

BEANS & PULSES IN THE WORLD

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KIYOMI HASEGAWA graduated from Hosei University and worked at Seibu Department Store. After leaving Seibu, she founded Beniyabis (Beniya Hasegawa Store) in Yokohama in 2001. She currently serves as president of the company. Her goal is to help sell local beans, promote awareness of regional dishes, and do research on local beans in relation to organic agriculture, traditional dishes, and the lifestyles of small scale farmers that have been passed down through generations.



ABSTRACT

Beans & pulses (hereinafter called “beans”) are among the most important staple foods in the world, and they are indispensable especially in developing countries. In Japan, soybean and Adzuki (red mung bean) are consumed in everyday life, especially soybean, which is rich in protein and made more nutritious through fermentation. Natto, miso, and soy sauce are the most typical and well known fermented soybean products.

Landrace soybean/bean refers to bean crops grown from seeds that have been gathered locally. There are between 10,000 to 100,000 kinds in various parts of Japan. In the past, soybean was traditionally called “Azemame” (ridge beans) because it was cultivated for consumption in the ridges between ricefields. Good nutritional balance was therefore inevitable as essential amino acids are consumed by eating rice and soybean together. However, the mechanization of agriculture has also reduced the Azemame landscape and scenery in Japan. This explains why landrace bean is closely associated with traditional farmhouse meals.

There are approximately 20,000 species of *Leguminosae*, and it is estimated that there are 80 edible types throughout the world. Among these, 30 are classified as commercially and economically important.

The place of origin varies according to the bean type, and customs and traditional behaviors surrounding eating can still be observed in regions throughout the world.

I have been researching beans (landrace, wild bean and commercial bean) around the world since 2012 and I have visited 43 countries. My purpose for visiting overseas is to conduct research on beans, particularly landrace species, local and traditional recipes, and the lifestyle of small scale farmers in each country. I cover 3 themes with my research: First, I explore the origin of the beans (adzuki bean, soy bean, common bean, fava bean, chick pea and others) and I examine the beans (landrace bean including improved varieties); Second, I visit small scale farmers or local typical households to see how they produce beans for sale and consumption, and to observe traditional cuisine preparations and bean cooking demonstrations. Third, I conduct interviews to gather anecdotes and backgrounds behind the recipes, especially in relation to special occasions. For example, we have a recipe for Kuromame (black soybeans) which is made for the New Year. My interview targets are as follows:

1. Research institutions for beans and grains, NPOs, businesses
2. Typical households
3. Restaurants (family-run, small eateries) and organic markets (outdoor and indoor), organic shops etc.

KEYWORDS

landrace, improved bean, commercial bean, wild bean, traditional recipes, small scale farmers,

REFERENCES

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世界の豆事情

Beans&pulses in the world

べにや長谷川商店 長谷川清美
Beniyahasegawa store, Kiyomi Hasegawa

1



訪問国

2

Country visited

43 countries

July ~ Aug 2012	March ~ April 2013	July ~ September 2013	July ~ September 2014	July ~ September 2015	June ~ September 2016
Portugal Bolivia Peru	US Mexico Colombia Guatemala Nicaragua El Salvador	Myanmar Malaysia UK Malawi Kenya Tanzania Rwanda Ethiopia Spain Italy Germany	China Mexico Brazil Colombia Turkey Iran Lebanon Cyprus Sudan Italy	Taiwan Laos Myanmar Italy Serbia Bolivia Paraguay Brazil Chile Peru Colombia Venezuela UAE	UA Cuba Mexico Ecuador Colombia Argentina Congo Cameroon Benin Oman Azerbaijan India
3 countries	6 countries	11 countries	10 countries	13 countries	12 countries

3

取材目的とテーマ

Purpose and topics of my visit oversea

◆小豆、大豆、いんげん、そら豆、ひよこ豆などの豆の原産地と考えられている場所を訪ね、その土地でつくられている在来の豆を調べ、
to visit place considered to be origin of the beans (azuki bean, soybean, common bean, fava bean, chick pea and so on) and to examine the land race species, local beans.

◆在来の豆とその生産者(なるべく有機農家)、各地の伝統料理(特に豆料理)のリサーチ
Research in beans of land race species and local and traditional recipes and small scales farmer, preferably organic farmer

※在来の豆「land race species, local bean」
在来とは自給用に自家採取で数十年つないでいる豆としているが、商用の栽培種も含まれる。
"land race species" "local beans" refer to crops grown from seeds that were home gathered, but commercial beans are included.

