31 Aug 2016

**Ilmasto muuttaa turvallisuuden - Kehittyvien maiden sopeutumisen haasteet - Tiedekulman tilaisuus 11.5.2015**

Markku Kanninen (Speaker: Presenter)  
11 May 2015

**Agriculture, Ecosystems & Environment (Journal)**

Markku Kanninen (Reviewer)  
2015

**Governance of global commodity chains: Case of Uruguayan beekeeping and sustainable livelihoods**

Markku Kanninen (Supervisor)  
2015

**Nature Communications (Journal)**

Markku Kanninen (Reviewer)  
2015

**Sustainability of community forest management in Burkina Faso: The Case of CAF Cassou**

Markku Kanninen (Supervisor)  
2015

**What drives land use – land cover change leading to deforestation? A study case of the Tambopata Natural Reserve Buffer Zone, Madre de Dios, Peru**  
Markku Kanninen (Supervisor)  
2015

**Green Solutions 2014, Aguascalientes, Mexico - Sustainable forestry and agriculture –Challenges and green solutions**  
Markku Kanninen (Invited speaker)  
5 Nov 2014 → 6 Nov 2014

**Course: Small Holder Teak Management (Field Course)**  
Markku Kanninen (Chair of organizing committee)  
20 Oct 2014 → 28 Oct 2014

**Ympäristötiedon foorumi - Suomi, maankäytön muutokset ja metsät kansainvälisissä ilmastoneuvotteluissa**  
Markku Kanninen (Speaker: Presenter)  
15 Oct 2014

**Monique Barbut**  
Markku Kanninen (Host)  
2 Apr 2014

**The Finnish Climate Panel (Ilmastopaneeli) (External organisation)**  
Markku Kanninen (Member)  
1 Mar 2014 → 31 Dec 2015

**Agroforestry Systems (Journal)**  
Markku Kanninen (Reviewer)  
2014

**Can REDD+ Turn Rainbow? REDD+ and Climate Change Adaptation Policies in Vietnam**  
Markku Kanninen (Opponent)  
2014

**Carbon stocks for six different land use classes in Niassa province, Mozambique**  
Markku Kanninen (Supervisor)  
2014

**Center for International Forestry Research (Publisher)**  
Markku Kanninen (Member of editorial board)  
2014 → 2015

**Effects of Intensive Silviculture in the Restoration of Northeastern Atlantic Forest in Brazil; Survival, Growth and Carbon Sequestered 8 Years after Planting**  
Markku Kanninen (Supervisor)  
2014

**Effects of Intensive management in the Restoration of Northeastern Atlantic Forest in Brazil; Survival, Growth and Carbon Sequestered 8 Years after Planting**  
Markku Kanninen (Supervisor)  
2014

**Estimation of eucalyptus forest plantations carbon sequestration potential in Uruguay with the CO2fix model**  
Markku Kanninen (Supervisor)  
2014

**Agroforestry Systems (Journal)**

Markku Kanninen (Reviewer)  
2013

**Ambio (Journal)**

Markku Kanninen (Reviewer)  
2013

**Assessment and prediction of above-ground biomass in selectively logged forest concessions using field measurements and remote sensing data: Case study in south east Cameroon**

Markku Kanninen (Supervisor)  
2013

**Belgian Science Policy Office (External organisation)**

Markku Kanninen (Assessment)  
2013

**Climate Policy (Journal)**

Markku Kanninen (Reviewer)  
2013

**European Forest Institute, Scientific Advisory Board (External organisation)**

Markku Kanninen (Member)  
2013 → 2017

**Factors influencing farmers' tree planting and management activity in four case studies in Indonesia**

Markku Kanninen (Supervisor)  
2013

**Mitigation and Adaptation Strategies for Global Change (Journal)**

Markku Kanninen (Reviewer)  
2013

**Nature Communications (Journal)**

Markku Kanninen (Reviewer)  
2013

**Regional Markets for Non-timber Forest Products in Eastern Brazilian Amazon**

Markku Kanninen (Co-supervisor)  
2013

**The indigenous agroforestry systems of the south-eastern Rift Valley escarpment, Ethiopia: Their biodiversity, carbon stocks, and litterfall**

