



RENPER 5 CONFERENCE

OCTOBER 22-24, 2014
HO CHI MINH CITY, VIETNAM

HOSTED BY
BANKING UNIVERSITY OF HOCHIMINH CITY
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WEDNESDAY, OCTOBER 22 (DAY 1)

REGISTRATION: 08:00 - 09:00

OPENING SPEECH: 09:00 – 10:00

Room: TBA

Introduction

Welcome Speech, Ly Hoang Anh, The president of BUH

RENPER Chairman

Representative from State Bank of Viet Nam

COFFEE BREAK: 10:00 - 10:30

SESSION 1: 10.30 – 12.30

(1A) POVERTY ERADICATION

Room: TBA

Chair: Ir. Fahrurrozi

Vulnerability to Poverty in Malaysia: What Longitudinal Data Can Tell Us?

Author: Abdelhak Senadjki, Universiti Tunku Abdul Rahman, Perak; Jamalludin Sulaiman; Saidatulakmal Mohd, Universiti Sains Malaysia, Penang. Malaysia

Presenter: Abdelhak Senadjki

Poverty eradication through non-Governmental organizations (NGOs): the role of the Philippine council for NGO certification (pcnc)

Author: Tita Evasco-Branzuela, San Beda College, Phillipines

Presenter: Tita Evasco-Branzuela

The determinants of poverty: a study in Mekong delta

Author: Do Hoang Oanh, Banking University of Ho Chi Minh City, Vietnam *Presenter:*
Do Hoang Oanh

Measuring poverty among elderly Malaysians

Author: Jariah Masud; Sharifah Azizah Haron, Institute of Gerontology, UPM, Malaysia
Presenter: Jariah Masud

Vietnam's poverty during the last 7 decades: lessons to be learnt

Author: Luong Ngọc Bích, Banking University of Ho Chi Minh City, Vietnam *Presenter:*
Luong Ngọc Bích

(1B) BUSINESS AND FINANCE

Room: TBA

Chair: Mohd Rafi Bin Yaacob

Building Econometric Model for Inflation and Unemployment Rate in Vietnam and Myanmar

Author: Dinh Tran Ngoc Huy, International University of Japan, Vietnam
Presenter: Dinh Tran Ngoc Huy

The Role of Microfinance In The Development Of Petty Traders In Penang: The Case Of Program Titian Saksama Rakyat (Ptrs)

Author: Dalilah Yusoff; Mohd Zaini Omar; Fatimah Hassan, Penang Development Corporation, Malaysia
Presenter: Dalilah Yusoff

Financial performance and outreach of microfinance

Author: Phạm Ngọc Tường Loan, Banking University of Ho Chi Minh city; Nguyễn Tấn Huy-University of Reading, UK
Presenter: Phạm Ngọc Tường Loan, Nguyễn Tấn Huy

Vietnam Enterprise With Green Economy Development: Opportunities and Challenges

Author: Doan Thanh Ha , Banking University of Ho Chi Minh City, Vietnam *Presenter:*
Doan Thanh Ha

Housing Financial Solutions For Low-Income Households In Vietnam

Author: Ngoc Le Thanh, Banking University of Ho Chi Minh City, Vietnam *Presenter:*
Ngoc Le Thanh

(1C) CULTURE, SOCIAL RESPONSIBILITY AND HEALTH CONCERN

Room: TBA

Chair: Titiek Kartika Hendrastiti

Does Corporate Social Responsibility Enhance Trust and Quality of Work Life of Workers?

Author: Nguyen Dinh Tho; Nguyen Dong Phong; Tran Ha Minh Quan, University of Economics HCM City, Vietnam

Presenter: Nguyen Dinh Tho

Fostering Character by Humanism Religious Approach: A Case Study of Islamic Education in Indonesia

Author: Muhammad Thoriq Fauzan, The State Islamic Institute of Surakarta (IAIN); Luthfia Khoirunnisa, Gadjah Mada University (UGM), Indonesia

Presenter: Muhammad Thoriq Fauzan

Micro Economic Impacts of International Migration

Author: A. S. A. Ferdous Alam; Halima Begum; Chamhuri Siwar; Basri Talib; Md. Anwar Hossain Bhuiyan; Rahmah Elfithri, Universiti Kebangsaan Malaysia, Malaysia

Presenter: A. S. A. Ferdous Alam

Art and Culture – Crisis of Space in the Society: An evolutionary essay

Author: Banhi Chakraborty, Indian Institute of Technology, Indonesia

Presenter: Banhi Chakraborty

Social counterargument and its role for the economic sustainable development in market economy

Author: Dang Danh Loi, University of Security; Nguyen Thi Thu Lai, Banking University of Ho Chi Minh city, Vietnam