4

豆料理(特に家庭料理、郷土料理、伝統料理)のリサーチについて
research in recipes for cooking beans (especially home cooking, local cuisine, and traditional cuisine)

◆実際に一般家庭に訪問し、豆をつかった料理のデモンストレーションを拝見する。

◆料理にまつわるエピソードや背景、特に行事との関連をみる。

例)日本のお正月料理の黒豆

・to visit small scaled farmer or local typical households to have the cooking demonstration for beans or traditional cuisine by them and see their beans production for sale and their consumption.

・to learn various episodes and backgrounds behind the recipes, especially in relation with special occasions.

For example we have a recipe for Kuromame which is made for the New Year, beans cuisine for festival something like that.

5

地域性

locality

◆都会と農村の食の違い

Difference in urban and rural food

◆地域性(海岸、山間、乾燥地帯など)

Locality (coastal, mountain, arid areas)

6

その他 and so on

- ◆ 日常の暮らしや農業にまつわる農村での伝統的慣習
Traditional practice which is related to daily life in the rural area
- ◆ 生物多様性にも関連した農業以外の環境分野でのリサーチ
research in non-agriculture areas such as environment in relation to biodiversity.

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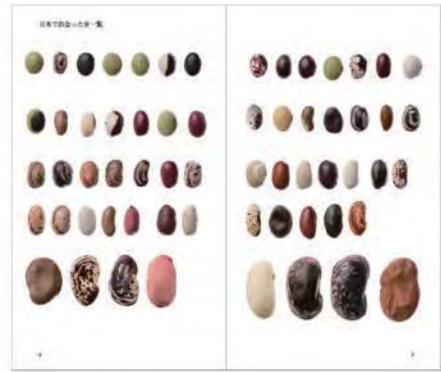
取材対象 Interview targets

1. 一般家庭(農村、都市)
Typical household
2. 飲食店(家族経営など小規模な店)、市場、スーパーマーケット、オーガニックショップ
restaurants (preferably family run, small eateries) and organic outside or inside market, supper market, organic shop etc.
3. CIATなど豆や穀物の研究機関、NPO、企業
Research Institutions for beans and grains, NPO, businesses

8



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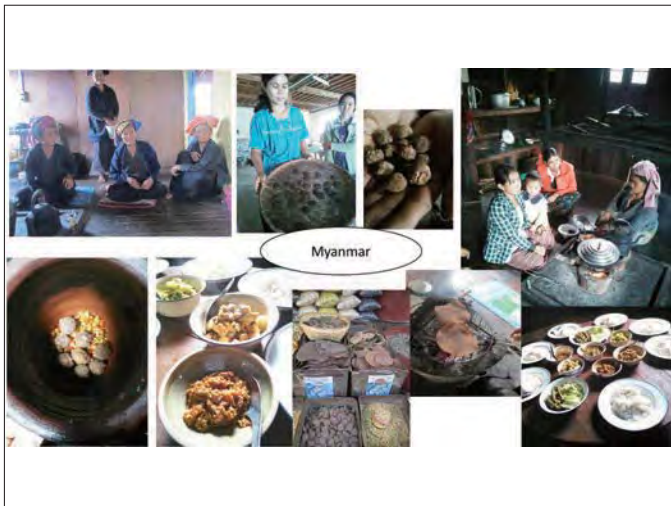
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16



17



18

The collage consists of five photographs arranged in a grid-like fashion. The top-left photo shows two white plastic containers filled with different types of grains or seeds. The top-middle photo shows a dark pot on a stove with a wooden spoon stirring a thick, dark stew. The top-right photo shows a multi-layered cake with white frosting and red toppings, being decorated with a brush. The bottom-left photo shows a person's hand holding a large wooden bowl filled with cooked shellfish, including mussels and clams. The bottom-right photo shows a plate of food including a bowl of red sauce, a piece of fried food, and some bread.

Serbia

Bolivia

Mexico

Guatemala

The collage consists of eight photographs arranged in a 2x4 grid, each showing a different type of nut or seed product from a specific country. The countries are labeled on the images: Nigeria, Venezuela, Cameroon, and Cuba. The products include bags of peanuts, nuts on a board, and bags of seeds.

