

3rd ESP Asia Conference

14-17 December 2021 | Nagasaki, Japan

Eco-health and ecosystem services in Asia:
Bottom-up aspects for planetary health

ONLINE

BOOK OF ABSTRACTS

- I. SESSION DESCRIPTION
- II. SESSION PROGRAM
- III. ABSTRACTS

I. SESSION DESCRIPTION

ID: T9c

Health Promotion Meets Planetary Health: Insights from the Human Sciences

Hosts:

	Title	Name	Organisation	E-mail
Host:(1)	Dr.	Gergely Mohacsi	Osaka University	mohacska@hus.osaka-u.ac.jp
Co-host(s):	Dr.	Beverley Anne Yamamoto	Osaka University	
Other organisers (2)	Dr.	Elli W. Sugita	Osaka University	
	Dr.	Yumi Kimura	Osaka University	

Abstract:

Planetary health has become a key theme in understanding the challenges that human-induced changes to the environment place on future public health from chronic respiratory diseases to antimicrobial resistance. While considerable inequalities remain, it is fair to say that most human health indicators have improved greatly over the past fifty years around the world. During the same period, however, the health of the planet has sharply declined. Air pollution, shrinking biodiversity and climate change are widely recognized health hazards. The global environment shows signs of vulnerability that we have associated, for a long time, with suffering human bodies: stress, trauma and toxicity are only few of the most obvious symptoms. As a result, human wellbeing has been increasingly understood as a looping effect of changing local ecosystems and planetary processes. In this session, we will discuss the challenges and possibilities of bringing insights from the human sciences into the emerging field of planetary health, both conceptually and methodologically. To address the dangers of human exceptionalism and open up the question of ontological vulnerability across living beings and environmental conditions, we will need to develop novel theoretical and methodological toolkits and re-embrace popular stories as essential elements of deep and slow learning about health, the environment and the planet. Building on previous and existing approaches in the human sciences, the aim here is both to create new spaces for local action and scientific discourse to better understand the shifting landscapes and politics of health promotion from public to planetary scale.

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Goals and objectives of the session:

The purpose of the discussion in this session is to put the ecosystems services approach to planetary health into a conversation with the human sciences and to clarify the possible themes and methods for further cross-disciplinary research.

Planned output / Deliverables:

A special issue for an academic journal co-edited by scholars from the ecological as well as the human sciences to address the pressing challenges of planetary health from an interdisciplinary perspective.

Related to ESP Working Group/National Network:

TWG 9- ES & Public health

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II. SESSION PROGRAM

Date of session: Wednesday, 15 December 2021

Time of session: 10:00-13:00

List of abstracts and speakers

1. Introduction—Gergely Mohácsi (Osaka University, Graduate School of Human Sciences)
2. Exploring the linkages being made between reproductive health/rights and planetary health activism—Beverley Yamamoto (Osaka University, Graduate School of Human Sciences)
3. Food choices and its impact on planetary health: A discussion from a case study in Papua, Indonesia—Yumi Kimura (Osaka University, Graduate School of Human Sciences) & Rise Sasaki (Osaka University)
4. A mobile app cultivates people's green lifestyle, promoting ecosystem services indirectly—Sining Zhang (Department of Landscape Architecture, School of Architecture and Design, Southwest Jiaotong University (SWJTU))
5. Thinking about planetary health with digital methods—Yuki Sugawara (Keio University, Department of Science and Technology)

Break 15min

6. Paper diapers: Hygienic savior or luxury eco issue—Junko Otani (Osaka University, Graduate School of Human Sciences)
7. Looking at hand washing with soap through the lens of planetary health—Elli Sugita (Osaka University, Graduate School of Human Sciences)
8. Learning to heal the planet: The case of pharmaceutical pollution—Gergely Mohácsi (Osaka University, Graduate School of Human Sciences)
9. General Discussion

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III. ABSTRACTS

Exploring the linkages being made between reproductive health/rights and planetary health activism

Presenting author: Beverley Yamamoto

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Although only one part of the equation, the negative impact of population growth on our eco system and the health of the planet is compelling. Nevertheless, the issue of how to stabilize or even reduce population growth has long been a sensitive one that has historically pitted environmental scientists and activists against women and feminists. Top down population control policies implemented in lower income countries in the 1970s and 1980s, often with the backing of international organizations, led to well documented human rights abuses. More recently, however, there is growing recognition of a shared agenda between those working on broader reproductive health/rights and, and those interested in protecting the health of our planet. Indeed, there is growing recognition that the promotion of reproductive health and rights, especially those of women and minorities may be an ethical, just and effective response to the climate crisis and strain on ecosystems.

