### JSTA 日本熱帯農業学会

# 熱帯農業研究

## 第 12 巻 別号 2

日本熱帯農業学会第126回講演会

I. 研究発表講演要旨

Ⅱ. ポスターセッション要旨

Ⅲ. 公開シンポジウム要旨

会場:アトールエメラルド宮古島(講演会)沖縄県宮古島市マティダ市民劇場(シンポジウム)

2019年11月23日, 24日

10:45	樋口	パッションフルーツにおける花粉発 芽の耐暑性の品種間差 松田大志 ら 国際農研熱帯島嶼研究拠点  © Effects of relative humidit on freshness of tomato frui stored under high-temperatur conditions Gulbuddin Gulab et al. Tokyo University of Agricultur	it re			
11:00	浩和・京	歴児島県におけるアーモンドの発芽 および開花特性 香西直子 ら 鹿児島大学 他	ty			
11:15	大	受粉源となる花粉稔性がナツメヤシ 大 の着果、収量および品質に及ぼす影 響 寺田順紀 ら 東京農業大学				
11:45 - 12:30	東京農業大学  ポスターセッション (艪の間 2階)  1. ② サブサハラ・アフリカ半乾燥地域における乾燥に対応した栽培技術―ケニア東部キツイ郡を事例に― 桐山大輝 ら 東京農業大学  2. ③ Nutrition improvement through agrodiversity in rural areas of Kenya -Stimulating use of local food resources in Africa to improve nutrition and livelihoods- Madoka Kishino et al. Tokyo University of Agriculture et al.  3. ピタヤ (Hylocereus undatus) 花粉の長期保存に関する研究~保存方法の検討と果実品質~ 東江真梨子 ら 玉川大学  4. パクロブトラゾール処理がパッションフルーツの開花、結実および果実形質に及ぼす影響 島田温史 ら 玉川大学 他  5. Depopulation and Abandoning Farming Problem as a Global Issue: Burmese and Bhutanese Scholars' Experience in Japan, July-August 2019 Akamatsu Y. et al. Kyoto University et al.  6. 島ニンジンの最適栽植密度および根の無機成分における系統間差異 砂川春樹 ら 中城村役場 他  7. 農業高校におけるESD実践ーカカオを教材として一 安部由香子 ら 東京農業大学					
12:30		昼休み				
13:30 - 17:30	3	公開シンポジウム(沖縄県宮古島市マティダ市民劇場) 「九州および南西諸島地域における気候変動に対応する熱帯農業研究」 司会 菊野日出彦(東京農業大学) 会長挨拶: 学会長 縄田栄治氏 質挨拶 : 宮古島市 市長 下地敏彦氏 年の降雨パターンの変化が農地に及ぼす影響ー速報ー」 鈴木伸治氏 (東京農業大学)	)			

	・「干ばつ耐性向上をめざした稲の根系改良の試みと今後の展望」 宇賀優作氏 (国立研究開発法人 農業・食品産業技術総合研究機構)					
	・「近縁遺伝資源を利用したサトウキビ改良の取り組み」 寺島義文氏 (国際農林水産業研究センター)					
	・「気候変動が九州および南西諸島地域における果樹生産に及ぼす影響」 山本雅史氏 (鹿児島大学)					
	パネルディスカッション					
18:00	懇親会・学生優秀発表賞授賞式(ホテルアトールエメラルド宮古島2階・櫂艪の間)					