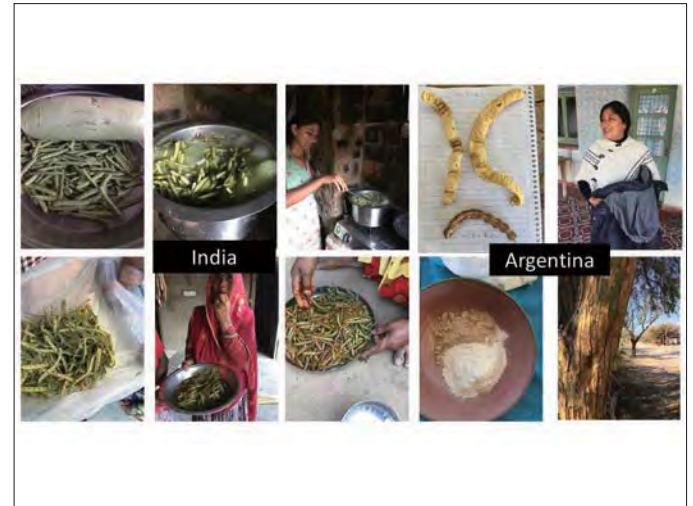
- Nigeria (Top Left):** Several bags of peanuts, some in clear plastic and some in black plastic.
- Venezuela (Top Right):** A collection of various nuts and seeds displayed on a wooden board.
- Cameroon (Middle Left):** A branch with several clusters of nuts, possibly cashews, attached to it.
- Cuba (Middle Right):** A collection of various nuts and seeds displayed on a wooden board.
- Nigeria (Bottom Left):** Several bags of peanuts, some in clear plastic and some in black plastic.
- Venezuela (Bottom Right):** A collection of various nuts and seeds displayed on a wooden board.
- Cameroon (Bottom Left):** A branch with several clusters of nuts, possibly cashews, attached to it.
- Cuba (Bottom Right):** A collection of various nuts and seeds displayed on a wooden board.

The image contains three photographs arranged horizontally, each showing the growth of Mimosa pudica in a different environment. The first photograph on the left is labeled 'Congo' and shows a dirt path with a dense growth of Mimosa pudica plants along its edge. The middle photograph is labeled 'Benin' and shows a field of Mimosa pudica plants growing in a grassy area. The third photograph on the right is labeled 'Ecuador' and shows a dense forest with Mimosa pudica plants growing among the trees.

144



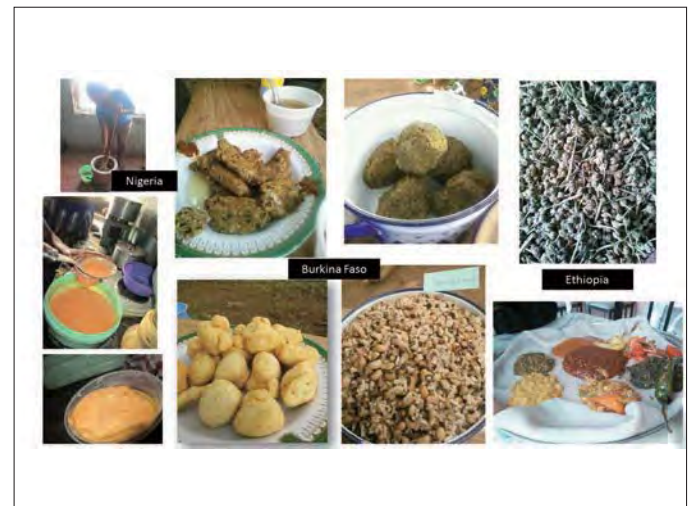
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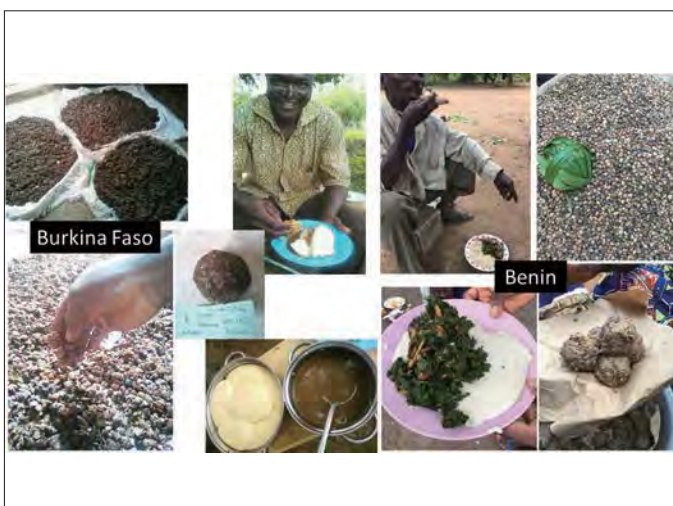
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Chair Yamamoto

