

Joint Expert Meeting on Pasture Analysis and Remote Sensing

3rd Workshop of the GEO Rangelands and Pasture Productivity Monitoring (GEOPLAM RAPP) Community of Practice

20th to 22rd July, 2015

Location:

[Matiz Hotel Barão Geraldo](#), Campinas, Sao Paulo, Brazil

Workshop objectives

- To strengthen understanding, relationships, and collaborations involving the international and Brazilian pasture research communities, including but not limited to remote sensing;
- Foster information exchange and interaction involving researchers in Brazil and South America and the global pasture and remote sensing research communities;
- To inform the potential for pasture intensification, and to identify future research directions that can further inform this potential;
- Catalyze development of proposals for collaborative research involving members of the research communities, consistent with GEOGLAM RAPP¹ objectives:
 - Develop a shared understanding of what this project is about and what it hopes to achieve;
 - Continue to grow the RAPP community of practice and contributors to the project;
 - Showcase latest satellite-based rangeland and pasture condition and biomass monitoring activities, as well as integration of this information with livestock productivity modelling, etc;
 - Discuss field measurement protocols and agree upon key ground-based activities at RAPP national pilot;
 - Identify key global satellite datasets and specific data sets for pilot sites, that need to be acquired and analysed via the Committee on Earth Observation Satellites (CEOS) and their satellite data coordination group (SDCG).

¹ Termed “GEOGLAM Rangelands and Pasture Productivity (RAPP)”, this new GEO initiative will provide the global community the means to regularly monitor the world’s rangelands and pasture lands on a routine basis, and their capacity to produce animal protein in real-time, at global, regional and national levels. The primary scope of RAPP will therefore be to monitor those lands that are integral to producing animal protein on a ‘free-range’, open-field basis.

PROGRAM

JULY, 20th – DAY ONE (MONDAY)

8:30 **REGISTERING**

9:00 **WORKSHOP OFFICIAL WELCOME**

Rubens Lamparelli, University of Campinas - Unicamp (Brazil) moderator

Alex Held, Commonwealth Scientific and Industrial Research Organisation - CSIRO (Australia)

Lee Lynd, Dartmouth University (USA)

Luís Augusto Barbosa Cortez, Director – International Relations Office – University of Campinas – Unicamp (Brazil)

Carlos Henrique de Brito Cruz, Scientific Director – São Paulo Research Foundation, FAPESP (Brazil)

9:15 **THE SÃO PAULO RESEARCH FOUNDATION (FAPESP) AND BIOENERGY RESEARCH IN SÃO PAULO, BRAZIL**

Carlos Henrique de Brito Cruz, Scientific Director – São Paulo Research Foundation, FAPESP (Brazil)

9:40 **GEOGLAM OVERVIEW**

Michel Deshayes, Group on Earth Observations Global Agricultural Monitoring Initiative - GEOGLAM (Switzerland)

10:00 **Rationale for Rangelands and Pasture Productivity task, global context and workplan**

Alex Held, Commonwealth Scientific and Industrial Research Organisation - CSIRO (Australia)

Luiz Gustavo Antonio de Souza, University of Campinas - Unicamp (Brazil) rapporteur

10:30 **COFFEE BREAK**

Juan-Pablo Guerschman, Commonwealth Scientific and Industrial Research Organisation - CSIRO (Australia) moderator

10:50 **Status of GEOGLAM Dashboard**

11:05 **Audience discussion and refine/clarify workshop objectives**

Rubens Lamparelli, University of Campinas - Unicamp (Brazil)

Alex Held, Commonwealth Scientific and Industrial Research Organisation - CSIRO (Australia)

Lee Lynd, Dartmouth University (USA)

12:00 **Existing regional, national or global rangeland and pasture monitoring projects:**

***Rangeland & pasture monitoring: activities of in Brazil & Rangeland & pasture monitoring: activities of in Argentina**

Laerte Guimarães Ferreira, Goias Federal University - UFG (Brazil)

Mariano Oyarzabal, Agricultural Plant Physiology and Ecology Research Institute - IFEVA (Argentina)

12:30 **PRODUCTIVITY AND MAPPING OF CULTIVATED PASTURES FROM CERRADO: EXISTING DATA, DIFFICULTIES AND POSSIBILITIES**

Edson E. Sano, Brazilian Agricultural Research Corporation – Embrapa Cerrados (Brazil)

Walter Rossi Cervi, University of Campinas - Unicamp (Brazil) rapporteur

13:00 **LUNCH**

John Sheehan, Colorado State University (USA) moderator

14:00 **Existing Regional Global or National Rangeland and Pasture monitoring projects**

*Toward a Coordinated Rangelands Observations and Monitoring System for South Africa

Clement Adjorlolo, South African National Space Agency - SANSA (South Africa)

