

**Information**

**Young Scientist Forum of ACSAC10 ONLINE:  
Let’s Talk about Young Scientist’s Presents & Futures**

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**Introduction**

The Young Scientist Forum of the 10th Asian Crop Science Association Conference (ACSAC 10), ONLINE from Nagoya Japan was held 17:00 – 19:00 (JST) on 8<sup>th</sup> September 2021, following the Keynote Lectures and Symposium on the first day of the three-day session. The Forum was announced on the ACSAC10 website and participants joined through the meeting link sent after pre-registrations. 48 people pre-registered, and the final number of participants was 33 (Figure 1 and Table 1). It seems that the diversity of participants was higher in the Forum participants than in the overall ACSAC10.

The ‘Zoom meeting’ (<https://zoom.us>) was prepared for the Forum independently from the Conference system, by Dr. Takao Oi who was one of the steering staff of ACSAC10 and was in charge of a facilitator of the Forum. We note that the ‘Zoom webinar’, in which general participants cannot show their faces and talk freely, was used for the Keynote Lectures, Symposium, and Oral sessions.

In the beginning of the Forum, the background and aims of the Forum were explained by the facilitator. Previous ACSACs were held onsite, and we gathered in one place, listened to research presentations, and talked to one another with eating, drinking, and sometimes singing. Originally, we were supposed to gather in Nagoya, eat Nagoyan foods, drink sake, and talk a lot. Unfortunately, we could not enjoy them since ACSAC10 Nagoya was changed to be held online, and parties or mixers were omitted due to the pandemic of COVID-19. Therefore, the facilitator set the theme of the Forum as “Let’s Talk about Young Scientist’s Presents & Futures” and tried to create an opportunity to talk with each other.

Subsequently, how to talk and discuss in the Forum was introduced by the facilitator. The participants were divided randomly into eight groups of four using ‘breakout rooms’ of the Zoom meeting, and had free discussions for about 15 min for each topic; the three topics as stated below were prepared. The participants shared their experiences, opinions, and ideas. After discussion, each group reported the summary of what they

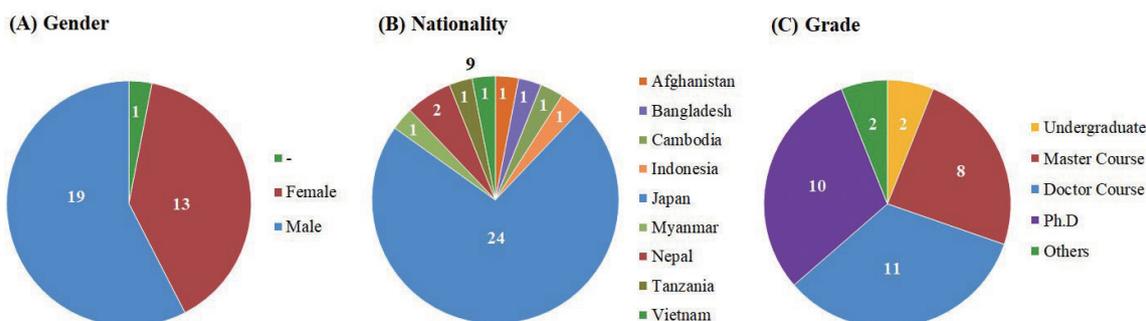


Figure 1 Diversity of the participants of Young Scientist Forum of ACSAC10.

Table 1 List of the institutions of the participants of Young Scientist Forum of ACSAC10.