Markku Kanninen (Co-supervisor)  
2013

**The winding road from exclusion to ownership: Governance and social outcomes in contemporary forest conservation in northeastern Tanzania**

Markku Kanninen (Co-supervisor)  
2013

**Finnish IIASA Committee, Academy of Finland (External organisation)**

Markku Kanninen (Member)  
25 Jan 2012 → 31 Dec 2014

**Community forest management and policy implication for the biosphere reserve of Luki, Democratic Republic of Congo**  
Markku Kanninen (Supervisor)  
2012

**Finnish University Partnership for International Development, UniPID (External organisation)**  
Markku Kanninen (Chair)  
2012 → 2014

**Improving rooting of Eucalyptus cuttings by controlling the stock plant temperature in Montes del Plata nursery, Uruguay**  
Markku Kanninen (Supervisor)  
2012

**Mitigation and Adaptation Strategies for Global Change (Journal)**  
Markku Kanninen (Reviewer)  
2012

**PLoS One (Journal)**  
Markku Kanninen (Reviewer)  
2012

**Routledge (Publisher)**  
Markku Kanninen (Editor)  
2012 → ...

**Valuation of ecosystem services for assessment of cost of deforestation, and analysis of its drivers with implications for sustainable forest management in Ghana**  
Markku Kanninen (Opponent)  
2012

**The Finnish Climate Panel (Ilmastopaneeli) (External organisation)**  
Markku Kanninen (Member)  
1 Dec 2011 → 28 Feb 2014

**International Union of Forest Research Organizations (IUFRO) - Task Force on Climate Change (External organisation)**  
Markku Kanninen (Chair)  
1 Jan 2011 → 31 Dec 2014

**Ambio (Journal)**  
Markku Kanninen (Reviewer)  
2011

**Forest Ecology and Management (Journal)**  
Markku Kanninen (Reviewer)  
2011

**Forest governance and climate change adaptation: Case studies of four African countries**  
Markku Kanninen (Co-supervisor)  
2011

**Journal of Geophysical Research (Journal)**  
Markku Kanninen (Reviewer)  
2011

**Stand growth and management scenarios for *Paraserianthes falcataria* smallholder plantations in Indonesia**  
Markku Kanninen (Supervisor)  
2011

**The impact of FSC certification on timber tree regeneration and floristic composition in Honduran community forests**  
Markku Kanninen (Pre-examiner)  
2011

**Belgian Science Policy Office (External organisation)**  
Markku Kanninen (Assessment)  
2010

**European Forest Institute (EFI), External Evaluation Panel (External organisation)**  
Markku Kanninen (Chair)  
2010 → 2011

**Impact of the globalizing forest industry on ecosystem services: Corporate responsibility and the sustainable management of coupled human-environment systems**  
Markku Kanninen (Pre-examiner)  
2010

**The Adaptation Fund Board (UNFCCC) (External organisation)**  
Markku Kanninen (Board member)  
1 Jan 2008 → 15 Mar 2017

**The contribution of forestry in maintaining and expanding forest-based carbon sinks**  
Markku Kanninen (Speaker), Robert Nasi (Speaker) & Alain Karsenty (Speaker)  
25 Oct 2007

**Agroforestry systems for sustainable livelihoods and improved land management in the East Usambara Mountains, Tanzania**  
Markku Kanninen (Pre-examiner)  
2007

**Teaknet (External organisation)**  
Markku Kanninen (Board member)  
2007 → ...

**2006 IPCC Guidelines for National Greenhouse Gas Inventories. International Panel on Climate Change (Publisher)**  
Markku Kanninen (Reviewer)  
2006