The last topic of Session 3 is 'Pulses and beans in the world' by Ms. Kiyomi Hasegawa. Ms. Hasegawa is the President of Beniyabis, Beniya Hasegawa Store which is the family-owned trading company of various local beans. She is interested in variety of beans, food culture and livelihood of small scale farmers, and this presentation is made by the Japanese language, so please ready and set your earphone when you need. Dr. Hasegawa, please.

Ms. Kiyomi Hasegawa

Good afternoon, ladies and gentlemen. Very nice to meet you all. My name is Hasegawa from Beniya Hasegawa Store. My company is headquartered at Hokkaido area alongside the Okhotsk sea, and our town is alongside the sea and about 90 years ago, my grandfather started a general bean store and mainly dealing with the local farmers and we started the business back then as a family business. We have been dealing with the local beans in the neighborhood basically in Hokkaido. Therefore, the mission of our store is to distribute and eat and support the local beans culture in the local area. So, I think when we apply this culture to the world, I have started to investigate into the local beans around the world, how they are used in cooking, how the beans are supporting the lives of the people. So, I am interested in this particular topic and I have been traveling all around the world.

The yellow areas are the countries where I have actually visited. In the South America for the last 5 years, I was able to visit almost all of the South American countries, particularly in regard to the common beans. Well, the Andes Mountain actually seems to be considered to be an origin of many beans and therefore my journey was focused around the South American area. Since 2012 to 2016, I was able to take visit of a total of 43 countries so far.

Now, the objectives and themes of my interviews and the visits are as follows: Well, I am organizing cooking classes and I am particularly specialized in bean dishes and related culture and the living of the people and also broadly speaking I am very much interested in the traditional farm recipes as well. When we visit the areas that are considered to be the origin of the seeds, first I need to look into the particular local beans in that particular area, and on top of that, I will communicate with the organic farmers in that particular area, and I want to respect the small lot farmers and therefore I am mostly researched into the small scale farmers in the traditional origin of these beans. In many countries, it seems that what we call land raised species and local beans and all these names are assigned for the beans originated in that area, but definition in my opinion is that the crops need to be grown from the seeds that were home gathered. So, there are self-seeds growing that is happening in the local market, and actually back in July this year, I have published a book called 'Handbook of the Japanese Beans' and I didn't include any commercial cultivars and I only covered the land raised or the local beans of Japan, and also in terms of the recipes, I mostly highlighted the traditional recipes maintained and kept at the farmhouses around Japan.

I usually visited the farmhouses and the local farmers. What I particularly believe important is the relatively senior households, over 60 years old and so forth, where they are familiarized themselves with a traditional farm cooking on their own and they are well versed in the traditional cooking ways. I ask them to show the demonstration of the cooking which they are using the beans. And also I investigate into the events where it is relevant to such cuisine or the dishes using the beans. Also, I am interested in differences between urban and rural food and also the geographical differences, for example depending on whether the area is coastal, mountainous, or the arid areas, perhaps the type of dishes is different and I am looking into these localities as well.

On top of that, it is not just the traditional dishes, but also there are more traditional practice in not just cooking and the farming area. And also when we start to look into the cooking and also seeds and beans, I always come across with the environmental issues such as how to retain biodiversity and so forth. So, these are also the research subjects as well.

The interviews for my research were usually the typical households as well as the restaurants who are not a part of the chain restaurants, rather restaurants which were run by the family and providing the foods as organic as possible without using the chemical spices, and CIAT in Columbia or other institutions such as gene banks or other crops research institutes and NPO and sometimes corporations are the targets of my interviews.

