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LIST OF ABBREVIATIONS

3PG	Physiological Principles Predicting Growth
AET	annual actual evapotranspiration
AGC	above-ground carbon
BIO	Microbial Biomass
CAMAg	Carbon Accounting Model for Agriculture - Cropping and grazing
CAMFor	Carbon Accounting Model for Forestry
CH4	Methane
CO ₂	Carbon dioxide
DDF	Dry Dipterocarpus Forest
DEF	Dry Evergreen Forest
DPM	Decomposable Plant Material
EC	European Commission
ECOSSE	Estimate Carbon in Organic Soils – Sequestration and Emissions
EU27	European Union 27 countries
FAO	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
FORRU	Forest Restoration Research Unit
FullCAM	The Full Carbon Accounting Model
GENDEC	GENeral microbial mulch DECay model
GHGs	Green house gases
HUM	Humified Organic Matter
IEA	International Energy Agency
IPCC	Intergovernmental Panel on Climate Change
MAP	mean annual precipitation
MAT CCC	mean annual precipitation mean annual temperature
MDF	Mixed Deciduous Forest
MODIS	Moderate Resolution Imaging Spectroradiometer
N2O	Nitrous oxide Net primary production
NPP	The primary production
NRC	National Research Council
OC DED	organic carbon
RED	Reducing emissions from deforestation
REDD	Reducing emissions from deforestation and forest degradation
RFD	Royal Forest Department
NRC	National Research Council
OC RED	organic carbon Reducing emissions from deformation
RED	Reducing emissions from deforestation
REDD	Reducing emissions from deforestation and forest degradation

LIST OF ABBREVIATIONS (continued)

RothC	Rothamsted Soil Carbon Model
RPM	Resistant Plant Material
SIC	Soil inorganic carbon
SOC	Soil organic carbon
SOM	Soil organic matter
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNPD	United Nations Population Division



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ข้อความแห่งการริเริ่ม

- ถึงแม้งานวิจัยทางด้านการกักเก็บคาร์บอนเหนือดินจะมีการรวบรวมแล้วทั้งส่วนของป่า ธรรมชาติและป่าปลูก แต่ยังกงขาดข้อมูลของป่าที่เกิดจากการฟื้นฟู โดยเฉพาะความรู้ทางด้าน การ์บอนใต้ดิน
- อินทรีย์การ์บอนในดิน เป็นแหล่งกักเก็บการ์บอนที่สำคัญ อีกทั้งยังมีส่วนช่วยในเรื่องกวาม อุดมสมบูรณ์ของดิน การเจริญเติบโตของพืชและกวามสามารถในการฟื้นตัวของป่า
- การสร้างความเข้าใจในกลไกของพลวัตเศษซากพืชและการสะสมในรูปแบบของอินทรีย์ คาร์บอนในดิน นำไปสู่ประสิทธิภาพของการฟื้นฟูป่าที่ได้ผลมากขึ้น



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STATEMENT OF ORIGINALITY

- 1. Although much research has been done on carbon sequestration in mature forests and in plantations particularly with regard to above ground carbon, little attention has been paid to the potential for forest restoration to sequester carbon, particularly in the soils.
- 2. Soil organic matter is a major contribution to the soil nutrient pool required for maintaining soil fertility, plant growth and ultimately the capacity for forest regeneration.
- 3. Increased understanding of the dynamics of litterfall and accumulation of soil organic matter can ultimately lead to better forest restoration strategies.



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