**Biodiversity management in fast-growing tree plantations: a case study from West Kalimantan, Indonesia**  
Markku Kanninen (Opponent)  
2006

**Forest Ecology and Management (Journal)**  
Markku Kanninen (Reviewer)  
2005

**Stand growth scenarios for *Tectona grandis* plantations in Costa Rica**  
Markku Kanninen (Supervisor)  
2005

**Forest Ecology and Management (Journal)**  
Markku Kanninen (Member of editorial board)  
2004 → 2007

**Silva Fennica (Journal)**  
Markku Kanninen (Member of editorial board)  
2004 → 2008

**Restoration of the native woody-species diversity, using plantation species as foster trees, in the degraded highlands of Ethiopia**  
Markku Kanninen (Pre-examiner)  
2002

**Estimation and Use of Modified Prior Probabilities for Digital Classification Improvement of Tropical Forests**  
Markku Kanninen (Supervisor)  
2000

**Integration of indigenous tree species into fast-growing forest plantations on Imperata grasslands in Indonesia – Silvicultural solutions and their ecological and practical implications**  
Markku Kanninen (Pre-examiner)  
2000

**Drought adaptation and genetic diversity in Eucalyptus microtheca**  
Markku Kanninen (Pre-examiner)  
1999

**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**  
Markku Kanninen (Pre-examiner)  
1996

**Ibero-amerikkalaisen säätiön valtuuskunta [Council of the Ibero-American Foundation of Finland] (External organisation)**  
Markku Kanninen (Member)  
1996 → ...

**Regeneration of *Acacia seyal* forests on the dryland of the Sudan clay plain**  
Markku Kanninen (Pre-examiner)  
1996

**The Effects of Emissions from a Nickel-Copper Smelter in Monchegorsk, northwestern Russia, on the Radial Growth of Scots Pine**  
Markku Kanninen (Pre-examiner)  
1996

**Carbon and nitrogen dynamics in *Erythrina poeppigiana* (Leguminosae: Phaseoleae) trees managed by periodic prunings**  
Markku Kanninen (Pre-examiner)  
1995

**Impedance spectroscopy and temperature acclimation of forest trees**  
Markku Kanninen (Pre-examiner)  
1993

**Ministerial Conference on the Protection of Forests in Europe (External organisation)**  
Markku Kanninen (Member)

1993 → 1995

**Analysis of Scots Pine growth: formation of structure from functional considerations**

Markku Kanninen (Pre-examiner)

1992

**Ibero-amerikkalainen säätiö [Ibero-American Foundation of Finland] (External organisation)**

Markku Kanninen (Board member)

1992 → 1995

**Ministerial Conference on the Protection of Forests in Europe (External organisation)**

Markku Kanninen (Chair)

1992 → 1993

**Modelling bud dormancy release in trees from cool and temperate regions**

Markku Kanninen (Opponent)

1990

**University of Washington, Center for Quantitative Science**

Markku Kanninen (Visiting researcher)

Jan 1989 → Sep 1989

**Models of pine stand development: an eco-physiological systems analysis**

Markku Kanninen (Pre-examiner)

1987

**Acta forestalia Fennica (Journal)**

Markku Kanninen (Editor in chief)

1985 → 1990

**Silva Fennica (Journal)**

Markku Kanninen (Editor in chief)

1985 → 1990

**Colegio de Postgraduados, Chapingo, Mexico**

Markku Kanninen (Visiting researcher)

