

CONCLUSION OF THE 1999 TASAE

Conclusion of the 1999 TASAE

Overview

The 1999 Tsukuba Asian Seminar on Agricultural Education (TASAE) was held on November 8–16, 1999 at the University of Tsukuba with the theme “Application of Global and Regional Information for the Innovation of Agricultural and Environmental Education in Asia Pacific Countries”. It is the third in the 6th cycle (1997–2001) of activity of the Asia Pacific Programme of Educational Innovation for Development (APEID) under the auspices of the United Nations Educational, Scientific, and Cultural Organization (UNESCO). Throughout this cycle, the underlying theme is “Innovative Strategies for Linking Agricultural Environmental Education in Asia–Pacific Countries for the 21st Century”

During the seminar, new initiatives leading to changes in linking agricultural and environmental education with information technology were discussed from technical and theoretical viewpoints.

Country reports on the seminar theme were presented by Ms. Lynette Liddle from Australia, Dr. Zhigang Wang from China, Dr. Setyo Pertiwi from Indonesia, Dr. Tomohiro Takigawa from Japan, Dr. Yeo–Chang Youn from Korea, Mr. Bruce Treeby from New Zealand, Dr. Delfin Suministrado from Philippines, and Mr. Sanao Katkasame from Thailand. In addition, Dr. Leonard Munjanganja, Programme Specialist in Technical and Vocational Education, UNESCO–PROAP took part and presented a position paper.

Application of Global and Regional Information

As stated in earlier TASAE, the link between agricultural and environmental education is recognition that agriculture is practiced as management of, and within, the natural environment. For agriculture to be sustainable, agricultural education must promote environmental quality in order to continue to be productive in land management in the long term. Sustainable agriculture addresses ecological, economic and social concerns, and sustainable management requires valuing the interaction between these concerns. Priorities vary between and within countries in the Asia–Pacific for a range of reasons, historical, political and cultural, but the general increasing awareness of a need to more sustainably manage resources is brought about by concern for the harmful effects of human intervention on the regions’ environmental quality.

Many issues raised in earlier TASAE reports are still relevant today. That productivity performance must be balanced with environmental performance. There is a need to acknowledge the needs of future generations. Sustainability, long term resource management, must be an integral element of agricultural education, and indeed, it was argued that it should be part of all educational curricula. There has to be an end to treating resource management as being separate from the environment.

An issue of concern in many country reports was the falling attraction of agriculture as a professional career or vocation, and the possible implications for the future of agriculture and food supply. While these may be balanced through technology, meaning that less people are required on the land, it is an area of concern. People with natural ability and drive tend to leave the rural scene, and in many countries land managers are not well educated.

In this report the term land manager includes landowners, farmers, orcharders, foresters, and others who make decisions on day to day land use.

The low educational background of land managers means that more sophisticated methods and sources of global and regional information is not seen as being of value, or too difficult or economically exclusive. For example, the Internet. Well educated professionals in agriculture, readily use the Internet for research and communication. However, efficient Internet use requires literacy and search related skills.

If land managers are to be encouraged to access global and regional information via the Internet, often for economy of delivery reasons, the information sites need to be land managers focused. They need to be in “common language” and designed for ease of use. Good “Help” menus and accessing skills need to be delivered to land managers. A problem is that much of the global and regional information may have to be converted into regional language. Cost of Internet access is an issue that could be solved by community access. Rapid changes in technology will also aid cost of delivery reduction. Land managers need to be motivated to access information. To achieve this, the benefits to them personally needs to be clearly demonstrated.

The delivery of global and regional information must be economic, and efficient, and well designed to meet the points discussed above. It is increasingly acknowledged that there will be more emphasis on distance learning and once again good design, appropriateness, and new technological innovation will overcome many of the negative perceptions of such a delivery system. The appropriate media used will be influenced by the needs of different land managers profiles.

An approach that has proved to have good positive outcomes is where global and regional information is applied through community driven projects, which generate a sense of local ownership, relevance and empowerment. Such a model has a high likelihood of success.

It was also noted and accepted that there are many issues that countries have in common but there are also regional differences. For example, in some countries, agricultural policies are government driven and, as such, influence agricultural education and execution. Other countries in contrast are market driven and the government plays a minor role. New developments in areas such as food quality assurance will have an impact on how agriculture is carried out and the requirement that there is high level of environmental performance will impact on agricultural and environmental education outcomes.

Key Issues

- *Agriculture to be sustainable must have high environmental performance, to cater for human needs in the long term.*

While there is some concern that high environmental performance infers an increased cost, there may will be or will be no alternative if long term sustainability is the required outcome. The land manager may be rewarded by being able to gain access to new markets and gain a price premium for eco-certified products.

- *International competition without evenly applied environmental performance could promote unsustainable land use because of lower environmental costs carried out by one product source.*

This is an issue that needs to be addressed by international organizations such as the World Trade Organization (WTO).

- *The protection of biodiversity is a major issue, including indigenous and local knowledge and intellectual property rights.*

Protection and restoration of biodiversity has a major role to play in improving environmental quality outcomes. Related to this issue is the need to acknowledge intellectual property rights, and the need for indigenous peoples to benefit in any commercialization of such knowledge. The income from such royalties could be used to finance a more sustainable future for the people,

addressing social needs.

- *Need for environmental awareness to be addressed and included across the whole educational curricula.*

The environment is not something that exists in isolation, but is everywhere, and all persons servicing agriculture in any way should have a sound environmental understanding.

