

30th anniversary of AAI celebrated

Appropriate Agriculture International Co., Ltd. (AAI) celebrated its 30th anniversary on December 14, 2014. The company was established in 1984 and commenced operation as development consultants in 1989. Today, we continue to operate with 10 in-house specialists. As a commemoration event for the 30th anniversary, on December 14, we organized an anniversary party in order to introduce our cumulative work and achievements and express our gratitude to people who have supported our work. In addition, we published a commemorative photo book and an AAINews 30th anniversary special volume which compiled all the AAINews articles.

The anniversary party included around 50 friends, supporters and partners whom we have known since the establishment of the company.



During the ceremony, we enjoyed delicious food and listened to everybody's congratulatory remarks with appreciation. From the AAI staff's side, we introduced the service history including the changes over the years in our support for agricultural development abroad and our training work in Tsukuba, using the format of a relay, "passing the baton" from one staff to the other staff (see the 2nd to the 5th photos in the series of pictures below). To conclude the party, there were remarks from the former president of AAI, Dr. Mitchimasa Kojima, followed by those of the current President, Mr. Hiroyasu Onuma, and finally two new Directors, Mr. Naoki Koga and Mr. Nobuki Kojima at the end. Many of us continued to enjoy the gathering with the second and

third parties after the formal party.

The preparation for the 30th anniversary event reminded us of many things. While we were making the commemorative photo book, it became obvious how much our fields of specialization and the number of countries in which we work have expanded. We also recollected the experiences of many counterparts and partners whom we have met through our activities in the field, and who nurtured the AAI. What we also realized through compilation of the AAINews 30th Anniversary special volume, was the power of AAINews as a means of information dissemination. Originally, we started the AAINews for enhancing information exchange between AAI staff members who were scattered in many countries with suboptimal communication opportunities. Since the first issue was published in 1995, 87 volumes have been dispatched. They included discussions of 34 different issues and 73 travel journals to 36 countries. Each volume was compiled with encouragement and critique from many people. However we have been able to jot down our daily thoughts, making it a kind of guidepost for our work.

Thanks to the kind support of so many people, we have been able to grow AAI to what it is now. The AAI has come to a major turning point where we need to pass our work on to the next generation. Nurturing and discovering of young talent has become an urgent task. With your continued support, under the new staff complement, we will continue to play a role in international cooperation by promoting appropriate technology at appropriate scale. We will also continue to publish and dispatch AAINews as a source for information to you, and to foster exchanges between staff members. We hope you will continue to provide your kind support and association with AAI. We have uploaded the anniversary photo book on the AAI website. There are photos from the 1970s and we hope you will flick the pages. Please also let us know if you would like a copy of the AAINews 30th anniversary special volume.
(AAI Staff)



Being a good “interface” <Part 4>

Interpreters - connecting people with nature

Environmental education and behavior change

The aim of agricultural extension is to cause behavior change among farmers through extension activities. Also in environmental education, we aim to engender behavior change, by creating a positive cycle of feel – know – think – act. However, it is difficult to expect people to change their behavior after participating in a one-off event type program.

Therefore it is important for a one-off event type program to trigger participants’ entry into the above-mentioned cycle through strength of feeling. Furthermore, when people participate in second and third programs as “repeaters”, the probability of these experiences leading to behavior change will be higher.

Work of interpreters

An interpreter plays the role of connecting people and nature in environmental education programs. Interpretation in this case means to communicate fascinating and interesting aspects of nature, culture and history to participants in an easily understandable manner. The main aim is not to teach. Interpreters need to be able to stimulate interests and enlighten participants. Therefore rather than simply communicating his/her knowledge, interpreters need to have the skills to communicate the message behind the knowledge.

Ingenious ways to make an impression

As they say, “people forget what they hear, remember what they see and understand what they do”, people do not get a particularly strong impression if information is simply communicated. Hence it is important to think how we can create long lasting strong impressions. For this to occur, three points are critically important: (1) the interpreters’ fine quality, (2) appropriate program design, and (3) development of effective materials.



