Directory of Agricultural Research Institutions in the Asia-Pacific Region

SOUTHEAST ASIA

Asia Pacific Association of Agricultural Research Institutions
Directory of Agricultural Research Institutions in the Asia-Pacific Region

SOUTHEAST ASIA

Asia Pacific Association of Agricultural Research Institutions
FOREWORD

The Asia Pacific Association of Agricultural Research Institutions (APAARI) was formally launched in 1990 with the adoption of its constitution by the General Assembly of apex research and co-ordination organizations of various countries of the region at the FAO Regional office for Asia and the Pacific (RAP), Bangkok, Thailand. It is an outcome of the recommendations of the 17th FAO regional conference held in Islamabad, Pakistan in 1984 and an expert consultation organized by RAP in October, 1985. As of 1996, APAARI includes more than 19 countries from south Asia, southeast Asia, northeast Asia and the Pacific.

Realizing the emerging challenges that the APAARI member countries are expected to face by the turn of the century, the association is committed to promote the development of national agricultural research systems (NARS) in the Asia-Pacific region, through: i) promoting intra-regional, inter-institutional collaboration, ii) assisting to strengthen research, organizational and management capabilities of institutions of member countries, iii) strengthening networks, and iv) improving linkages between national, regional and international research centres. APAARI is continuously supporting the regional research collaboration efforts of the FAO, the CG centres, the upcoming Global Forum and the various funding agencies besides systematically determining NARS research priorities that are common to the region, sub-regions or individual countries.

The APAARI Executive Committee had earlier decided to bring out sub-regional Directories of the National Agricultural Research Institutions with a view to invigorate and facilitate the listed institutions/organizations/universities to establish effective cooperation among themselves. The Directory of South Asia was published in 1995 which was well received.

This Directory of Agricultural Research Institutions of Southeast Asia, an outcome of the APAARI assignment given to Ms. Vivian Valdez, Technical Officer, PCARRD, Philippines, enlists 75 institutions/organizations/universities of 8 countries of the sub-region, viz., Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. It includes selected indicators for agricultural development of countries and brief profiles of their agricultural and forestry related important research institutions/organizations/universities. The Directory provides specific information on logo/emblem, the address, contact number(s), year of establishment, current heads of agencies, organizational type, areas/fields of research, major language(s) used, mandate, total and category/gender-wise manpower, regular publications, other services offered and the total research budget.

I am sure this directory will serve as a useful information document for human resource development as well as for forging research linkages among various institutions in the Asia-Pacific region.

New Delhi
6 June, 1997

(R.S. PARODA)
Executive Secretary
APAARI
# CONTENTS

<table>
<thead>
<tr>
<th>FOREWORD</th>
<th>iii</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDONESIA</strong></td>
<td></td>
</tr>
<tr>
<td>Agency for Agricultural Research and Development</td>
<td>1</td>
</tr>
<tr>
<td>Forest and Nature Conservation Research and Development Centre</td>
<td>3</td>
</tr>
<tr>
<td>National Coordination Agency for Surveys and Mapping</td>
<td>4</td>
</tr>
<tr>
<td>Purwodadi Botanic Garden</td>
<td>5</td>
</tr>
<tr>
<td>Research and Development Centre for Limnology</td>
<td>5</td>
</tr>
<tr>
<td>Research and Development Centre for Oceanology - Indonesian Institute of Sciences</td>
<td>6</td>
</tr>
<tr>
<td><strong>LAO-PEOPLES DEMOCRATIC REPUBLIC (PDR)</strong></td>
<td>7</td>
</tr>
<tr>
<td>Forest Research Centre</td>
<td>9</td>
</tr>
<tr>
<td>Houay Khot Northern Regional Upland Crops Research Centre</td>
<td>9</td>
</tr>
<tr>
<td>National Agricultural Research Centre</td>
<td>10</td>
</tr>
<tr>
<td>National Research Centre in Fisheries</td>
<td>12</td>
</tr>
<tr>
<td><strong>MALAYSIA</strong></td>
<td></td>
</tr>
<tr>
<td>Agricultural Research Centre</td>
<td>13</td>
</tr>
<tr>
<td>Department of Forestry, Forest Research and Development Branch</td>
<td>15</td>
</tr>
<tr>
<td>Forest Research Centre</td>
<td>16</td>
</tr>
<tr>
<td>Palm Oil Research Institute of Malaysia</td>
<td>17</td>
</tr>
<tr>
<td>Rubber Research Institute of Malaysia</td>
<td>18</td>
</tr>
<tr>
<td><strong>MYANMAR</strong></td>
<td></td>
</tr>
<tr>
<td>Applied Research Centre for Perennial Crops</td>
<td>19</td>
</tr>
<tr>
<td>Central Agriculture Research Institute</td>
<td>21</td>
</tr>
<tr>
<td>Fresh Water Aquaculture Research Unit</td>
<td>21</td>
</tr>
<tr>
<td>Institute of Agriculture</td>
<td>22</td>
</tr>
<tr>
<td>Institute of Forestry</td>
<td>23</td>
</tr>
<tr>
<td>Livestock Breeding and Veterinary Department</td>
<td>23</td>
</tr>
<tr>
<td>Myanmar Cotton and Sericulture Enterprise</td>
<td>24</td>
</tr>
<tr>
<td>Myanmar Forestry Research Institute</td>
<td>25</td>
</tr>
<tr>
<td>Sea Fisheries Survey and Research Unit</td>
<td>25</td>
</tr>
<tr>
<td>Sugarcane Central Research Farm</td>
<td>26</td>
</tr>
<tr>
<td>PHILIPPINES</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Baguio National Crop Research and Development Centre - Bureau of Plant Industry</td>
<td>27</td>
</tr>
<tr>
<td>Bureau of Agricultural Research</td>
<td>29</td>
</tr>
<tr>
<td>Cotton Research and Development Institute</td>
<td>29</td>
</tr>
<tr>
<td>Ecosystems Research and Development Bureau</td>
<td>30</td>
</tr>
<tr>
<td>Farm and Resource Management Institute</td>
<td>31</td>
</tr>
<tr>
<td>Forest Products Research and Development Institute</td>
<td>32</td>
</tr>
<tr>
<td>National Crop Protection Centre</td>
<td>33</td>
</tr>
<tr>
<td>National Institute of Molecular Biology and Biotechnology</td>
<td>34</td>
</tr>
<tr>
<td>University of the Philippines Los Baños</td>
<td>35</td>
</tr>
<tr>
<td>National Postharvest Institute for Research and Extension</td>
<td>36</td>
</tr>
<tr>
<td>Central Luzon State University</td>
<td>37</td>
</tr>
<tr>
<td>National Tobacco Administration</td>
<td>38</td>
</tr>
<tr>
<td>Philippine Coconut Authority</td>
<td>39</td>
</tr>
<tr>
<td>Philippine Council for Agriculture, Forestry and Natural Resources Research and Development</td>
<td>40</td>
</tr>
<tr>
<td>Philippine Industrial Crops Research Institute</td>
<td>41</td>
</tr>
<tr>
<td>Philippine Rice Research Institute</td>
<td>42</td>
</tr>
<tr>
<td>Philippine Root Crop Research and Training Centre</td>
<td>43</td>
</tr>
<tr>
<td>Visayas State College of Agriculture</td>
<td>44</td>
</tr>
<tr>
<td>Philippine Sugar Research Institute Foundation, Inc.</td>
<td>45</td>
</tr>
<tr>
<td>Regional Coconut Research Centre</td>
<td>46</td>
</tr>
<tr>
<td>Sugar Regulatory Administration Research and Development, La Granja Agricultural and Extension</td>
<td>47</td>
</tr>
<tr>
<td>University of Southern Mindanao Agricultural Research Centre</td>
<td>48</td>
</tr>
<tr>
<td>Western Mindanao State University College of Agriculture</td>
<td>49</td>
</tr>
<tr>
<td>Zamboanga State College of Marine Sciences and Technology</td>
<td>50</td>
</tr>
<tr>
<td>SINGAPORE</td>
<td></td>
</tr>
<tr>
<td>Institute of Molecular Agrobiology</td>
<td>51</td>
</tr>
<tr>
<td>Primary Production Department</td>
<td>51</td>
</tr>
<tr>
<td>THAILAND</td>
<td>53</td>
</tr>
<tr>
<td>Aquatic Animal Health Research Institute</td>
<td>55</td>
</tr>
<tr>
<td>Aquatic Natural Resources Museum</td>
<td>55</td>
</tr>
<tr>
<td>Department of Agriculture</td>
<td>56</td>
</tr>
<tr>
<td>Division of Agricultural Chemistry</td>
<td>57</td>
</tr>
<tr>
<td>Division of Aquaculture Feed Quality Control and Development</td>
<td>57</td>
</tr>
<tr>
<td>Fishery Technological Development Institute</td>
<td>58</td>
</tr>
<tr>
<td>Forest Products Research Division</td>
<td>59</td>
</tr>
<tr>
<td>Marine Fisheries Division</td>
<td>59</td>
</tr>
<tr>
<td>National Aquaculture Genetics Institute</td>
<td>60</td>
</tr>
<tr>
<td>National Biological Control Research Centre</td>
<td>60</td>
</tr>
</tbody>
</table>
National Inland Fisheries Institute ........................................ 61
National Institute of Coastal Aquaculture ............................. 62
Phuket Marine Biological Center .......................................... 62
Songkhla Rubber Research Centre ....................................... 63
Thailand Institute of Scientific and Technological Research .... 63

