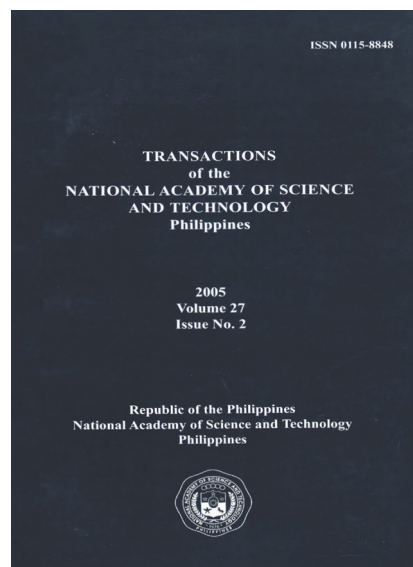


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Four Propositions for an ICT Framework

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FOUR PROPOSITIONS FOR AN ICT FRAMEWORK

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At the outset I would like to express my thanks for asking me to make comments on the PA 2020. I went over the volumes that were given to us and I see that in all the volumes, the importance of ICT in the overall policy strategy was evident. But I thought that besides all the statements distributed throughout the document, there should be a separate chapter or volume on ICT and agricultural development. And I have some suggestions on how this should be developed.

I have four propositions that could serve as a framework to develop the ICT: (1) First, agriculture, like any other industries, will become more knowledge-intensive in order to produce more with less. New tools of science make this possible. (2) Knowledge-intensive agriculture requires efficient knowledge management and ICT is critical to this. (3) Knowledge management is central to people, organizational empowerment. (4) The goal of ICT is to empower individuals and organizations.

In the first proposition, we see drivers that should force us to change: first, the rising consumer demands for food safety, enhanced environmental sustainability and food quality. The second is the rapidly expanding science and technology and the third is the global competition and farm subsidy. Thus, we have to change from resource-intensive agriculture to one that is knowledge-intensive. Farmers must learn to manage the same or fewer resources and be more sophisticated and efficient to increase productivity and profit in a sustainable production system. And I think that this is the challenge for PA 2020. We need to reduce poverty and improve the livelihood of the people in the rural areas. The key to this is really is farm management. I hope this can be well expanded in the PA 2020 as agriculture becomes

more knowledge-intensive, farm management becomes more complex and even more critical for success. Leveling-up farm income and its variability are highly influenced by all farm practices and circumstances and are not entirely the results of factors beyond the producers' control. And fourth, effective management information and resources is the foundation of knowledge-intensive agriculture. I hope that this could be more highlighted in the PA 2020.

The second proposition is that knowledge-intensive agriculture requires efficient knowledge management and ICT is critical. Knowledge management is the foundation of developing all concepts of learning and innovation and change. I wish to say that the agricultural bureaucracy must have a culture of learning and innovation to infect the farmers, so that the farmers develop a culture of learning and innovation. This sort of relationship between the DA bureaucracy and the farmers need to be well articulated in the document. Moreover, central to change management is that we have to change organizational culture, not only in the DA but the rest of the government. And central to this is knowledge management and therefore the cornerstone of excellence in governance. We wish to look at ICT as a tool of knowledge management, and knowledge management is central to achieving excellence in governance, so when you talk about transparency, accountability, productivity and participation—these are the more important objectives of knowledge management and organizational report, key to achieving competitive advantage in agriculture sector.

The third proposition is that knowledge management is central to people, organizational empowerment. And I think we can relate that to EDSA 1. People learned about EDSA 1 through the fax; at that time there was no text yet. And now text is so important, and text is the way people interact with one another. We talk about databases; databases are difficult to retrieve if you are from the rural areas. Now we talk about ICT to enable people to interact, to empower them. ICT to be more effective should be looked at as an empowerment tool, and I think it is the key message that we should drive at especially in this country. Let me illustrate this. We look at LGUs, agencies, private sector and the DA— you need to empower these organizations in order to serve more the farmers and the fisherfolk. Central to knowledge management are three things: (1) the ability to work together, (2) to share experiences, (3) to share knowledge, and (4) to learn with each other. When you are talking about farmers' growths, fishermen's growth, organizations, there should be processes and programs that will allow them to work with one another, share experiences, share knowledge and learn

from one another in order to gain knowledge and wisdom. And where is ICT here? ICT is a facilitator. It is not an end by itself. Many organizations have computers which are just expensive calculators and word processors. They are used by people to interact with one another. So we have to move beyond this paradigm of computers as expensive calculators and word processors but rather as a tool to communicate with one another.