Jan 1979 → Aug 1979

## Prizes

**Influencer of the Year (Vuoden vaikuttaja) 2018**

Kanninen, Markku (Recipient), 3 Dec 2018

**Nobel Peace Prize (as a member of the IPCC)**

Kanninen, Markku (Recipient), 2007

**Suomen Valkoisen Ruusun I luokan ritarimerkki (Knight First Class of the Order of the White Rose of Finland)**

Kanninen, Markku (Recipient), 6 Dec 2018

**Teacher of the Year (Hyvä Opettaja) 2013**

Kanninen, Markku (Recipient), 17 May 2013

## Press / Media

### **5 tärkeää urakkaa ilmastotyössä**

Markku Kanninen

01/02/2021

1 item of Media coverage

### **Aavikoituminen koskettaa myös suomalaisia [Desertification is relevant also for Finns]**

Markku Kanninen

18/04/2021

1 item of Media coverage

### **Aavikoitumisen estäminen [Stopping desertification]**

Markku Kanninen & Vesa Kaarakka

28/08/2019

1 Media contribution

### **Aavikoitumista torjumassa – pähkinät ja kokis voimanlähteinä**

Markku Kanninen

07/10/2019

1 item of Media coverage

### **Aavikon ilmasto saapuu. Suuri osa Etelä-Euroopasta uhkaa aavikoitua ilmastonmuutoksen vuoksi [The desert climate arrives. A large part of southern Europe is threatened with desertification due to climate change]**

Markku Kanninen

05/08/2023

1 Media contribution

### **Afrikan metsät on syytä säästää [We should save Africa's forests]**

Markku Kanninen

15/05/2019

1 Media contribution

### **Afrikassa on enemmän maastopaloja kuin Amazoniassa [More fires in Africa than in the Amazonia]**

Markku Kanninen

28/08/2019

1 Media contribution

### **Alfa TV - Interview on IPCC Special report on 1.5. degrees**

Markku Kanninen

12/10/2018

1 Media contribution

### **Amatsonin keikahduspiste [Amazon tipping point]**

Markku Kanninen

09/09/2022

1 Media contribution

### **Amatsonin metsäpalot [Forest fires in Amazonia]**

Markku Kanninen

23/08/2019

1 Media contribution

### **Amazonin hiilivarasto ei palaudu palojen jälkeen entiselleen [Slow recovery of Amazonas carbon stocks]**

Markku Kanninen

23/08/2019

1 Media contribution



**Amazonin sademetsissä riehuvat pahimmat metsäpalot 15 vuoteen [Worst fires in Amazon rainforest for 15 years]**

Markku Kanninen

08/09/2022

1 Media contribution

**Amazonin sademetsä palaa maan tasalle [Amazon rainforest is burning down]**

Markku Kanninen

24/08/2019

1 Media contribution

**Antaa paahtaa [Let it shine]**

Markku Kanninen

28/08/2020

1 Media contribution

**Arjen ehdoilla**

Markku Tapani Kanninen

10/05/2016

1 Media contribution

**Asiantuntijat Bensa-Anttosen hurjasta Sahara-suunnitelmasta: "Teknisesti mahdollista, mutta..."**

Markku Kanninen

15/12/2017

1 item of Media coverage

**Cancúnin ilmastokokous - Suomalaisetekniikka selvittää sademetsien määrää [Cancun climate conference – Finnish technology used in tropical forest inventories]**

Markku Kanninen

05/12/2010

1 Media contribution

**Contributing to effective climate change mitigation and adaptation**

Markku Kanninen

14/12/2018

1 item of Media coverage

**ENB+ Report | Forest Action Day | 8 Nov 2016 | Marrakech, MA | IISD Reporting Services**

Markku Kanninen

11/11/2016

1 item of Media coverage

**Ei lisää risuja tankkiin, vaan metsää Saharaan? [No biofuels but trees in Sahara?]**

Markku Kanninen

03/11/2017

1 item of Media coverage

**Entrevista a Markku Kanninen [Interview of Markku Kanninen]**

Markku Kanninen

01/01/2015

1 Media contribution

**Epäreilu ilmasto [Unfair climate]**

Markku Kanninen

21/03/2019

1 Media contribution

**Forests, Landscapes, Climate and Sustainable Development: The Evidence We Need for the Future We Want [Side Event at UNFCCC COP 21 in Paris, December 3, 2015]**

