第 33 回人類生態学研究会

The 34th meeting on Human Ecology meeting

Date: October 24, 2020

Time: 10:00-12:00 (JST, UTC+9)

Place: online (Zoom URL will be announced later)

Opening remarks (Prof. Umezaki)

Academic presentations 10:10-11:00

1. Kibe, Mihoko "Divergence in nutritional intake and physical activity patterns among households in a village of ethnic minorities in northern Laos at the initial stage of health transition"

2. Maharjan, Makhan "Nepal: COVID-19 cases rise amid efforts to curb"

3. Dewanti, Linda "The remaining problem of leaving no one behind: The deported Indonesian migrant workers"

4. Nakazawa, Minato "Exploring the research in Kobe: Graduate students' studies which I supervised"

5. Himeno, Seiichiro "Development of diabetes by arsenic exposure in Bangladesh: Possible involvement of muscle loss"

Updates from the alumni members 11:00-11:30

General meeting 11:30-11:45

Casual chat 11:45-12:00

Divergence in Nutritional Intake and Physical Activity Patterns among Households in a Village of Ethnic Minorities in Northern Laos at the Initial Stage of Health Transition
健康転換初期の少数民族村落における栄養摂取と身体活動パタンの世帯間差：
ラオス北部での人類生態学研究

Mihoko Kibe　木部未帆子

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Introduction

Ethnic minorities in northern Laos have experienced rapid changes in subsistence patterns following the recent introduction of a cash economy, with possible effects on nutritional intake and physical activity patterns. This study aimed to describe nutritional intake and physical activity patterns in a village of ethnic minorities in northern Laos, paying special attention to the divergence of nutritional intake and physical activity patterns due to differences in subsistence strategies.

Methods

The study was conducted among ethnic minorities in Nam Nyon village in Oudomxay province, northern Laos. Direct weighed dietary survey and time allocation survey were conducted for 14 couples (n = 28) in August-September 2019. The target households were clustered based on the variables that reflect subsistence strategies. Nutritional intake and physical activity patterns were compared between clusters.

Results and Discussion

The results revealed nutritional divergence between two household groups: households that relied more heavily on upland fields and secondary forests consumed more vegetables and vitamin C, while households that relied more heavily on paddy fields consumed more small fish, wild boar, salt, protein, niacin, and vitamin B12. It was speculated that such nutritional divergence emerged due to difference in utilization of environmental resources (i.e. upland field, paddy field, secondary forest, river) between the two groups.

Conclusion

We demonstrated a case of nutritional divergence in an economically isolated community that has been developed due to the difference in subsistence strategies. This aspect should be considered when implementing modernization policies and restriction of land use.

Nepal: COVID-19 cases rise amid efforts to curb

Makhan Maharjan

Abstract

The Government of Nepal declared a country-wide lockdown in March 2020 in an attempt to control the spread of the 2019 novel coronavirus infection. Both the government and people were not much worried with only two cases detected with people returned from overseas. But during almost three months lockdown until mid-June, number of cases increased to 17,994 with 40 deaths. Further, due to rise in the number of cases, district administration offices imposed prohibitory orders with restriction to outdoor movements for three weeks in August-early September 2020. People are unhappy with the government for the number of cases spike, and its failure in management of the situation effectively. COVID-19 cases have spread to all 77 districts of the country and as of 23 September 2020, from 944,474 RT-PCR tests, the Ministry of Health and Population has confirmed a total of 67,804 cases (17,414 active cases, 25.68%) and 436 deaths (0.64%). Of the total cases, nearly three-fourth (73.61%) are male with 26.39% of female, and the most affected age group is 21-30 years followed by 31-40 years. In later period, there are also reports on infection of hundreds of frontline healthcare professionals and security personnel. An exponential rise in cases and increase in deaths in recent days have become a serious concern and big challenge for a low-resource country like Nepal. With beds in hospitals for COVID-19 infected patients almost occupied, effective preventive and control measures are needed to stop community transmission of the disease and prevent catastrophe.

Makhan Maharjan is serving as Executive Director at Urban Environment Management Society (UEMS), a not-for-profit non-government organization in Nepal that aims to contribute in community development through healthy living and clean environment for sustainable development. Currently, he is also Principal Investigator of Lien Environmental Fellowship Award Project of Singapore for arsenic safe drinking water facility in schools in arsenic affected Nawalparasi district, Nepal. Makhan graduated with a M.Sc. in Microbiology from Tribhuvan University, MHSc in environmental health from The University of Tokyo, Japan and PhD in environmental engineering from NTU, Singapore.