Presenter: Nguyen Thi Thu Lai

1(D) AGRICULTURAL ECONOMICS

Room: TBA

Chair: Sarker Mohammad Rezaul Karim

Empowering The Smallholder Farmers To Gain More Profitable Rice Production
Author: Mohammad Chozin, Sumardi, Sigit Sudjtmiko, University of Bengkulu, Indonesia
Presenter: Mohammad Chozin

Potential of Clay Based Industry In Malaysia For Poverty Alleviation: A Brief Overview
Author: M.A. Sulaiman, M.N. Masri, M.B. Abu Bakar, Mazlan Mohamed and Mohammad Amizi. A, UMK, Malaysia
Presenter: Muhammad Azwadi Bin Sulaiman

Assessment of the current situation, and to propose technical and market solutions in cattle production in the north-western highland of Vietnam contributing to sustainable poverty reduction
Author: Nguyen Hung Quang, Mai Anh Khoa, Phan Dinh Tham, Thai Nguyen University of Agriculture and Forestry – TUAf, Vietnam; Stephen Ives, Tasmania University - UTAS, Australia
Presenter: Nguyen Hung Quang

Kenaf Fibre (Kf) As Value Added Material In Biocomposite Industry
Author: M.B. Abu Bakar, M.A. Sulaiman, M.N. Masri, Mazlan Mohamed, Mohammad Amizi A. and M.S. Salim, UMK and Universiti Sains Malaysia, Malaysia
Presenter: Mohamad Bashree Bin Abu Bakar

Role of Service Of Sundarban Mangrove Forest For Poverty Eradication In Southern Part Of Rural Bangladesh
Author: Mohammed Abdus Salam, Siti Fazlin Othman, Razak Wahab, Hashim Md Noor, Nazahatul Anis Amaludin, UMK, Malaysia
Presenter: Mohammed Abdus Salam

SESSION 2: 14.00 – 16.00

(2A) GENDER EQUALITY AND COMMUNITY ACTIVITIES

Room: TBA
Chair: Ngo Vi Trong

Developing single mother development model: a strategy of poverty eradication through entrepreneurship program

Author: Mohammad Ismail; Nadia Hanum Amiruddin; Razli Che Razak; Mohd Rafi Yaacob; Mohd Nazri Zakaria, Universiti Malaysia Kelantan, Malaysia
Presenter: Mohammad Ismail

Centering Vulnerable Interests: The Making of Women's Protection Model from the Field Lessons

Author: Titiek Kartika Hendrastiti; Irna Riza, University of Bengkulu, Indonesia *Presenter: Titiek Kartika Hendrastiti*

Women Entrepreneurship in Peripheral Fishing Area: Are They Real Entrepreneurs?

Author: Nik Maheran Nik Muhammad, UMK; Wan Zumusni Wan Mustafa; Norhayati Abd. Muin, Universiti Teknologi MARA, Malaysia
Presenter: Nik Maheran Nik Muhammad

Profiles of women in recycling business in the least developed states in Malaysia – an alternative enterprise?

Author: Mohd Rafi Bin Yaacob, UMK, Malaysia
Presenter: Mohd Rafi Bin Yaacob

(2B) POVERTY ERADICATION

Room: TBA

Chair: Ha Thi Thieu Dao

Impact of Recent Changes in Agriculture on Poverty Status in Bangladesh

Author: Md. Ruhul Amin, University Malaysia Kelantan, Malaysia
Presenter: Md. Ruhul Amin

Proposing Poverty-Eradication Model: The Role Of Entrepreneurship, Waqf And Education In Indonesia

Author: Chandra Suparno, Indonesia
Presenter: Chandra Suparno

Some Solutions to Reinforce Efficiency Against Hunger and Poverty in Vietnam

Author: Ngo Van Tuan, Banking University Ho Chi Minh City, Vietnam
Presenter: Ngo Van Tuan

Hunger, Poverty And Poverty Alleviation Policy In Vietnam

Author: Nguyen The Binh, Banking University Ho Chi Minh City, Vietnam
Presenter: Nguyen The Binh

Income Components And Poverty Among Older Men And Women In Malaysia

Author: Norisma Aiza Ismail; Jariah Masud; Zumilah Zainalaludin, Institute of Gerontology-
Universiti Putra Malaysia
Presenter: Norisma Aiza Ismail

(2C) AGRICULTURAL ECONOMICS

Room: TBA

Chair: Md. Ruhul Amin

Meliponiculture – An alternate source of nutrition and income to villagers.

Author: Kumara, T.K.; Arifullah, M., Farisya, M.S. & Abu Hassan, A. Kumara, T.K, University
Malaysia Kelantan, Malaysia
Presenter: Kumara, T.K.

Secret of Mangrove Forest: Potency and Utilization

Author: Eka Dhamayanti, Indonesia
Presenter: Kamil Ismail

Sustainability of Oil Palm Smallholders: the Environment, Social and Economic
perspectives.

