Forests and Climate Change Working Paper 8

Forests and Climate Change in Eastern Europe and Central Asia

Dr. Csaba Mátyás, Editor

Food and Agriculture Organization of the United Nations
Rome, 2010

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned. The views expressed in this information product are those of the author(s) and do not necessarily reflect the views of FAO.

All rights reserved. FAO encourages the reproduction and dissemination of material in this information product. Non-commercial uses will be authorized free of charge, upon request. Reproduction for resale or other commercial purposes, including educational purposes, may incur fees. Applications for permission to reproduce or disseminate FAO copyright materials, and all queries concerning rights and licences, should be addressed by e-mail to copyright@fao.org or to the Chief, Publishing Policy and Support Branch Office of Knowledge Exchange, Research and Extension, FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy

© FAO 2010

TABLE OF CONTENTS

| Acknowledgements | iv |
|---|------------|
| Foreword | v |
| Acronyms | vi |
| REGIONAL OVERVIEW | 1 |
| ALBANIA | 5 |
| ARMENIA | 19 |
| AZERBAIJAN | 33 |
| BOSNIA AND HERZEGOVINA | 43 |
| GEORGIA | 51 |
| KAZAKHSTAN | 63 |
| KOSOVO | 77 |
| KYRGYZ REPUBLIC | 89 |
| THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA | 9 7 |
| MOLDOVA | 107 |
| SERBIA | 127 |
| TURKEY | 143 |
| TURKMENISTAN | 151 |
| UKRAINE | 157 |
| UZBEKISTAN | 181 |

Acknowledgements

Hubert Inhaizer of FAO's Sub-Regional Office for Central and Eastern Europe was responsible for the conception, planning and organization of the workshop and for commissioning the country reports. Dr. Csaba Mátyás, Head of the Institute of Environment and Earth Sciences, University of West Hungary, provided technical support to the preparation and implementation of the workshop, and served as the technical editor of this volume. The Northern Eurasia Earth Science Partnership Initiative provided support for the workshop.

The following authors prepared the country reports: Haki Kola and Enkeleda Pjetri (Albania); Artur Gevorgyan (Armenia); Ragim Ibragimov (Azerbaijan); Sead Vojnikovic (Boznia and Herzegovina); Paata Torchinava (Georgia); Irina Yesserkepova (Kazakhstan); Ergin Hajredini (Kosovo); Elnura Zholdosheva (Kyrgyz Republic); Nikola Nikolov (Macedonia, FYR); Pavel Gavrilita and Ala Druta (Moldova); Sasa Stamatovic (Serbia); Ünal Asan (Turkey); Akmurat Atamuradov (Turkmenistan); Igor Fedorovich Buksha (Ukraine); and Evgeniy Botman (Uzbekistan).

Muzaffer Dogru and Mustafa Ciftci of the FAO Sub-Regional Office for Central Asia, David Ellul of the FAO/UNECE Timber Section, and Susan Braatz, FAO Headquarters provided technical support to the workshop.

A final technical editing of the document was done by Susan Braatz and language editing by Thorgeir Lawrence. The manuscript was prepared for publication by Simmone Rose with support of Marco Perri.

Foreword

This document is part of the publication series of FAO's Forest and Climate Change Programme. The programme works to strengthen countries' capacities to mitigate and adapt to climate change through actions consistent with sustainable forest management and to promote regional cooperation and international policy development related to forests and climate change.

