Country Report

ASIAN and PACIFIC CENTRE for
AGRICULTURAL ENGINEERING and MACHINERY
Beijing, China

Philippines
Agricultural Engineering Technologies Information System

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Rationale:

The field of agricultural engineering plays vital role in every country's agricultural and fisheries development. Agricultural engineering areas of specialization include agricultural power and machinery, agricultural bio-processing, farm structures and environment and land and water engineering. Information on research results and technologies on agricultural engineering in the Philippines are abundant but in form not so accessible and useful to managers, planners, policy makers, researchers and other interested stakeholders.

Rationale:

The information management system is widely use nowadays in transforming available researchers and technologies into a more useful electronic form. At present, many countries are setting up their own IMS which serves as an important tool for easy and systematic retrieval of valuable information. It is, therefore, timely to established the Agricultural Engineering Technologies Information System (AETIS):

Philippines Satellite.

Rationale:

The development of the AETIS - Philippines Satellite is based on the premise that the use of appropriate information technology would lead to improved information sharing among research institutions; better research, planning, monitoring and evaluation; more efficient use of financial resources and reduced overlap or duplication of researches, thus, more benefits to the farmers.

State of the Art:

ICT Networking for Agriculture: The Case of the Philippines

- Department of Agriculture
  National Information Network (DA-NIN)

- Department of Science and Technology
  Commodity Information Network (DOST-CIN)

- Websites of Related Agencies

  Bureau of Post-Harvest Research and Extension
  Philippine Rice Research Institute
  International Rice Research Institute

Department of Agriculture–National Information Network

Vision/Mandate

As provided for under Section 41 of RA 8435 (AFMA):

"A National Information Network (NIN) shall be set-up from the Department of Agriculture level down to regional, provincial, municipal level. The NIN shall likewise link various research institutions for easy access to data on agriculture and fisheries, research and technology."

NIN Conceptual Framework

The NIN Mobilization Plan is focused along three major implementation requirements:

- Information Systems/Data Requirements
- Connectivity Requirements
- Organizational Requirements