Author: Halima Begum; Er A C; A. S. A. Ferdous Alam; Rafiqul Islam, Universiti Kebangsaan
Malaysia, Malaysia
Presenter: Halima Begum

Critical factors impact on service activities of agricultural cooperatives in Vietnam

Author: Ly Hoang Anh, Banking University of HCM, Vietnam
Presenter: Ly Hoang Anh

Humid Tropical Highland of Bengkulu

Author: Nanik Setyowati; Sigit Sudjatmiko; Zainal Muktamar; Fahrurrozi, University of
Bengkulu, Indonesia
Presenter: Nanik Setyowati

(2D) CULTURE, SOCIAL RESPONSIBILITY AND HEALTH CONCERN

Room: TBA

Chair: Che Zaliha Shahrums Taib

Problems of Development Participation Among Orang Asli In Malaysia: Sungai Berua Village Cases, Terengganu

Author: Ramle Abdullah, Mohamad Hafis Amat Simin, Mohamad Asmawi Ibrahim, Universiti Sultan Zainal Abidin, Malaysia

Presenter: Ramle Abdullah

Homelessness in Malaysia: victims of circumstance or by choice?

Author: Wee Yu Ghee, Raja Norliana Binti Raja Omar, UMK, Malaysia

Presenter: Wee Yu Ghee

Banking University of Ho Chi Minh City in supporting national program building new rural areas

Author: Ly Hoang Anh & Nguyen Thi Huyen Trang, Banking University of HCMC, Vietnam

Presenter: Nguyen Thi Huyen Trang

Law enforcement in fisheries licenses in Bengkulu city as an effort to perform sustainable fishery community

Author: Ema Septaria, University of Bengkulu, Malaysia

Presenter: Ema Septaria

Number of Family Members and Family Business Status Explained the Leadership Position in Communal Activity of Food Processing Entrepreneur for Poverty Eradication in Rural Malaysia

Author: Zumilah Zainalaludin; Jariah Masud; Norisma Aiza Ismail, Universiti Putra Malaysia, Malaysia

Presenter: Zumilah Zainalaludin

Economic empowerment hunting and gathering community in Malaysia through ecotourism activities in the national park

Author: Asmawi Ibrahim; Ramle Abdullah; Hafis Amat Simin, University of Sultan Zainal Abidin, Malaysia

Presenter: Asmawi Ibrahim

COFFEE BREAK: 16.30 - 17.00

DINNER: 18.00 -

THURSDAY, OCTOBER 23 (DAY 2)

SESSION 3: 08:00 – 10.00

(3A) BUSINESS AND FINANCE

Room: TBA

Chair: Nik Maheran Binti Nik Muhammad

Marketing strategies for street vendors in Ho Chi Minh city, Vietnam

Author: Dinh Thu Quynh, Banking University of Ho Chi Minh City, Vietnam *Presenter: Dinh Thu Quynh*

Counterfeits and their costs

Author: Nguyen Thi Mai Trang, University of Economics-Law; Pham Thi My Hien, UEH International School of Business, University of Economics HCM City, Vietnam
Presenter: Nguyen Thi Mai Trang

Adaptability of Vietnamese SMEs toward outsourcing trend

Author: Nguyen T. H. Tran; Chen Shi-Liang; Thong A Van; Truong H. A. Tho; To Thuy Trang; Tran T. P. Thuy; Foreign Trade University, Vietnam, Asia University, National Chi Nan University, Taiwan
Presenter: To Thuy Trang

Rural tourism – new path to famine elimination and poverty reduction

Author: Do Thi Mai Hoang Ha; Phan Dang Bao Anh; Nguyen Vinh Long, University of Finance – Marketing, Vietnam
Presenter: Do Thi Mai Hoang Ha

Impact evaluation of tang loong copper-refining factory on the surroundings' livelihood

Author: Le Thi Yen; Pham Le Van; Nguyen Van Thinh, Thai Nguyen University of economics and business administration (TUEBA), Vietnam
Presenter: Le Thi Yen

(3B) AGRICULTURAL ECONOMICS

Room: TBA

Chair: Imad Ibrahim Ali Al-Sultan

Highlighting the Important Role of Farmer's wife in Organic Farming: Learn from the Development of Closed Agriculture Production System in Air Duku Village, Bengkulu, Indonesia

Author: Zainal Mukhtar; Djonet Santoso, University of Bengkulu, Bengkulu Indonesia

Presenter: Zainal Mukhtar

Establishment Sweet Corn Based Multiple Cropping: In Closed Agricultural Production Systems at Air Duku Village, Rejang Lebong Highland: Challenges and Opportunities

Author: Fahrurrozi; Nanik Setyowati; Sigit Sudjatmiko; M. Chozin Fahrurrozi, University of Bengkulu, Indonesia

Presenter: Fahrurrozi

Sustainability of households' seafood processing activities in Mekong Delta

Author: Xuan Minh Nguyen; Quoc Trung Tran, Foreign Trade University, Vietnam

Presenter: Quoc Trung Tran

Closed farming system: can the farmers maintain soil fertility?

