

Contents

Preface	----- i
 Section I: Productivity improvement and value addition of lowland/upland rice	
1: Key agronomic traits for variety selection by farmers in upland rice systems of Lao	
Hidetoshi Asai, Pheunphit Soisouvanh	----- 1
2: Toward efficient farm management with remote sensing technologies in lowland rice fields in Laos	
Kensuke Kawamura, Hiroshi Ikeura, Naruo Matsumoto, Hidetoshi Asai, Sengthong Phongchanmixay, Phanthasin Khanthavong, Soukasdachanh Souvannasing, Thavone Inthavong	----- 15
3: Soil–water conditions and efficient fertilization strategies to increase rice grain yield in rainfed lowland fields in Savannakhet Province	
Hiroshi Ikeura, Sengthong Pongchanmixay, Amphone Chomxaythong, Bounson Bounyavong, Phanthasin Khanthavong, Thanouphone Khanthavong, Naruo Matsumoto, Kensuke Kawamura, Laeh Homsengchanh, Somphone Inkhamseng	----- 23
4: Current status of paddy field agriculture and efficient water use in existing reservoirs for fish aquaculture in a semi-mountainous village in Vientiane Province, Laos	
Hiroshi Ikeura, Toshihiko Anzai, Amphone Chomxaythong, Khaykeo Keokhampui, Salermphon Phonsangone, Phetyasone Xaypanya, Sengthong Pongchanmixay, Somphone Inkhamseng, Somnuck Soubat, Haruyuki Fujimaki	----- 39
 Section II: Agricultural management in mountainous slope area	
1: Soil suitability map for planted teak (<i>Tectona grandis</i> L.f.) stand growth in the mountainous area of northern Lao People's Democratic Republic	
Akihiro Imai, Simone Vongkhamho, Phutthavong Sikhot	----- 53
2: Collections and genetic diversity analyses of SSR markers for mango native genetic resources in Lao PDR	

Shinsuke Yamanaka, Tatsushi Ogata, Phaythoune Mounsena, Nouphone Khamsonphou, Hiroshi Matsuda, Bounneang Douangboupha	65
--	----

Section III: Nutritional improvement in rural areas and value addition of fishes

1: <i>Padaek</i> distribution and business management in Vientiane capital, Lao PDR Katsumi Hasada, Phonesanith Phonhnachith, Phonevilay Sinavong, Manivanh Phimpachanvongsod, Shintaro Kobayashi, Junichiro Marui	71
2: Assessment of food access in Laos from macro and micro perspectives Katsumi Hasada, Souny Phomdouangsy, Phonevilay Sinavong, Phonesanith Phonhnachith, Manivanh Phimpachanvongsod	79
3: Assessment of usage and fermentation-related components of <i>pa daek</i> , a salt-fermented freshwater fish paste, for household use in a semi-mountainous village in Laos Junichiro Marui, Katsumi Hasada, Souphachay Phoupasouk, Sayvisene Boulom	89
4: Fermentation period-dependent changes of lactic and amino acid concentrations in <i>pa daek</i> , a salt-fermented freshwater fish paste in Laos Junichiro Marui, Yethao Giavang, Souphachay Phoupasouk, Yanglao Yiale, Sayvisene Boulom	95
5: Nutritional analysis of freshwater fish and shellfish for improving human nutrition in rural area in Laos Kaori Fujita, Philavanh Boutsavath, Xaypunya Mahathilath	101

Section IV: Sustainable aquaculture and fisheries

1: A study on larval rearing of the local freshwater shrimp, <i>Macrobrachium dolatum</i> , in Laos: a potential target species for aquaculture Tomoyuki Okutsu, Aloun Khounthongbang, Phonenaphet Chanthasone, Phoutsamone Phommachan, Sayaka Ito	109
---	-----

- 2:** Importance of resources of small-sized fishes as fundamental components of food resources and fish diversity in Lao PDR

Shinsuke Morioka, Bounsong Vongvichith

----- 117

- 3:** Technical achievements of indigenous fish aquaculture in rice-paddy and pond in rural areas of Lao PDR: summarized results obtained by the JIRCAS-LARReC project

Bounsong Vongvichith, Shinsuke Morioka

----- 127