VIETNAM ............................................................................. 65
Centre for Biotechnology Hanoi University of Technology ....... 67
Cuu Long Delta Rice Research Institute .................................. 67
Food Crops Research Institute ........................................... 68
Institute of Agricultural Science of South Vietnam ................. 69
National Institute for Agricultural Planning and Projection .... 69
National Institute for Soils and Fertilizers ............................ 70
National Institute of Plant Protection ..................................... 71
Postharvest Technology Institute ......................................... 71
Research and Design Institute of Agriculture Machine .......... 72
Southern Institute of Water Resources Research ..................... 75
Vietnam Agricultural Science Institute ................................. 73
Vietnam Institute for Water Resources Research ..................... 74

APPENDICES ....................................................................... 75
INDONESIA
INDONESIA

Selected Indicators of Agricultural Development

Total Land Area : 1,904,600 km²
Share in Total Land Area (1998):
  Agriculture (Cropped Land) : 17.1%
  Permanent Pastures : 6.5%
  Forest & Woodland : 61.7%
  Others : 14.7%
Cropped Land per Capita : 0.16 ha
Population : 195.3 million
Average Annual Population Growth Rate : 1.7%
Adult Literacy Rate : Male—90%; female—78%
Economically Active Population in Agriculture : Male—52.5%; female—53.6%
Labor Force Employed in Agriculture : 40600 million
Total GNP (1994) : US $ 167630 million
Per Capita GNP : US $ 880
Share of Agriculture in GDP : 65821 billion Rupiah
Production Index, Agriculture : 177,000 metric tons
Expenditure by Function, Agriculture : 2812 billion Rupiah
Major Agricultural Products : Paddy, cassava, maize, palm oil, copra, sugar, bananas, sweet potatoes, soybeans, peanuts
Agricultural Exports (By Principal Commodity) : Rubber, shrimps (fresh & frozen), coffee
Agency for Agricultural Research and Development

Address : Jl. Ragunan No. 29, Pasar Minggu Jakarta, Indonesia
Phones : (62-21) 780 6202; 780 1242
Telex : 46432 AARDJK IA
Fax : (62-21) 780 0644
Year Founded/Established : 1974
Mother Institution/Affiliates/Subsidiaries : Ministry of Agriculture
Current Head of Institution : Dr. Faisal Kasyno
Position : Director General
Organization Type : National
Areas/Fields of Research : Foodcrops, Horticulture, Industrial crops, Fisheries, Livestock,
                        : Estate crops, Soil and Agroclimate, Agricultural Socio-
                        : economics, Agricultural Machinery, Communication/
                        : Information
Major Language(s) Used : Bahasa Indonesian, English
Mandate : To centralize research within the Ministry of Agriculture, and
          : develop, coordinate and implement research programmes
          : in accordance with national needs and development policies
Principal Units/Divisions : Eleven (11) Research Centres
Total Number of Personnel : 8240
(technical–1537; Administrative–6703)
Titles of Regular Publications : Information of Agric. R & D; Indonesian Agric. R & D
                               : Journal; Agric. Research Statistics; Research Journal of each
                               : Research Centre of AARD, etc.
Other Services Offered : Laboratory tests, Partnership with Private Sectors
Total Research Budget (1995) : Rp. 104,609,705,000

Forest and Nature Conservation Research and Development Centre

Address : Jalan Gunung Batu No. 5, Bogor 16001, Indonesia
Phone : (62-251) 325111
Fax : (62-251) 325111
Cable : PUSLITHUT BOGOR
Year Founded/Established : 1913
Mother Institution/Affiliates/Subsidiaries : Forest Research and Development Agency,
                                          : Ministry of Forestry
Current Head of Institution : Ir. Harun Alrasjid
Position : Director
<table>
<thead>
<tr>
<th>Organizational Type</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>Areas/Fields of Research</td>
<td>Forestry</td>
</tr>
<tr>
<td>Major Language(s) Used</td>
<td>Bahasa Indonesian</td>
</tr>
<tr>
<td>Mandate</td>
<td>Managing, Coordinating, and Reporting all Forest Research and Development Activities</td>
</tr>
<tr>
<td>Principal Units/Divisions</td>
<td>Division of Operational System for Forest Research; Division of Development; Research Groups (Botany, Soil and Water Conservation, Forest Protection, Nature Conservation, Silviculture and Forest Biometrics)</td>
</tr>
<tr>
<td>Total Number of Personnel</td>
<td>295</td>
</tr>
<tr>
<td></td>
<td>Male–238; Female–57</td>
</tr>
<tr>
<td></td>
<td>Technical–192; Administrative–103</td>
</tr>
<tr>
<td>Titles of Regular Publications</td>
<td>Forest Research Bulletin and Technical Information</td>
</tr>
</tbody>
</table>

**National Coordination Agency for Surveys and Mapping**

<table>
<thead>
<tr>
<th>Address</th>
<th>JL. Raya Jakarta, Bogor, km 46, Cibinong, West-Java</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone</td>
<td>(62-21) 875 2062</td>
</tr>
<tr>
<td>Telex</td>
<td>48305 BAKOST JA</td>
</tr>
<tr>
<td>Fax</td>
<td>(62-21) 875 2064</td>
</tr>
<tr>
<td>Year Founded/Established</td>
<td>1969</td>
</tr>
<tr>
<td>Mother Institution/Affiliates/Subsidiaries</td>
<td>Ministry of Research and Technology</td>
</tr>
<tr>
<td>Current Head of Institution</td>
<td>Dr. Paul Suharto</td>
</tr>
<tr>
<td>Position</td>
<td>Chairman</td>
</tr>
<tr>
<td>Organizational Type</td>
<td>National</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>Geodesy and Geodynamics; Geodynamics; Geography and Regional Studies; Geographical Names; Boundary Demarcations</td>
</tr>
<tr>
<td>Major Language(s) Used</td>
<td>Indonesian</td>
</tr>
<tr>
<td>Total Number of Personnel</td>
<td>692</td>
</tr>
<tr>
<td></td>
<td>Male–567; Female–125</td>
</tr>
<tr>
<td></td>
<td>Technical–461; Administrative–231</td>
</tr>
<tr>
<td>Titles of Regular Publications</td>
<td>Geo-Informatika (Semi-Scientific Journal); Geomatika (Scientific Journal)</td>
</tr>
<tr>
<td>Other Services Offered</td>
<td>Other surveys and mapping activities (Digital mapping, remote sensing, GIS, training, etc.)</td>
</tr>
<tr>
<td>Total Research Budget</td>
<td>US$ 76,000</td>
</tr>
</tbody>
</table>
Purwodadi Botanic Garden

