

Agribusiness System in The Agro Tourism Area of Gumantar, North Lombok

by Zainuri Dan Sjah

Submission date: 09-Jun-2023 01:40AM (UTC-0500)

Submission ID: 2112316158

File name: ss_System_in_The_Agro_Tourism_Area_of_Gumantar,_North_Lombok.pdf (9.58M)

Word count: 5804

Character count: 33885

2nd ICST 2017

**THE EMERGENCE OF
SCIENCE FOR HUMAN
PROSPERITY AND HEALTH**

**Joint International Conference on Science and
Technology in The Tropic**

Organized by:
University of Mataram, Indonesia and University of Malaya, Malaysia

PROCEEDINGS

**AUGUST 23rd-24th 2017
UNIVERSITY OF MATARAM**



ISBN : 978-602-61265-1-1





PROCEEDINGS

13
The 2nd International Conference on Science and Technology 2017
"Joint International Conference on Science and Technology in The Tropic"

Mataram, August, 23th-24th 2017

PUBLISHED BY :

7
Universitas Mataram

Jl. Majapahit, No 62 Mataram West Nusa Tenggara, Indonesia 83125

Telp: +62-0370-633007

Fax: +62-0370-636041

PROCEEDINGS**The 2nd International Conference on Science and Technology 2017****“Joint International Conference on Science and Technology in The Tropic”****Mataram, August, 23th-24th 2017****Person In Charge** : Dr.ret.net. Lalu Rudyat Telly Savalas**Council Committee** : Prof. Dr. Ir. H. Lalu Wiresapta Karyadi, M.Si**Head of Steering Committee** : Prof. Ir Sunarpi, Ph.D**Deputy of Steering Committee** : Prof. Dr. Dato' Azizan Abu Samah**Peer Reviewer :**

Prof. James Gannon, Ph.D

Prof. Dr. Mohammad F.R. Hassanien

Prof. Dr. Lim Phaik Eem

Prof. Yong Hoi Sen

Prof. Helmut Erdman

Prof. Ir. Sunarpi., Ph.D

Prof. Ir. Sri Widuastuti, Ph.D

Prof. I Made Sudarma

Prof. I Komang Damar Jaya., Ph.D

Dr. Islamul Hadi

Dr. rer.nat. Teti Zubaidah, ST., MT

I Wayan Sudiarta., Ph.D

Dr. Imam Bachtiar

Dr. Syahrul

Aluh Nikmatullah., Ph.D

Editor and layout:

Dr.ret.net. Lalu Rudyat Telly Savalas

Cahyo Mustiko, ST.,M.Sc., Ph.D

Ir. Aluh Nikmatullah, Ph.D

Nanda Diniarti, S.Pi., M.Si

Dewi Nur'aeni Setyowati, S.Pi, M.Biotech

ISBN : 978 - 602 - 61265 - 1 - 1

Cetakan pertama : Agustus 2017

Published by :

Universitas Mataram

Jl. Majapahit, No 62 Mataram West Nusa Tenggara, Indonesia 83125

Telp: +62-0370-633007 / Fax: +62-0370-636041

Copyright law protectedDon't to quote, reproduce and translate some or all of these books
without the permission of the publisher

PREFACE

Bismillaahirrahmaanirrahiim
Assalaamu'alaikumwarahmatullaahwabarakaatuh.
Peace be upon us.

Praise always we pray to God Almighty for giving us the abundance of grace, guidance and inayah, so that we all can meet here in the “2nd International Conference on Science and Technology (ICST) 2017”. The theme of this conference is “The Emergence of Science for Human Prosperity and Health” where this conference is joint international conference between Mataram and Malaya University.

First of all, I would like to welcome you all to West Nusa Tenggara Province specially Lombok Island, “the Island of Thousand Mosques”, which is famous to its many natural resource and beautiful tourism destinations where you can enjoy them while attending the conference. This conference will be held for two days, from 23rd to 24th August 2017, and took place in campus of the University of Mataram.

So far, we received one hundred fifty papers from various universities and research institutions in Indonesia and from overseas. The paper have been selected and grouped based on the similarity of the research field, which then are presented and discussed. Presentation of the papers will be held in seven parallel classes and poster presentation. The Selected papers will be published in Malaysian Journal of Science (Special Issue) which index by Scopus, and the rest will be published in the Conference Proceedings. Additionally, selected paper in aquaculture have the opportunity to be published in Jurnal Akuakultur Indonesia.

At this moment, the organizing committee would like to express our gratitude to all of you for your participation on this conference, especially to the all keynote speakers, presenters who have submitted for both oral and posters presentations and also to all participants. Our special gratitude also goes to the Rector of the University of Mataram and Vice Chancellor of Malaya University, who have been highly supporting this conference. Critics and suggestions on the implementation of this conference will be appreciated and as much as possible we will improve the next ICST. Last but not least, the organizing committee would like to thank to all of you who have supported this conference.

Have an enjoyable conference.
Wassalamu'alaikum warohmatullahi wabarakatuh.

Chairman of 2nd ICST 2017

Dr.rer.nat. Lalu Rudyat Telly Savalas, M.Si.

Proceeding of 2nd ICST 2017

OPENING SPEECH - RECTOR THE UNIVERSITY OF MATARAM
The 2nd International Conference on Science and Technology 2017
Joint International Conference on Science and Technology in The Tropic Beetwen
Mataram and Malaya Universiti

Respected Guests,
Keynote speakers,
Conference participants,
and all other participants.

On Behalf of all staffs of the University of Mataram, I welcome you all to Lombok, a beautiful island in West Nusa Tenggara Province, where the University of Mataram is located. Lombok is known for its natural and cultural diversity where you can enjoy traditional cuisines, beaches, waterfalls, mountain, traditional villages and handicraft of many ethnics including Sasak, Samawa, Mbojo, Balinese, Chinese, Arabic, and many others.