Scenes from training at the Whole Earth Nature School

Environmental education on mangroves in Oman

In the environmental education program in Oman, there were many participants who were new to mangroves. Therefore we put the emphasis on reflection from the viewpoint of how the program can move participants, and how we can ensure that the feeling stimulated by the program can be retained for a long time. In order to explore this, we came up with a reflection session whereby participants are asked to put stickers on the activities they enjoyed, so that they can realize how they enjoyed the program as a whole, reflecting on mangrove forests and ecosystems.

Although our aim is to convey the message on the importance of richness of mangrove ecosystems and the need for conservation, the first step we thought should be for participants to learn about mangrove forests and feel them at first hand. Therefore the materials we developed and used in the program were those which would easily familiarize participants with mangroves, such as a mangrove quiz, a nature game using role play and a bingo card game.

In interpretation, it is important to make the linkage between the intent of the “tellers” and the interest of “listeners” to ensure what is supposed to be communicated actually will be communicated. This necessitates appropriate tools and skills. We visited various organizations which were introduced in our AAINews series entitled “From the frontline of environmental education” and we conducted training sessions on interpretation.

Just like the communication skills of extension workers, which are necessary for extension activities, there are certain skills which interpreters can obtain through training. There are also skills you can only gain through cumulative experiences. This necessitates a daily process of trial and error and diligent effort.



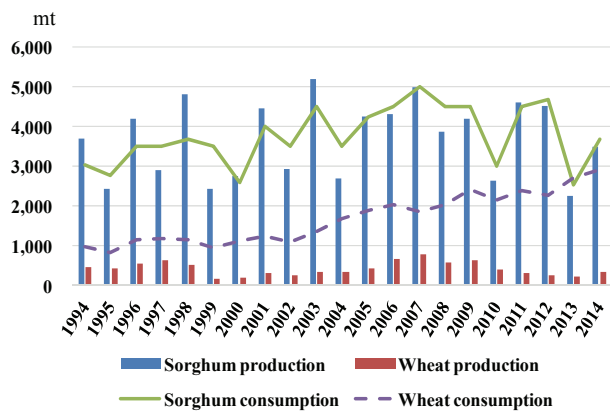
Environmental education on mangroves – reflecting on the program

A Memoir of Kassala, Sudan <Part 4>

Grain food culture of sorghum and wheat

Although Sudan’s total arable land is estimated to be around 84 million ha, the regularly cultivated area is only 14-15% of the total. The actual cultivated areas are estimated to total 12 million ha. With production under irrigation, a wide variety of cash crops are being grown including sesame, Arabian rubber, cotton, ground nuts, vegetables and fruits with some being exported out of the country. Other than cash crops, the majority or 85% of cultivated land is under rain-fed agriculture, producing important grains such as sorghum and pearl millet. Productivity of rain-fed agriculture is low as farmers are dependent on rainfall. This low productivity is augmented by produce grown in large cultivation areas. In Kassala’s rain-fed cultivation areas, sorghum is by far the most widely grown crop and its production amount is the highest among the crops.

However, when one looks at recent consumption amount, demand for wheat is growing, getting closer to the demand for sorghum.



Production and consumption amounts of sorghum and wheat in Sudan (Source: Index mundi)

Wheat production in Sudan is expected to grow with increased productivity under irrigation farming. However, for now production is not meeting demand, and the country imports quite a lot of wheat from other countries such as Russia. In my experience from living in Kassala, it seems that more Sudanese people are now buying wheat bread made in factories rather than the traditional crepe shaped sorghum bread called kisra. I asked people the reasons for choosing wheat bread. Changes in taste are one factor. However, another major reason is that it is cheaper to buy wheat bread considering the time and effort it takes within

households to make kisra bread as well as the fuel cost for baking. Food made of imported wheat has become far more familiar to people than domestically produced sorghum.



Sorghum grains on sale



Milled sorghum

There was another interesting discovery related to the use of sorghum in comparison with wheat. I used to believe that sorghum, like wheat, is mainly used in the flour form. However, in Sudan, there is also a traditional way of utilizing grains as food.



Immature ear of sorghum (Acramoi variety)



Immature ear of sorghum (Fatalita variety)

The dish they make is very similar to wheat grain food that can be found in Syria. In Syria, people harvest water rich immature ears and grill it over a fire. This is called “freekeh” and is highly prized as a seasonal food. Exactly the same use is seen in Sudan with sorghum and water rich immature ears here are called “faruk”. Although harvesting seasons are different (spring and autumn), it was a pleasant surprise to find, in the remote parts of Sudan, common grain food culture with similar names of Arabic origin. It reminded me of the farming area in Syria where I worked 20 years ago.