Address : Raya Purwodadi Street, Pasuruan East Java, Indonesia
Phone : (62-341) 426046
Fax : (62-341) 426046
Year Founded/Established : 1939
Mother Institution/Affiliates/Subsidiaries : Bogor Botanic Garden
Current Head of Institution : Mr. Soejano
Position : Chief
Organizational Type : International
Areas/Fields of Research : Botanical Research
Major Language(s) Used : Indonesian
Mandate : To inventory, to explore and conserve semi-arid lowland plant species which have scientific values
Total Number of Personnel : 155
   - Male-141; Female-14
   - Technical-125; Administrative-30
Titles of Regular Publications : Annual Reports
   : Educational Services

Research and Development Centre for Limnology

Address : Jl. Proj. D.A. Tisna Amidjaya, Kompleks LIPI
          Cibinong, Cibinong 16911, Indonesia
Phone : (62-21) 875 7071
Fax : (62-21) 875 7076
Year Founded/Established : 1987
Mother Institution/Affiliates/Subsidiaries : Indonesian Institute of Sciences
Current Head of Institution : Mr. P. E. Hehanussa
Position : Director
Organizational Type : National
Areas/Fields of Research : Tropical Inland Water
Major Language(s) Used : Indonesian/English
Principal Units/Divisions : Inland Water Biology and Hydrodynamic Division
Total Number of Personnel : 68; Male-45; Female-23; Technical-47; Administrative-21
Titles of Regular Publications : Limnotek Perairan Darat Di Indonesia;
                                Oscanologi Dan Limnologi Di Indonesia
Other Services Offered : Research and Development
Total Research Budget (1996) : US$ 500,000
## Research and Development Centre for Oceanology – Indonesian Institute of Sciences

<table>
<thead>
<tr>
<th>Address</th>
<th>JL. Pasir Putih I, Ancol Timur, Jakarta 11001, Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone</td>
<td>(62-21) 683 850</td>
</tr>
<tr>
<td>Telex</td>
<td>62875-PDII-IA</td>
</tr>
<tr>
<td>Fax</td>
<td>(62-21) 681948</td>
</tr>
<tr>
<td>Year Founded/Established</td>
<td>1905</td>
</tr>
<tr>
<td>Mother Institution/Affiliates/Subsidiaries</td>
<td>Indonesian Institute of Sciences</td>
</tr>
<tr>
<td>Current Head of Institution</td>
<td>Dr. O. K. Sumadhiharga</td>
</tr>
<tr>
<td>Position</td>
<td>Head</td>
</tr>
<tr>
<td>Organizational Type</td>
<td>National</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>Oceanology</td>
</tr>
<tr>
<td>Major Language(s) Used</td>
<td>Indonesian</td>
</tr>
</tbody>
</table>
| Total Number of Personnel| 438
Male–360; Female–78
Technical–236; Administrative–202 |
| Titles of Regular Publications | Oseana, Oceanologi Dan Limnologi di
Indonesia, Marine Research in Indonesia, Special Issues |
| Other Services Offered   | Marine Survey Services for Industry Development          |
| Total Research Budget (1996) | Rp. 30,000,000,000 |

LAO PDR
**LAO PDR**

**Selected Indicators of Agricultural Development**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Land Area</td>
<td>236,800 km²</td>
</tr>
<tr>
<td>Share in Total Land Area (1993)</td>
<td></td>
</tr>
<tr>
<td>Agriculture (Cropped Land)</td>
<td>3.5%</td>
</tr>
<tr>
<td>Permanent Pastures</td>
<td>3.5%</td>
</tr>
<tr>
<td>Forest &amp; Woodland</td>
<td>54.2%</td>
</tr>
<tr>
<td>Others</td>
<td>38.9%</td>
</tr>
<tr>
<td>Cropped Land per Capita</td>
<td>0.17 ha</td>
</tr>
<tr>
<td>Population (1995)</td>
<td>4.7 million</td>
</tr>
<tr>
<td>Average Annual Population Growth Rate</td>
<td>2.6%</td>
</tr>
<tr>
<td>Adult Literacy Rate</td>
<td>Male–69%; female–44%</td>
</tr>
<tr>
<td>Economically Active Population in Agriculture</td>
<td>No data available</td>
</tr>
<tr>
<td>Labour Force Employed in Agriculture</td>
<td>No data available</td>
</tr>
<tr>
<td>Total GNP (1994)</td>
<td>US $ 1500 million</td>
</tr>
<tr>
<td>Per Capita GNP</td>
<td>US $ 320</td>
</tr>
<tr>
<td>Expenditure in Agriculture (1990)</td>
<td>8696 million kips</td>
</tr>
<tr>
<td>Major Agricultural Products</td>
<td>Sugarcane, coconut, rice, corn (shelled), banana, rubber, coffee, abaca</td>
</tr>
<tr>
<td>Agricultural Exports (By Principal Commodity)</td>
<td>Wood products, green coffee</td>
</tr>
</tbody>
</table>
**Forest Research Centre**

Address
Phone
Fax
Year Founded/Established
Current Head of Institution
Position
Organizational Type
Areas/Fields of Research
Major Language(s) Used
Mandate

: Department of Forestry
  Vientiane, Lao PDR

: (856-21) 215 000

: (856-21) 215 004

: 1993

: Mr. Khamphay Manivong
  Head

: National

: Silvicultural Research

: Lao, English

: Identify a strategy that will help to fulfill the policies and programmes defined by the Government of Lao PDR. Provide appropriate information to assist government and all other stakeholders to sustainably manage the forests and forest lands and to enhance their economic, social, environmental, and cultural values.

Principal Units/Divisions

: Regional Research Stations, Resource Centres, Research Programmes Unit, Administration Unit, Personnel Unit and Financial Unit

Total Number of Personnel

: 62
  Male–35; Female–27
  Technical–27; Administrative–12
  Others–23

Total Research Budget (1996)

: US$ 300,000

**Houay Khot Northern Regional Upland Crops Research Centre**

Address
Phone
Fax
Year Founded/Established
Mother Institution/Affiliates/Subsidiaries
Current Head of Institution
Position
Organizational Type

: Luang Prabang Provincial Agriculture and Forestry Service
  P.O. Box 600, Luang Prabang, Lao PDR

: (856-71) 212 310

: (856-71) 212 310

: 1976

: Ministry of Agriculture and Forestry; Luang Prabang Provincial Agriculture and Forestry Service

: Mr. Onechanh Boonnaphol
  Director

: National
Areas/Fields of Research: Upland Rice-Based Cropping Systems, Upland Rice Variety Selection, Testing of Upland and Lowland Rice Varieties, Agroforestry, Forage and Cover Crops, Soil Improvement and Conservation

Major Language(s) Used: Lao, English, French

Mandate: Stabilization of Upland Rice Cropping Systems, Alternatives to Shifting Cultivation

Principal Units/Divisions: Lao-IRRI Project's Upland Rice Program IBSRAM Asia Land and Sloping Lands Project

Total Number of Personnel: 9
- Male-8; Female-1
- Technical-2; Administrative-2
- Others-5

Titles of Regular Publications Produced: National Rice Research Program and Lao-IRRI Project Annual Technical Report (Uplands Section); IBSRAM Asia Land Sloping Lands Consortium Reports

Other Services Offered: Training, Farmer Extension Visits, Limited Propagation of Planting Materials

Total Research Budget (Current Year): US$ 35,000

National Agricultural Research Centre

Address: NARC, DAE, MAF, P.O. Box 811, Vientiane, Lao PDR
Phone: (856-020) 511642

Year Founded/Established: 1984

Current Head of Institution: Mr. Somnuck Thirasack

Position: Acting Director

Organizational Type: National

Areas/Fields of Research: Conduct research on intensive cropping technologies, such as, varietal selection and conservation, soil fertility management, plant protection (IPM), Farming Systems and Development of agricultural tools and machines. All research activities are focused on cereal crops (rice, maize) and cash crops (fiber crops, coffee, sugarcane, vegetable, fruit trees, etc.). Research is done mostly in farmer's fields.