- *The falling attractiveness of agriculture as a vocation in all countries in the region.*

Agriculture is an essential part of the life of all countries and yet it is not attractive to new generations. This is due to the low economic returns on investment and the nature of work compared to other career options. The implications of this needs to be addressed, and what the current scenarios suggest.

- *Communicating and motivating land managers, must be relevant and easily understood.*

The low attraction of agriculture has resulted in current land managers commonly being handicapped with low literacy skills and lacking in motivation to access global and regional sources of information via new technology, relying on older methods such as print media and verbal including face-to-face interaction.

Because of lower levels of academic ability, it is essential that any technology transfer of global or regional information is appropriate for the target audience. The process must have that requirement clearly built into the design, including continuous review and revision in the light of measured uptake by land managers. Issues to be addressed will include “common language”, including translation, costs of access, etc. — could involve community sharing. It is likely that distance learning, designed to match the audience will play a major role in the future, probably driven by economics of delivery.

It is important that land managers are assisted with training on how to access information, especially where it involves using information technology to address issues of productivity and sustainability.

- *Community action initiatives.*

Community based initiatives should be fostered and encouraged to apply global and regional information. It is essential that local communities are empowered and feel that they have the ability to solve their local agricultural and environmental problems.

- *Good networks for the exchange of information and knowledge, and the need to focus on “life long learning”.*

To further promote the application of global and regional information, there needs to be effective and regular exchange of information between regions and interested individuals – both professionals and land managers. A graphical representation of an information network is shown in the figure below...the graph (c/o Dr. T. Takigawa)

- *Market demands can improve environmental performance by promoting sustainable land management.*

Increasing demands for eco-certified agricultural products will have beneficial environmental outcomes. The land manager will benefit by gaining new market access and the potential in some situations to achieve a market price premium. There are increasing concerns about food safety. This needs to be addressed by the researchers to satisfy and reduce consumer concerns.

Conclusions

Participants felt that good progress is being made in bringing together as one, agricultural and environmental education, information technology utilization. There are regional differences and this is recognized, and different countries are at different stages of their development. However, all agreed that such meetings as TASAE is valuable for all attendees. We have all gained in knowledge and mutual understanding, fostering goodwill and promoting continuing commitments to network in the future.

While we discussed the greater role that new technology will play in the future, it is essential that we maintain a balance in between maximizing the benefits of face to face dialogue and the economy of information technology.

Many good ideas emerge at TASAE meetings that deserve to be tested and reflected on. It is interesting to note that at the end of this same section on page 176 of the 1997 TASAE report "... it is requested that progress reports on recommendations be given by country representatives at the 1998 and subsequent TASAE seminars. " This would appear to have merit.

Recommendations

The 1999 TASAE attendees request that the following recommendations be taken up and acted as feasible at this time by the member countries and also ACEID of UNESCO.

1. That there be educational research focus on the development of methods and measures that allow the measurement of environmental performance, based on scientific principles.

Comment : Agriculture to be sustainable must have high environmental performance, and the ability of land managers and countries to be able to demonstrate and quantify this performance will have important market outcomes.

2. All countries must make every effort to protect their indigenous biodiversity and intellectual property rights.

Comment : The effective protection of indigenous biodiversity has positive contribution to higher environmental performance, and will be one element which can be used in the measurement of environmental performance. It is important that land managers can see a positive value in the protection of biodiversity. They must also be able to derive benefits in sharing their useful indigenous knowledge.

3. It is essential that environmental education is included as an integral part of the whole curricula in all levels of education.

Comment : This is recognition that environmental outcomes are influenced by all members of society.

4. That each country actively enhances the capability of existing information networks and create new ones as required. The design of networks need to be appropriate for end user. Some networks will mainly service the needs of researchers and professionals. Networks that are for the use of land managers must be designed for ease of access and be user friendly to match the end user.

Comment : The transfer of technical information from researchers to land managers is a gulf that needs to be bridged, and is an issue that needs serious attention if sustainable agriculture is to be achieved.

5. Community based initiatives that address land use and environmental issues should be fostered and encouraged to promote sustainable agriculture.

Comment : Community based initiatives are an effective method of achieving improved environmental performance. It is important that local communities are empowered to feel that they have the ability to solve their local agricultural environmental problems. Such an approach allows for accommodation of any special cultural or other social needs on a local regional basis.

Acknowledgements

The participants of the 1999 TASAE express sincere appreciation to the TASAE organizing committee, chaired by Director Naoki Sakai for the very successful planning, preparation and efficient running of the seminar. Special thanks are given to all the staff of the Agricultural and Forestry Research Center, University of Tsukuba for their kind, friendly support and hospitality

throughout the seminar. They demonstrated a personal interest in assisting individual members with special requests that have contributed much to making the whole visit a memorable one, and networks so established will continue into the future. The group also wishes to acknowledge the support of UNESCO through the presence of Leonard E. Munjanganja.

We also know that the efficient running of the seminar is due to a large part to the most experienced interpreter skills of Ms. Machiko Naito, who demonstrated a high degree of professional execution, and a sense of humor. Thank you, too to Ms. Teresa Arnuevo Virtudazo, the secretary for her administrative skills. The high standard has been demonstrated once again and through the team efforts of those named and their many colleagues, cooperation and understanding between Japan and the other participating countries has been enhanced. You have been most generous hosts.