*Current status of grassland above ground biomass estimation in China

Dan Zhao, Institute of Remote Sensing and Digital Earth (RAD), Chinese Academy of Sciences (CAS) (China)

*The Global Calculator: A new approach to model pasture dynamics

Alexandre Strapasson, Imperial College London (UK)

* Remote sensing monitoring of forage production in uruguayan ranchers: state of the art and challenges

Marcelo Pereira, *Instituto Plan Agropecuario* (Uruguay)

* Rangeland & pasture monitoring: Activities in Colombia

Mauricio Alvarez de Leon, Corporación Colombiana de Investigación Agropecuaria – Corpoica (Colombia)

Ricardo Baldassin Jr., University of Campinas - Unicamp (Brazil) rapporteur

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July, 20 – 22, Campinas – SP – Brazil

15:30 COFFEE BREAK

Alex Held, Commonwealth Scientific and Industrial Research Organisation - CSIRO (Australia) moderator

16:00 Opportunities and challenges for incorporating territorial intelligence approaches to support policy actions and the sustainability of Brazilian pastoral systems

Geraldo B. Martha Jr., Brazilian Agricultural Research Corporation - Embrapa (Brazil)

16:20 Pasture Intensification for a sustainable future

Ben Henderson, Commonwealth Scientific and Industrial Research Organisation - CSIRO (Australia)

16:40 INPE's satellite data available for agriculture and pasture monitoring

João Viane Soares, National Institute for Space Research - INPE (Brazil)

17:00 Group discussion

Key technical characteristics and GEO data needs for an operational RAPP System. Example: "The NASA GEO GLAM interface". Use as discussion starter *Comment on Draft Summary Work Plan, meeting expectations and additional feedback based on what they have seen *Data gathering exercise: Additional national examples/technical approaches. Stakeholders, what other groups are missing and should be approached *Group discussion about what a community practice looks like, how do we want to share information and interact within the group? Website, wiki options. *What's next opportunities, risks, funding, things to avoid
All attendees

João Guilherme Dal Belo Leite, University of Campinas - Unicamp (Brazil) rapporteur

18:30 DINNER

JULY, 21st – DAY TWO (TUESDAY)

Ben Henderson, Commonwealth Scientific and Industrial Research Organisation - CSIRO (Australia) moderator

9:30 Recap of Day 1

Alex Held, Commonwealth Scientific and Industrial Research Organisation - CSIRO (Australia)

10:00 Current status of global rangelands and livestock models and integration with remote sensing

Marcelo Galdos, Brazilian Bioethanol Science and Technology Laboratory - CTBE (Brazil)

10:20 National Australian rangelands monitoring activities

Juan-Pablo Guerschman, Commonwealth Scientific and Industrial Research Organisation - CSIRO (Australia)

10:40 COFFEE BREAK

Rubens Lamparelli, University of Campinas - Unicamp (Brazil) and John Sheehan, Colorado State University (USA) moderator

11:00 GEOGLAM RAPP Communication and Coordination Strategy

Flora Kerblat, Commonwealth Scientific and Industrial Research Organisation - CSIRO (Australia)

11:20 Group discussion and update on global pilot and demonstration sites, data and groups

Simone P. Souza, University of Campinas - Unicamp (Brazil) rapporteur

12:30 LUNCH

13:30 GEOGLAM Satellite Data Acquisition Strategy and additional satellite datasets for RAPP

Alyssa Whitcraft, University of Maryland (USA)

14:00 Group discussion on ground-based information needs, field protocols, data-sharing via eg GEOWiki

Laerte Guimarães Ferreira, Goiás Federal University (Brazil) moderator

15:30 COFFEE BREAK

16:00 Group discussion on next-steps

Alex Held, Commonwealth Scientific and Industrial Research Organisation - CSIRO (Australia) moderator

17:30 End of meeting

Marcelo Galdos, Brazilian Bioethanol Science and Technology Laboratory - CTBE (Brazil) rapporteur

JULY, 22nd – DAY THREE (WEDNESDAY)

Lee Lynd, Dartmouth University (USA) moderator

8:30 Land intensification and environmental consequences: the case of pasture intensification in Brazil

Luiz Martinelli, Centro de Energia Nuclear na Agricultura, University of São Paulo - CENA/USP (Brazil)

9:00 Assessing regional GHG mitigation in grassland-based beef production in Brazil: interactions and emerging behavior

Luís Barioni, Brazilian Agricultural Research Corporation - Embrapa (Brazil)

9:30 Rangeland Decision Support System Implementation in the South-western USA: Progress and Challenges

Stephen Hagen, Applied GeoSolutions (USA)

10:00 Group discussion

12:00 End of meeting

Diego Dalla Justina, University of Campinas - Unicamp (Brazil) rapporteur

12:30 LUNCH