Major Language(s) Used: Lao, English, French

Mandate: National Agricultural Research Centre belongs to the Department of Agriculture and Extension of the Ministry of Agriculture - Forestry. There are 7 network stations in Northern, Central and Southern part of the country.

Principal Units/Divisions: Administration Unit:
- Finance
- Secretariat
Technology Transfer Unit:
- Training
- Administration

Research Unit:
- Crop Commodities: Cereal Crop, Rice, Corn for Human Consumption
- Cash Crops: Maize for Feed Meal, Fiber Crops [cotton, kenaf], Coffee, Sugarcane, Vegetables, Fruit Trees, Root and Tuber Crops, Grain Legumes, Tobacco

Seed Production Unit:
- On Station: Breeder Seed, Regeneration 1 [R1], Regeneration 2 [R2]
- On Farm: Regeneration 2 [R2], Extension Seed

Pilot Site:
- Northern Part: a) Houykhot station [Upland ecosystem-Luang Prabang Province]; b) 30 ha station [Lowland and irrigated ecosystem-Sayabouri Province]; c) Luang Namtha station [Lowland ecosystem-Luang Namtha Province]
- Central Part: a) Hine Heup station [Upland ecosystem-Vientiane Province]; b) Thadokkam NARC [Lowland and irrigated ecosystem-Vientiane Municipality-Head Quarters]; Thasano station [Lowland and irrigated ecosystem-Savannakhet Province]
- Southern Part: a) Phone Ngam station [Lowland and Irrigation-Champasack Province]; b) Km 35 station Ban I Tou [Upland ecosystem-Champasack Province]

Three Main Projects:
- Lao-IRRI Project (for rice)
- Upland Farming System Research Project (IDRC)
- Franco-Lao Cotton Project

Total Number of Personnel: 69
Male=58; Female=11
Technical=55 (PhD-3; MSc-25); Administrative=14

Other Services Offered:
Short-term training courses mainly on rice production and English language. Provides facilities for conferences, workshops, and seminars for agriculture sectors. Provides quality rice and cotton seeds for farmers.

Total Research Budget (1996):
- Total 195,600,000 kips
- National 139,600,000 kips
- Foreign Grants 56,000,000 kips
# National Research Centre in Fisheries

<table>
<thead>
<tr>
<th>Address</th>
<th>Fisheries Division, Department of Livestock and Fisheries Ministry of Agriculture and Forestry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone</td>
<td>(856-21) 215 013</td>
</tr>
<tr>
<td>Fax</td>
<td>(856-21) 215 013 and 217 250</td>
</tr>
<tr>
<td>Year Founded/Established</td>
<td>Proposed in 1996</td>
</tr>
</tbody>
</table>
| Current Head of Institution | ARRU — Mr. Sinthavong Viravong  
RFMU — Mr. Thonsathit Xaxandays  
FEU — Mr. Bounthong Xaphakdy |
| Positions | Heads of Principal Units |
| Organizational Type | National |
| Areas/Fields of Research | Aquatic Resources Research, Reservoir Fisheries, Fisheries Extension |
| Major Language(s) Used | Lao, English |
| Principal Units/Divisions | Aquatic Resources Research Unit (ARRU), Reservoir Fisheries Management Unit (RFMU), Fisheries Extension Unit (FEU) |
| Mandate | **ARRU** — Inland aquatic resources identification and study (including fish biology); Water quality analysis; Riverine ecology study; Study of fish migration and spawning dynamics; Socio-economical study  
**RFMU**— Reservoir aquatic resources identification and study; Water quality analysis; Reservoir ecology study; Stock assessment; Socio-economical study; Research for cage fish culture; Environmental impact assessment of hydropower dams  
**FEU** — Testing technology for rearing fish on station and on farm (including both indigenous and exotic fish); Wetland resources management; Training in fish production and farm management for all levels (high, mid, low, and farmers' training); Generating extension packages; Socio-economical survey; Management of broodstock and production of fry/fingerling for distribution |
| Total Number of Personnel | 50 |
| Technical- | 45 (ARRU-10; RFMU-15; FEU-20);  
Administrative-5 |
| Titles of Regular Publications | Technical Reports and Annual Reports |
| Total Research Budget (1996) | 23.5 million Kips (1 US$ 920 Kips) |
MALAYSIA
MALAYSIA

Selected Indicators of Agricultural Development

Total Land Area : 329,800 km²

Share in Total Land Area (1992):
   Agriculture (cropped land) : 14.9%
   Permanent Pastures : 0.1%
   Forest & Woodland : 67.9%
   Others : 17.2%

Cropped Land per Capita : 0.25 ha


Average Annual Population Growth Rate : 2.5%

Adult Literacy Rate : Male-48; female-22

Economically Active Population in Agriculture : Male-22.3%; female-19.0%

Labor Force Employed in Agriculture : 1518 thousands

Total GNP (1991) : US $ 68,670 million

Per Capita GNP : US $ 3520

Share of Agriculture in GDP : 16,155 million Ringgit

Production Index, Agriculture : 225,000 metric tons

Expenditure by Function, Agriculture (1993) : 2489 million Ringgit

Major Agricultural Commodities : Palm oil, palm kernels, rubber, rice, copra, coconut oil, saw logs, sawn timber

Major Agricultural Exports : Saw logs & sawn timber, palm oil, rubber
Agricultural Research Centre

Address: P.O. Box 977, Semongok, 93720 Kuching, Sarawak, Malaysia
Phone: (60-82) 611 171
Fax: (60-82) 611 178; 255 876
Year Founded/Established: 1957
Mother Institution/Affiliates/Subsidiaries: Department of Agriculture, Sarawak State of Malaysia
Current Head of Institution: Mr. Kueh Hong Siong
Position: Senior Assistant Director (Research)
Organizational Type: State
Areas/Fields of Research: Crop Research
Major Language Used: English
Mandate: To develop and market new or improved farming technology packages which are capable of increasing productivity and efficiency towards commercialized agriculture for income maximization of farmers

Principal Units/Divisions: Food and Horticultural Crops; Industrial Crops; Crop Protection; Product Development and Technology Promotion; Research Services
Total Number of Personnel: 250
Male–225; Female–25
Technical–230; Administrative–20
Total Research Budget (1996): R.M. 3.5 Million

Department of Forestry, Forest Research and Development Branch

Address: Forest Department Headquarters, Wisma Sumber Alam, Jalan Stadium, Petra Jaya 93660 Kuching, Sarawak, Malaysia
Phone: (60-82) 442 180
Fax: (60-82) 441 377
E-mail: info@wsa.forest.gov.my
Year Founded/Established: 1945
Mother Institution/Affiliates/Subsidiaries: Forest Department Sarawak
Current Head of Institution: Mr. A. A. Hamid
Position: Senior Assistant Director
Organizational Type: State of Sarawak
Areas/Fields of Research: Forest pathology, entomology, botany, soils, ecology, silviculture and biochemistry

Major Language(s) Used: English and Bahasa Malaysia

Mandate: To conduct fundamental and applied research towards achieving sustainable forest management

