



Conference Program

Fires in Western Amazonia: The Effects of Climatic, Social, Demographic, and Land Use Changes on Fire Incidence and Fire Hazard 19 – 22 August 2011

I. Organizing committee:

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II. Place and Dates:

August 19:	Opening of the conference in Lima
August 20 – 21:	Plenary of the conference in Pucallpa
August 22:	Field visit in Pucallpa

III. Summary: Throughout the forested tropics, large, uncontrolled, and destructive fires are increasingly generating enormous economic, ecological, and social losses. No longer limited to Eastern Amazonia, large fires escaped from burning fields and pastures have become common in the dry season, ravaging forests, farms, and settlements in much of Amazonia. In the tropics, fire has been used for centuries to manage agricultural fields, to clear and clean pastures, to improve conditions for hunting, and to open new areas for human settlement. Rapid land use and demographic transformations have altered the dynamics of fire in these areas, which are further compounded by the uncertainties of a changing climate.

IV. Goals: This conference aims to convene experts on fires in Amazonia to critically analyze how the expansion of large scale industrial production systems, migration, urban expansion, climate variability and other socio-environmental changes are interacting to alter patterns of fire use, fire spread, fire control, and losses due to uncontrolled burns, combustion completeness and biomass burning in the Western Amazon.

V. Participants: The conference will bring together a number of researchers from the biological, landscape, social, and atmospheric sciences, who are actively engaged in studying how socio-environmental processes are leading to changes in patterns of fire use for land preparation and an increase in escaped or accidental fires in Amazonia. Participants will be invited to present findings from ongoing and recent research and to engage in multidisciplinary discussions of local, regional, and global implications of their work.

The following is a list of invited experts who have agreed to participate in the conference:

- 1) Ane Alencar, Instituto de Pesquisa Ambiental da Amazônia (IPAM) (ane@ipam.org.br)
- 2) Luiz Aragão, University of Exeter (l.aragao@exeter.ac.uk)
- 3) Jos Barlow, Lancaster Environment Center, University of Lancaster (jos.barlow@lancaster.ac.uk)
- 4) Foster Brown, Woods Hole Research Center (WHRC) (fbrown@uol.com.br)
- 5) Manoel Cardoso, Instituto Nacional de Pesquisas Espaciais (INPE) (manoel.cardoso@inpe.br)
- 6) Andrea Chavez, University of Florida (achavez@ufl.edu)
- 7) Mark Cochrane, South Dakota State University (mark.cochrane@sdsu.edu)
- 8) Ruth DeFries, Department of Ecology, Evolution and Environmental Biology (E3B), Columbia University (rd2402@columbia.edu)
- 9) Jhan Carlo Espinoza, Servicio Nacional de Meteorología e Hidrología del Perú (SENAMHI) (jespinoza@senamhi.gob.pe)
- 10) Katia Fernandes, International Research Institute for Climate and Society (IRI), Earth Institute, Columbia University (katia@iri.columbia.edu)
- 11) Victor Gutierrez Velez, E3B, Columbia University (vhg2103@columbia.edu)
- 12) Waldo Lavado, SENAMHI (waldo.lavado@gmail.com)
- 13) Yili Lim, E3B, Columbia University (yilime@gmail.com)
- 14) María Manta, Universidad Nacional Agraria de La Molina, (mmanta@lamolina.edu.pe)
- 15) Eddy Mendoza, Conservation International, (e.mendoza@conservation.org)
- 16) Elsa Mendoza, IPAM-Acre, (elsa_mendoza@uol.com.br)
- 17) Daniel Nepstad, IPAM (dnepstad@ipam.org.br)
- 18) Imma Oliveras, Oxford University (imma.oliveras@ouce.ox.ac.uk)
- 19) Christine Padoch, Center for International Forest Research (CIFOR) (c.padoch@cgiar.org)
- 20) Luke Parry, Lancaster Environment Center, University of Lancaster (lukeparry1@gmail.com)
- 21) Marco Paredes, SENAMHI (mparedes@senamhi.gob.pe)
- 22) Sergio Rivero, Universidade Federal do Pará (UFPA) (sergiolmrivero@gmail.com)
- 23) Laura Schneider, Rutgers University, (laschnei@rci.rutgers.edu)

VI. Expected outputs: The conference will produce insights that can be expected to have implications for further research as well as in development and conservation policies in Western Amazonia. Conference participants will be invited to contribute to a joint paper on global

scientific and policy implications of their research, as well as to contribute articles to a special issue of an appropriate interdisciplinary journal.