Author: Sigit Sudjatmiko; Zainal Mukhtar; Nanik Setyowati; Fahrurrozi, University of Bengkulu, Indonesia

Presenter: Sigit Sudjatmiko

Weed Sourced Organic Fertilizer for Vegetable Production in Closed Agriculture System in Humid Tropical Highland of Bengkulu

Author: Nanik Setyowati, University of Bengkulu

Presenter: Nanik Setyowati

(3C) EDUCATION AND EMPLOYMENT

Room: TBA

Chair: Rosdi Bin Ab. Rahman

Unemployment, Poverty and Indonesian Overseas Workers

Author: Erni Panca Kurniasih, Universitas Tanjungpura, Pontianak, Indonesia; Fariastuti Djafar, Universiti Malaysia Sarawak (UNIMAS), Malaysia

Presenter: Fariastuti Djafar

Solutions create employments for rural employees in Vietnam

Author: Hoang Thi Thanh Hang, Banking University of HCM, Vietnam

Presenter: Hoang Thi Thanh Hang

Poverty eliminates with Education

Author: Moma Yuni Anty Sihotang, University of Indonesia

Presenter: Moma Yuni Anty Sihotang

The impact of Education on the development of Vietnam

Author: Nguyen Thi My Hanh, Banking University of Ho Chi Minh City, Vietnam *Presenter:*

Nguyen Thi My Hanh

The Determinants Of High School Dropout In Rural Areas Of Mekong Delta

Author: Lam Quang Loc; Tran Minh Tam, Banking University of Ho Chi Minh City, Vietnam

Presenter: Lam Quang Loc

COFFEE BREAK: 10.00 – 10.30

SESSION 4: 10.30 – 12.30

(4A) POVERTY REDUCTION

Room: TBA

Chair: Le Ho An Chau

Where is the poverty line in Malaysia?

Author: S. M. Rezaul Karim; Norhafizah Binti Md Zain, Universiti Malaysia Kelantan, Malaysia

Presenter: S. M. Rezaul Karim

Getting out of poverty: cases of art activists turned entrepreneurs

Author: Farok Zakaria, Universiti Malaysia Kelantan, Malaysia

Presenter: Farok Zakaria

Poor households' credit accessibility: the case of rural Vietnam

Author: Ha Thi Thieu Dao; Nguyen Thi Mai; Nguyen Thien Kim, Banking University of HCMC, Vietnam

Presenter: Nguyen Thien Kim

Poverty: An assessment of the efforts undertaken in Malaysia

Author: Rosdi Ab Rahman, Universiti Malaysia Kelantan, Malaysia

Presenter: Rosdi Ab Rahman

Some countries' experience in stable poverty reduction

Author: Phan Dien Vy, Le Thi Thanh Huyen, Banking University of Ho Chi Minh City, Vietnam

Presenter: Phan Dien Vy

(4B) CULTURE, SOCIAL RESPONSIBILITY AND HEALTH CONCERN

Room: TBA

Chair: Imad Ibrahim Ali Al-Sultan

Public spaces as micro architecture- safety for people with disability (PWD)

Author: Che Zaliha Shahrum Taib, Universiti Kebangsaan Malaysia(UKM), Malaysia

Presenter: Che Zaliha Shahrum Taib

The potential use of melastoma malabatricumextract as natural anthelmintic againts Haemonchus contortus of goat for small farmer in Bengkulu

Author: Tatik Suteky; Dwatmadji; Edi Sutrisno, University of Bengkulu, Indonesia *Presenter:*

Tatik Suteky

Natural colour, flavour and fragrance in *vitex trifolia-simplicifolia* leaf with antioxidant and anticancer properties

Author: Aweng, E.R.; Nur Hanisah; A. Anwar Ismail, Universiti Malaysia Kelantan, Malaysia

Presenter: *Madya Dr. Aweng A/L Eh Rak*

The reflection of corrupted government on poverty: Iraq case

Author: Imad Ibrahim Al-Sultan; S. Jasni; Wajdi Anwar Mardan, University Malaysia Kelantan, Malaysia

Presenter: *Imad Ibrahim Al-Sultan*

Conservation of rafflesia and alternative livelihood: a case study of the temiar ethnic in lojing highlands, Kelantan, Malaysia

Author: Zulhazman Hamzah; Nurqayyum Nadia Wan Arifin; Nasihah Mokhtar, University Malaysia Kelantan, Malaysia

Presenter: *Zulhazman Hamzah*

(4C) BUSINESS AND FINANCE

Room: TBA

Chair: Mohammad Bin Ismail

Green Banking: Sustainable Strategies for Bank Financing in Vietnam

Author: Vo Thi Thanh Nga, Banking University of Ho Chi Minh City, Vietnam

Presenter: *Vo Thi Thanh Nga*

Enhancing competitive through Branding Strategy: Lesson Learn From Calamansi Syrup OVOP Bengkulu