Kisra; a typical flour food



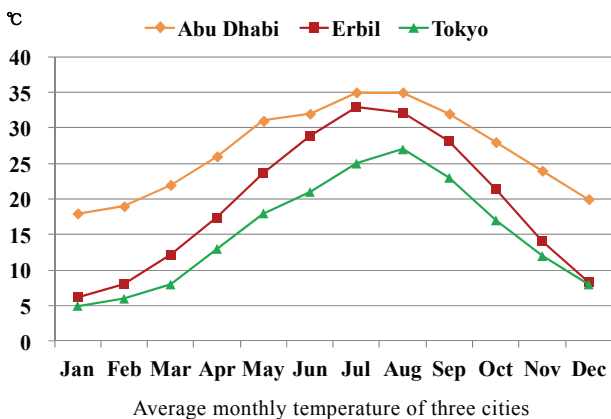
A faruk sorghum grain dish

Greenhouses in the Middle East <Part 3>

Greenhouses in the Kurdistan region of Iraq

Unlike the Gulf States such as UAE which have been using greenhouses for cultivation since the 1970s, it was only after 2000 that greenhouse cultivation was introduced to the Kurdistan region. Most of these greenhouses are imported from Lebanon and they are arch greenhouses with yellow polyethylene sheet. Greenhouses in the Kurdistan region tend to be simple and typically they do not have any cooling devices such as pads and fans.

The average temperature of the main city, Erbil in the Kurdistan region exceeds 30 °C in summer. In winter, it goes down to 5 °C, like Tokyo. This means that greenhouses in the Kurdistan region will require cooling facilities in summer equivalent to those used in UAE and heating devices like those that Japanese greenhouses use in winter. This context will require a different thinking from UAE, which is only concerned about cooling technology.



where two sheets are overlapping. However this is not very effective. Moreover, because there is no net in these spaces, pests and small animals can freely enter the greenhouses. It should be possible to improve the situation by placing a side window on the greenhouses and changing the covering materials.

As temperatures decrease from summer to autumn, people grow vegetables such as zucchinis, cucumbers and eggplants in Kurdish greenhouses. They grow crops only during the period when there is no heating necessary. Generally, greenhouse farming finishes by late October, and there is no growing between November and March when it is coldest. From around April, it is common to grow vegetables and fruits such as tomatoes and cucumbers. However the way greenhouses are used does not make the most of what greenhouses can offer. Their greenhouse cultivation is not much different from open field cultivation. A small number of ingenious farmers try to warm greenhouses using household heaters. Special heaters for agricultural purposes are rarely seen because they are not available in local hardware shops and farmers themselves need to directly import them from foreign traders.



Heaters for warming Kurdish greenhouses

In the Kurdistan region, in summer, they replace polyethylene sheets on the front and back sides of greenhouses with nets, and thus adapt to the heat by improving ventilation. However during the day, the temperature inside greenhouses can easily go over 50 °C. This is a harsh environment for both crops and people and makes it painful to even enter greenhouses. Because it is so very hot, people try to ventilate them by creating spaces by forcefully pulling polyethylene sheets apart



Putting up nets in summer

Ventilation space made by force

As shown above, the only merit of using greenhouses in the Kurdistan region is to prolong the autumn harvest period by a few weeks. Considering the cost of installing greenhouses and the high temperatures in summer, they don't seem to offer an attractive option. However given that Iraq is dependent on neighboring countries such as Turkey, Iran, Syria and Jordan for their agricultural produce, improvement in horticultural technologies in the Kurdistan region which is the major farming region is a very important issue. The economy of the Kurdistan region is growing steadily and the population has been increasing. Despite geographical and political risks, it is expected that there will be increasing investment in the agricultural sector in future. In order to effectively use greenhouses, the best scenario would be to cultivate crops throughout the year and increase the operating ratio. It is deemed important to establish the most appropriate methods of greenhouse cultivation for the Kurdistan region, rather than to continue to be dependent on foreign imported materials.