As the Rector of the University of Mataram, it is a great honour for me to address the opening of "The 2nd International Conference on Science and Technology" here at the University of Mataram, which will be held from 23rd to 24th August 2017, with a theme "The Emergence of Science for Human Prosperity and Health". The main aim of this seminar is to gather scientist from all over the world to share their ideas, knowledge and experiences and to build network for possible future collaboration.

As we are aware that sharing knowledge and experiences from speakers are extremely valuable in a conference, therefore I would like to express my high appreciation, first, to the keynote speakers from overseas and from Indonesia for their willingness to come to Lombok to share their acknowledged works. Your effort and contribution to this conference are absolutely valuable. Second, my high appreciation also goes to the national speakers and all other participants, including the speakers from University of Mataram and local universities in West Nusa Tenggara Province, your participation in this conference not only will give incredible share of ideas, skills and knowledge that you have, but also will improve the academic environment that we are developing in this university. I hope this conference will be a good forum, not only for communicating and sharing ideas, knowledge and experiences, but also for building networking for future collaboration.

I would also like to take this opportunity to express my appreciation to the sponsors which have given some contribution to this conference. Last but not least, I would like to thank the organizing committee as well as all other supporters and participants, without their effort, commitment and hard work, this conference will not run well.

Finally, I wish you most successful conference, enjoy Lombok Island and hope to see you again in other forum here at the University of Mataram.

Rector of the University of Mataram

Prof. Ir. Sunarpi, Ph.D

TABLE OF CONTENTS

Title	Page
Preface	i
Opening Speech	ii
Table of Contents	lii
Agribusiness System in The Agro Tourism Area of Gumantar, North Lombok Zainuri, Taslim Sjah, Ahmad Syauqi, Jayaputra	1-4
Farming system in Dryland Area of North Lombok Taslim Sjah ^{1*} , I Gusti Lanang Parta Tanaya ¹ , Halil ¹ , Budy Wiryono ²	5-11
Improving Maize Yield in Tropical Drylands Through Optimum Sunlight Interception by The Plant Canopy I Komang Damar Jaya ^{1*} , Sudirman ¹ , Jayaputra ¹	12-19
Potential of Ant Plant (<i>Myrmecodiapendans</i>) Infuse as an Acute Diarrhea Medicine: An experiment on Rat as a model Yoni Astuti ^{1*} , Idiani Darmawati ² , Tantri Wahyu Utami ³	20-24
Three Dimensional Media and Computer Simulation for The Concept of Heat in Physical Learning Hikmawati ^{1*} , Kosim ¹ , Sutrio ¹	25-31
The Effect of Fractionated Solvent Combination and Sample Concentration on Sun Protection Factor (SPF) Value of Corn Silk Methanol Extract Rosalina Ariesta Laeliocattleya	32-36
Uniformity Evaluation of Self Compacting Concrete Properties in Beam-Column Structural Elements Using Non-Destructive Testing Ni Nyoman Kencanawati ^{1*} , Akmaluddin ¹ , Hariyadi ¹ , Suryawan Murtiadi ¹ , Hafiz Hamdani ¹	37-43
The Contribution of Soil Management Strategies to Plant and Soil Physical Health, and Soil Microbial Community Lily Ishak ^{1*} , Philip Brown ²	44-50
Effectiveness of Goat Milk Yogurt Starter Against Various levels of HDL, LDL and Triglycerides in male white rats (<i>Rattus norvegicus Wistar strain</i>) Sujono ¹ , Wardoyo, I ¹ , Putra, L.Y. ¹	51-54
Adsorption of Free Fatty Acid from Crude Palm Oil on Natural Zeolite Activated with Sodium Hydroxide Zhilal Shadiq ¹ , Sang Kompiang Wirawan ^{1*} , Arief Budiman ¹	55-61
Hypoglycemic Effect of <i>Brucea javanica</i> (L) Merr Leaves and Seed Extract in Alloxan-induced Diabetic Rats Handa Muliasari ^{1*} , Candra Dwipayana Hamdin ¹ , Agus Dwi Ananto ¹ , Muhsinul Ihsan ²	62-67
Capability Analysis to Regional Innovation Development Based on the Locality Characteristics in Jawa Timur Province Niniek Fajar Puspita ^{1*} , Udisubakti Ciptomulyono ² , Bambang Syairudin ² , Arya Yudhi Wijaya ³	68-75
Aquaculture Waste as Ingredients For <i>Cyprinus carpio</i> Feed Haerudin ^{1*} , Zaenal Abidin ^{1*} , Ayu Adhita Darmayanti ¹	76-80
Yield and Growth Mungbean (<i>Phaseolus radiates</i> L.) with additional Organic Fertilizer under Intercropping System Eka Widiastuti*, Fitria Zulhaedar dan Lia Hadiawati	81-91
Desainig And Developing Rechargeable Aluminium-Ion Battery Based On Corncob As Activated Charcoal Fitriah ^{1*} , Sri Wahyuni ¹ , Aris Doyan ²	92-99
Urea Recovery from Industrial Wastewater by Adsorption using Porous Carbon and Its Utilization as Fertilizer	100-106

