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National forest inventory in Czech Republic

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The National Forest Inventory (NFI) is a large-scale survey of forest status and forest production potential using a uniform procedure for the entire territory of Czech Republic. The first National Inventory was conducted from 2000 to 2004. It became necessary to repeat the survey in order to unify the results from both the Czech statistical office and the forest management plans. The second forest inventory is now being carried out 10 years after the initial inventory, considering the firs...

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Instituto Politécnico de Castelo Branco
Escola Superior Agrária de Castelo Branco

National Forest Inventory in Czech Republic

Ana Catarina Marques Cunha

Dissertação apresentada ao Instituto Politécnico de Castelo Branco para cumprimento dos requisitos necessários à obtenção do grau de Licenciado em Engenharia Agronómica - Ramo Florestal, realizada sob a orientação científica da Doutora Cristina Maria Martins Alegria, Professor Adjunto da Unidade Departamental de Recursos Naturais e Desenvolvimento Sustentável da Escola Superior Agrária do Instituto Politécnico de Castelo Branco. E Engenheiro Richard Slabý, Departamento de Relações Internacionais, Forest Management Institute of Czech Republic, programa ERASMUS.

“Going to the woods is going home”
John Muir

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I might not know where the life's road will take me, but walking with God in my heart, through this journey has given me strength.

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Mom, you have given me so much, thanks for your faith in me, and for teaching me that I should continue no matter what.

Daddy, you always told me "you have to be engineer." I think I got my first diploma. Thanks for inspiring my love for forest.

Keywords: National Forest Inventory; Survey; Forest Status; Methodology.

Abstract

The National Forest Inventory (NFI) is a large-scale survey of forest status and forest production potential using a uniform procedure for the entire territory of Czech Republic. The first National Inventory was conducted from 2000 to 2004. It became necessary to repeat the survey in order to unify the results from both the Czech statistical office and the forest management plans. The second forest inventory is now being carried out 10 years after the initial inventory, considering the first as reference. This report includes both the methodology of the second NFI and the evaluation of present forest data. One goal of the second NFI is to develop simpler and more accurate methods for correlating forest growth and volume with the measurements made on the stands. The National Forest Inventory can support other surveys for comparison purposes.

Palavras chave: Inventário Florestal Nacional; Informação; Condição da Floresta; Metodologia

Resumo

O Inventário Florestal Nacional (IFN) é uma pesquisa em larga escala e uniforme para todo o território da República Checa acerca da condição da floresta e o seu potencial de produção. O primeiro inventário nacional foi realizado de 2000 a 2004. Tornou-se porém, necessário repeti-lo, com a finalidade de unificar os resultados estatísticos nacionais e os planos de gestão florestal. O segundo inventário florestal está a realizar-se 10 anos após o inventário inicial, considerando o primeiro como referência. Este relatório documenta a metodologia do segundo IFN e a avaliação dos resultados actuais. Um dos objectivos do segundo inventário florestal é o desenvolvimento de métodos mais simples e precisos de correlação entre o crescimento e volume florestal com as medições efectuadas nas parcelas. O Inventário Florestal Nacional pretende também criar informação que possa vir a ser usada em comparações a nível internacional.

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List of abbreviations

CZ - Czech Republic (name used since 1993)

dbh - Diameter at breast height

DW - Data Warehouse

FCR - Forests of the Czech Republic, state enterprise

FMI - Forest management institute Brandýs nad Labem

FGM - Forest management guidelines

FMP - Forest management plan

GIS - Geographic information system

GPS - Global positioning system

Ha - metric unit of area defined as 10,000 square meters (100 m by 100 m)

IDC FMI - Information and Data Centre (organisation unit of FMI)

IFER - Institute of Forest Ecosystem Research

IUFRO - International Union of Forest Research Organizations

Km² - Square kilometer, 1 km² is equal to: 1,000,000 m²

NFI - National Forest Inventory

NFP - National Forest Programme

o.b. - Outboard

FDRP - Forest Development Regional Plans

RS - Remote sensing

SF - State Forests

UNEP - United Nations Environment Programme

UHUL - Ústav pro hospodářskou úpravu lesů Brandýs nad Labem