Institution	
Agriculture and Forestry Univ.	2
Halu Oleo Univ.	1
Iwate Univ.	2
Kyoto Univ.	3
Mie Univ.	1
Nagoya Univ.	5
NARO	2
Okayama Univ.	1
Takasaki Univ.	1
The Univ. of Tokyo	6
Tohoku Univ.	2
Tokyo Univ. of Agriculture and Tech.	4
Utsunomiya Univ.	1
Vietnam National Univ. of Agriculture	1
Yezin Agricultural Univ.	1
Total	33

discussed briefly (1 to 3 min per group, total 15 min). The members of each group were swapped at every topic. All of the participants were allowed to talk (to unmute at talking time) and were recommended to use video showing their faces, but not mandatorily. We also used an online white board, called 'Jamboard', a free tool provided by Google (<https://jamboard.google.com>). The Jamboard slides were prepared for each group to share information with each other and to summarize ideas. The Jamboard slides were also used for looking back at what we discussed.

### 1. Think about Communication among the Young Scientists & Students in Asia

As the first topic, we discussed new communication styles. Although our activity is restricted by COVID-19, our communication technologies are improving dramatically. Many powerful tools such as Zoom, Teams, and Skype, have made it possible to meet and talk at the same time online. In addition, social networking service (SNS) is also one of the most important communication tools for our young generation; otherwise the simple email system is still one of the fundamental communication tools. There are many available tools that we have not known yet.

In this session, we shared our experiences about how to communicate without face-to-face talk, and what tools we usually use. Besides, the facilitator highlighted how young generation, especially beginner students, can establish new personal relationships without the opportunity of face-to-face conferences. Through the session, we got the following ideas;

- Most people have used Zoom not only to attend the conferences but also to make discussions with colleagues. Zoom enables us to communicate with foreigner or people in far places, especially people work/study home. We agreed to this idea and anticipated that Zoom will have being used after COVID-19 pandemic. Meanwhile, there are some concerns; Zoom is not suitable to develop new personal relationships with whom we've not met before.
- It was pointed out that Zoom is very useful for sharing information with one or many people, as it allows smooth sharing of materials and the use of the chat function for questions, but it is a bit inadequate for the free discussion and interaction between an unspecified number of people. One of the attractions of conferences is not only the presentations, but also the free discussions outside the framework. In addition to Zoom, a social audio application 'Clubhouse' (<https://www.clubhouse.com>) that allows us to talk freely with strangers could be utilized for free discussions to expand one's view of one's own research.
- An application called 'Gather' (<https://www.gather.town>) may also help to create more active interactions, In Gather, each participant can become a character (an avatar) and act freely in the virtual world. It can be used, for example, to approach other people while having a voice chat with them. The system was used at the Society of Trans-disciplinary Plant Sciences meeting (<https://www.tdps.jp/tdps001>), where people could enjoy chatting with each other as just like at a real conference.
- As a case study of Crop Science Society of Japan (CSSJ), Zoom was utilized to prepare a meeting for the Young Scientist Association of CSSJ, which is held regularly in the CSSJ conference. 4-6 members from various institutions throughout Japan worked voluntarily as steering staffs, which made it difficult to prepare the meeting previously. Thanks to online tools, it becomes easier for steering staffs to prepare the conferences. Although it is difficult to make a close relationship with whom we have not met before, Zoom is a very powerful tool when we have solid objectives.
- The roles of SNS among young generation in this pandemic era are also discussed. Although face-to-face teaching, learning, and discussion are the best practice, there are many benefits of SNS. In the case of Myanmar, as a developing country, the people who cannot afford to study abroad or attend international conferences can study and communicate with researchers from all over the world.
- Asian countries share many common agricultural issues, and active exchange of young people is necessary to solve them. Although recent advances in information technology and the spread of SNS are helpful for networking, face-to-face interaction is also important. Even if young scientists and

students organize opportunity for interaction, their activity will remain small scale as long as they work at the individual level. Official or semi-official support from ACSA is necessary.

## 2. Think about Women Roles in Agricultural Sciences in Asia

Before discussing the second topic, the facilitator shared the information about ACSAC10. The international committee of ACSAC10 consists of 15 members, with only one female member. Similarly, the gender imbalance was also present in the organizing committee that consists of 49 members, with only three female members (<http://www.acsac10.org/committees.html>). On the other hand, more women participate in ACSAC10, wherein 40% of the Forum participants were also women.