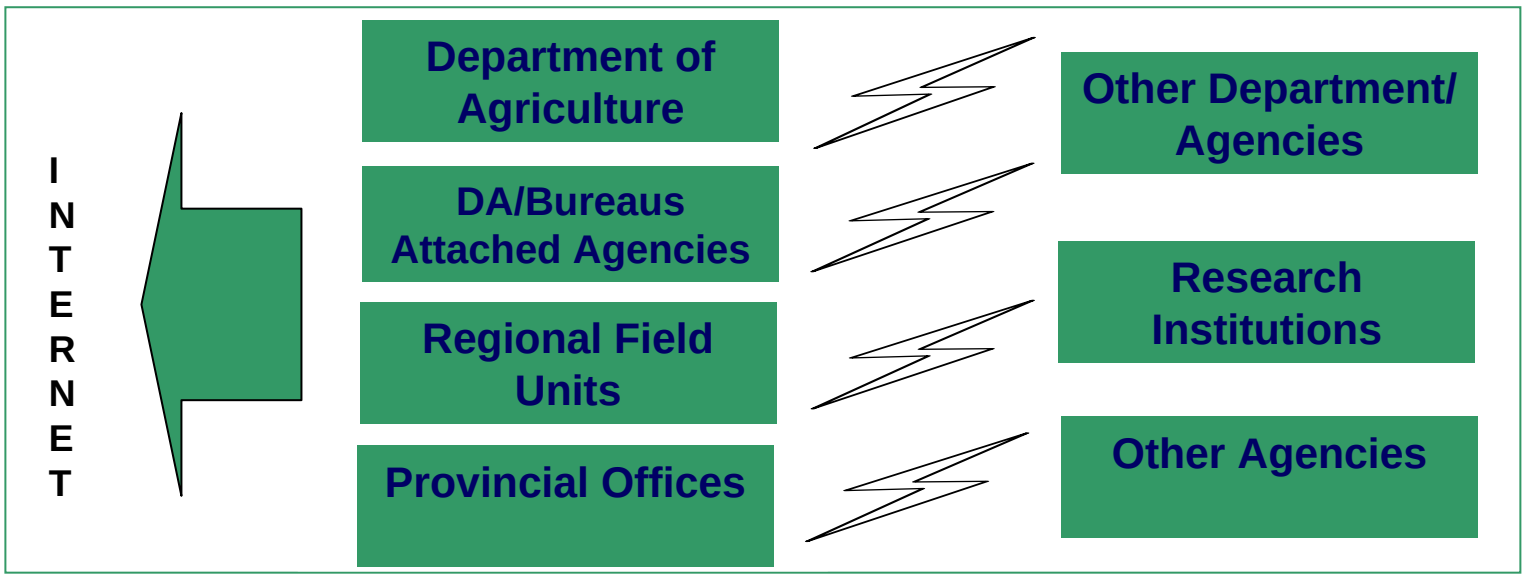
Information Systems/Data Requirements

Various information systems are recommended to be developed to support the generation of the following information for the first four years of AFMA implementation as specified in the IRR:

- Production Supply and Demand
- Price and Price Trends
- Product Standards and Consumer Safety
- Directory of Scientists and Experts, Importers/Exporters/ Traders/Processors, Agriculture and Fisheries Facilities, Training Centers/Services, Key Market Centers, etc
- Research Information and Technology generated by R & D Institutions
- Marketing Data and Market Forecasts
- Resource Accounting Data
- Credit Facilities and Programs

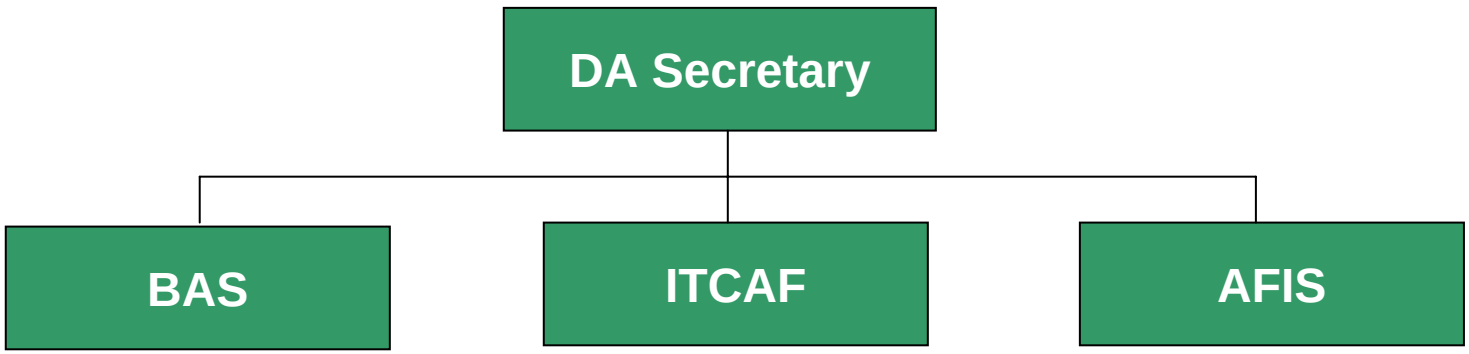
Connectivity Requirements

Section 41 of IRR further states…" the NIN shall likewise link the various research institutions for easy access to data on agriculture and fisheries research and technology. All departments, agencies, bureaus, research institutions, and local government units shall consolidate and continuously update all relevant information and data on a periodic basis and make such data available on the Internet."