Principal Units/Division: Botany, Biochemistry, Ecology, Entomology, Pathology, Silviculture and Soils

Total Number of Personnel: 130
   Male–101; Female–29
   Technical–107; Administrative–23

Titles of Regular Publications: Forest Research Reports; Forest Research Annual Report; Advisory Leaflets

Total Research Budget (1996): RM 4.4 million

Forest Research Centre

Address: Forestry Department Sabah
Phone: (60-89) 531 522
Telex: MA 82016
Fax: (60-89) 531 068

Year Founded/Established: 1974
Mother Institution/Affiliates/Subsidiaries: Sabah Forestry Department
Current Head of Institution: Mr. Anuar Mohammad

Position: Head
Organizational Type: A division within the Sabah Forestry Department
Areas/Fields of Research: Forestry
Major Language(s) Used: English

Mandate: To contribute to the conservation and sustainable management of forest resources in Sabah

Total Number of Personnel: 300
   Male–200; Female–100


Other Services Offered: Consultancy and advice

Total Research Budget (1996): RM 4 million
Palm Oil Research Institute of Malaysia (PORIM)

Address: No. 6 Persiaran Institusi, Bandar Baru Bangi, 43000 Kajang, Selangor Malaysia
Phones: (60-3) 825 9155; 825 9775
Telex: MA 31609
Fax: (60-3) 825 9446
E-mail: yusof@porim.gov.my
Year Founded/Established: 1979
Current Head of Institution: Datuk Dr. Yusof Basiron
Position: Director-General
Organizational Type: National
Areas/Fields of Research: Agricultural Research - Oil Palm and Palm Oil
Major Language(s) Used: English, Malay
Mandate/Mission: To support the well-being of the palm oil industry in Malaysia through research, development and services
Principal Units/Division: Administration and Finance, Biology, Chemistry and Technology, Techno-Economics and Technical Services, Central Services
Total Number of Personnel: 790
Male-494; Female-296; Technical-736; Administrative-54
Other Services Offered: Techno-Economics and Technical Advisory Service, Analytical, On-site Technical Audit, Technical Advice, Information and Statistics, Palm Information Centre, Training, Seminars
Total Research Budget (1996): RM 48,595,052
Rubber Research Institute of Malaysia

<table>
<thead>
<tr>
<th>Address</th>
<th>P.O. Box 10150, 50908 Kuala Lumpur, Malaysia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone</td>
<td>(60-3) 456 7033 (21 lines)</td>
</tr>
<tr>
<td>Telex</td>
<td>MA 30369</td>
</tr>
<tr>
<td>Fax</td>
<td>(60-3) 457 8512</td>
</tr>
<tr>
<td>Cable</td>
<td>Searching Kuala Lumpur</td>
</tr>
<tr>
<td>Year Founded/Established</td>
<td>1923</td>
</tr>
<tr>
<td>Mother Institution/Affiliates/Subsidiaries</td>
<td>Malaysian Rubber Research Development Board; Tun Abdul Razak Research Centre, Hertford, U.K.</td>
</tr>
<tr>
<td>Current Head of Institution</td>
<td>Abdul Aziz bin Sheikh</td>
</tr>
<tr>
<td></td>
<td>Abdul Kadir (Datur/Dr.)</td>
</tr>
<tr>
<td>Position</td>
<td>Director</td>
</tr>
<tr>
<td>Organizational Type</td>
<td>National</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>R&amp;D in Rubber Science and Technology</td>
</tr>
<tr>
<td>Major Language(s) Used</td>
<td>English and Bahasa Malaysia</td>
</tr>
<tr>
<td>Total Number of Personnel</td>
<td>1687</td>
</tr>
<tr>
<td>Other Services Offered</td>
<td>Consultancy (RRIM – Consult)</td>
</tr>
</tbody>
</table>
MYANMAR
MYANMAR

Selected Indicators of Agricultural Development

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Land Area</td>
<td></td>
<td>676,600 km²</td>
</tr>
<tr>
<td>Share in Total Land Area (1992)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture (Cropped Land)</td>
<td></td>
<td>15.3%</td>
</tr>
<tr>
<td>Permanent Pastures</td>
<td></td>
<td>0.5%</td>
</tr>
<tr>
<td>Forest &amp; Woodland</td>
<td></td>
<td>49.3%</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td>34.9%</td>
</tr>
<tr>
<td>Cropped Land per Capita</td>
<td></td>
<td>0.23 ha</td>
</tr>
<tr>
<td>Population (1995)</td>
<td></td>
<td>44.7 million</td>
</tr>
<tr>
<td>Average Annual Population Growth Rate</td>
<td></td>
<td>1.9%</td>
</tr>
<tr>
<td>Adult Literacy Rate</td>
<td></td>
<td>Male—89%; female—78%</td>
</tr>
<tr>
<td>Economically Active Population in Agriculture (1985)</td>
<td></td>
<td>Male—67.8%; female—63.0%</td>
</tr>
<tr>
<td>Total GNP (1991)</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Per Capita GNP</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Share of Agriculture in GDP</td>
<td></td>
<td>230706 million kyats</td>
</tr>
<tr>
<td>Production Index, Agriculture</td>
<td></td>
<td>144,000 metric tons</td>
</tr>
<tr>
<td>Major Agricultural Products</td>
<td></td>
<td>Paddy, sugarcane, groundnut, sesame, maize (seeds), gram, cotton, jute</td>
</tr>
<tr>
<td>Agricultural Exports (By Principal Commodity)</td>
<td></td>
<td>Teak &amp; other hardwood, rice &amp; rice products, raw rubber</td>
</tr>
</tbody>
</table>
Applied Research Centre
for Perennial Crops

Address: Mudon, Mon State, Union of Myanmar
Phone: (95-32) 230 14
Telex: c/o BM 21201 (2341) MPCE
Fax: c/o (95-1) 89960 (1518)
Year Founded/Established: 1991
Mother Institution/Affiliates/Subsidiaries: Myanmar Perennial Crop Enterprise, Ministry of Agriculture and Irrigation
Current Head of Institution: U Aye Pe
Position: Manager
Organizational Type: National
Areas/Fields of Research: Perennial Crops (rubber, oil palm, cashew nut); Introduction of new economical valued perennial crop
Major Language(s) Used: Myanmar
Mandate: The main objective is to increase national income and improve the living standard of the rural people through the centre on perennial crops to support the planting and promoting other tree crops of commercial value
Principal Units/Division: Soil/Nutrient Division; Agronomy Division; Crop Protection, Processing Technology
Total Number of Personnel: 43
Male–24; Female–19
Technical–28; Administrative–15
Other Services Offered: Conducting trainings of staff and private people
Total Research Budget (1996-1997): 7.8 Million Kyat
Current: 6.4 Million Kyat
Capital: 1.4 Million Kyat

Central Agriculture Research Institute (CARI)

Address: Cari, Yezin, Pyinmana, Myanmar
Phone: (95-67) 21118
Telex: 21311 AGRICO BM
Fax: (95-1) 667991
Year Founded/Established: 1954
Current Head of Institution: Dr. Toe Aung
Position: General Manager
Organizational Type : National
Areas/Fields of Research : Rice, other cereals, oil seed crops, food legumes, fibre crops, sugar crops, horticulture
Major Language(s) Used : Myanmar
Mandate : To develop improved varieties; to investigate crop management systems; to transfer technologies
Principal Units/Division : Rice, other cereals, oil seed crops, food legumes, fiber crops, sugar crops, horticulture, agronomy, plant physiology, entomology, agricultural chemistry, plant pathology, small scale farm implement.
Total Number of Personnel : 365
Male-125; Female-240
Technical-179; Administrative-186
Titles of Regular Publications : Myanmar Journal of Agricultural Sciences (MJAS)
Total Research Budget (1996) : K. 90,769,000

