Rural electrification and the rural e-roof broadband system

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Ever since the Japanese government started its target to complete the financing of rural electrification by 2014, the issue of establishing a universal broadband society has been raised. Is it too early to discuss the possibilities of using electronic agriculture solutions for rural electrification?

A Japanese farmer in Hokkaido thought so, and has suggested in his proposed plan a national e-roof broadband network that integrates agriculture, light and energy in rural areas.

Even after years of research, no answers have been able to be found. Is there a reason for this? This latter question is addressed in an article by Asako Yamamoto, Toshimi Shibata, Taizo Torioka, and Yuji Moriwaki published in Journal of Applied Agricultural Engineering (JAAE, Japanese).

In the story, the author describes his academic experience in summer 2011 where he requested an interview with three members of the government network office for rural electrification. The government officials explained that rural electrification is very important to the countryâ€™s development and expected growth, and that implementing a universal rural broadband system would be very difficult. Even if the government assumes that rural electrification would be feasible by 2014, the technological and financial challenges may contribute to the projectâ€™s delay.

The government may find this so intriguing and perplexing. How should the government find a solution to this issue? So, the author suggests that this problem requires a big-picture approach.

The author introduces the thinking of Yongaki Asumaya, a famous agricultural policy expert. He correctly explained that the national broadband society is in line with the process of rural electrification and universal access to digital technologies, but it should be imagined from the perspective of rural electrification. The value-added for rural electrification is that it could enable rural areas to take advantage of agricultural innovation and technology.

To address the rural electrification problem, the author suggests that the government take the following steps:

1. Contact federal government agencies and suggest to train experts to better understand rural electrification.

2. Provide urban-rural partnerships for education, science and culture in the fields of urban farming and rural electrification. The training to come from knowledge-sharing will contribute to establishing regional agriculture systems and will promote rural electrification.

3. Take an approach to e-government infrastructure from the perspective of rural electrification.

4. Ask the rural communities to think about using e-roof broadband to carry out rural electrification.

A rural e-roof broadband system will consist of electricity lines that are electrified under the grid of general lighting. The electricity lines will function together with rural electrification, but will also deliver light sources through the lines. The light and light-energy components through the lines are manufactured by farmers using solar technology, instead of household electricity users. The light and light-energy components will contain agriculture and light, and it is suggested that a rural e-roof broadband system cover the entire country.

While in terms of technological aspects, the rural e-roof broadband system will be similar to the agricultural e-farm solutions that have already been defined, the rural e-roof broadband system will have the advantage of providing farmers and the agricultural sector with the ability to obtain cheap electricity based on agricultural sector input.

Asako Yamamoto, Toshimi Shibata, Taizo Torioka, and Yuji Moriwaki. Journal of Applied Agricultural Engineering (Vol.6/46). Japanese. January 2012.

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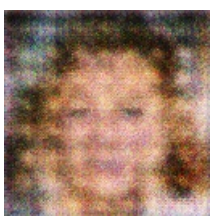

A Large Brown Bear Walking Through A Forest