Wahyu Widiastuti, Artety sumeri, University of Bengkulu, Malaysia

Presenter: *Wahyu Widiastuti*

Determinants of economic performance of provinces and cities in Vietnam

Author: Le Trung Nhan, Nguyen Van Tung, Banking University of HCMC, Vietnam

Presenter: *Le Trung Nhan*

Impact of economic growth on sustainable poverty reduction in Binh Duong - situation and solutions

Author: Bui Thanh Xuan, Thu Dau Mot University, Vietnam

Presenter: Bui Thanh Xuan

LUNCH: 12.20 – 14.00

SESSION 5: 14.00 – 16.00

(5A) AGRICULTURAL ECONOMICS

Room: TBA

Chair: Nanik Setyowati

Factors affecting beef cattle sharing (gaduhan) program to alleviate poverty in district of Bengkulu tengah – province of Bengkulu, Indonesia

Author: Dwatmadji; Tatik Suteky, University of Bengkulu, Malaysia *Presenter: Dwatmadji*

Developing Agribusiness Centre in Campus for Traditional Farmers in Jeli Kelantan

Author: Mohammad Amizi A.; Jamaluddin, M.H.; Suhaimi O.; Abdul Hamid H. M. I.; Fatimah Kayat.; N.N Azwanida; M. Mazlan; M.B Abu Bakar, Universiti Malaysia Kelantan, Malaysia
Presenter: Mohammad Amizi A

Low Cost Nursery Technology for Mass Propagation of Banana Seedling by Small Scale Growers

Author: Suhaimi, O.; Ahmad Yusuf, M.K, University Malaysia Kelantan, Malaysia *Presenter: Suhaimi, O.*

Settlement Household Livelihoods for Poor Fishermen: The case of Cam Ranh reservoir, Khanh Hoa Province

Author: Ha Thi Thieu Dao, Banking University; Pham Hong Manh, Nha Trang University, Vietnam

Presenter: Pham Hong Manh

Oil Palm Fronds (OPF) as Alternatives of Affordable Source Ruminant Livestock feeds for Small Holders and Traditional Farmers

Author: Amizi, A.; Abdul Hamid H.M; Zulhisyam A.K.; Seri Intan Mokhtar.; Zul Ariff Abdul Latiff ; M.A Sulaiman; M.N Masri, University Malaysia Kelantan, Malaysia

Presenter: Mohammad Amizi Ayob

Sedimentary nutrient status and water quality assessment of tumpat mangrove swamp forest at kelantan delta

Author: Mohammed Abdus Salam, Siti Fazlin Othman, Razak Wahab, Hashim Md Noor, Nazahatul Anis Amaludin, UMK, Malaysia

Presenter: Mohammed Abdus Salam

(5B) ENVIRONMENT AND ENERGY

Room: TBA

Chair: Madya Dr. Aweng A/L Eh Rak

Energy efficiency as a stepping stone for sustainable development: some insights in developing country

Author: Norzalina Zainudin, Chamhuri Siwar , Er Ah Choy & Norshamliza Chamhuri, Selangor International Islamic University College, Malaysia

Presenter: Norzalina Zainudin

Model of eco-industrial parks solution sustainable development of industrial parks in Vietnam

Author: Ly Hoang Anh, Banking University of Ho Chi Minh city; Pham Nguyen Ngoc Anh, University of Economics HCM City, Vietnam

Presenter: Pham Nguyen Ngoc Anh

A brief review on potential of sago as an alternatives natural resources for green energy in rural area

Author: M.N. Masri, M.A. Sulaiman, Mohammad Amizi A., M. Mazlan and M.B Abu Bakar, UMK, Malaysia

Presenter: Mohamad Najmi Bin Masri

Parthenium weed invasion of Malaysia: A possibility of natural disaster and poverty in rural livelihood

Author: S. M. Rezaul Karim Fatimah bt. Changgrok @ Kayat, Nur Zafirah Binti Zulkifli,
Universiti Malaysia Kelantan, Malaysia
Presenter: S. M. Rezaul Karim,

A brief review on potential of sago as an alternatives natural resources for green energy in rural area
Author: Mohamad Najmi Bin Masri, UMK, Malaysia
Presenter: Mohamad Najmi Bin Masri

Sustainable development of industrial parks in Binh Duong province - research from environmental issues
Author: Pham Nguyen Ngoc Anh, University of Economics HCM City, Vietnam; Tran Mai Uoc, Banking University of Ho Chi Minh City, Vietnam
Presenter: Pham Nguyen Ngoc Anh

(5C) BUSINESS AND FINANCE

Room: TBA
Chair: Nguyen Tran Phuc

Accessibility to credit of small medium enterprises in Vietnam
Author: Ha Thi Thieu Dao; Nguyen Thien Kim, Banking University of Ho Chi Minh city, HCMC; Nguyen Thi Mai, Foreign Trade University, Vietnam
Presenter: Ha Thi Thieu Dao