Fresh Water Aquaculture Research Unit

Address : Mya Khwar Nyo Street, Thaketa Township
Yangon, Union of Myanmar
Phone : (95-1) 295 322
Fax : (95-1) 289 429; 228 258
Telex : 21310 BM
Year Founded/Established : 1979
Mother Institution/Affiliates/Subsidiaries : Development and Research Department, Department of Fisheries, No. 460 Merchant Street, Yangon, Myanmar
Current Head of Institution : Mr. Win Aung
Position : Director
Organizational Type : National
Areas/Fields of Research : Fresh Water Organism (such as prawn, fish, and plankton)
Major Language Used : Myanmar
Degrees Offered : B.Sc (zoology)
Principal Units/Divisions : Development and Research Department, Department of Fisheries
Total Number of Personnel : 27
Male-13; Female-14
Technical-16; Administrative-11
Total Research Budget : 1.5 Millions (in Kyats)
Institute of Agriculture

Address : Yezin, Pyinmana, Myanmar
Phones : (95-067) 21098; 21434
Year Founded/Established : 1924
Current Head of Institution : Dr. Kyaw Than
Position : Rector
Organizational Type : National
Areas/Fields of Research : Teaching-University Level and Agricultural Research
Major Language(s) Used : English

For Universities:
Principal Units : Bi-semester system
                22 weeks in each semester
Degrees Offered : B. Agr. Sc.
                 M. Phil.
                 M. Agr. Sc.
Mandates : Ministry of Agriculture and Irrigation
Principal Units/Divisions : Agronomy, Agricultural Botany, Agricultural Chemistry, Plant Pathology, Entomology, Agricultural Economics and Horticulture
Total Number of Personnel : 428
                 Male–237; Female–191
                 Technical–190; Administrative–238
Titles of Publications : Prospectus
Total Research Budget : Ks. 80,000

Institute of Forestry

Address : 05282 Yezin – Pyinmana Township
          Union of Myanmar
Phones : (95-67) 21436; 21574
Year Founded/Established : 1923
Mother Institution/Affiliates/Subsidiaries : Department of Forest; Ministry of Forestry
Current Head of Institution : Mr. U Aung Kyin
Position : Acting Rector
Organizational Type : National
Areas/Fields of Research : Training of Professional Graduates in Forestry
Major Language(s) Used : Myanmar (Mother tongue); English
For Universities: Academic Year : 1
Livestock Breeding and Veterinary Department

Address: L.B.V.D. Insein Road, Insein, Yangon, Myanmar  
Phones: (95-1) 604 2018 – DG; 640 07 – Director  
(95-1) 642 023  
E-mail: 11011 INSEIN  
Year Founded/Established: 1874  
Current Head of Institution: Mr. Tin Ng Myint  
Position: Director General  
Organizational Type: National  
Areas/Fields of Research: Vaccine Production, Genetic Conservation, Disease Diagnosis and Epidemiology, Extension Services, A.I. and Embryo Transfer  
Major Language(s) Used: Myanmar  
For Universities: Academic Year: Six years  
Principal Units: Vaccine Production Division; Planning and Statistic Division; Administration Division; Diagnostic and Epidemiology Division; FMD Division; A.I. and Genetic Conservation Division; Training and Education Division  
Total Number of Personnel: 1777  
Male–1,389; Female–388  
Titles of Regular Publications: Administrative–470; Technical 1,307  
Other Services Offered: Annual Reports  
Total Research Budget: Contract Growing for Pig and Poultry, Extension Services Treatment for Clinical Cases  
Budget: 10,320,810 Kyats (US$ 1.7 million)
Myanmar Cotton and Sericulture Enterprise

Address: Thirimingalar Lane, Off Kabaraye Pagoda Road, Yankin, P.O., Yangon, Myanmar
Phones: (95-1) 665 466; 666 068
Fax: (95-1) 666 068
Year Founded/Established: 1994
Mother Institution/Affiliates/Subsidiaries: Myanmar Agriculture Service
Current Head of Institution: Dr. Maung Mar
Position: Managing Director
Organizational Type: National
Areas/Fields of Research: Cotton, Mulberry Cultivars; Agro-Techniques, Pest Management; Sericulture, Moriculture, Silkworm Rearing, Silk Reeling

Major Language(s) Used: Myanmar/English
Mandate: To boost cotton production and meet the demand of domestic textile industries and export the surplus cotton.
Principal Units/Divisions: Administration and Planning, Extension, Accounts, Procurement, Cotton Ginnery
Titles of Regular Publications: Annual Reports
Total Research Budget: 6,500,000 (Kyat)

Myanmar Forest Research Institute

Address: Yezin, Union of Myanmar
Phones: (95-67) 211 01; 216 00
Year Founded/Established: 1978
Current Head of Institution: Mr. Shwe Kyaw
Position: Head
Organizational Type: National
Areas/Fields of Research: Forestry and Forest Products
Major Language Used: English
Mandate: To provide technical information on all aspects of forestry and forestry based activities
PrincipaL Units/Divisions: Forest Management and Silviculture, Forest Resources, Forest Protection, Tree Improvement and Botany, Wood Properties and Utilization, Forest Industrial Processes
Total Number of Personnel: 222; Male-145; female-77; Technical-57; Administrative-165
Titles of Publications: Research Papers
Other Services Offered: Research projects requested from States and Divisions, Part-time lectures to the Institute of Forestry, Exchange of Forest Tree Seeds
Total Research Budget: Kyats 11,941,160
### Sea Fisheries Survey and Research Unit

**Address**: West Gyongon Insein Township  
Yangon, Union of Myanmar  

**Phone**: (95-1) 295 322  

**Fax**: (95-1) 289 429, 228 258  

**Year Founded/Established**: 1979  

**Mother Institution/Affiliates/Subsidiaries**: Department of Fisheries  

**Current Head of Institution**: Mr. Win Aung  

**Position**: Director  

**Organizational Type**: National  

**Areas/Fields of Research**: Rakhine Coast; Shrimp survey by catch from shrimp trawlers; Delta and Tanintharyi Coast; Demersal & Pelagic Fish Survey  

**Major Language Used**: Myanmar  

**Degrees Offered**: B.Sc Marine Sciences  

**Principal Units/Division**: Development and Research Department, Department of Fisheries  

**Total Number of Personnel**: 37; Male–50; Female–7; Technical–18; Administrative–19  

**Titles of Regular Publications**: Survey Cruise Reports, Marine Fishes, Shrimp of Continental Shelf of Myanmar; Monthly Reports

---

### Sugarcane Central Research Farm

**Address**: Myanmar Sugarcane Enterprise Ministry of Agriculture, Kanbe P.O., Yangon, Myanmar  

**Phones**: (95-1) 666 042; 666 043; 666 004  

**Telex**: 21311 Agrico BM  

**Fax**: (95-1) 667 991  

**Year Founded/Established**: 1925  

**Mother Institution/Affiliates/Subsidiaries**: Myanmar Sugarcane Enterprise  

**Current Head of Institution**: Mr. San Thein  

**Position**: Deputy General Manager  

**Organization Type**: National  

**Areas/Fields of Research**: Sugarcane varietal improvement and investigations on cultural practices  

**Major Language(s) Used**: Myanmar  

**Mandate**: Screening improved varieties in terms of cane tonnage, sugar content, resistance to red rot and earliness through tissue culture and hybridization  