These are excerpts from my book published in July titled, 'The Handbook for Beans in Japan.' And a total of 185 species of the beans are now included in my book. So, one of the example is in the Hiroshima Prefecture,

Western Japan, I visited her house to learn about the way she cooks and this is adzuki beans but this is called *gukineburi*. This is the bean home gathered over 70 years and *gukineburi* is always used in adzuki bean rice. Also, it is in the form of cakes and sweetened and used in the confectionary as well.

Another example on the right is the village called Hishima which is actually an island in Ehime Prefecture, Western Japan, and in the name of the *bunzu* bean and again this is sort of an adzuki bean and used in the red bean soup and so forth.

This is an example from Myanmar. The chickpea is quite often used in the dishes, particularly the germinated common beans. So, this is a germinated version of the common beans. And then stirred, boiled version of the germinated common bean is quite often used for their dish. This is they called *rapei*, the dried tea leaves are made into a pickle. So, pickled tea leaves are put together with the fried beans and on far left, this is the chickpea grinded and then the grounded chickpea is now made into a sort of a tofu like cake. This is a noodle, rice noodle and this is combined with the starch from the chickpea and also ground sesame as well. Now, this is a tofu like chickpea product and this lady cooked this tofu and they have a family business of creating this type of bean cake, and also using powder of groundnut and using the flower of chickpea, they were producing such foods. This is a rice cake per se but with the chickpea flowers. Again, this is the chickpea processing factory per se. This is more of the family factory that they have.

On the right, the lower one is that after making tofu like lower one and then they usually fry such tofu so that they can enjoy it in the form of the snacks. So, once the tofu was cooled down and then they fried and cooled down again and eating as a snack. And then after grinding the chickpea and then put into water for a night.

Here is again Myanmar and they did a demonstration for me for their cooking. When you visit the Southeast Asian countries such as Myanmar, you will see the soybeans called *shanpepo* or *peposhi*. There are so many variations in the name where the fermented soybeans were made into something like a Natto or miso or soy sauce and then they are sold in storefront. And then usually the powders were made into a cake and there was crushed once again and then put together with spices or meat or anything else and then usually they eat when they put together with rice, and then that's a part of their main cuisine cooking for their day-to-day life.

I have so many slides regarding Myanmar, but this is another case. I asked a family to show me the variations of the beans that they eat day by day and this is the cowpea and then raw cowpea were grounded and then put together with chili or other seasonings and they are eating as such. And also there is steamed pea and then also this is bitter pea and I was able to see lot of this kind.

I am not sure what kind of the beans is this, however they are picking seeds at home so this is self-seeding products.

These are the examples from Italy, Sardinia. Of course, this is an island of Italy and Myanmar and all these are the local beans I have found in this area. In Laos, I think this is rice beans, but there are so many different colors of the beans put into one pot and they were eating as such. Also, this is a part of the slow food certified bean near lake Trasimeno in Italy. In a single pod, many colors of the beans are observed, and when it comes to the local beans, it is quite often that the many colored beans actually coexist in a pod.

This is the example of Bolivia, and near the lake Titicaca, the pea and the common pea were observed like this, and this grandma is aged 82 years old and they are separating the beans from the pods.

Again, this is the example of Bolivia, and this is how they eat Tarwi. This is a strong bitterness in alkaloid and therefore they need to put these dried beans into a river for a week or two weeks and then after that they need to boil and then they will sell. And after that they will dry out the beans again and then they will store for a long time. Particularly the alkaloid Tarwi is also used as expelling worms from the human beans.

And then here again is example of Bolivia and also from Mexico, you will see something like a hamburger. This is something that a black common pea is now grounded and put into a paste per se. And then this is turned into a hamburger and that was quite often observed in the lunchtime. And then in Cuba, there are NGO served as a gene bank and there are the sisters who were operating the NGO.

This is from Mexico. This is called *mani* from the Maya tribes, and this is one of the cuisines that they have, and this is called *tamalu* with the beans.

And then this example, this is a Venezuela *karoutaneguro*, the black pea and avocado soup, and this is actually something that I found in an urban restaurant and presentation of this dish was just superb.

This is a Cuban dish, and also something like a red bean rice and this is called corn bean and that's how they use it. This is the ridge bean and then Japanese version is on at the bottom, and also one in Benin and Ecuador and both of them were the wood beans and then usually with beans are grown in order to demark the border alongside the ridge and Benin and Ecuador are using wood beans to be planted alongside the ridge as common practices.