Theresia Evila ^{1*} , Agus Prasetya ^{1,2} Teguh Ariyanto, Imam Prasetyo ^{1,2}	
Imagined Regional Communities: Language Issue in a Decentralisation Policy in Indonesia Ahmad Sirulhaq	107-111
Magnetotelluric Data Processing Based on Hilbert – Huang Transform Marenda Dwi Jatmiko ^{1*} , Warsa ¹	112-120
Study on Performance and Environmental Impact of Sugarcane-Bagasse Gasification Shafwan Amrullah ^{1*} , Indra Perdana ¹ , Arief Budiman ^{1,2}	121-127
The Effective Extension Methods for Prevention of Anthrax Diseases on Smallholders Farming in Suprotong West Nusa Tenggara Province as A World Halal Tourism Destination Mashur	128-135
Formula Optimisation of Milk Chocolate Bars Based on the Physical Quality and Organoleptic Characteristics Dedy Rahmad ^{1*} , Muhammad Ikhsan Sulaiman ² , Eti Indarti ²	136-142
Effect of Design Variation of Corncob Biomass Gasification on Boiling Time and Flaming Duration Joniarta I Wayan ^{1*} , Wijana Made ¹	143-147
Activity of Bamboo Rhizobacteria to Inhibit <i>Fusarium oxysporum</i> with In Vitro Screening Baiq Yunika Hayatin ^{1*} , Faturrahman ¹ , Ernin Hidayati ¹	148-152
Isolation and Identification of Chitinolytic Bacteria from Intestinal Tissue or Tilapia (<i>Oreochromis niloticus</i>) Alis Mukhlis ^{1*} , Sadikin Amir ¹ , Nurliah ¹ , Bagus Dwi Hari Setyono ¹ , Endang Wulandari Suryaningtyas ²	153-158
Structural Behaviour of Spherical Hollow Reinforced Concrete Beam under Flexural Loading Suryawan Murtiadi ^{1*} , Akmaluddin ¹ , Maskimi ¹	159-162
New Record <i>Phoniscusatrox</i> in The Developed Ecotourism Area of South Lombok Islan, West Nusa Tenggara Siti Rabiatal Fajri ¹ , Sri Nopita Primawati ¹ , Islamul Hadi ² , Galuh Tresnani ²	163-165
The Application of Ground Pumice in Foamed Concrete for Accoustic Material Maria Asunta Hana Pramudawati ^{1*} , Iman Satyarno ¹ , M. Fauzi Siswanto ¹	166-173
Chemical Compounds Analysis of Green Bean and Its Effect on <i>KopiLuwak</i> Cupping Quality Murna Muzaifa ^{1*} , Dian Hasni ¹ , Anshar Patria ¹ , Febriani ² , Amhar Abubakar ³	174-182
Quality of Gayo Arabica Coffee Affected by Farm Altitude and Coffee Varieties Yusya Abubakar ¹ , Dian Hasni ^{1*} , Heru Prono Widayat ¹ , Murna Muzaifa ¹ , Mahdi ²	183-189
Profesional Caring Factor Factors in Providing Services to Clients in Puskesmas Ermina Istiqomah ^{1*} , Dwi Nur Rachmah ¹ , Sudjatmiko Setyobudihono ² , Fendy Suhariadi ³	190-202
A Case Report: A-27-years-old female with <i>ST-Elevation Electrocardiography: STEMI or Pericarditis?</i> Y. Pintaningrum ¹ , S. Alifiya ²	203-206
Developing of Rechargeable Allumiium-Ion (Al-ion) Battery with Basic Material Activated Coconut Shell Charcoal S. Wahyuni ^{1*} , Fitriah ¹ , A. Doyan ¹	207-212
Simulation of Monthly Rainfall Data of Dodokan Watersheed Using Nonparametric Statistical Downscaling Model Mustika Hadijati ^{1*} , Desy Komalasari ¹ , Nurul Fitriyani ¹	213-219
Simulation of Monthly Rainfall Data of Dodokan Watersheed Using Nonparametric Statistical Downscaling Model	220-229

Mustika Hadijati ^{1*} , Desy Komalasari ¹ , Nurul Fitriyani ¹	
Enhancement Flexural Strength of Brick Masonry Wall with Polypropylene Bands Andreas Sugijopranoto ^{1*} , Andreas Triwiyono ¹ , Henricus Priyosulistyo ¹	230-236
Utilization of NanoChitosan as Biomordant of Natural Indigo Dye on Cotton Fabrics Ira Purnawati ^{1*} , Yuni Kusumastuti ^{2*} , Hary Sulistyo ¹	237-242
Flexural Properties of Tropical Natural Fibres Reinforced Epoxy Composites Prepared Using Vacuum Bagging Method Jauhar Fajrin ^{1*} , Pathurahman ¹ , Suparjo ¹ , Teti Handayani ¹	243-249
The Efficacy of Various Cropping Paterns to Utilize a Carry Over Fertilizer Aplication from Tobacco. Nani Herawati ^{1*} , Putu Cakra Putra Adnyana ¹ , Sudarto ¹ , Baiq Nurul Hidayah ¹	250-256
El-Nino Characteristics Based On Reservoir Volumetric I Wayan Yasa ^{1*} , Moh. Bisri ² , Moch. Solichin ² , Ussy Andawayanti ²	257-262
Finite Element Modelling of Creep Glued-Laminated Bamboo Ngudiyono ^{1*,2} , Bambang Suhendro ³ , Ali Awaludin ³ , Andreas Triwiyono ³	263-268
Physicochemical and Sensory Properties of Chicken Stock Powder Added with Carrots Extract (<i>Daucus carota</i>, L.) Ismed ¹ , Aisman, Suci Eka Amalia	269-275
Growth, Yield and Seed Quality of Corn (<i>Zea mays</i> L.) due to Leaf Defoliation After Tassel ini Dry Land of Lombok Island Indonesia Hiryana Windiyani ^{1,2*} , Eko Widaryanto ² , Titeik Islami ²	276-282
Folate Content In Spinach (<i>Amaranthus</i> sp.), Katuk Leaves (<i>Sauropus androgynous</i>, (L.) Merr) and Singgalang Radish (<i>Brassica oleracea</i>) After Being Processed Cesar Welya Refdi ^{1*} , Fauzan Azima ¹ , Prima Yaumul Fajri ²	283-286
The Effect of Various Macroalgae Extract in Lombok to Mortality of <i>Artemia salina</i> Larvae Novita Hidayatun Nufus ¹ , Mursal Ghazali ² , Rina Kurnianingsih ² , Aluh Nikmatullah ³ , Sunarpi ^{2*}	287-290
Tuned Mass Damper as Alternative Solution for Pedestrian Comforet in Existing Truss Bridge Yumna Cici Olyvia ^{1*} , Bambang Suhendro ¹ , Ashar Saputra ¹	291-298
Children's Playground and Safety at the Kahayan Riverbank Settlement, Palangkaraya Parmonangan Manurung	299-304
The Potency of Kersen Leaves (<i>Muntingia calabura</i> Linn.) to Decrease High Blood Sugar Level Ihlana Nairfana ^{1*} , I Ketut Suter ²	305-308
Subsurface Structure Interpretation of Southern Flank of Tangkuban Parahu Based on Gravity Method Hasdi Abdullah ^{1*} , Djoko Santoso ²	309-318
The Importance of Early Maturing Hybrid Maize in The Limited Rainfall Areas to Anticipate Climate Changes Baiq Tri Ratna Erawati ^{1*} , Awaludin Hipi ¹ , Andi Takdir M. ²	319-324
A Neural Network Model for Indonesia's Foreign Reserves Model Syamsul Bahri	325-331
The Use of Near Infrared Technology for Rapid Measurement of Soil Nitrogen in Rice Paddy Field of Lombok Island Bambang Hari Kusumo	332-336
Sea Horse (<i>Hippocampus</i> sp.) Broodstock Culture in Controlled Tank Dewi Nur'aeni Setyowati ^{1*} , Nanda Diniarti ¹ , Nunik Cokrowati ¹	337-339

