



The Sanitation Value Chain as a solution for both developing and developed countries

Sanitation is the creation of “value.” We consider sanitation not merely as a technology, but as chains of values themselves within human society and communities. It is a model of the Sanitation Value Chain.

Interdisciplinary Project

For a comprehensive understanding of sanitation, and to provide visibility to our research, we have set up four interdisciplinary teams across the humanities, social sciences, engineering and natural sciences.

Life

Composed of experts in the fields of anthropology, medical and health sciences, economics, political science and development studies, this team focuses on the histories and sense of values of the people in each community, clarifying the relationship between sanitation and their lifeworlds.

Technology

Composed of experts in engineering, this team reevaluates the conditions necessary for applying sanitation technology in light of those values, developing technology suited to each different community.

Co-creation

This team's experts in medical and health sciences, engineering, agricultural science, anthropology, economics, political science and development studies collaborate with stakeholders to co-create the Sanitation Value Chain model and actualize it in the community.

Visualization

Composed of experts and practitioners in science communication, this team serves as a communication tool between researchers and people of the community, providing visibility to the concepts and results of research.

Project Members

Life Technology Co-creation Visualization

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JOURNAL



http://www.chikyu.ac.jp/sanitation_value_chain/journal.html

LECTURE



http://www.chikyu.ac.jp/sanitation_value_chain/sep/index.html

The Sanitation Value Chain: Designing Sanitation Systems as Eco-Community-Value System

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Figure by Yoshimi Kataoka.
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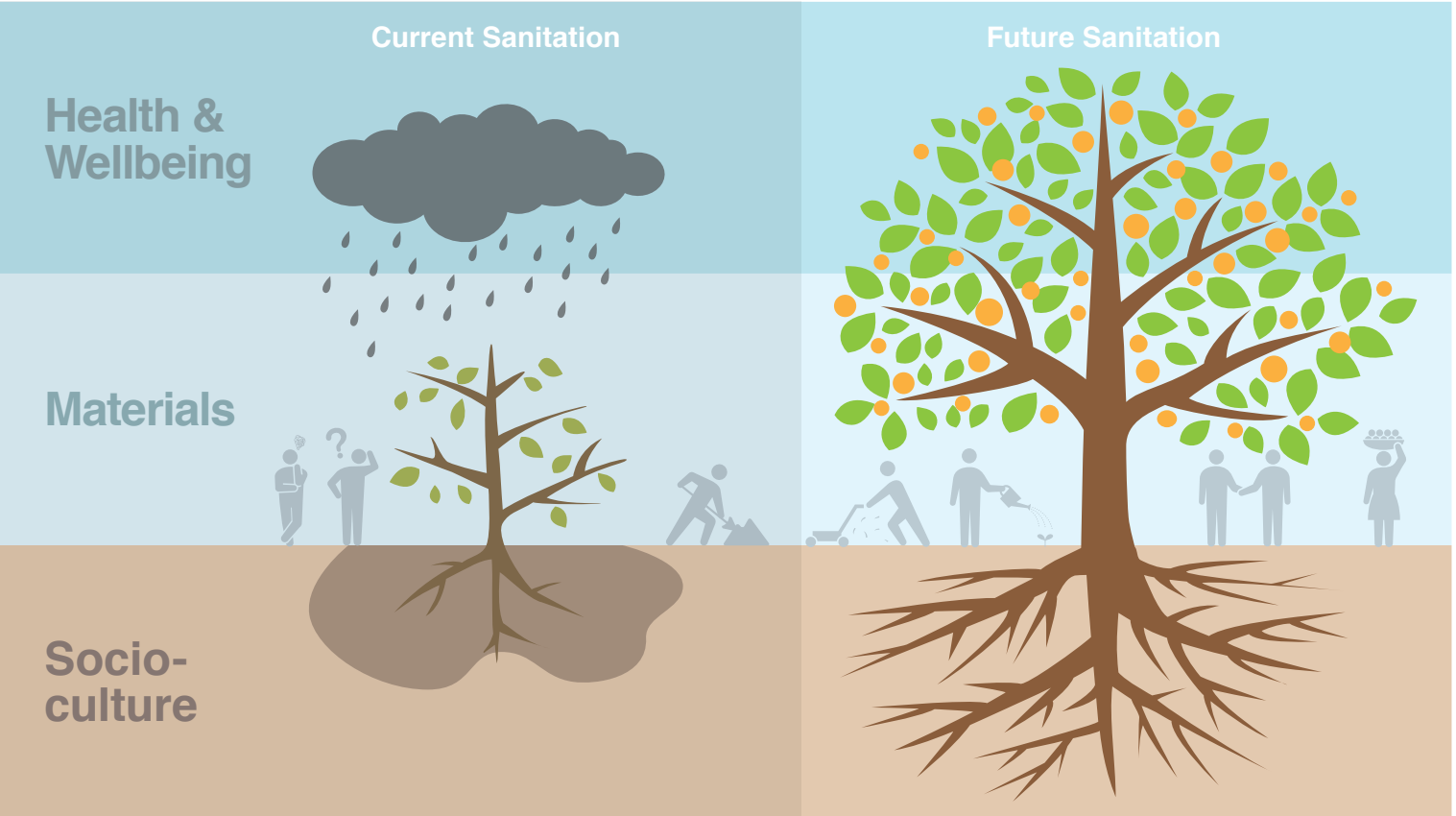
▶▶▶ What is Sanitation?

Generally, "sanitation" refers to the facilities of processing human urine and faeces for the safe disposal. We try to transform it into one focused on the creation of value.

Based on the **three spheres of value**, we are developing "Co-creation" through the joint efforts with people in communities.

The three spheres of value:

Value in **Health & Wellbeing** **Materials** **Socio-culture**



Considering the three spheres of value to get a grasp of issues in each community

Understanding the various values embedded in each community

Co-creating the Sanitation Value Chain with people in the community

Research Fields



- 1 | Indonesia**

Bandung

We are considering the design of a value chain through sanitation, introducing systems into the community for composting human waste, and incubating the possibility of creating local businesses.
- 2 | Japan**

Ishikari River Basin

In a depopulating region where infrastructure maintenance is becoming more difficult, we aim to co-create autonomous mechanism for sanitation teaming up with a high school that serves as a nucleus in the community.
- 3 | Burkina Faso**

Ouagadougou and Kongoussi

In addition to investigating the social position of human waste collection, we are working with a local NGO to operate a pilot farm used compost made from human waste for exploring the possibility of the Sanitation Value Chain in the community.
- 4 | Zambia**

Lusaka

Using exposure assays for coliform bacteria, we are seeking clues to elucidate causes and find solutions for cholera outbreaks and diarrhea. In addition, we are working with local children and youth who are undertaking "action research" on the problem of sanitation.
- 5 | Cameroon** Sub-field

We are investigating the origin of toilets by the research of hunter-gatherer lifestyles and the custom of excretion in circumstances where there are no toilets.
- 6 | India** Sub-field

We are investigating cultural meaning about "dirty" and historical process of sanitation issues related to the "caste" system.

■ Health & Wellbeing
 ■ Materials
 ■ Socio-culture
 * Box size indicates degree of emphasis placed on each spheres of value in each field.