Markku Kanninen

03/12/2015

1 item of Media coverage

**Goodbye, kuukkelimetsä: Hakkuukiistat palasivat Suomeen, kun biotalous jauhaa puuta rahaksi [Bioeconomy and disputes on forest management - a dejavu]**

Markku Kanninen

25/11/2017

1 item of Media coverage

**HS kysyi 30 suomalaiselta, ovatko he kokeneet omassa arki-elämässään ilmaston-muutoksen vaikutuksia – Näin he vastaavat**

Markku Kanninen

29/12/2019

1 Media contribution

**Huippulaatuista soitinpuuta on metsissämme, mutta harva löytää sitä – "Japanilaiset tulivat Suomeen ja ostivat kaikki liikenevät kuuset"**

Markku Kanninen

18/09/2022

1 Media contribution

**IISD/ENB @ UNFCCC COP 21/CMP 11 (Side Events) | 3 Dec 2015 | Paris, FR | IISD Reporting Services**

Markku Kanninen

03/12/2015

1 item of Media coverage

**Ihminen sytytti Indonesian tuleen**

Markku Kanninen

13/11/2015

1 Media contribution

**Ilmaston muuttajat. Onko vastuullista palmuöljyä olemassa?**

Markku Kanninen

15/03/2017

1 Media contribution

**Ilmastonmuutoksen fossiili [A climate change fossil]**

Markku Kanninen

15/02/2019

1 item of Media coverage

**Ilmastonmuutos: Kaadetaanko viimeinenkin viidakko soija- ja öljypalmuplantaasien tieltä? [Climate change: Are we converting the last rainforest to soy and oil palm plantations?]**

Markku Kanninen

08/10/2018

1 Media contribution

**Ilmastonmuutosta hillitsevä hiilinielu vai teollisuuden raaka-aine? Suomi tasapainoilee metsien tarkoituksen kanssa**

Markku Kanninen

19/10/2018

1 item of Media coverage

**Ilmastopoliitikan tueksi perustetaan ilmastopaneeli [Finnish Climate Panel will be established to provide policy advice]**

Markku Kanninen

01/12/2011

1 Media contribution

**Ilmastotieteilijöiden viesti on vakava: nykytoimet eivät riitä [Serious message from climate scientists: our current efforts are not enough]**

Markku Kanninen

01/07/2018

1 item of Media coverage

**Impacts of Indonesia's land fires of 2015 revealed: record-level carbon emissions and other impacts – what can we do?**

Markku Kanninen & Daniel Murdiyoso

15/07/2016

1 Media contribution

**Indonesia kielsi turvesoiden raivaamisen – päätös voi vähentää maailmanlaajuisia päästöjä merkittävästi [Indonesia puts a ban on peatland conversion – The decision can reduce substantially global emissions]**

Markku Kanninen

08/12/2016

1 Media contribution

**Indonesia on maailman pahimpia saastuttajia – nyt 250 miljoonan ihmisen saarivaltio haluaa apua suomalaiselta metsäosaamiselta**

Markku Kanninen

07/04/2017

1 Media contribution

**Influencer of the Year award bestowed on Professor Markku Kanninen from the Faculty of Agriculture and Forestry**

Markku Kanninen

03/12/2018

1 item of Media coverage

**Interview on climate change at RPP Noticias Lina, Peru**

Markku Kanninen

07/11/2019

1 Media contribution

**Jättimäiset maastopalot ovat suurempi uhka ihmisille ja taloille kuin luonnolle [Large-scale land fires cause more damage to humans than to nature]**

Markku Kanninen

04/01/2020

1 Media contribution

**Kehitysmaiden rahat jumissa [Developing countries fail to access climate funding]**

Markku Kanninen

14/03/2011

1 Media contribution

**Kommentti: Vältä katastrofi ja säästä samalla rahaa – uusi ilmastoraportti on konsulttien ilosanomaa [Comment: Avoid the catastrophe and save money - new climate report brings good news from consultants]**