Analysis on Heat Energy Utilization on White Copra Drying using Solar Energy Tray Drier Murad ^{1*} , Rahmat Sabani ¹ , Guyup Mahardhian Dwi Putra ¹ , Diah Ajeng Setiawati ¹	340-347
Application of Hydrological Water Supply Model to Calculate Discharge of Maronggek River in East Lombok Sirajuddin Haji Abdullah ^{1*} , Hera Damayanti ¹ , Guyup Mahardhian Dwi Putra ¹ , Diah Ajeng Setiawati ¹	348-357
Utilization of <i>Ulva lactuca</i> to Increase The Growth of <i>Eucheuma cottonii</i> Nunik Cokrowati	358-363
Sociotechnical Adaptive Water Governance: A Case Study of Water Governance in Lombok Indonesia Alex Laplaza ^{1*} , I Gusti L.P. Tanaya ² , Suwardji ³	364-376
Characterization of Rice Husk and Wood Biochars and Their Effect on Soil Chemical and Agronomic Properties of Lettuce (<i>Lactuca sativa</i> L.) Mulyati [*] , Tejowulan, S., Baharuddin, AB., Sukartono, Suwardji	377-384
Seagrass Ecosystems Monitoring as Related to Coral Reef in Coastal Waters of Sekotong, West Lombok, Indonesia Abdul Syukur ^{1*} , Didik Santoso ¹	385-392
Fatty acid Composition of Ethanolic Extract of Seahorse (<i>Hippocampus barbouri</i>) from Ekas Bay, Lombok Island, West Nusa Tenggara Seto Priyambodo ^{1*} , Dewi Nur'aeni Setyowati ² , Nunik Cokrowati ² , Nanda Diniarti ²	393-397
Effectiveness of <i>Ulva lactuca</i> Extract on <i>Kappaphycus alvarezii</i> Growth Muhammad Fadlillah ^{1*} , Nunik Cokrowati ¹ , M. Masyarul Rusdani	398-404
Composition of Plankton on Floating Area in Batunampar Beach, East Lombok Nanda Diniarti	405-410
Water quality of Kertasari Bay West Sumbawa as Sustainability of Seaweed Cultivation Center Edi Sulman ¹ , Nunik Cokrowati ² , Arziahningsih ¹ , Rinto Basuki ¹	411-413
Mapping Consumer Preferences and Physical Quality of Sie Reuboh (Cooked Meat) a Traditional Cuisine of Aceh Dian Hasni, Novia Mehra Erfiza, Muhammad Faiz, Ulva Syahrina	414-421
Analysis of The Role of Midwives and Nutritionists in Early Detection of Malnutrition and Growth Disorder in Two Year Old Babies at Narmada Public Health Care Working Area Lina Nurbaiti ^{1*} , Lalu Bramawangsa Banjar Getas ^{1*} , Sandra Yuliana Andini Putri ^{1*} , Felix Santoso ^{1*} , Ni Putu Ayu Dewanthi ^{1*} , Amalia Asfarina ^{1*}	422-426
Correlation between BCL-2 and LMP-1 expression in patients with Nasopharyngeal Carcinoma WHO Type III Hamsu Kadriyan ¹ , Didit Yudhanto ¹ , Fathul Djannah ² , I Gusti Ayu Trisa Aryani ³ , Muhammad Alfian ³ , Markus Rambu ³ , Muhammad Rizqi Kholifaturohmy ¹	427-431

Agribusiness System in The Agro Tourism Area of Gumantar, North Lombok

Zainuri¹, Taslim Sjah^{2*}, Ahmad Syauqi², Jayaputra²

¹Faculty of Food Technology and Agroindustry, University of Mataram, Jalan Majapahit 62 Mataram 83125, Indonesia

²Faculty of Agriculture, University of Mataram, Jalan Majapahit 62 Mataram 83125, Indonesia

*Corresponding author: Email: t.sjah2@gmail.com

Abstract

This paper describes agribusiness system in the agro-tourism area of Gumantar, North Lombok, Indonesia. Data were collected through structured interviews with farmer respondents, in-depth interviews with key informants, and secondary data collection from relevant sources. The study reveals that agribusiness subsystems, i.e., the subsystems of input, farm, processing, marketing, and supporting service, have not all worked satisfactorily in reaching more results as a system than the sum of all subsystems. Therefore, every subsystem of the agribusiness system requires improvement in one issue or more, and more importantly within the system, a sub system needs to be linked with other subsystems for gaining improved positive impact.