Then, this is Peru's gene bank and also another example is Bolivia. This is the wild bean and this is the photo from a lake, Titicaca and this is one of the highway.

This photo is from India and also Argentina. There were black bean and white bean and then there are locust bean in white and black and when people got cold, usually the soup of the locust bean is used. Lentils was mentioned in the earlier presentation, however this is considered to be a vegetable and that's how they eat in the local market, and this is like mustard and this is full of mustard and they were eating like this. So, this is just from Benin.

The next is Burkina Faso and Ethiopia. On the left, you will see Nigeria *akara*, the cowpea in Burkina Faso, so donut made out of cowpea were quite common in Western part of the Africa.

Now, something similar to Natto is also found in Benin and Burkina Faso as well. In Benin, this is called *afiti* but in Burkina Faso, this is called locus bean, and process of how they are making is quite similar. Usually, the seeds out of wood bean are boiled and this soup was really sticky as well. So, this is how they store the beans.

Also, the example from Ecuador. They are just playing a game. There is a traditional game in Ecuador, and here is a man who is biting the bean and when you bite and then if they found a little bit bitter, then they will use for the game. On the other hand, when they bite the bean and if the taste was sweet, then they will use for cooking. Sorry, I used up my time. Thank you very much for your kind attention.

Chair Yamamoto

Now, Ms. Hasegawa has presented on the food culture around beans both in Japan and outside of Japan. Any questions or comments?

Female Questioner

Well, you visited many places so far. What was beyond your imagination? Where there anything that surprised you or any cooking methods that surprised you a lot?

Ms. Kiyomi Hasegawa

Something beyond my imagination was such that something that I believed that should exist both in Japan or perhaps Asia, for example, very sticky Natto type of products using the soybean, Burkina Faso or Benin, I was able to come across with exactly the same ways of producing Natto and the type of beans exist to serve something like Natto and I started to wondering where the method come from. Well, how we eat is that sticky beans are now made into a soup and then they eat as a soup. However, the taste itself is very similar to Natto of Japan, so that was actually a discovery beyond imagination. That was quite interesting. Thank you very much. Anything else?

Female Questioner

Hasegawa-san, you are located in Hokkaido and you are using the network of the small scale farmers and the women network and growing the local seeds and also selling the local beans. Based on your experience, the storage, preservation of the local beans and also utilization of the local species of the beans, what do you think is important, what would be beneficial or profitable for the local people, are there any comments from that point of view?

Ms. Kiyomi Hasegawa

Well, not exactly limited to Japan, but when you go to the farming area in the world, usually, women are the key, women are the breadwinner and women are the workforce, and it is true that in Japan, there are many women's group and agricultural cooperatives within the small villages and communities, those in 60s and 70s, they are actually selling their handmade jam or other products that they sell in the local markets as well. So, product development from a small community, it doesn't have to be as critical as product development. It's something that product which is very good for your health because for example for soybeans, Natto or other fermented products could be produced in small scale as well. So, perhaps younger women as well at the level of very small municipalities or in the small communities, once the small communities start to work, then they will serve for the preservation of the locally traded products, not just limited to the local species. And I think local community would be the best one to preserve that well.

In Japan, we have a wider network of the distribution. However, in overseas, people face with difficulties and apply a distribution in a large area. And still they would have to start earning good profits. So, think about the ways how to overcome that issue, then product development for the small community and usually when it comes to food, women capability will be quite useful. Therefore, network of housewives for example, a group of five or seven or ten is sufficient enough and the empowerment of such small group of women will be quite useful. And perhaps some initiative could start from such local group of people. And at the level of the administration or government or municipalities for example, when I visited Salta of Argentina, municipalities of the town were quite enthusiastic about the women empowerment there and the product development coming out from the neighborhood of Salta and then they started to deliver the products to the local stores in the more urban areas. And I think that empowering the smaller community would actually be beneficial for the empowerment and the profit making of the people around the world.

Chair Yamamoto

Thank you very much, Hasegawa-san. We have finished Session 3. By the three presentations, we were newly aware of the potential and the benefits provided by beans in our life. Thank you very much for your contribution, presentation and discussion. Thank you very much.



Questioner