Markku Kanninen

20/11/2018

1 item of Media coverage

**Kun Suomi säästää metsiään, joku muu hakkaa enemmän [When Finland spares its forests, others log more]**

Markku Kanninen

22/05/2019  
1 item of Media coverage

**Maailma tulessa [The world in flames]**

Markku Kanninen  
25/08/2019  
1 Media contribution

**Maailmaa pelastamassa - Ilmastonmuutos [Saving the planet - Climate change]**

Markku Kanninen  
02/10/2020  
1 Media contribution

**Maakäytön suunnittelu on ilmastotyön ydintä [Land use planning in the core of climate action]**

Markku Kanninen  
26/10/2020  
1 item of Media coverage

**Meidän on muutettava elämän-tapaamme perustavan-laatusesti, linjaa vuosikymmenen tärkein ilmastoraportti**

Markku Kanninen  
08/10/2018  
1 item of Media coverage

**Metsien häviäminen lämmittää ilmastoa [Deforestation is warming the climate]**

Markku Kanninen  
01/11/2011  
1 Media contribution

**Metsä palvelee [Forest services]**

Markku Kanninen  
15/01/2007  
1 item of Media coverage

**Metsäkysymykset osana ilmastopolitiikkaa [Forests are part of climate policies]**

Markku Kanninen  
13/05/2011  
1 Media contribution

**Metsän istutuksen ja suojelun merkitys ilmastonsuojelussa**

Markku Kanninen  
19/07/2019  
1 Media contribution

**Metsänhävitys tropiikissa - YLE Ykkösaamu [Deforestation in the tropics]**

Markku Kanninen  
05/07/2011  
1 Media contribution

**Metsäosaamisen viennissä pitäisi keskittyä pieneen ja kauniiseen**

Markku Kanninen  
07/04/2017  
1 Media contribution

**Miten Afrikan sademetsät torjuvat ilmastomuutosta? Viisi vastausta Afrikan sademetsistä [Role of African rainforests in curbing climate change]**

Markku Kanninen

05/05/2022  
1 Media contribution

**Mittasuhteet kuntoon. Metsät eivät yksinään ratkaise ilmastonmuutosta, sanoo professori Markku Kanninen [Scale matters. Forests alone cannot solve the climate change problem explains professor Markku Kanninen]**

Markku Kanninen  
07/12/2018  
1 item of Media coverage

**Muuttuvan ilmaston mittari [Savannas - indicators of changing climate]**

Markku Kanninen  
13/05/2022  
1 Media contribution

**Neste Oilista tulee maailman suurimpia palmuöljyn ostajia [Neste Oil will be one of largest palm oil buyers in the world]**

Markku Kanninen  
14/11/2009  
1 Media contribution

**Neste tekee biodieseliä Indonesian palmuöljystä [Neste produces biodiesel from palm oil]**

Markku Kanninen  
13/11/2015  
1 Media contribution

**Nina Backmanin taide-projekti alkoi yhtäkkiä paisua, ja ensi viikolla Helsingissä jaetaan ilmaisia puun-taimia istutettavaksi [Art project by Nina Backman started to grow, and next week free seedlings are given away for tree planting in Helsinki]**

Markku Kanninen  
15/09/2019  
1 Media contribution

**Onko puiden istuttaminen oikotie ilmastokriisin ratkaisuun? [Is planting trees a quick fix for the climate crisis?]**

Markku Kanninen  
13/09/2019  
1 Media contribution

**Profesor Markku Kanninen sobre Manejo Forestal Sostenible en Amazonía Peruana [On sustainable management of forests in the Peruvian Amazon]**