Link of Fiscal Decentralization to Poverty Reduction: Indonesian Context
Author: Sita Dewi Kusumaningrum, Universitas Islam Indonesia; Denny Purwo Sambodo, Indonesia.
Presenter: Sita Dewi Kusumaningrum

Managing trade-offs between financial performance and social impact in microfinance.
Author: Ngo Vi Trong, Banking University of Ho Chi Minh City, Vietnam *Presenter: Ngo Vi Trong*

Application of grameen bank model in supporting for poverty eradication in viet nam: achievements, limitations and solutions for future
Author: Akinori Seki, Tokyo Keizai University; Nguyen Thi Minh Xuan, Research Assistant of Asia Association Education and Exchange (Japan), Huynh Luu Duc Toan, Banking University of Ho Chi Minh City, Vietnam *Presenter: Huynh Luu Duc Toan*

Micro-finance and sustainable poverty reduction in Vietnam
Author: Duong Nguyen Thanh; Tam Tran The Sao, HCMC Open University
Presenter: Tam Tran The Sao

CONFERENCE CLOSING CEREMONY: 16.30 – 17.30

DINNER: 18.00 – 20.00

Submitted papers without presentation

Impact of FDI on Poverty reduction in Viet Nam: A PANEL DATA ANALYSIS Nguyen Tran Phuc, Banking University of Ho Chi Minh City, Vietnam

Education - an important way for
Ly Thi Hue, National Academy of Administration (Hanoi), Vietnam

Cassava - a sustainable - poverty reduction crop in the northern mountainous region of Vietnam
Nguyen Viet Hung, Nguyen The Hung, Thai Thi Ngoc Tram , Nguyen Thi Minh Ngoc, Pham Thi Thanh Huyen, Nguyen Thi Phuong Chi, Thai Nguyen University of Agriculture and Forestry

Short-term Precaution, insurance and savings mechanisms in Rural Viet Nam Ha Văn Dung, University of Paderborn, Warburber Str

The Application of Participatory Prospective Analyses to Devise Women Empowerment Programs for Reducing Poverty: Case Study of South Bengkulu Regency, Bengkulu Province, Indonesia
Agustina Erni; Pribudiarta N. Sitepu; Indra Gunawan; Teguh Adiprasetyo; Rohidin Mersyah, Indonesia

THE POTENTIAL USE OF *Melastoma malabatricum* EXTRACT AS NATURAL ANTHELMINTIC
AGAINST *Haemonchus contortus* OF GOAT FOR SMALL FARMER IN BENGKULU

Tatik Suteky, Dwatmadji and Edi Sutrisno

Department of Animal Science Faculty of Agriculture University of Bengkulu

Tatiksuteky.2008@yahoo.com

ABSTRACT

Livestock development could contribute directly on rural poverty alleviation, as livelihood of 1.1 billion rural farmer depend on livestock production. Gastro intestinal parasite mainly *Haemonchus contortus* infestations are major limitation on livestock production system in all over the world including Bengkulu, Indonesia. The financial losses due to the parasite have a major impact on farm profitability especially for smallholder farmer. It was estimated annual treatment costs for gastro intestinal parasite infection in small ruminant is up to US \$103 million a year. That disease also cause great economic losses through decreased production, loss of weight, additional labour require to handling sick animal and death of infected goat, the mortality rate due to gastro intestinal parasite *Haemonchus contortus* infection in goat reach 66.7%. The treatment of parasitic infection has been traditionally through using sintectic anthelmintic, however control of parasite is quiet complicated due to high cost of sintetic anthelmintic, avalability in rural area and wide spread of anthelmintic resistance. The use natural anthelmintic from plan (*Melastoma malabatricum*) commonly browse by small animal has been proposed as an alternatif method to control gastro intestinal parasite especially *Haemonchus contortus*. Our research showed that *Melastoma malabatricum* extract have in vitro ability to reduce egg hatch assay and larva development assay. In vivo study revealed that the use extract *Melastoma malabatricum* as an alternative anthelmintic increase productivity and decrease mortality rate of goat infected with *Haemonchus contortus*. The practical implication of our research is *Melastoma malabatricum* extract could be used as natural anthelmintic against *Haemonchus contortus*

Key word: *Melastoma malabatricum*, *Haemonchus contortus*, small farmer, Bengkulu

INTRODUCTION

Increasing the demand of protein from animal origin, could contribute directly on rural poverty alleviation, as livelihood of 1.1 billion rural farmer depend on livestock production. According to Ciamara (2007) an estimated 42 percent of the poor worldwide being dependent on livestock as part of their livelihood. The contributions of small ruminant range from source of protein, stable house hold and promote of food security. Small ruminant (goat and sheep) very suitable livestock for small farmer in developing countries due to low investment cost, small body size, higher prolificacy, short generation interval comparing cattle, and easily to sell. According to Devendra (2007) goats contributed between 17.1 to 58.0% of total farm income mainly through the sale of animals, these levels of income can be increase if the farmer have market access. In general 40-45% of the total value of the animal going to middlemen who exploit the situation, and farmer only receives 55 to 60%.

