

From Resource Sufficiency to Functional Integrity

The workshop “*A shift in natural resources management paradigm: from resource sufficiency to functional integrity?*” took place during the VIII International Rangeland Congress – XXI International Grassland Congress, 29th June - 5th July 2008, Hohhot, China.

Editorial Committee

Ruijun Long, Int. Center for Tibetan Plateau Ecosystem Management, Lanzhou (China)
Hermes Morales, Instituto Plan Agropecuario, Montevideo (Uruguay)
Aboubakar Njoya, IRAD, Yaoundé (Cameroon)
Peggy Strankman, Canadian Cattlemen’s Association, Calgary (Canada)
M.E. Wedderburn, Ruakura Research Center, Hamilton (New Zealand)

English reviser

Grace Delobel

Cover

Hailar district, Inner Mongolia, China

© Bernard Hubert

Reference

Kammili T., Hubert B., Tourrand J.F. (eds), 2011. *A paradigm shift in live-stock management: from resource sufficiency to functional integrity*. 28th and 29th June 2008, Hohhot, China. Cardere editeur Lirac, France, 272 p.

A paradigm shift in
livestock management:
from resource sufficiency
to functional integrity

28th and 29th June 2008, Hohhot, China

Trish Kammili
Bernard Hubert
Jean-François Tourrand

editors

Cardère éditeur

Acknowledgments

The editors would sincerely like to thank all the authors for their invaluable contributions. Our special gratitude to the Editorial Committee members who have helped ensure the quality of this book.

We wish to thank the FI4IAR (The French Initiative for International Agricultural Research) without whose initiative and support this workshop would not have been a reality. We would also like to extend our thanks to Inra and Cirad for providing the funding for the workshop. It covered the costs for planning and conducting the workshop, editing and printing of this book among others. The French Ministry of Foreign Affairs as well as the French Embassy in Beijing, China, are kindly acknowledged for their generous support. Our special thanks are due to M. Zheng Li, Delegate for Inra and Cirad in China for his immense help.

The documentary on the Bolivian Altiplano that accompanies this book has been produced in collaboration with IRD (Institut de Recherche pour le Développement).

Table of Contents

The need for a shift in Natural Resources Management Paradigm in the area of Livestock Research and Practices (B. Hubert)9

1. A rationale by B. Hubert and R. Ison — Institutionalising understandings: from resource sufficiency to functional integrity11
2. Livestock farming: re-addressing mobility and collective action17

ASIA

23

Sustainable Ways of Subsistence in a Degraded Environment. Tianshui, North-Western China (G. Yanming, S. Dideron, W. Lan, L. Zhanfang, Z. Lu, Z. Hui)25

A Strategy for Sustainable Management in a Rangeland Ecosystem. The Qinghai-Tibetan Plateau (R. Long, S. Dong, Z. Shang)35

Community shared Natural Resources Management. A solution to Pastureland Degradation in Mongolia (B. Altantsegtseg, N. Oyunbileg)47

Re-Building traditional Knowledge to Innovate? (N. Girard)53

Forage Resource Utilization in Mongolia. Two Concepts frequently applied in Range Ecology (F. Joly, S. Saïdi, T. Samdanjigmed, S. King, C. Feh)57

SOUTH AMERICA

71

South American Livestock Farming Expansion. The Long Way to Sustainability (H. Morales, V. Homem, J.F. Tourrand, M. Champredonde)73

A “transatlantic” Overview of Historical and Current Livestock Narratives (B. Toutain)85

A Peasant Society confronting a Globalized Market. The Bolivian Altiplano, between immediate Quinoa market Profits and an Ecological dead End (abstract of the DVD-rom) (F. Léger, H. Bautista)91

NORTH AMERICA

95

Introducing Conservation Livestock Grazing in Protected Mixed-grass Prairies. Grasslands National Park of Canada (N. Koper)97

Addressing Wicked Environmental Problems in Canadian Cattle Industry (P. Strankman)117

Learning by Doing in order to Develop New Ecologically Sensitive Cattle Management (V. Homem)129

AFRICA 131

Global Changes and Decentralized Policies. Driving Forces of pastoralism Dynamics in the Sahel, Western and Central Africa (B. Toutain, O. Touré, A. Ickowicz, B. Dodo, H. Ouédraogo, A. Njoya)133

Sahel and Pampa at Stake in a Changing World! A South-American point of view (H. Morales)151

EUROPE 159

Hardy outdoor Breeding. Innovation Networks for Functional Integrity in Agri-food Processing Systems, Haut-Languedoc, France (Y. Chiffolleau, F. Dreyfus)161

Adaptative Management, a Key for Multi-functionality (M.E. Wedderburn)177

Grazing Management on dynamic, heterogeneous Rangelands. Evolution of referential Methods at the Regional Park of Massif des Bauges, Northern Alps, France (C. Agreil, D. Magda, G. Guérin, P. Mestelan)183

Assessing Rangeland Value: a combined Standpoint of the Herder and ... the Grazer! (T. Kammili).....215

Could Biodiversity be Recognized as an Agricultural Product? (P. Strankman)217

OCEANIA 219

Recovering Functional Integrity in Pastures Dominated by an Invasive Grass Species (J. Firn, C. Arnold, Y. Buckley)221

NEW AVENUES FOR RESEARCH 237

Conducting integrated Research (R. Burton, K. Rønningen, M.E. Wedderburn).....239

Workshop: Main Outcomes and Recommendations (B. Hubert, on behalf of the Editorial Committee).....267