Keywords: agribusiness linkage, agribusiness system, agribusiness subsystem, agro tourism, economic development

1. Introduction

Indonesia has been developing its economy (Booth, 2003; Haeruman, 1997; MPR RI, 1993), and the phase of that development is now accelerating, that is, doing development in high speed, in order for the country to catch up with population development and meeting many needs of the country, as well as the need of some regions, which are currently 'behind', to level other regions in that development (Kompas, 2003; President of RI, 2011). This speedy development includes that in the sector of agriculture (Dillon, 1999; Krisnamurthi, 2008; President of RI, 2011). Agriculture in broad sense covers the sub sectors food agriculture, plantation crops, forestry, livestock, and fishery (President of RI, 2011; Soekartawi, 1995). One way in developing agriculture to be more productive or successful is believed to apply the development from upstream to downstream, from beginning to the end, in integrated way. This approach of agricultural development is called agribusiness (AHRDB, 2001; Beierlein et al., 1986; Cramer et al., 2001; McGregor, 1997). Agribusiness as a system comprises of several sub systems, including the sub systems of input, farm, processing, marketing and supporting service. These sub systems need to work together, support each other, be integrated in order to give positive impact amounted to be more than the sum of the sub systems. All sub systems play their parts while supporting other sub systems, hence all sub systems become stronger than if they work alone or do not support each other.

North Lombok has had by nature tourism objects well known by tourists of local, national, or international origins. Some of the tourism objects are the three Gilis (small islands of Trawangan, Meno, and Air), Puncak Pusuk, Sire Beach, Senaru, and Sendang Gile Waterfalls (Dinas Pariwisata Provinsi NTB, 2016). Those tourism objects are assets for North Lombok to develop further. Many facilities are built to make the objects more accessible than before. North Lombok has also other types of tourism, i.e. culinary and culture, either presented alone or in combination with other objects, so that we can see culinary in beaches or culture presentation along with culinary consumption. In culinary tourism, North Lombok has several types of foods that interest tourists to consume and are of

important for economic development as they have high production, market, and monetary value (Zainuri et al., 2016b).

Currently, another type of tourism is being developed in North Lombok (Zainuri et al., 2016a; Zainuri et al., 2017a; Zainuri et al., 2017b). This tourism is developed to capitalize the beauty of the nature, particularly the landscape, as well as attempting to get benefit from the beauty of the plants (crops) while not ignoring the economic value of the crops. Therefore, the tourism object is designed by combining of integrating high value and beauty crops with the landscape that suits crops growing. This paper describes agribusiness system in the agro-tourism area of Gumantar, North Lombok, Indonesia, from which the conditions may be improved in future.

2. Materials and Methods

This investigation was carried out in Gumantar Village, Kayangan District, North Lombok Regency. The village was selected for its potential to be developed as a tourism area, which is in this case is an agro-tourism area, by capitalizing the beauty of agricultural plants and landscape. Since this activity was also designed for gaining high income from plants or crops then the crops selection need to have this criterion (Zainuri et al., 2016a). Data for this research were collected through structured interviews with farmer respondents, in-depth interviews with key informants, and secondary data collection from relevant sources (Babbie, 2004; Jackson, 1988; Sjah, 2011). Farmer respondents were those who have land in around the agro tourism area, and were identified as many as 17 farmers. In-depth interviews were conducted to key informants considered as having sufficient knowledge on the topic investigated (Patton, 1990; Patton, 2002). Key informants here included head of farmer groups and business entrepreneurs in the location or surroundings. Secondary data were collected to complement the other two sources of data (Kumar, 1993; Nachmias and Nachmias, 1976; Sjah, 2011). Data collected were suited to the research objectives and were around the agribusiness and its sub systems. Descriptive analysis was applied for providing information and gaining understandings (Grinnell, 1993; House, 2005; Patton, 2002), especially on the working performance of the agribusiness systems and its sub systems.

3. Results and Discussions

This paper describes agribusiness system in the agro-tourism area of Gumantar, North Lombok, Indonesia. The system of agribusiness consists of the following sub systems: input, farm, processing, marketing, and supporting services (Beierlein et al., 1986; Downey and Erickson, 1987; McGregor, 1997). The implementation of these sub systems of agribusiness is described in sections below.

3.1 The Sub System of Input

In the tourism area of Gumantar, North Lombok, almost all agricultural inputs source from outside the area. Seeds of crops, such as listed in the next section, are bought from outside. The major source of seeds in the area is a company called 'Syngenta'. Along with seeds, the company provides fertilizers of several contents and brand names. Agricultural machines (such as tractors) and tools (such as cutters) are also available from outside. While seeds and fertilizers can be dropped into the area by the providing company, most of agricultural machinery and tools are bought directly in the city (like Mataram). Most agricultural producers apply chemical (inorganic) fertilizers rather than organic fertilizers, despite many people (such as extension officers or university staffs) have recommended the use of organic fertilizers. In addition to intensive promotion by chemical fertilizer companies, farmers are more convinced by the physical appearance of plants that have been applied with chemical fertilizers.

3.2 The Sub System of Farm (Production)

Crops grown in the tourism area of Gumantar, North Lombok majorly consists of traditional crops. The survey shows there are seasonal and perennial or annual crops. The seasonal crops include corn, peanut, chilli, dryland rice, tomato, melon, mungbean, long bean, and cucumber. All 17 farmer respondents grow corn. So, corn is the main crop for the area. Along with corn, 9 farmers also grow other crops just mentioned. These other crops are grown in multiple cropping system, with some are grown with clear borders with the corn and some with unclear borders. Ones with clear borders are called unspecific farms, while ones with unclear borders are called mixed farms (Hernanto, 1994; Suratiah, 2006).