One of the biggest problem for goat production in many developing countries including Indonesia is infestation of gastro intestinal parasite. Gastro intestinal parasite mainly *Haemoncus contortus* is considered the most pathogenic parasite of small ruminants. *Haemoncus contortus* or known as blood sucking parasite cause hematological changes (Suteky and Dwatmadji, 2011a). Iqbal and Jabbar (2005) and Bachaya *et al.*(2006) reported that this disease cause biochemical alterations, loss of appetite, loss of body weight, decrease in protein, impaired digestive efficiency and poor reproductive performance which can lead to loss of meat (27 percent) and wool (40 percent) among sheep/goats . The prevalence of the disease araound 70-80% in Pakistan (Tasawar *et al.*, 2010) in Indonesia is about 80%. The prevalence depent on age, sex, management, grazing habit, anthelmentic used, level of education, economic capacity of farmer (Gulland and Fox, 1992, Pal and Qayyum, 1992; Raza *et al.*, 2007; Raza *et al.*, 2009; Liu *et al.*, 2008; Jorgensen *et al.*, 1998; Komoin *et al.*, 1999 and Suteky and Dwatmadji, 2011a) This disease more severe in malnutrition goat (Suteky and Dwatmadji, 2011a).

Haemoncus contortus have capability to overcome unstable condition (Waller and Candrawatani, 2005), as a result these parasites could be found in tropic, and sub tropict area. Tasawar *et al.* (2010) said that the prevalence of gastrointestinal helminthes is related to the agro-climatic conditions like quantity and quality of pasture, temperature, humidity and grazing behavior of the host. Suteky and Dwatmadji (2009) that grazing behaviour could contribute the prevalence of *Haemonchus contortus* in Bengkulu.

THE ECONOMIC IMPACT OF GASTROINTESTINAL PARASITE

According to Roeber *et al.* (2013) infestation of parasites showed major socio-economic impact worldwide, the financial and agriculture losses caused by parasites significantly decrease farm profitability. Eventhought, the exact economic impact of gastrointestinal parasite in small ruminant is hard to evaluate due to the complicated nature of sub-clinical infection. Economic losses happen through morbidity and mortality and increased investment due to cost of preventative as well as curative treatments (Miller and Horohov, 2006). Decreasing farm profitability also due to weaknesses, loss of appetite, decreased feed efficiency, reduced weight gain and decreased productivity of sick animals.

As the parasite know as blood suckling worm therefore anemia, hypoproteinemia resulting in bottle jaw, diarrhea (not a consistent feature) and eventual death if untreated are the clinical sign. *Haemonchus contortus* . Our research (Suteky and Dwatmadji, 2009) showed that mortality rate of goat due to *Haemonchus contortus* infestation reach 66.7% after 6 weeks of infestation. Supplementasi of Palm Kernell Cake and dedak slightly mitigated the effect of *Haemonchus contortus* throught the improvement of weight gain

It was reported in 1988 the economic losses due gastrointestinal parasite in indonesia reach 7 million IDR per year (Rachmat *et al.*, 1998). The estimation of economic losses to be over \$2 billion per year due to ostertagiosis in cattle and haemonchosis in small ruminants in the US alone (Gasbarre, 1997). Total losses in Australia due to all nematodes combined, of which *H. contortus* is a major contributor, was estimated to be US \$500 million (Emery and Wagland, 1991). Vlassoff and McKenna (1994) found that in New Zealand one third of total sheep production was attributed to nematode infection in other word the economic losses equivalent to \$946 million. It was also estimated treatment cost alone for *H. contortus* in Kenya, South Africa and India per year at US \$26, \$46 and \$103 million respectively (McLeod , 2004; Waller and Chandrawathani, 2005).

Research conducted in a Kenya showed that the contribution of parasitic diseases in small ruminant mortality 32% of total deaths in sheep were due to parasitism and about 63% were due to helminthiasis of which haemonchosis contribute for 40% (Kagira and Kanyaria, 2001). It was also found that 26% of goats were found to have died due to parasitism of which helminthiasis occurred in 55% of the cases and haemonchosis accounted for 27%. In another study conducted to determine the losses attributable to different conditions and infections, it

was found that weight gain cost due to *Haemonchus contortus* infections in sheep and goat was 48.7% and 32.2%, respectively (Beriajaya and Copeman, 2006).