#### 11月24日(日)

11月24日	<b>1</b> (	日)				Mr — A JE
開始時刻	第一会場 漲水 A(2 階)			第二会場 漲水 B(2 階)		
h4.\(\forall 1\)		番号	講演題目	座長	番号	講演題目
9:00			インドネシア・マルク州における檳榔利用 山本宗立 ら 鹿児島大学 他	大	27	Waterlogging Induced Changes in Morpho-Physiology of Soybean Hossain Md. Saddam et al. Bangabandhu SMR Agricultural University et al.
9:15	根本和洋・信用	21	ブルキナファソ中央台地に自生する アンドロポゴンの利用実態 團晴行 ら 国際農林水産業研究センター 他	前英・国際農	28	Household Survey on Rice-Black Gram Cropping System in Maubin Township, Ayeyarwady Delta in Myanmar Kazuo Ando et al. Kyoto University et al.
9:30	. 州大	大 ミャンマー・バゴ システムでのム	竹田晋也ら	· 研	29	タンザニアの灌漑水田における節水稲作技術の開発に向けた取り組み 森 恒樹 ら 東京農工大学 他
9:45	上 佐々木大	23	沖縄県産ピタヤ品種の変遷に関する 現地調査 柳澤俊介 ら 京都大学	加藤太		竹中浩一 ら   国際農林水産業研究センター 他
10:00	() 日大		マラウイ高地におけるリンゴ栽培の 導入と普及 -中部州デッザ県を事 例に- 福田聖子 ら 日本大学 他	・日大	1	部分耕起と有機物マルチの組み合わせが土壌侵食及びサトイモの生育に及ぼす影響大前英 ら国際農林水産業研究センター 他

#### Depopulation and Abandoning Farming Problem as a Global Issue: Burmese and Bhutanese Scholars' Experience in Japan, July-August 2019

Y. Akamatsu<sup>1</sup>, \*K. Ando<sup>1</sup>, K. Yajima<sup>1</sup>, H. Uchida<sup>1</sup>, S. Win<sup>2</sup> and T. Tshomo<sup>3</sup> (<sup>1</sup>CSEAS, Kyoto Univ., <sup>2</sup>Maubin Univ. <sup>3</sup>Sherubtse College, RUB)

グローバルイシューとしての過疎と離農:ミャンマー・ブータンからの研究者たちの日本で の経験, 2019 年

赤松芳郎・\*安藤和雄・矢嶋吉司・内田晴夫・ソゥ ウィン・タシ ツォモ

Introduction: To overcome rural development issues such as depopulation and abandoning farming, the importance of outreach and engagement by University/College is getting to be recognized in Myanmar and Bhutan. For example, Sherubtse College, Royal University of Bhutan, established GNH Community Engagement Center in March 2019 to encourage local/rural contribution through a practice of Bhutanese development philosophy, called Gross National Happiness (GNH). However, their attempt is just getting started and the network for cooperation with the community is not good enough. The Center for Southeast Asian Studies (CSEAS), Kyoto University, has established field stations in the rural area of Kyoto and Shiga Prefecture since 2008 and implemented several action researches in cooperation with local governments, residents' associations, NGOs and so on. These CESAS's working experiences and activities in cooperation with locals would be a lesson to scholars and locals in Myanmar and Bhutan to build up University/College-Community partnership. Furthermore, current Japanese revitalization activities have been practiced by strong initiatives of community people. The direct interaction among local practitioners would empower community activity in Myanmar and Bhutan in the grass-root level. In the summer of 2019, two Burmese (one scholar from Maubin University and one villager from Ayeyarwady Region) and six Bhutanese (three scholars from Sherubtse College and three villagers from Trashigang District) participated in the study tour conducted in Japan to strengthen mutual understanding and share the idea for rural issues and University-Community engagement.

Methodology: The study tour including fieldwork with Participatory Rural Appraisal (PRA) was carried out in Kyoto and Shiga Pref. from 29th July to 9th August 2019 (Table 1). In addition to eight participants from Myanmar and Bhutan, three Japanese scholars from Kyoto Univ. participated in the study tour as a facilitator as well as a translator. Total 10 undergraduate students also took part in the fieldwork especially conducted in Kamiyazu from Table 1 Study tour schedule in Kyoto and Shiga Prefecture 2019