The perennial crops include coconut, mango, custard apple, sapodilla, banana, papaya, and wood trees. The perennial crops are usually grown on the dykes or inside the paddock. They are planted in separated distant. The distant plantings do not only provide spaces between the trees and their canopies but also provide spaces for the seasonal crops. Seasonal crops on the dryland such this area, are grown by following the existence of water, which is available during the rainy season. The water from the rain avails in the area since about November or December annually. Seasonal crops generate income for farmers in a short term (about 4 months), while perennial crops provide annual income, once the crops have started its productions. Most of perennial crops produce for certain months, yet some of perennial crop can also provide income for longer period or during the year round.

3.3 The Sub System of Processing (Agroindustry)

Processing of agricultural products in the area is very limited. Virtually all products are sold in the form of fresh or raw materials. Some of the products are even sold before harvest, and then the harvests are done by the buyers. The buyers brought the fresh products out of the area to city of Mataram or elsewhere. The selling of fresh or raw agricultural products like this is not recommended since there are chances to earn better income through processing of the raw materials to one or several types of processed foods. Currently, several products or portions of products are processed, yet the processed products are only for family consumption, not to be marketed. Therefore, there has been no income from processed products so far.

The importance of doing processing of agricultural products has been informed or recommended to the local farming community in the area of tourism development of Gumantar, by local provincial and regencial governments or by university staffs, such as those from the University of Mataram. For example, there were training on creating added value of agricultural products (Sjah et al., 2012b), training on agribusiness development, which also includes creating added value of products (Sjah and Hidayati, 2015; Sjah and Hidayati, 2016; Sjah et al., 2015).

3.4 The Sub System of Marketing

Most agricultural products from the tourism area of Gumantar are marketed on the production locations (on farm gates). Buyers come to the village and make deals with agricultural producers in buying the products. Some crop products are even sold before being harvested, and in this case the harvests are done by the buyers. There are only one or two producers who sell their products to the city of Mataram or nearby cities. However, this sort of producers also plays a role of traders, usually called as local assemblers (Campbell and Fisher, 1991; Dunne, 1999; Kohls and Uhl, 1990; Sjah, 2010), or collectors (Sjah, 2013). The marketing of agricultural products are individually, not in a group or association. This marketing system, in which farmers sell raw materials (fresh products) and do sell in individual, caused price of agricultural products becomes low and in turn cause income from them low too. Farmers have a low bargaining position compared to buyers. Accordingly,

there are needs to seek ways to improve the bargaining position of farmers. There are recommendations available for improving farmer condition such as by establishing farmer associations as suggested by several literatures (see for example Barker, 1989; Kohls and Uhl, 1990; Mubyarto, 1995). Nevertheless, this recommendation has not been able to be realized due to several constraints from the farmers or others. Apparently, there are more works needs to be done for handling this issue.

3.5 The Sub System of Supporting Service

There are some supporting services available for the development of agribusiness in the tourism area of Gumanantar, North Lombok. The supporting services include extension service, roads, agricultural input provision, market facilities, and visits by local government leaders. Extension services on agriculture have been long provided to the area as also to whole area in Indonesia. This work is done by government in particular, yet some voluntary extension services also available from universities or companies related to agribusiness. Roads appear sufficient to cover almost areas in North Lombok, and this condition supports the transportation of agricultural products or its processed products. The availability of roads also enables transportation of agricultural inputs into the area or elsewhere. Market places have been built in some places, especially in central towns, such as in Tanjung. Markets can absorb almost all products, fresh or processed, because customers not only from within the area but also from outside. Finally, visits by local regencial government have been occurred several times, and these visits bring a sort of encouragement for the local people to work better or to be more productive than before.

Supports that are needed but have not been provided appear in some instances. Farmers search market for their products by themselves, and therefore their capacities are limited. It would be better if market information for producer products available to farmers, especially where to sell for each agricultural product. Similarly, some farmers still access working capital from private lenders (company or others), which interest charge.

Another aspect that is lacking in the agribusiness in the area is on the planning of production, i.e. in selection of which crops to be grown in certain times. Currently, farmers have been deciding according to their experience and 'feeling' of what promising production to be. In the agribusiness system, it is believed that successful business should start with market and then be ended with market (see for instance Sjah et al., 2012a; Suwardji et al., 2009).

4. Conclusions and Recommendations

This study conclude that agribusiness subsystems, i.e., the subsystems of input, farm, processing, marketing, and supporting service, have not all worked satisfactorily in reaching more results as a system than the sum of all subsystems. Therefore, every subsystem of the agribusiness system requires improvement in one issue or more, and more importantly within the system, a sub system needs to be linked with other subsystems for gaining improved positive impact.

Acknowledgement

We thank to the Ministry of Research, Technology, and Higher Education, who funded this study (through MP3EI scheme). Thank to respondents and informants for sharing information on the investigated topic, also others for helping or facilitating this study in one way or another. We, the authors, appreciate them all.