Markku Kanninen  
20/06/2017  
1 item of Media coverage

**Profile of Markku Kanninen Seconded Principal Scientist of Center for International Forestry Research**

Markku Kanninen  
04/07/2017  
1 item of Media coverage

**Publication Review: Multifaceted Impacts of Sustainable Land Management in Drylands**

Eshetu Yirdaw Eshetu & Markku Kanninen  
13/12/2016  
1 item of Media coverage

**Sadat miljoonat ihmishenget ovat pelissä, kun päätetään ilmastopolitiikasta**

Markku Kanninen  
08/10/2018  
1 item of Media coverage

**Seeing the wood**

Markku Kanninen

25/10/2010

1 Media contribution

**Sellu palaa ilma-kehään, ja metsän puu luovuttaa lopulta hiilensä – Tutkijoiden mukaan on yksi yli-voimainen tapa muuttaa puu hiili-nieluksi [Pulp ends up in atmosphere – Scientists agree on outstanding way to store carbon in wood products]**

Markku Kanninen

22/05/2019

1 Media contribution

**Suomi hörppii runsaasti brasilialaista kahvia [Deforestation and coffee in Brazil]**

Markku Kanninen

23/08/2019

1 Media contribution

**Suomi tukemaan Rauhanyliopistoa ja CATIeta Costa Ricassa?**

Markku Kanninen

20/01/2008

1 Media contribution

**Suomi-Uruguay: Metsäosaamista jaetaan [Finland-Uruguay: sharing knowledge on forests]**

Markku Kanninen

19/05/2019

1 item of Media coverage

**Tehometsätalous loi Suomeen jättimäisen uuden hiilivaraston [Intensive forest management created a large new carbon sink in Finland]**

Markku Kanninen

15/10/2019

1 Media contribution

**Transform the sustainability sector with HELSUS at Helsinki**

Markku Kanninen

05/06/2018

1 item of Media coverage

**Trooppisten rantojen kasvatit [Mangroves of tropical coast lines]**

Markku Kanninen

13/03/2014

1 item of Media coverage

**Tropiikin muuttaminen akasiapelloksi on rikos [Converting tropical forests to acacia plantations is a crime]**

Markku Kanninen

26/08/2011

1 Media contribution

**Tropiikin nopeakasvuiset puuviljelmät - Metsäradio [Fast-growing tree plantations in the tropics]**

Markku Kanninen

08/08/2011

1 Media contribution

**Tutkijan väite: Nesteen biodiesel lisää reippaasti ilmastopäästöjä – Neste pitää raaka-ainettaan jätteenä**

Markku Kanninen

01/03/2020

1 Media contribution

**Vain yksi malli tukee hallituksen hakkuutavoitteita – Ilmastopaneeli: viisainta olisi vähentää hakkuita [Only one model in line with the Government's forest policy]**

Markku Kanninen

18/02/2019

1 item of Media coverage

**Vainottu metsä/Varkaita paratiisissa [Haunted forest/Thieves in the paradise]**

Markku Kanninen

16/06/2019

1 item of Media coverage

**Vihreitä hampurilaisia - hiilenmustaa päästökauppaa [Green hamburgers - black trade of emissions]**

Markku Kanninen

16/05/2022

1 Media contribution

**Voiko sademetsät vielä pelastaa? [Can we still save the rain forests?]**

Markku Kanninen

31/08/2019

1 Media contribution

**WWF: EU maiden kulutus johtaa trooppiseen metsäkatoon [WWF: Consumption of EU countries leads to tropical deforestation]**

Markku Kanninen

14/04/2021

1 item of Media coverage

**When money grows on trees**

Markku Kanninen

13/08/2009

1 Media contribution

**YLE TV 1 A Studio 10.12.2014: Ilmastonmuutos ja Suomen metsät**

Markku Kanninen

10/12/2014

1 Media contribution

**YLE TV 1 Uutiset 3.11.2017: Metsät ja ilmastonmuutoksen torjunta [Forests and climate change mitigation]**

Markku Kanninen

03/11/2017

1 Media contribution

**"Export of Finnish forest know-how should focus on the small and beautiful"**

Markku Kanninen

10/04/2017

1 item of Media coverage