The primary objective of this document is to provide an overview of forest and climate change issues, actions and areas for cooperation in the Eastern European and Central Asian countries. The country reports included within were prepared and presented at the FAO workshop on "Climate change impacts on forest management in Eastern Europe and Central Asia", which was held in Sopron, Hungary from 14-16 April 2010. The workshop was co-sponsored by FAO's Sub-Regional Office for Central and Eastern Europe, the University of West Hungary (through the project TAMOP 4.2.2), and the Northern Eurasia Earth Science Partnership Initiative. It was also supported by the FAO Sub-Regional Office for Central Asia, the UN-ECE/FAO Timber Section, and FAO Headquarters. The workshop provided an opportunity to take stock of the situation in the region regarding forests and climate change and offered a venue for country representatives and others to exchange experiences, discuss areas of common interest and identify areas for potential collaboration. The proceedings of the workshop are available at: www.fao.org/regional/SEUR/events/sopron/sopron_en.htm

The countries covered in this publication are highly diverse ecologically and socio-economically, but share two distinct features that make them particularly vulnerable to climate change: the transition zone between closed forests and woodlands and forest steppe – a zone highly susceptible to drought - runs through these countries; and, with the exception of Turkey, these countries are in a phase of social and economic transition. Despite these facts, these countries are underrepresented in joint research programmes and international deliberations on climate change. It is hoped that the publication will raise awareness of the specific needs of these countries regarding forests and climate change, in particular regarding climate change adaptation but also mitigation, and will provide a point of departure for identifying and catalyzing regional action to complement and enhance national efforts. We hope that this publication will be of use to specialists and policy-makers in forestry and climate change in the Eastern European and Central Asian countries as well as forest managers, the academic community and the general public interested in learning more about forests and climate change in this region.

Susan Braatz

Senior Forestry Officer, Forests and Climate Change

Forest Conservation Team

Ann M Imat

Forest Assessment, Management and Conservation Division

FAO Forestry Department

Acronyms

A/R Afforestation/Reforestation
CCCM Canadian Climate Centre Model
CDM Clean Development Mechanism
COP Conference of the Parties
DNA Designated National Authority

ERPA Emission Reduction Purchase Agreement

EU European Union

FAO Food and Agriculture Organization of the United Nations

FNC First National Communication FPUA Forest and Pasture User Association GDF General Directorate of Forest [Turkey]

GEF Global Environment Facility

GHG greenhouse gas

GFDL Geophysics Fluid Dynamics Laboratory
GIS geographical information system
GISS Goddard Institute for Space Studies
ICP International Co-operative Programme
INC Initial National Communication

INTAS International Association for the promotion of co-operation with scientists from the

Newly Independent States of the former Soviet Union

IPCC Intergovernmental Panel on Climate Change
IUCN International Union for Conservation of Nature
IUFRO International Union of Forestry Research Organizations
KazNIIEK Kazakh Ecology and Climate Research Institute

KazNIIEK Kazakh Ecology and Climate Research Institute LULUCF Land Use, Land Use Change and Forestry

MAFRD Ministry of Agriculture Forestry and Rural Development [Kosovo]

MDGs Millennium Development Goals

MEP Ministry of Environment Protection of the Republic of Kazakhstan MOE Ministry of Environment Protection and Natural Resources of Georgia

MoEF Ministry of Environment and Forest [Turkey]

MoEFWA Ministry of Environment, Forestry and Water Administration [Albania]

MRV Measurable, Reportable and Verifiable NAMA Nationally Appropriate Mitigation Action

NAP National Action Plan [Albania]

NCBCC National Coordination Board on Climate Change [Turkey] NCCSAP Netherlands Climate Change Studies Assistance Programme

NES National Energy Strategy [Albania] NGO non-governmental organization NRDP Natural Resources Development Project

OECD Organisation for Economic Co-operation and Development

PDD project design document PIN project idea note

REDD Reducing Emissions from Deforestation and Forest Degradation

REU Regional Office for Europe and Central Asia

SFM Sustainable Forest Management SNC Second National Communication

TACIS Technical Aid to the Commonwealth of Independent States

TNA Technology Needs Assessment

UKMO United Kingdom Meteorological Office UNDP United Nations Development Programme UNEP United Nations Environment Programme

UNFCCC United Nations Framework Convention on Climate Change

US CSP US Country Studies Program VCM Voluntary Carbon Market

WG Working Group

WMO World Meteorological Organization