In the second session, we shared the gender issue around us and discussed what we can do to diversify the crop science communities across Asia. Through the session, we got various following ideas;

- In the Asian, many women are engaged in agriculture. Female researchers would be able to hear their actual voices better than male researchers. Thus, the role of female researchers in field research is probably quite significant.
- The number of female members in the committee does not represent the actual state of a women's role in any sector. Sometimes women have to sacrifice their careers to take care of family and to deal with other responsibilities, resulting in fewer women pursuing a higher position in any sector.
- Firstly, only a few women want to pursue a doctoral degree regardless of the field, due to the difficulty to take time off for work-life balance, the difficulty in finding a partner in doctoral programs, and the physical burden caused by childbirth. Possible solutions to these difficulties are an improved marriage activity system and enhanced parental leave. Secondly, researchers are required physical strength, especially in research fields, which is a heavy burden for some women. Particularly in Japan, the division of roles among researchers, workers, technicians, etc. is unclear, so improving such conventional systems could solve the problem.
- The domestic situation of gender equality was discussed among Japanese participants. There is clear skewed gender ratio especially in Japanese universities, however it is unfortunate that gender prejudices seem to have played roles in a few of the recent faculty selection process. Since open recruitments for Japanese universities are irregular and limited, many women may not want to pursue such an unstable post. Moreover, female students sometimes feel inconvenienced and discouraged by the small number of female faculty staffs at Japanese universities. Increasing the female ratio of faculty staffs at universities must be required.
- Gender discriminations were found in the working situation in developing countries. In the case of Myanmar, women were restricted from getting the highest position in government institutions. Some policy makers think that women lack strength and specific skillsets. However most women can stand abreast with their counterparts. In the next generation, it is very important to balance the role of men and women because the ratio of female worker has increased in most countries.
- In the previous case of Nepal, most of the agricultural activities used to be limited to men. Due to the limitation/absence of agricultural machinery (tractors, disc harrow, rotavator, etc.), farm implements (oxen, spade, shovel, etc.), which required much of physical strength, were main tools for field preparation and were used mostly by men. However, recent modernization and mechanization of agriculture let women to join to more farm-related works than before. Some women handle large scale farms, earn for themselves, and be independent and provide job opportunities to both men and women. The number of female students enrolled in the agricultural universities (undergraduate/graduate level) has improved and hopefully develop more in the near future.
- Thanks to scientific advancements, agriculture has transformed itself into mechanical-based work from a labor-intensive manual work. Therefore, the logic that the agriculture requires lots of physical power and is unfit for women sounds unreasonable today. Science has made it easy to guarantee appreciable participation of women. The rapidly growing population of the present world actually requires more participation of women in every aspect of agriculture (production, processing, management, research, and innovation).
- In the case of Vietnam the roles of men and women are equal in sciences. Both genders can be placed in managerial positions and apply to get projects to research on agriculture. For example, in the faculty of agronomy, Vietnam National University of Agriculture, there are more female lecturers than male lecturers, and the current president is female. However, there is also time limitation to women for doing science because they have to spend time taking care of their families.
- As a participant's personal experience, when he was studying at International Rice Research Institute (IRRI) a few years ago, his two supervisors were both women with Ph.D. degree, and the deputy director of IRRI was a woman. The other laboratories in IRRI also seemed to have rather more

female researchers than in Japan.

- Although some participants thought that gender equality must be respected and more female researchers should be welcomed, other participants have the question whether the job recruitment limited to women is surely equal. Developing and maintaining the equability should be promoted with more frequent and active discussions.
- In summary, the situation surrounding female's participation in agricultural sciences is different from country to country. In Japan, the number of female agricultural scientists and university staff (professors) seems to be quite small, with only a few female researchers in crop science in Japan compared to other countries in Asia.