Organizational Requirements

Section 44 of the IRR states that: " the Information Technology Center for Agriculture and Fisheries (ITCAF), the Bureau of Agricultural Statistics (BAS) and the Agricultural and Fisheries Information Service (AFIS) will form the NIN Implementation Group of DA"



BAS will serve as the central information server and will provide technical assistance to end-users and analyzing product and marketing information and technology

ITCAF shall ensure the provision of the necessary information technology resources, IT training and basic infrastructure of the NIN

AFIS shall ensure that the services of the NIN are directly applicable to actual marketing conditions

DA-Very Small Aperture Terminal (VSAT) System

- 15 satellite nodes
- 5.35 MHz bandwidth of Standard C-Band transponder from Mabuhay Satellite Corporation
- Support the exchange of information within NIN
  - integrated data, voice and fax
  - video conference capability
  - remote dial-in capability (voice and data)

DA-VSAT System Hub/Remote Site Location

- ***VSAT Hub:*** ITCAF: Quezon City

Remote Sites:

- DA-RFU 1: San Fernando, La Union
- DA-RFU 2: Tuguegarao, Cagayan
- DA-RFU 3: San Fernando, Pampanga
- DA-RFU 5: Pili, Camarines Sur
- DA-RFU 6: Iloilo City
- DA-RFU 7: Cebu City
- DA-RFU 8: Tacloban City
- DA-RFU 9: Zamboanga City
- DA-RFU 10: Cagayan De Oro
- DA-RFU 11: Davao City
- DA-RFU 12: Cotabato City
- DA-RFU 13: Butuan City
- DA-CAR: Baguio City
- PhilRice: Muñoz, Nueva Ecija
- UPLB: Los Baños, Laguna

Department of Science and Technology

Commodity Information Networks

ICT Networking for Agriculture: The Case of the Philippines

- Websites of Other Agencies

  Bureau of Post-Harvest Research and Extension

  - Postharvest Network
  - Corn Machinery Finder

  Philippine Rice Research Institute

  International Rice Research Institute

Gaps:

No existing agencies have developed information network on agricultural engineering technology

Present INs either cover broad topic or concentrate on specifics

Depends on other agencies for information to be posted on the website

Philippine Agricultural Engineering Technology Information System

(PAETIS)

Objectives:

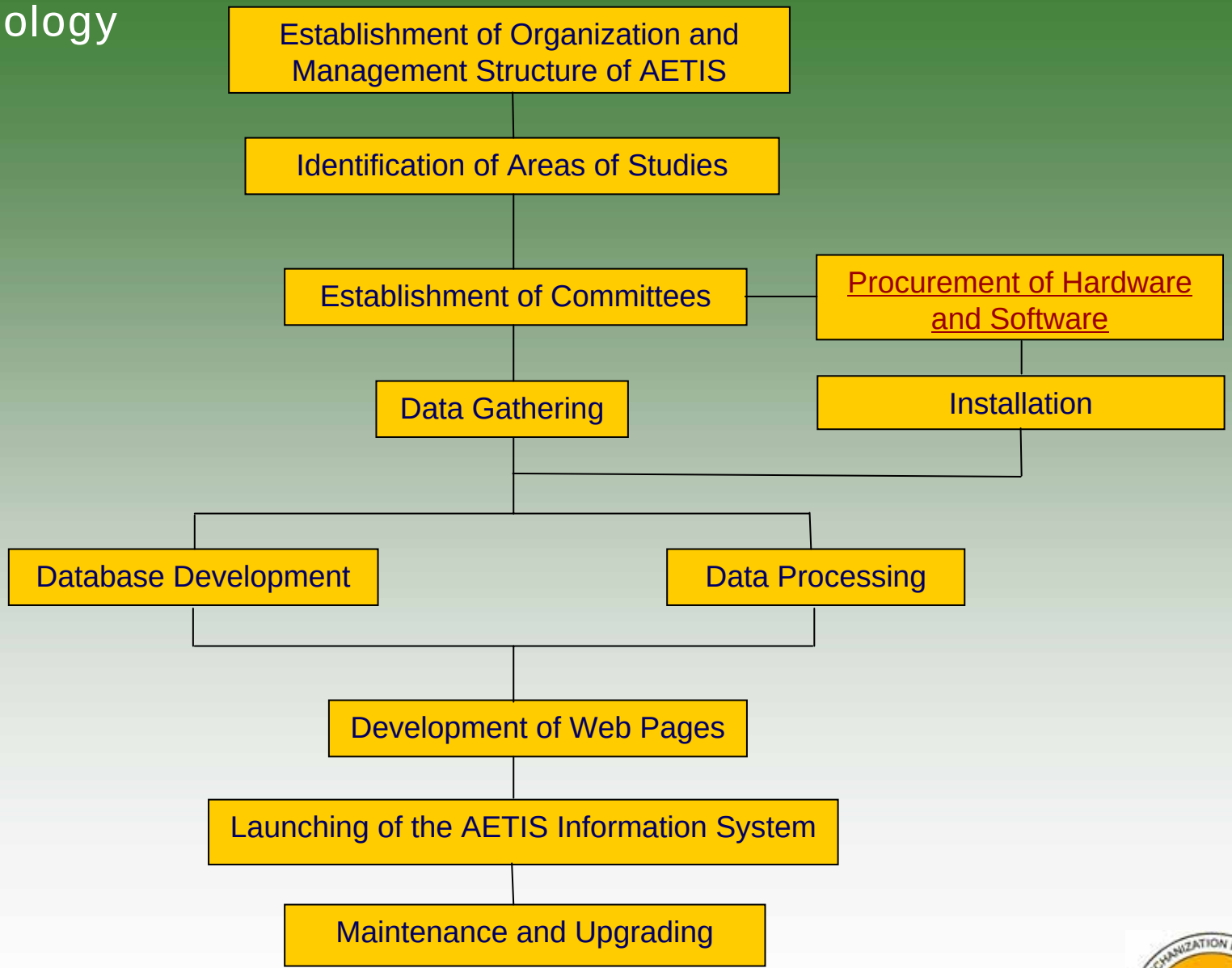
Develop an agricultural engineering technology information system in the Philippines