This paper is exploratory and seeks to chart and describe the emerging movement and activism around reproductive health/rights and climate change/planetary health. It is based on an analysis of academic papers, strategic reports and web site content of think tanks, international and grassroots organizations that are working on reproductive health/rights issues from the perspective of climate change, environmental degradation and/or planetary health. Initial analysis shows that a focus on the vulnerability of individuals most at risk by environmental degradation and a commitment to working with rather than for them has transformed historical tensions between women's health and environmental activists. At the same time, the scope of reproductive health issues that are being addressed are broad and go beyond that of contraception and unintended pregnancies.

A mobile app cultivates people's green lifestyle, promoting ecosystem services indirectly

Presenting author: Sining Zhang

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The "Internet +" era creates many positive opportunities for people to lead a low-carbon lifestyle. However, in existing literature, there are few studies on how users' green awareness and behavior are affected. So this study proposes a research model to empirically test the effect of factors on green self-awareness and individual behavior change in which the APP of Ant Forest. Through survey investigation, 220 valid questionnaires were collected. This study adopted the partial least squares path analysis method to analyze the data. The results indicate that environmental concern, social of achievement, and social and entertainment have a positive influence on users' awareness change.

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Meanwhile, social and entertainment, and self-awareness change positively affect individual behavior change. The findings suggest that a well-designed “Internet + Green public welfare” model can enhance innovation combined with environmental protection and gamification, and develop the public green behavior performance. Then, the implications, the limitation and future trends are discussed. This paper aims to provide a reference of the “Internet + Green public welfare” model that might inspire people to live a green lifestyle, as well as motivate the countries and NGOs to develop related products promotion.

Learning to Heal the Planet: The case of pharmaceutical pollution

Presenting author: Gergely Mohácsi

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Situating itself at the crossroads of the epidemiological and ecological sciences, the emerging field of planetary health has been focused on so-called ‘ecological drivers’ that are said to be affecting human health and disease on a planetary scale. By looking at the growing threat of pharmaceutical pollution in the environment, and healthcare services as one of its major driving forces, this paper will argue that we should reconsider these causes as “social-ecological drivers.” Global health initiatives have been one of the most important causes of the growing consumption and disposal of pharmaceuticals worldwide. I will introduce two different modes of coping with pharmaceutical pollution—the development of biodegradable drugs in Europe and the gardening of medicinal plants in Japan—to show how experimenting with various forms of public participation has become a case in point in the ongoing debates on how to prevent further damage. Drawing on these two short case studies and other research findings in medical anthropology and science studies, I suggest that public health promotion will need to take a planetary turn to test interventions on the ruins of global health that go beyond the division between natural and political worlds.

Thinking about Planetary Health with Digital Methods

Presenting author: Yuki Sugawara

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Recently, the concept of “planetary health”(e.g. Whitmee et al. 2015) has been spreading among researchers, policymakers, and regulators. This concept is based on the notion that “human health and human civilisation depend on flourishing and balanced natural systems and wise stewardship of those ecosystems”(Halonen et al. 2020). The paper explores how this concept comes to be present in the online space, especially how the websites or webpages relate to each other. The paper makes use of the so-called Hyphe web crawler (Jacomy et al. 2016), one of the many existing digital methods. Digital methods are tools for searching and analyzing online data (e.g. Rogers 2019). Hyphe is able to scrape and crawl webpages, identify their hyperlinks, and describe their relations as a network graph. After identifying some websites as critical actors for planetary health, this paper analyzes their relationship

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among websites for planetary health itself and among related topics (especially, plastic waste, food access, hand-washing, antimicrobial resistance and reproductive health).

References

Halonen, J. I., Erhola, M., Furman, E., Haahtela, T., Jousilahti, P., Barouki, R., ... & Antó, J. M. (2020). The Helsinki Declaration 2020: Europe that protects. *The Lancet Planetary Health*, 4(11), e503-e505.

Jacomy, M., Girard, P., Ooghe-Tabanou, B., & Venturini, T. (2016, March). Hyphe, a curation-oriented approach to web crawling for the social sciences. In Tenth International AAAI Conference on Web and Social Media.

Rogers, R. (2019). *Doing digital methods*. Sage.