**Principal Units/Divisions**: Research; Multiplication of pure strains; Demonstration  

**Total Number of Personnel**: 11; Male–8; Female–3; Technical–6; Administrative–5  

**Titles of Regular Publications**: Annual Reports, Research Articles  

**Other Services Offered**: Training at various levels  

**Total Research Budget (1996)**: Ks. 7,100,000
PHILIPPINES
PHILIPPINES

Selected Indicators of Agricultural Development

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Land Area</td>
<td>300,000 km²</td>
</tr>
<tr>
<td>Share in Total Land Area (1999)</td>
<td></td>
</tr>
<tr>
<td>Agriculture (Cropped Land)</td>
<td>30.8%</td>
</tr>
<tr>
<td>Permanent Pastures</td>
<td>4.3%</td>
</tr>
<tr>
<td>Forest &amp; Woodland</td>
<td>45.6%</td>
</tr>
<tr>
<td>Others</td>
<td>19.3%</td>
</tr>
<tr>
<td>Cropped Land per Capita</td>
<td>0.14 ha</td>
</tr>
<tr>
<td>Population (1995)</td>
<td>70.3 million</td>
</tr>
<tr>
<td>Average Annual Population Growth Rate</td>
<td>2.5%</td>
</tr>
<tr>
<td>Adult Literacy Rate</td>
<td>Male–95%; female–94%</td>
</tr>
<tr>
<td>Economically Active Population in Agriculture</td>
<td>Male–52.8%; female–30.5%</td>
</tr>
<tr>
<td>Labour Force Employed in Agriculture</td>
<td>11.249 million</td>
</tr>
<tr>
<td>Total GNP</td>
<td>US $ 63310 Million</td>
</tr>
<tr>
<td>Per Capita GNP</td>
<td>US $ 960</td>
</tr>
<tr>
<td>Share of Agriculture in GDP</td>
<td>171.0 billion Pesos</td>
</tr>
<tr>
<td>Production Index, Agriculture</td>
<td>123,000 metric tons</td>
</tr>
<tr>
<td>Expenditure by Function, Agriculture</td>
<td>18243 million Pesos</td>
</tr>
<tr>
<td>Major Agricultural Products</td>
<td>Sugarcane, coconut, rice, corn (shelled), banana, rubber, coffee, abaca</td>
</tr>
<tr>
<td>Agricultural Exports (By Principal Commodity)</td>
<td>Coconut oil, logs &amp; lumber, copra, centrifugal &amp; refined sugar</td>
</tr>
</tbody>
</table>
## Baguio National Crop Research and Development Centre – Bureau of Plant Industry

**Address**: Guisad Road, Baguio City, Philippines  
**Phones**: (63-442) 5270; (63-443) 3540; (63-442) 3048  
**Fax**: (63-443) 3541  
**Mother Institution/Affiliates/Subsidiaries**: Department of Agriculture  
**Current Head of Institution**: Mr. Ceferino A. Baniqued  
**Position**: Superintendent  
**Organizational Type**: National  
**Areas/Fields of Research**: Crop improvement, crop protection, culture and management and postharvest  
**Major Language(s) Used**: English  
**Mandate**: Responsible for the generation, development, and dissemination of technologies for semi-temperate crops suitable in the Cordillera and other areas in the Philippines with similar Agro-climatic conditions  
**Principal Units/Divisions**: Research, Regulatory, Production and Extension  
**Total Number of Personnel**: 72 Male–33; Female–39 Technical–36; Administrative–36  
**Titles of Regular Publications**: Crop Improvement, Culture and Management, Crop Protection, Postharvest, Biotechnology and Regulatory, on the following commodities: potato, semi-temperate vegetables, ornamental/medicinal plants, beverages and fruit crops  
**Other Services Offered**: Training and extension, technical assistance  
**Total Research Budget (1996)**: P 13,086,106

## Bureau of Agricultural Research

**Address**: 3rd Floor, ATI Bldg., Elliptical Road Diliman, Quezon City, Philippines  
**Phones**: (63-2) 928 8505; 928 8814; 928 8624; 920 9790; 928 4907; 928 8405  
**Telex**: (722) 27725 MOA-PH  
**Fax**: (63-2) 927 5691; 928 4907  
**Cable**: Secagri  
**E-mail**: bar-oad@globe.com.ph  
**Year Founded/Established**: 1987  
**Mother Institution/Affiliates/Subsidiaries**: Department of Agriculture (DA)  
**Current Head of Institution**: Dr. Jeminiano R. Escaño
Position: Director  
Organizational Type: National  
Major Language(s) Used: English  
Mandate: To coordinate, integrate, plan, monitor and evaluate the research programmes of the DA and its attached agencies ensuring that there are no unnecessary duplications and that they are within the Department's thrusts and priorities

Principal Units/Divisions: Programme Development Division, Research Coordination Division, Management and Information Systems Division

Total Number of Personnel: 61  
Male–29; Female–32  
Technical–31; Administrative–30


Total Research Budget (1996): P 95,217,000

Cotton Research and Development Institute

Address: Mariano Marcos State University  
Batac, Ilocos Norte, Philippines

Phone: (63-77) 792 3137  
Fax: (63-77) 792 3137

Year Founded/Established: 1978

Current Head of Institution: Dr. Isagani G. Catedral  
Position: Director

Organizational Type: National

Areas/Fields of Research: Production, protection, agricultural engineering, breeding, physiology

Major Language(s) Used: English

Mandate: Attainment of self-sufficiency in cotton at the shortest time possible

Principal Units/Divisions: Administrative, Research, Research Utilization

Total Number of Personnel: 142  
Male–82; Female–60  
Technical–98; Administrative–44

Titles of Regular Publications: Annual Report, Cotton R&D Highlights, Cottonrends, and Cotton Research Journal (Phil.s.)

Other Services Offered: Training cotton farmers

Total Research Budget (1996): P 18,027,000
Ecosystems Research and Development Bureau
(Formerly Forest Research Institute)

Address : College, Laguna 4031, Philippines
Phones : (63-49) 536 3481; 536 3628
Fax : (63-49) 536 2850
Year Founded/Established : 1987
Mother Institution/Affiliates/Subsidiaries : Department of Environment and Natural Resources Ecosystems Research and Development Service (Regional)
Current Head of Institution : For. Celso P. Diaz
Position : Director III
Organizational Type : National
Areas/Fields of Research : The bureau is responsible for generative technologies and providing technical assistance on the sustainable development and uses of Philippine ecosystems and natural resources. The ERDB employs the ecosystem approach in the implementation of R and D programmes which makes use of interdisciplinary means towards solving problems plaguing the ecosystems and natural resources, i.e., it takes into account all major factors affecting the ecosystems and by providing solutions to the same through the use of diverse expertise.

Forest Ecosystem: R and D programmes dealing with the regeneration, protection, conservation and management of the dipterocarps, pine, mossy and plantation forest including non-timber forest plants such as rattan, palms, vines, and other economic plants including medicinal plants.

Upland Farms Ecosystems: R and D programmes on the plantation, rehabilitation and management of upland areas appropriate to varied bio-physical and socio-cultural situations.

Grassland & Degraded Areas Ecosystem: R and D programs on the rehabilitation, protection and management of openlands, critical watersheds, and grassland and degraded areas.

Coastal Zone and Freshwater Ecosystem: R and D programs to generate technologies for the proper utilization, protection, rehabilitation and management of mangrove forests and estuarine areas, inland and coastal wetlands, riverine, stagnant and remaining freshwater resources.