- Establish an information and communication backbone that will link the AETIS main hub to remote sites in different parts of the country;
- Act as the Philippine satellite of the APCAEM Information Network System project
- Develop an Internet-based computer network for agricultural engineering technology information gathering, processing, management and retrieval;
- Provide link among existing information systems on agricultural technology by integration, complementation and information sharing;

Objectives:

- Make valuable and relevant information on agricultural engineering technologies available to managers, researchers, and policy makers;
- Improve research planning and project implementation, monitoring and evaluation by providing easy and systematic access to information;
- Develop linkages between different institutions and organizations involved in research, extension and policy-making related to agricultural engineering;
- Improve the dissemination of research findings and develop effective information-sharing mechanism between research institutes to avoid duplication of research and extension projects.

Methodology



Proposed Activities in the Establishment of AETIS

Methodology

Schedule of Activities

ACTIVITY	YEAR 1				YEAR 2			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. Establishment of organization and management staff of AETIS								
2. Identification of areas of study								
3. Establishment of committee								
4. Procurement and installation of hardware and software								
5. Data Gathering								
6. Database development and data processing								
7. Webpage development								
8. Launching of AETIS								
9. Maintenance and upgrading								

EQUIPMENT	SPECIFICATIONS	QTY
SERVER SYSTEM HARDWARE	Dell Tower Servers Intel Xeon 2.8 GHz	1
CLIENT SYSTEM HARDWARE	Intel Pentium 4, 3.0 GHz PC	10
OPERATING SYSTEM	Windows Server 2003	1
DATABASE DEVELOPMENT SOFTWARE	Microsoft Windows XP Professional	10 users
and other OFFICE APPLICATIONS	Microsoft Office XP Professional	10 users
WEB DEVELOPMENT SOFTWARE	Latest version (e.g. Macromedia Flash)	1
LAN SYSTEM	Dell Power Connect Switch 5000	1
DIAL-UP CONNECTIONS	LAN card and accessories	10 sets
	Modem; other accessories	1
GPS/GIS SYSTEM	Magellan GPS receiver Promark and other accessories	2
	ArcView software	1
	AutoCAD software	1
DIGITAL CAMERA	Canon Powershot G3	2
SCANNER	Flatbed, Scanjet; latest model	3
PRINTERS AND PLOTTERS	HP Laserjet printer; latest model	2
	HP Plotter C E size; latest model	1