The remaining problem of leaving no one behind:
The Deported Indonesian Migrant Workers

Linda Dewanti

Introduction. Although Indonesian government success to reduce poverty over the past decades by generating new jobs, many Indonesian people are still left behind in seeking job and better quality of life especially for those who has not accomplished their secondary education level. Then they start to search any possibilities to work as a migrant worker. Malaysia is the top destination of this type of workers due to distance between this two countries, similar language and simple requirements). Objective of this study was to explore welfare of the migrant workers who were deported from Malaysia. Methods. All deported migrant workers through port of Tanjung Pinang Indonesia who agree to participate this study were recruited during May-July 2018, after signing informed consent. This study was approved by ethical committee of Universitas Airlangga – Indonesia. Respondents were interviewed using questionnaire and deep interview. Results. Of the 62 deported migrant workers, majority they were female, and 59 of them accomplished interview by questionnaires. Almost all of them (96.8%) did not have work permit and health insurance. Female worked as a housemaid (65.9%), and the remains worked as helper in restaurant, cleaning service, construction, plantation, and night club. Male worked as construction (65%), plantation, and pet shop labor. Although female worked longer every day, but they earned lower wages/month compared to male workers (12.9 ±3.6 vs. 8.8 ±1.5 hours/day; $p< 0.001$; and USD/month 165.8 ±142.6 vs. 484.2 ±155.1 ; $p<0.001$ respectively). 30.7% of female did not receive salary at all. In term of power abuse, 43.6% of female and 10% of male experienced in verbal abuse (chi square p: 0.009); while only female got physical and sexual violence (13.2% and 13.2%). Majority they (both Female and male) were arrested during the raid and finally had been deported after finishing their sentences in jail

Conclusion. Female migrant workers were more vulnerable to became victims of human exploitation compared to male workers, although they both did not have the legal documents to work legally.

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Exploring the research in Kobe: Graduate students' studies which I supervised

Minato Nakazawa

Abstract:

I think the study of human ecology may include fieldwork, laboratory based studies and computer based model studies. All of those are interrelated. I have supervised many graduate students in Kobe University for recent 8 years across the three area above mentioned. Basically most of graduate students conducted fieldwork in Japan and overseas such as Indonesia, Philippines, Solomon Islands, Nepal, and Federated States of Micronesia. Topics are infectious diseases, disaster influence, obesity, lifestyle, and so on. Several papers have already been published, though a couple of very interesting studies still remain unpublished. Some studies applied highly sophisticated computer analysis like GIS and multiple imputation. In laboratory, water quality of Togagawa river near the University has been measured in cooperation with the citizens' voluntary group for the conservation of the Togagawa river.   The result is now going to be submitted. In this year, we are facing a difficulty to conduct fieldwork due to the pandemic of covid-19, so that the graduate students try to find alternatives including second-hand large scale data analysis and online survey. I will introduce some of those in detail and try to show further development to explore the human ecology study in Kobe.

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Development of diabetes by arsenic exposure in Bangladesh:
Possible involvement of muscle loss
バングラデシュのヒ素汚染地域における糖尿病の増加と筋肉量低下との関係

Seiichiro Himeno
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Many epidemiological studies have indicated that chronic exposure to arsenic (As) increases the prevalence of diabetes, but the dose-response relationship and the underlying mechanisms remain elusive. In collaboration with Rajshahi University in Bangladesh, we investigated the relationships between As exposure indicators (water, hair, and nail As concentrations) and the biomarkers for diabetes such as blood glucose levels (fasting and 2-hr after glucose loading) and serum insulin and creatinine levels among the residents in As-polluted and non-polluted areas in western Bangladesh. We found that the risk of diabetes, diagnosed by fasting blood glucose and glucose tolerance test, increased as the levels of As exposure indicators increased, especially in females. Serum insulin levels and HOMA-IR, a marker for insulin resistance, but not HOMA-β, a marker for pancreatic dysfunction, were increased by As exposure. On the contrary, serum creatinine levels decreased with increasing arsenic exposure. Lean body mass (LBM) also decreased with increasing arsenic exposure, suggesting that exposure to As caused the loss of skeletal muscle mass. When the levels of serum creatinine and LBM were divided into high (normal), modest, and low groups, the low groups of both indicators showed increases in HOMA-IR, especially in females. Several human studies have suggested that the lower muscle mass or the reduction in muscle mass is a risk factor for diabetes. Although this study has a limitation due to the cross-sectional study, our data suggest that chronic exposure to As in Bangladesh enhanced the risk of diabetes partly via the loss of skeletal muscle mass.