ASSESSMENT OF DIFFERENT SOIL FERTILITY AND HOUSEHOLD INCOME OF THE SMALL SCALE FARMERS IN YEN CHAU DISTRICT, SON LA PROVINCE, VIETNAM

NGUYEN SANG

MASTER OF SCIENCE
IN SUSTAINABLE AGRICULTURE AND INTEGRATED
WATERSHED MANAGEMENT

Copyright by Chiang Mai University
THE GRADUATE SCHOOL
CHIANG MAI UNIVERSITY
JULY 2011

ASSESSMENT OF DIFFERENT SOIL FERTILITY AND
HOUSEHOLD INCOME OF THE SMALL SCALE
FARMERS IN YEN CHAU DISTRICT,
SON LA PROVINCE, VIETNAM

NGUYEN SANG

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF SCIENCE
IN SUSTAINABLE AGRICULTURE AND INTEGRATED
WATERSHED MANAGEMENT

Copyright by Chiang Mai University

THE GRADUATE SCHOOL

CHIANG MAI UNIVERSITY

JULY 2011

ASSESSMENT OF DIFFERENT SOIL FERTILITY AND HOUSEHOLD INCOME OF THE SMALL SCALE FARMERS IN YEN CHAU DISTRICT, SON LA PROVINCE, VIETNAM

NGUYEN SANG

THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN SUSTAINABLE AGRICULTURE AND INTEGRATED WATERSHED MANAGEMENT

THESIS ADVISORY COMMITTEE **EXAMINING COMMITTEE**

J.Inthoson.

Prof. Dr. Karl Stahr

Dr. Jiraporn Inthansan

...MEMBER

Prof. Dr. Karl Stahr

Mattiga P....CO-ADVISOR Prof. Dr. Mattiga Panomtaranichagul

Member P. MEMBER Prof. Dr. Mattiga Panomtaranichagul

15 July 2011

© Copyright by Chiang Mai University

Acknowledgements

Firstly, I would like to give many thanks to my first supervisor, Prof. Dr. Karl Stahr for the opportunity to work on interesting topic, fruitful ideas and encouragement during the study.

And I also would like to thank Prof. Dr. Mattiga Panomtaranichagul for accepting to be my co - supervisor.

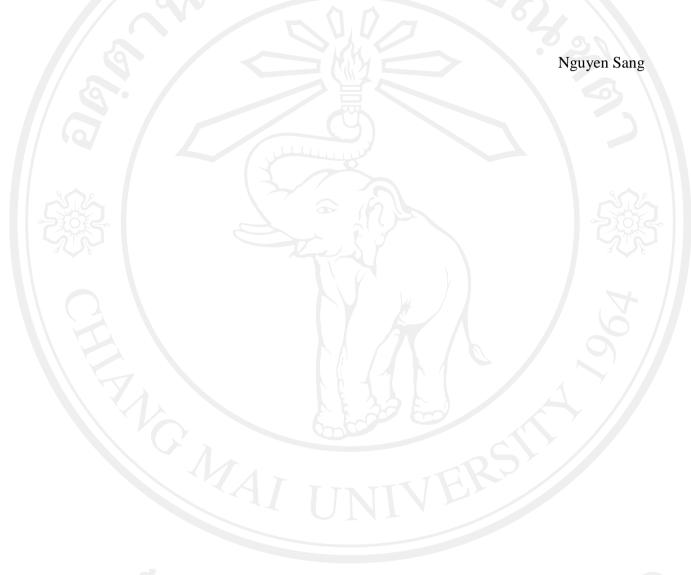
To express heartfelt thanks to second co - supervisor, Dr. Gerhard Clemens for a lot of his time for great knowledge and skills on field works, so helpful guide and revising report, also for running around of technical troubles and the patience during my study.

I sincerely thank DAAD foundation, Germany for financial supporting for my studying in Germany and Thailand in the two years. Thank go also to subproject B4, The Uplands Program of Hohenheim University, funded by the Deutche Forschungsgemeinschaft, Germany (DFG) for additional funds for field data collection.

I am also grateful to Dr. Holger Fischer, who provided me much support on advices and comments. To friendly colleagues of Upland Program in Vietnam, Nguyen Dinh Cong, La Nguyen, Dang Viet Quang, Bui Van Vinh, Volker Haring and Nguyen Thi Lam Hong, I would like to thank sincerely for very helpful data, and knowledge, special the encouragement and cooperation.

Also to friendly farmers in Yen Chau district in Vietnam, Lo Van Hac, Lu Van Yen, Vi Van Yen, Luong Van Bien, Hoang Van Tuan and Lo Thi Bau, thanks for great knowledge of beautiful soil profiles, great management of transportation and fruitful time in Yen Chau.

I express my sincere gratitude to my family, Mr. Nguyen Xuan Do and Mrs. Le Thi Thanh my parents, my sisters, brother and Ms. Tran Thi Thanh Xuan, who are always beside me anytime, and anywhere.



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม Copyright[©] by Chiang Mai University All rights reserved