VII. Conference Themes and Calendar:

The conference has been divided into four themes:

- 1) Changes in patterns and scales of land use and resulting landscapes, their effects on fire incidence and hazards in Western Amazonia.
- 2) Changes in land and resource tenure, patterns of migration, and urbanization and their relationship with the occurrence of escaped or accidental fires in Western Amazonia
- 3) Regional climate variability and global climate change and their effects on fire incidence and hazards.
- 4) The effects of fires on the integrity of biodiversity and the provision of ecosystem products and environmental services.

A brief written overview of current research for each discussion theme will be prepared and made available to participants. We invite participants to contribute to the thematic panel discussions through short presentations of 10 minutes, and particularly encourage presentation of new research which has yet to be published and thus is not included in overviews.

August 19, 2011 (2-4pm):

Opening of the conference by the Minister of the Environment of Peru in the conference room of the Servicio Nacional de Meteorología e Hidrología del Perú (SENAMHI), Lima.

August 20, 2011:

Conference held at the Universidad Nacional de Ucayali, Pucallpa.

8 – 9 am: Keynote Address by Dr. Daniel Nepstad

9 am – 12 m: Theme 1: Changes in patterns and scales of land use and resulting landscapes, their effects on fire incidence and hazards in Western Amazonia

Research Overview: Yili Lim and Victor Gutierrez.

Moderator: Ruth DeFries

Suggested questions to be discussed in this session:

- What are the general patterns of land use in Western Amazonia and how are these changing?
- How do fire management practices change with different land uses?
- How does the landscape matrix influence the risk of fire incidence and how does this change at different spatial scales?
- How does fire risk influence land use and what are the socioeconomic consequences of increased fire risk on livelihoods?

12 m – 2pm: Lunch

2 – 5 pm: Theme 2: Changes in land and resource tenure, patterns of migration and urbanization, and their relationship with the occurrence of escaped or accidental fires in Western Amazonia

Research Overview: Sergio Rivero and Christine Padoch

Moderator: Christine Padoch

Suggested questions to be discussed in this session:

- How are population patterns changing in Western Amazonia?
- What are some socioeconomic, political, and cultural drivers of these shifts?
- How are land tenure and landholding patterns changing in Western Amazonia?
- How do migration, urbanization and other demographic shifts influence fire risk?
- How do land rights and size of landholdings influence fire risk?

August 21, 2011:

8 – 10 am: Theme 3: Regional climate variability and global climate change and their effects on fire incidence and hazards

Research Overview: Katia Fernandes

Moderator: Manoel Cardoso

Suggested questions to be discussed in this session:

- What are global climate predictions for the Western Amazon?
- What are the limitations of these predictions and what data improvements can be made to overcome these limitations?
- How will climate variability influence the landscape in terms of both ecological changes and land use patterns?
- How will climate variability influence fire risk?

10 – 12 m: Theme 4: The effects of fires on the integrity of biodiversity and the provision of ecosystem products and environmental services

Research Overview: Mary Menton

Moderator: Jos Barlow

Suggested questions to be discussed in this session:

- What are the short and long-term effects of fire on biodiversity in tropical forests?
- What are the short and long-term effects of fire on biodiversity in cleared or agricultural areas?
- How does repeated burning influence the provision of ecosystem services and goods?
- How will changes in fire incidence and risk affect biodiversity conservation in and outside protected areas?

12 – 2 pm: Lunch

2 – 4 pm: Presentation of the results of the conference to policy makers and civil society in a session open for the public in Pucallpa.

6 – 8 pm: Closing session of the conference by the President of the Ucayali Region.

August 22, 2011 (8-4pm): Visit to selected field sites (optional)