### 3. Think about Future of ACSAC for Young Scientists

Finally, we discussed the future of ACSAC. For only academic presentations, we can do well with online tools. We can get the latest knowledge via online. We can connect with people all over the world at the same time. We don't need to travel abroad for academic knowledge. From this point, we can also say "we don't need to gather at ACSAC anymore". If we think "we still need *onsite* ACSAC", what do we consider as the important thing?, or if we want a new style to communicate with each other, what we can do?

We discussed the future of ACSAC, based on previous discussion above two topics. Through the session, we got the following ideas;

- At ACSAC10, online streaming at the keynote lectures and oral presentations worked well; clear sounds and slides, good accessibility, and less troubles. However online poster sessions often made participants unsatisfied. We need to improve a way to facilitate "poster sessions" at online conference; e.g. changing to short-oral presentation instead of online poster, holding only poster session at onsite, etc..
- Online conferences are limited in two aspects. Firstly, one of the important purposes of international conference is not only to exchange opinions, but also to feel the atmosphere of the research environment of the host country, which cannot be achieved online. As a partial solution to this problem, it is suggested to organize something like an online tour of the country or university's research facilities. The second limitation is that there is not enough time to talk with individual participants about their research topics. Although online applications allow us to share the information with many participants efficiently, the tools have disadvantages for individual talks or out-of-the-box conversations. Therefore, it is suggested to keep the separate breakout rooms open through the conference for free talking. Participants also need to prepare questions in advance and discuss fruitfully in a short time.
- An online-onsite hybrid meeting is one idea. We now know that both online and onsite have advantages (online: cost saving, easy to attend from all over the world; onsite: face-to-face talking, easily make interactions with each other, real site tour, can feel the atmosphere). Listening sessions and Q&A can be conducted online. However, face-to-face opportunities are still important for close discussions (like poster sessions or outside conferences). Some participants said that we cannot feel the aura and the passion from each person through online, so face-to-face interaction definitely helps us get stimulated and motivated by others.
- It would be better to prepare some communication tools for long-term in addition to the conference period. Conferences period is short, and it can be difficult to know each other and discuss deeply only during the period. If additional communication tools were approved by ACSA, it would be easier for students or young scientists to improve their relationships.
- If we have an online social platform for active talk and communication between scientists, it would help everyone especially young ages to share their idea and thoughts. It is suggested to use online message tools in ACSA CSSJ web or other SNS such as LINE, Facebook as are already established. We can also make groups based on subject, and everyone can ask questions or reply to a question.
- ACSAC could organize more frequent online meetings for young researchers to make it easier to discuss with them.
- It would be great if (1) young scientists'/scholars' groups in other countries (Korea, Taiwan, China etc. where the country's crop science society has a young scientist group), (2) general young oversea participants, and (3) overseas students in Japan could join next ACSAC. Leaders of CSSJ's Young Scientists Group could ask help from senior members of ACSAC organizers for contact information of other countries' young scientist groups as well as potential invited guest speakers who may have their younger scientists and graduate students.
- Online conferences, such as ACSAC10, contribute to share the research findings with scientists who are unable to attend conferences held overseas due to problems such as participation fees and travel expenses.
- Although the live discussion using Zoom is useful and effective for knowledge sharing among scientists during the pandemic period, the best method is face-to-face learning, teaching, and communication. In that regard, financial supports for students or scientists in developing countries are necessary to encourage them to attend conference, seminars,