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I	Date	Place	Activity
2	9-Jul	Kyoto	Internal workshop (introduction of Myanmar and Bhutan)
3	0-Jul	Moriyama	Courtesy call on Moriyama city hall, visit Hayano-ku Kominkan
3	1-Jul	Miyazu	Visit Seya community and Seya Kominkan, Visit Hioki (lecture given by local practitioners)
1.	-Aug	Miyazu	Visit local farmer(Hioki), visit Kigo community
2	-Aug	Miyazu	Visit Kamiyazu community (Cultural program, lecture on community activity by local practitioners)
3-	-Aug	Miyazu	Participation in community activity(maintanance of forest road in Mt.Sugiyama)
4	-Aug	Miyazu	Visit Kigo community
5	-Aug	Moriyama	Participation in School Kids Summer Education Program
6	-Aug	Nantan	Visit Kita community
7.	-Aug	Nantan	Visit community folklore museum(kita), Visit Chii Community Development Association
8-	-Aug	Nantan	Visit Chii Community Development Association(lecture on community activity by local practitioners)
9.	-Aug	Kyoto	Wrap-up meeting

2nd to 3rd August. During the program, each Burmese and Bhutanese participant was requested to note down three most impressive experiences with keywords each day. Each keyword was explained by the fact-based their own experience of each day. After the end of the whole study tour program, the participant

Table 2 Score of keyword in the Study tour 2019 by Burmese and Bhutanese participants

Keywords	Place(experienced/impressed)	Score
Community-based program	Kamiyazu <sup>1)</sup> , Misaki <sup>2)</sup> , Chii <sup>3)</sup>	9
Depopulation	Seya <sup>1)</sup> , Kigo <sup>1)</sup>	6
People's cooperation	Kamiyazu <sup>1)</sup>	3
Agriculture	Hioki <sup>1)</sup>	3
Cultural heritage	Kita <sup>3)</sup>	2
Cultural exchange	Misaki <sup>2)</sup>	1

<sup>1)</sup> Miyazu-city(Kyoto Pref.) 2) Nantan-city(Kyoto Pref.) 3) Moriyama-city(Shiga Pref.)

selected three facts and keywords by ranking, and presented it at the wrap-up meeting. Each keyword was scored one point and summed up after checking the relationship between the fact and its keyword by the participants (Table 2).

Result and Discussion: The result is given in Table 2. The keyword "Community-based program" got the highest score through the program. Kamiyazu, Misaki and Chii communities have practiced several community-based activities with their initiatives and future visions. The participants understood its importance and potential from the experience of participation in community activities, such as grass cutting work in Mt.Sugiyama by Kamiyazu community (on 3rd Aug.) and the School Kids Summer Education Program in Misaki community (on 5th Aug.). The second highest scored keyword was "Depopulation". Observation of ruined empty houses, closed primary school, inscribed words of a stone monument in front of empty houses, abandoned farmlands in rural communities and stories on depopulated community mentioned by local people gave a real shock to the participants by contrast with the well-developed physical infrastructure of Japanese rural communities.

Remarks: At the end of the wrap-up meeting, several action plans were proposed by each participant (Table 3). After their returning from Japan, some participants have reported that they have already started to implement some action plans in their community. Their new trial in the community might not solve the problems immediately, but their initiatives and cultivated relationship through the study tour program in Japan would open a new path for challenging rural development issues and betterment of rural life.

Table 3 Example of action plans proposed by Burmese and Bhutanese participants

#### Action plan

Establishment of traditional/heritage museum (Myanmar, Bhutan)

Establishment of model village of community development (Myanmar)

Organize volunteer group for helping aging people (house cleaning and support of agriculture) (Myanmar)

Cleaning campaign and waste segregation (Myanmar, Bhutan)

Promotion of local eco-tourism (guide book, photo contest, homestay program, etc) (Bhutan)

Re-use of abandoned farmland (floriculture, horticulture) (Bhutan)

Implementation of organic pestiside (Bhutan)

**Acknowledgement:** We are grateful to *Kamiyazu 21 yume-kaigi*, Kamiyazu Regional Council, Misaki residents' association, Chii Development Association, for their support and collaboration. This study tour program was supported by the Toyota Foundation's International Grant Program (headed by R. Sakamoto (Kyoto Univ.)) and JSPS KAKAEN (Type A, headed by K. Ando (Kyoto Univ.)).

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パチャキル・バビル, 寺田順紀

Japanese Society for Tropical Agriculture

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