References

- [1] AHRDB, 2001. Model agribisnis terpadu (Integrated agribusiness model). Agricultural human resource development board of agribusiness entrepreneurship development center, Department of Agriculture, Jakarta, 3 pp.
- [2] Babbie, E., 2004. Survey research methods. Wadworth Publishing Company, Belmont, California.
- [3] Barker, J., 1989. Agricultural marketing. Oxford university press, Oxford, 250 pp.
- [4] Beierlein, J.G., Schneeberger, K.C. and Osburn, D.D., 1986. Principles of Agribusiness Management. Prentice-Hall, Englewood Cliffs, New Jersey, 441 pp.
- [5] Booth, A., 2003. Decentralisation and poverty alleviation in Indonesia. Environment and Planning C-Government and Policy, 21(2): 181-202.
- [6] Campbell, K.O. and Fisher, B.S., 1991. Agricultural marketing and prices. Longman, Melbourne, 164 pp.
- [7] Cramer, G.L., Jensen, C.W. and Southgate, D.D.J., 2001. Agricultural Economics and Agribusiness. John Wiley & Sons, New York, 519 pp.
- [8] Dillon, H.S., 1999. Agroindustry on the road to economic recovery in Indonesia: National strategies with dynamic internal markets and a changing regional trade context, The AAEA International and Industry Preconference. AAEA, Nashville.
- [9] Dinas Pariwisata Provinsi NTB, 2016. Guide Book Lombok Sumbawa. Dinas Pariwisata Provinsi Nusa Tenggara Barat, Mataram, 65 pp.
- [10] Downey, W.D. and Erickson, S.P., 1987. Agribusiness Management. McGraw-Hill, New York.
- [11] Dunne, T., 1999. Marketing agricultural products: An Australian perspective. Oxford University Press, South Melbourne, 218 pp.
- [12] Grinnell, R.M.J., 1993. Social work research and evaluation. F.E. Peacock, Itasca, Illinois.
- [13] Haeruman, H.J.S., 1997. Development policy of the Eastern Indonesia: Challenges and opportunities. In: W.S. Ashari, A. Syafiq and Medrilzam (Editors), Evaluation of government policies on Eastern Indonesia Development. Indonesian Student Association of Australia, Queensland Branch, Brisbane, pp. 20-30.
- [14] Hernanto, F., 1994. Ilmu Usahatani (Farm Management). Penebar Swadaya, Jakarta.
- [15] House, E.R., 2005. Qualitative evaluation and changing social policy. In: N.K. Denzin and Y.S. Lincoln (Editors), The Sage Handbook of Qualitative Research. Sage Publications, Thousand Oaks, California, pp. 1069-1082.
- [16] Jackson, W., 1988. Research methods. Prentice Hall, Ontario, 288 pp.
- [17] Kohls, R.L. and Uhl, J.N., 1990. Marketing of agricultural products. MacMillan, New York, 545 pp.
- [18] Kompas, 2003. Bank Dunia: Tiga kendala utama untuk pengentasan kemiskinan di Indonesia, Kompas, Jakarta.
- [19] Krisnamurthi, B., 2008. Arah Perkembangan Masa Depan Ekonomi Pertanian Indonesia. In: R. Wibowo, H. Siregar and A. Daryanto (Editors), Mungkinkah Petani Sejahtera? (Can Farmers Prosper?). Brighten Press, Bogor, pp. 31-38.
- [20] Kumar, K., 1993. An overview of rapid appraisal methods in development settings. In: K. Kumar (Editor), Rapid Appraisal Methods. World Bank, Regional and Sectoral Studies, Washington, D.C., pp. 8-22.
- [21] McGregor, M.J., 1997. A System View of Agribusiness. Agribisnis, 1(1 & 2): 1-8.
- [22] MPR RI, 1993. Garis-garis besar haluan negara (The brief guidance for the country (Indonesia) direction. Apollo, Surabaya.
- [23] Mubyarto, 1995. Pengantar ekonomi pertanian (Introduction to agricultural economics). LP3ES, Jakarta.
- [24] Nachmias, D. and Nachmias, C., 1976. Research Methods in Social Sciences. St. Martin's Press, New York.
- [25] Patton, M.Q., 1990. Qualitative evaluation and research methods. Sage Publications, Newbury Park, California.
- [26] Patton, M.Q., 2002. Qualitative research and evaluation methods. Sage Publications, Thousand Oaks, California.
- [27] President of RI, 2011. Peraturan Presiden Republik Indonesia Nomor 32 Tahun 2011 Tentang Masterplan Percepatan dan Perluasan Pembangunan Ekonomi Indonesia 2011-2025 (Master Plan for Acceleration and Expansion of Indonesia Economic Development 2011-2025). Sekretariat Kabinet RI, Jakarta.
- [28] Sjah, T., 2010. Ekonomi Pertanian (Agricultural Economics). Mataram University Press, Mataram, 107 pp.
- [29] Sjah, T., 2011. Metodologi Penelitian Sosial Ekonomi (Research Methodology for Socio Economics). Mataram University Press, Mataram, 108 pp.
- [30] Sjah, T., 2013. Profile of mango collectors in Nusa Tenggara Barat. Faculty of Agriculture, University of Mataram, Mataram.
- [31] Sjah, T. and Hidayati, A., 2015. Pengembangan agribisnis tanaman pekarangan di Kecamatan Pemenang, Kabupaten Lombok Utara (Developing agribusiness of houseyard crops in Pemenang District, North Lombok). Faculty of Agriculture, University of Mataram Mataram.