The fourth proposition is that the goal of ICT is to empower individual and organizations. The three elements that need to be addressed in ICT policy which I hope will be taken in more detail in PA 2020, are structure, people and culture. You may have computers, you may have cell phones but the structure is antiquated and the people are not trained in order to use them properly. But remember the technology game plan is mainly in support of a bigger game plan on people empowerment. Here is a framework which we use in knowledge management. First we are so concerned with raw data, facts and numbers, but we have to go beyond that. We have to share information, data input into context but higher than that is, of course, knowledge information combined with experience, and the highest we would like to be able to share is especially the most difficult, which is wisdom. If you divide these two hierarchies, information and data are readily captured in documents, databases and are easy to retrieve. This is the usual use of ICT. But I think ICT should now focus on the upper level which is to share knowledge. How do farmers or people in the organizations share their wisdom so we do not have to learn from the beginning? In agriculture we talk about best practice, in organizations we talk about best practice, but many of these best practices remain to be best practice learned only in one location. You have to ensure that the best practice in an organization or in a farmer's field gets to be shared and that should be an important objective of knowledge management and central to this is ICT.

AFMA signed in 1997 had identified ICT as a tool for modernizing agriculture, but up to the present, it remains to be an elusive dream. Know why? Structure, people, culture, systems, processes, technology, these are the more fundamental problems we have in implementing this. I think the chapter or volume on ICT should discuss and analyze this situation incisively.

And this is what I recommend for this chapter on ICT: (1) develop a full chapter or volume on knowledge management of ICT on agriculture development. This volume should start with an incisive analysis of the role of ICT in knowledge management; (2) articulate an integrated and coherent ICT policy. The current statement in the PA 2020 is so broad, it does not have a handle which you can take with you and implement. On the part of

the lawmakers, for example, or on the part of the DA, they will need a handle to be able to bring the ball forward. Such policy should define how ICT can play a more catalytic role. Right now, DA has a culture of centralized planning; it has to move away from that. And then it has to have a detailed investment plan on knowledge management on ICT during the next 15 years.

A good model to look at is Canada. The title of their plan for Canada is: "Putting Canada First." This shows the very clear investment by the Canadian government to make Canada first in agriculture. It also gives a clear statement of goals and measures on how to achieve these goals. I wish that we could take some lessons from Canada as well as the United States Department of Agriculture as we define PA 2020.

A few comments on the PA 2020 which I was not able to give yesterday, I wish that these missing chapters or volumes will appear in the final edition— new tools of science and how science will address the issue of food security, poverty alleviation, peace and security. Infrastructure development should be broadened more than the way it is defined in PA 2020 which looks only at the physical structure. The more important structures we should develop are institutions. Institutions in this country, especially government institutions, have been compromised, in fact destroyed because of politics and we need to repair them. Reinvest in people and in the organization so they can do what they are supposed to do.

I also propose a separate chapter on knowledge management. To make technology a tool of development, technology must be at hands of the people who need and use them. That is the function of knowledge management. And the third, the role of the government and partnership is, the government for the last 10 years has taken the role of the private sector. They have used the vital resources to duplicate what the private sector is doing. The PA 2020 should define the role of government versus that of the private sector, the civil society within the framework of new institutional economics on public management. And I wish this could be well articulated. What should be the role, for example of DA vis-à-vis the LGU in the promotion of ICT in partnership with the private sector at the local level? And in effect there is good governance in agricultural bureaucracy. It has been shown that government can reduce transaction costs and it can influence up to 15% of the performance of the economy. I wish this could be well articulated because in the secretary's discussion yesterday, he says government should play a catalytic role. How we should do that?

Thank you for this opportunity and good morning.