Whitmee, S., Haines, A., Beyrer, C., Boltz, F., Capon, A. G., de Souza Dias, B. F., ... & Yach, D. (2015). Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health. *The Lancet*, 386(10007), 1973-2028.

Looking at hand washing with soap through the lens of planetary health

Presenting author: Elli Sugita

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The pandemic caused by COVID-19 has had enormous impact on human health and daily life all over the world. Several types of vaccines have been developed and being distributed, yet other public health measures including handwashing with soap are still critical in preventing the infection. The effectiveness of handwashing with soap for preventing fecal-oral diseases and droplet infections were long recognized by public health specialists, but never has it been promoted this vigorously since the COVID-19 pandemic started. In this pandemic situation, the highest priority is given to the prevention of COVID-19 infection.

Although handwashing with soap should be promoted, is it problem free if we look through the lens of planetary health? Currently, WHO is recommending the water quality for handwashing to be at least that of “safe water” defined by the Joint Monitoring Programme (JMP). Using running water is also among the recommendation, thus safe water consumption will increase. Over-withdrawal of freshwater and contamination of water can lead to negative consequences for our planet and ourselves. Wastewater from handwashing can make a puddle, which may become a breeding site for mosquitos. Soap, depending on its quality, may have some long-term impact on resistance. Liquid soap comes in a plastic bottle which can cause waste issues.

These negative impacts are not reasons for suspending the promotion of handwashing with soap, yet with the concept of planetary health, it is crucial to consider and mitigate, if possible, negative impacts. It is also important to involve households and schools since handwashing occurs at the base level.

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Paper diapers: Hygienic savior or luxury eco issue

Presenting author: Junko Otani

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Disposable diapers are handy and hygienic and prevent skin problems, but also produce bulk of waste and not eco-friendly. Paper diapers were first released in Japan in the latter half of the 1945's, and have been improved since then, but they did not spread widely due to the fact that they were expensive and there was no disposable habit in the Japanese society. The consumption of disposable diapers increased sharply in Japan in the mid-1980s. Around that time, disposable diapers using polymer absorbers appeared. The water absorption is much higher than that of conventional disposable diapers, and the frequency of replacement is reduced. The usage rate of disposable diapers has continued to rise and is now up to 99%. Environmental problems related to disposable diapers are not only with baby diapers but also with adult diapers of those demand is rapidly increasing in an aging society, have similar environmental problems, so does with women's hygiene products.

Measures for the issue of disposable diapers by the government such as the study group of the Ministry of Land, Infrastructure, Transport and Tourism in 2018 and the Ministry of the Environment guidelines in 2020. Measures to solve the disposable diaper problem are being actively taken not only by the national government but also by local governments. Efforts are made from diapers manufacturing companies and corporations, NPOs of eco-aware mothers, as bottom-up activities.

This paper will review stakeholders' awareness on its eco issues around paper diapers in the consumption society of Japan as a case and their efforts to reduce the environment burden, and then look into and consider the balance point of health promotion and planetary health.

Food choices and its impact on planetary health: A discussion from a case study in Papua, Indonesia

Presenting author: Yumi Kimura

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The influence of dietary habits on a human beings' health status is a common concern worldwide. However, people's food choices are greatly influenced by the environment. This environment includes food availability and access and the social environment constructed by the economy and culture. At the same time, individuals' food choices significantly impact the global climate, for example, how we conduct agriculture. When considering health promotion through diet, it is essential to consider that our food choices affect our inner bodies and the encompassing planetary environment. In this regard, food diversity is a key to planetary health, as it considers how the distribution of food influences our physical health and the ecological and social environment. This paper introduces a case study in Papua, Indonesia. The survey of diabetic patients revealed that the local food choices were drastically shifting from the traditional staple food, sago, to rice. This transition was due to multiple societal factors such

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as financial backgrounds, changes in labor structures, perception of food and personal preferences to rice. The concern lies in this shift hypothesized as one of the causes for a rising case of diabetes. In hindsight, access to health care through the new medical system: the health center introduced from outside the island may seem hopeful; however, the absence of cultural knowledge of the young doctors foreign to this region might have led the local people to misguided food choices. This case illustrates how personal health concerns within the local community can illuminate planetary health issues – the effect of agriculture on the environment (both ecological and social) extending to global food access impacting food diversity and nutritional health. These specific case studies push us to reconsider the development of health promotion through bottom-up activities, in the case of food, for example, initiatives on local production for local consumption.