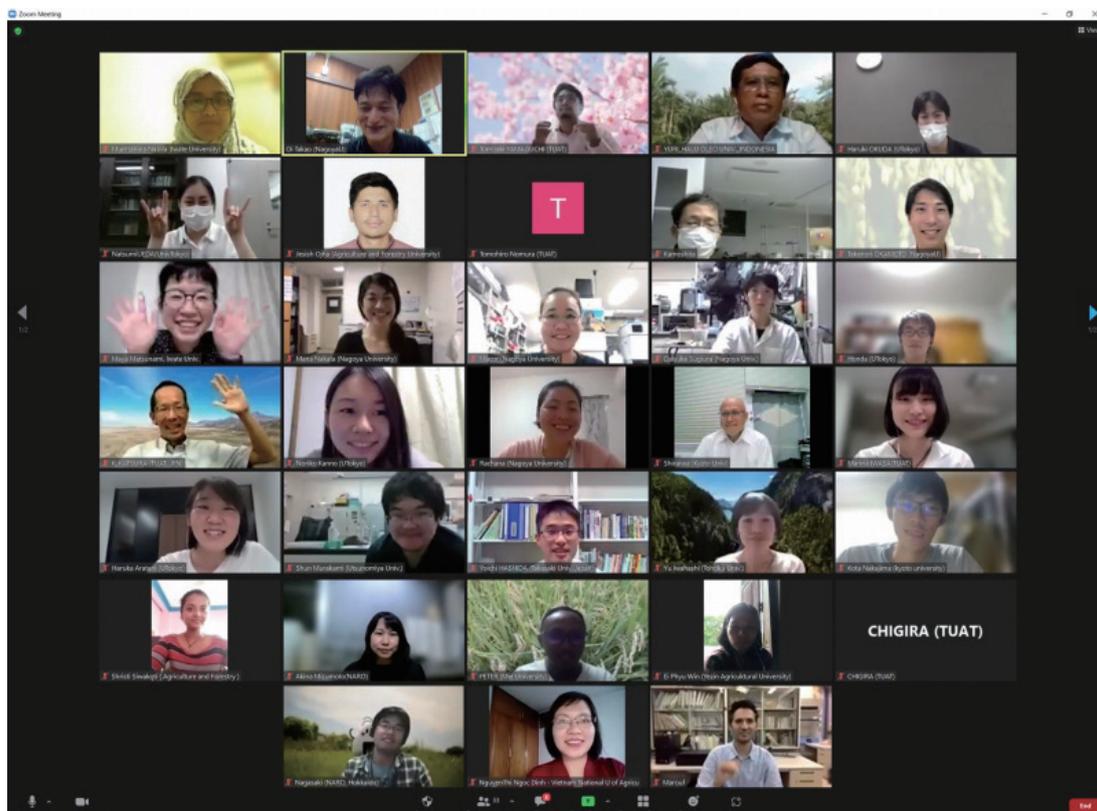


Figure 2 The group photo of all participants of Young Scientist Forum of ACSAC10, a screenshots of the Zoom meeting.

or trainings for sharing knowledges and learning skills.

- ACSAC has waived registration fee to participants from developing nations. This should be continued by ACSA in forthcoming days and other academic institutions should also initiate the same kind of privilege. It would attract more attendees from developing countries.
- Although ACSA is for all Asian crop scientists, majority of the participants have been Japanese. The diversity of the participants of ACSAC should be improved. We hope that ACSAC should be more international by having announcements besides the website and the poster announcement and distributing them to all collaboration organizations.
- ACSAC10 was conducted for all the agriculture enthusiasts, researchers and young leaders from all over Asia, however we noticed the largest number of participants were from Japan. ACSAC should focus on bringing more diversified participants from different Asian countries to really find out the scenario of Agriculture in Asia since only the condition of Agriculture in Japan doesn't represent the whole Asia.

#### Closing remarks

This Forum was a free discussion event, so there is no conclusion. However, we believe that above opinions are worth

recording.

Although the conference reports are stored in the official website of ACSA (<http://www.cropscience.jp/acsa/conference.html>), most of them are written in Japanese and unavailable for Asians other than Japanese. Young Scientist Forum in ACSA has started from the ACSAC1<sup>1)</sup>, however, only a few reports mentioned it<sup>1,2,3)</sup>, and we cannot find any information in English.

We hope this report will help future young scientists to think about ACSA.

#### Acknowledgements

This meeting was supported by the Working Group for Fostering Young Scientists & Gender-Equal Participation, Crop Science Society of Japan (CSSJ).

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