CONTROL OF PARASITE

According Sani and Gray (2004) farmer should actively involved in control parasite program, there are some available and affordable technology can be used as a control parasite:

1. *Grazing Management*: improved housing to reduced stress through better ventilation, shelter, manure and feed management, rotational grazing and management of contaminated areas around housing.
2. *Controlled Breeding*: includes timing of breeding to have young susceptible kids and lambs when worms can be best managed; considering possible increase or decrease in genetic resistance when deciding to use new genetics, especially 'upgraded' or 'improved' bucks and rams
3. *Improved nutrition* including the use of tree and shrub leaves to reduce intake for ground- based and contaminated feeds; plants with possible direct or indirect anthelmintic effect and cut-and-carry methods especially during times of heavy rain or heavy pasture contamination
4. *Use of effective chemicals*, incorporating knowledge on anthelmintic resistance and use of alternative delivery methods such as feed blocks. Quarantine drenching is an appropriate strategy for institutions and large commercial suppliers of stock.

The four methods of control programs above was not always aplicable in small farmer in Bengkulu due to limitation of land size, farmer knowledge and cash. The need for control gastro intestinal parasite is very obvious, as the application of synthetic anthelmintics are no longer sustainable for small holder farmer due to high costs of sintetic anthelmintic to poor farmers, high prevalence of gastrointestinal nematode resistance, and concerns regarding residue in food and the environment. The use of plants with potentially anthelmintic activity is being considered as an alternative to anthelmintic drugs in many parts of the world especially in developing countries .

Grazing forages high in tannins or adding purified Condense Tannin to the diet has been shown to reduce numbers of parasite eggs in sheep and goat faeces in a number of studies (Niezen *et al.*, 1998; Athanasiadou *et al.*, 2000; Min and Hart, 2003; Min *et al.*, 2003; Paolini *et al.*, 2003a).

However, there have been very few reports on anthelmintic effects of feeding hay from CT-containing forages, although Paolini *et al.* (2003b) reported lower egg counts in faeces of goats fed sainfoin (*Onobrychis viciifolia* Scop.) hay, compared with grass hay. Our research also showed that sheep grazing forage containing tannin have lower egg counts compared to goat (Suteky and Dwatmadji, 2009). Our findings also showed that broad leaf plant commonly browse by sheep (*Melastoma malabatricum*, *Urena lobata* and *Ficus sp.*) showed anthelmintic activity *in vitro* (Suteky and Dwatmadji, 2011a).

THE POTENTIAL USE OF *Melastoma malabatricum* EXTRACT AS NATURAL ANTHELMINTIC

Melastoma malabatricum is belong to family Melastomataceae, the genus *Melastoma* contain 22 species, 2 subspecies, and 3 varieties in the Southeast Asian region alone. *Melastoma malabatricum* is a small shrub, it is native to tropical and temperate Asia and the Pacific Islands can be found easily throughout Indonesia. The plant is one of the most common weeds that grow exceedingly and abundantly throughout the tropics, especially in the moist areas, previously cleared land, waste places, roadside, and under oil palm.

Melastoma malabatricum has different indigenous names depending on the location, in Malay *Melastoma malabatricum* known as senduduk, while in Indonesia known as Sengganen or Senggan. The plant have been used traditionally for medicinal purposes in several communities in Indonesia, Malay, India etc. Diverse parts of the plant are used in traditional remedies for the treatment of diarrhea and post-partum recovery. Research related the used of *Melastoma malabatricum* have done by several researcher Mamat *et al.* (2013) study methanol extract of *Melastoma malabathricum* leaves exerted antioxidant and liver protective activity in rats. Other studies on phytochemical compound isolated from *Melastoma malabatricum* have also been reported as anti ulcerogenic, antiviral and cytotoxic activity, anti-helminthic and anti-spasmodic, as well as antidiarrhoeal activity (Mohd *et al.*, 2013).

Melastoma malabatricum extract have *in vitro* ability to reduce egg hatch assay and larva development assay. Our findings showed that the crude aqueous and ethanolic extracts of *Melastoma malabatricum* demonstrated 84.44% and 86.05% of egg hatch inhibition respectively. In addition, our study also revealed that hydro ethanolic extract showed

inhibitory effect (79.08%) at concentration 50mg/ml, which is not significantly ($P>0.05$) different with positive control (oxfendazole 40 mg/ml). Moreover, it appear that all extracts exhibited larvacidal activity and the inhibitory seems to be dose-dependent (Suteky and Dwatmadji, 2011b).

In vivo study the effect of crude aqueous extract of *Melastoma malabatricum* 250 mg/kg BW every two weeks on goat infected naturally with *Haemonchus contortus* showed anthelmintic activity in goat infected *Haemonchus contortus* (Suteky and Dwatmadji, 2011a), indicate by lower egg counts, reduce mortality rate ad increase productivity compared to control.

In conclusion , the practical implication of our research is *Melastoma malabatricum* extract could be used as natural anthelmintic against *Haemonchus contortus* in goat .

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