- [32] Sjah, T. and Hidayati, A., 2016. Pengembangan agribisnis hortikultura di Desa Gumantar, Kabupaten Lombok Utara (Developing agribusiness of horticulture in Gumantar Village, North Lombok). Faculty of Agriculture, University of Mataram Mataram.
- [33] Sjah, T., Rosmilawati and Zainuri, 2012a. Rencana Bisnis: Untuk pengusaha kecil dan pemula dalam usaha pengolahan hasil pertanian. Mataram University Press, Mataram, 108 pp.
- [34] Sjah, T., Tanaya, I.G.L.P. and Budastra, I., 2015. Penciptaan nilai tambah pisang di Desa Santong Kecamatan Kayangan Kabupaten Lombok Utara (Creating added value of banana in Santong Village, Kayangan District, North Lombok). Study Program of the Management Dryland Resources, University of Mataram Mataram.
- [35] Sjah, T., Tanaya, I.G.L.P. and Pramadya, I.M.A., 2012b. Peningkatan nilai tambah produk pertanian di Kabupaten Lombok Utara (Creating added value of agricultural products in North Lombok). Study Program of the Management Dryland Resources, University of Mataram Mataram.
- [36] Soekartawi, 1995. Pembangunan Pertanian (Agricultural Development). Raja Grafindo Persada, Jakarta.
- [37] Suratiyah, K., 2006. Ilmu usahatani (Farm Management). Penebar Swadaya, Jakarta.
- [38] Suwardji et al., 2009. Grand Strategi Pengembangan Agribisnis Jagung di Nusa Tenggara Barat (2009-2013): Membumikan Jagung, Merebut Pasar. Pemerintah Provinsi NTB, Mataram, 103 pp.
- [39] Zainuri, Sjah, T., Sauqi, A. and Jayaputra, 2016a. Pengembangan Agrowisata Melalui Sistem Agribisnis dan Agroindustri Terpadu Untuk Mendukung Pariwisata dan Ekonomi Desa Gumantar Kabupaten Lombok Utara (Developing Agrotourism Through Integrated System of Agribusiness for Supporting Tourism and Economic of Gumantar, North Lombok), Lembaga Penelitian Universitas Mataram (Research Institution of University of Mataram), Mataram.
- [40] Zainuri, Sjah, T., Sauqi, A. and Jayaputra, 2017a. Agro-tourism Development in North Lombok, Indonesia, Stimulates New Crops and Technology Adaptation, and Farming Becomes Profitable. Asian Academic Research Journal of Multidisciplinary, 4(4): 1-8.
- [41] Zainuri, Sjah, T., Sauqi, A. and Jayaputra, 2017b. New Crop Introduction to Agro-tourism Area of Gumantar, North Lombok, Indonesia, is Profitable. Asian Academic Research Journal of Social Sciences & Humanities, 4(4): 1-12.
- [42] Zainuri, Zaini, A., Werdiningsih, W. and Sjah, T., 2016b. Keragaman pangan lokal di Pulau Lombok untuk menunjang pengembangan pariwisata (Diversity of Local Foods in Lombok Island to Support Tourism Development). Agritech, 36(2): 206-218.

Agribusiness System in The Agro Tourism Area of Gumantar, North Lombok

ORIGINALITY REPORT

17%

SIMILARITY INDEX

14%

INTERNET SOURCES

7%

PUBLICATIONS

4%

STUDENT PAPERS

PRIMARY SOURCES

1	"Preface: Proceedings of the 2nd International Conference on Bioscience, Biotechnology, and Biometrics 2019 (ICBBB2019)", AIP Publishing, 2019 Publication	3%
2	sintadev.ristekdikti.go.id Internet Source	2%
3	sinta3.ristekdikti.go.id Internet Source	1%
4	download.atlantis-press.com Internet Source	1%
5	Submitted to Syiah Kuala University Student Paper	1%
6	scitepress.org Internet Source	1%
7	bukittinggiblogger.blogspot.com Internet Source	1%
8	www.scirp.org Internet Source	

1 %

9 e-journal.unair.ac.id
Internet Source

<1 %

10 eprints.umm.ac.id
Internet Source

<1 %

11 repo.unand.ac.id
Internet Source

<1 %

12 sinta.ristekbrin.go.id
Internet Source

<1 %

13 I M Sudantha, S Suwardji, I G P M Aryana, I M A Pramadya, I Jayadi. "The Effect of Liquid Bio Fungicides Dosage Trichoderma spp. against Fusarium Wilt Diseases, Growth and Yield of Onion", Journal of Physics: Conference Series, 2020
Publication

<1 %

14 core.ac.uk
Internet Source

<1 %

15 www.its.ac.id
Internet Source

<1 %

16 fanres.fatepa.unram.ac.id
Internet Source

<1 %

17 jurnal.uts.ac.id
Internet Source

<1 %

18	ejournal2.litbang.kemkes.go.id Internet Source	<1 %
19	jts.unram.ac.id Internet Source	<1 %
20	isbn.perpusnas.go.id Internet Source	<1 %
21	www.asianacademicresearch.org Internet Source	<1 %
22	Nurhasan, Muhammad Nadhif Rizqia, Hidayat, Ahmad Setiawan et al. "Identification of Geological Structure Based on Gravity Method in Tangkuban Parahu Volcano, Bandung, Indonesia", IOP Conference Series: Earth and Environmental Science, 2023 Publication	<1 %
23	Submitted to Universitas Muhammadiyah Yogyakarta Student Paper	<1 %
24	erepo.unud.ac.id Internet Source	<1 %
25	www.orientjchem.org Internet Source	<1 %
26	garuda.kemdikbud.go.id Internet Source	<1 %

27

I K D Jaya, H Suheri, W Wangiyana. "Can organic soil ameliorant and foliar organic fertilizer improve maize yield and reduce inorganic fertilizers input in a dryland semiarid?", IOP Conference Series: Earth and Environmental Science, 2021

Publication

<1 %

28

jurnal.ugm.ac.id

Internet Source

<1 %

29

jurnalfkip.unram.ac.id

Internet Source

<1 %

30

repository.pertanian.go.id

Internet Source

<1 %

31

Luciana M. C. Silva, Patrícia M. dos S. Silva, Caroline S. Pagnan, Eliane Ayres. " (Indigofera tinctoria): toward an environmentally friendly garment ", Coloration Technology, 2023

Publication

<1 %

32

T Sjah, I Budastra, I G L P Tanaya, Halil. "Crop selection in dryland of North Lombok Regency: farmers search for more money and less risk", IOP Conference Series: Earth and Environmental Science, 2021

Publication

<1 %

33

andihasad.files.wordpress.com

Internet Source

<1 %

34 iopscience.iop.org
Internet Source

<1 %

35 www.yumpu.com
Internet Source

<1 %

36 "Committee", 2018 2nd International
Conference on Applied Electromagnetic
Technology (AEMT), 2018
Publication

<1 %

Exclude quotes On

Exclude matches Off

Exclude bibliography On

Agribusiness System in The Agro Tourism Area of Gumantar, North Lombok

GRADEMARK REPORT

FINAL GRADE

/0

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

PAGE 10

PAGE 11

PAGE 12

PAGE 13

PAGE 14

PAGE 15