Major Language(s) Used : English, Filipino
Mandate : The bureau is responsible for generative technologies and providing technical assistance on the sustainable development and uses of Philippine ecosystems and natural resources.
Principal Units/Divisions : Office of the Director (Office of the Assistant Director; Los Baños Experiment Station, Planning and Management Information Services Unit); Finance and Administrative Services Division; Forest Ecosystem Research Division; Grassland and Degraded Areas Ecosystem Research Division; Upland Farms Ecosystem Research Division; Coastal Zone and Freshwater Ecosystem Research Division; and Technology Development Division.
Farm and Resource Management Institute

Address: Visayas State College of Agriculture (ViSCA)
6521-A Baybay, Leyte, Philippines

Phone: (63-2) 055-415-2630
Fax: (63-2) 588-692
E-mail: visca@sat.vitanet.org
Year Founded/Established: 1987
Mother Institution/Affiliates/Subsidiaries: Visayas State College of Agriculture (VISCA)
Current Head of Institution: Dr. Dolores A. Alcober
Position: Director
Organizational Type: Regional (a research centre of VISCA)
Areas/Fields of Research: Soil and Water Resources; Agroforestry and Multipurpose Tree Species; Agricultural Ecosystem
Major Language(s) Used: English
Mandate: To focus on-farm research thrust on upland agroecosystems with upland rice and corn as base crops
Total Number of Personnel: 12 Male–8; Female–4 Technical–7; Administrative–5
Titles of Regular Publications: FARMI Annual Report; On-Farm, Notes (bi-annually)
Other Services Offered: Resource Person for non-formal training; Instructor for some courses offered by academic departments in VISCA
Total Research Budget: P 2,317,974.00 (includes government and foreign funding)

Forest Products Research and Development Institute (FPRDI)

Address: Forestry, College 4031Laguna, Philippines
Phones: (63-49) 536 3650; 536 2377; 536 2360
Fax: (63-49) 536-3630
E-mail: edb@mudspring.uplb.edu.ph dsa@mudspring.uplb.edu.ph
Year Founded/Established: 1957
Mother Institution/Affiliates/Subsidiaries: Department of Science and Technology
Current Head of Institution: Dr. Emmanuel D. Bello
Position: Director
Organizational Type: National
Areas/Fields of Research: Forest products utilization research, Housing and materials, Furniture, Wares and packaging, Chemical products, Technology utilization, Socio-economics, Pulp and paper and Dendro-Energy
National Crop Protection Centre

Address: College of Agriculture, University of the Philippines, Los Baños College, Laguna 4031, Philippines
Phones: (63-49) 536 2409; 536-0967; 536-0983
E-mail: LRIV@Mudspring.uplb.edu.ph; EAB@Mudspring.uplb.edu.ph
Year Founded/Established: 1976
Mother Institution/Affiliates/Subsidiaries: College of Agriculture, University of the Philippines, Los Baños
Current Head of Institution: Dr. Luis Rey I. Velasco
Position: Director
Organizational Type: National
Areas/Fields of Research: Crop protection, entomology, plant pathology, weeds, vertebrate pests
Major Language(s) Used: English
Mandates: To undertake problem analyses, developmental research and planning required to develop crop protection systems against pests of major economic crops; To develop and implement manpower training programmes designed to upgrade the pool of manpower required to meet the complex pest control needs of the country; To undertake information exchange and extension to provide farmers and the public with coordinated information about the varied facets of pest control and to emphasize the urgent need for safe and effective pest control practices; To establish adequate linkage between research and operational phases at the farm level in order to ensure that the changing research needs of operational activities are met and that the operational activities are based on the most recent and applicable
National Institute of Molecular Biology and Biotechnology (BIOTECH)

| Address | University of the Philippines, Los Baños College, Laguna 4031, Philippines |
| Phones | (63-49) 094 536-2721 to 25 |
| Fax | (63-49) 536-2721 |
| E-mail | red@biotech.uplb.edu.ph |
| Year Founded/Established | 1979 |
| Current Head of Institution | Dr. Reynaldo E. dela Cruz |
| Position | Director |
| Organizational Type | National |
| Areas/Fields of Research | Agriculture and Forest Biotechnology, Environmental Biotechnology, Food and Specialty Products Biotechnology, Biotechnology for Health |
| Major Language(s) Used | English |
| Mandate | To develop cost effective technologies for the production of goods and services that are cheaper and safer alternatives to conventional products, making use of locally available materials but which are safe to the environment |
| Principal Units/Divisions | 4 Research Programmes (agriculture and forestry, food and specialty oils, environment, and health biotechnology); 4 Service Laboratories (Microbial Culture Collection and Service Lab, Central Analytical Services Lab, Electron Microscopy Lab, and Fermentation Engineering Lab); Extension and Communication Unit, and Administrative Unit |
| Total Number of Personnel | 125 Male-55; Female-70 Technical-55; Administrative-70 |
| Titles of Regular Publications Produced | Philippine Journal of Biotechnology; Annual Technical Report |
| Other Services Offered | Training, seminars, workshops; chemical analyses, electron microscopy, fermentation engineering services, microbial analyses |
University of the Philippines Los Baños (UPLB)

Address: College, Los Baños, Laguna 4031, Philippines
Phones: (63-49) 536-2894; 536-2567
Fax: (63-49) 536-3673
E-mail: rlv@mudspring.uplb.edu.ph
Year Founded/Established: 1909
Mother Institution/Affiliates Subsidiaries: University of the Philippines System (UPS)
Current Head of Institution: Dr. Ruben L. Villareal
Position: Chancellor
Organizational Type: National
Areas/Fields of Research: Agriculture, forestry and related biological and social sciences
Prioritized Research Thrusts: Sustainable productivity and efficient resource utilization premised on ecological balance; optimal rural and urban development; appropriate technologies for processing industries; basic research and cutting edge technologies; indigenous knowledge systems and Philippine culture.

Major Language(s) Used: English, Filipino
Mandate: To provide leadership in resident instructions, research and professional training in agriculture, forestry and related fields, as well as in the liberal arts, the basic and applied sciences; To enhance its critical influence on national development policies in the economic, political, social and cultural aspects of Philippine life; and; To continue striving to be the premier Asian educational institution in agriculture, forestry, rural development and in the liberal arts and the basic sciences

Total Number of Personnel: 4,017 Faculty–808; Administrative–2,486
Research, Extension and Professional Staff–723
Total Research Budget (1996): P123,687,000 (internal budget) (excluding external funding)

National Postharvest Institute for Research and Extension (NAPHIRE)

Address: Central Luzon State University Compound
Muñoz, Nueva Ecija, Philippines
Phones: (63-44) 56 0110; 56 0213; 56 0333;
(63-912) 306-70
Fax: (63-912) 335 8025; (63-2) 926 8159
E-mail: NAPHIRE@emile.com.ph
Year Founded/Established : 1978
Mother Institution/Affiliates/Subsidiaries : Department of Agriculture
Current Head of Institution : Dr. Silvestre C. Andales
Position : Executive Director
Organizational Type : National
Areas/Fields of Research : Wet grain handling, mycotoxin contamination, postharvest pest and diseases, development of postharvest processes and equipment, postharvest technology adaptation, socio-economic studies, development of postharvest expert system
Major Language(s) Used : English
Mandate : To spearhead the development of country's postharvest industry and the various sectors involved in it through the generation and extension of postharvest technologies that would minimize quality and quantity losses of the various food and feed plant crops as well as technologies that provide value added to such crops
Principal Units/Divisions : Food Protection, Finance and Administrative, Planning and Evaluation, Postharvest Engineering, Training and Extension, and Postharvest Systems
Total Number of Personnel : 162
Male – 90; Female – 72
Technical – 84; Administrative – 78
Other Services Offered : Technical assistance, conduct of postharvest training courses
Total Research Budget (1996) : P 46,464 M (local funded)
P 0.6886 M (foreign funded)

Central Luzon State University (CLSU)

Address
Phones : Muñoz, Nueva Ecija, Philippines
  : (63-44) 56 107 (CLSU, Muñoz, Nueva Ecija)
  : (63-02) 599 557 or 521-4216 (CLSU Manila Office)
Fax : (63-44) 56 107 and (63-02) 599 557
Year Founded/Established : 1907
Current Head of Institution : Dr. Fortunato A. Battad
Position : University President
Organizational Type : National
Areas/Fields of Research : Crops, farm resources, livestock, aquaculture and socio-economics
Major Language(s) Used: English, Filipino
Mandate: Research, Instruction, Extension and Training
Principal Units/Divisions: Office of the Vice President (VP) for Academic Affairs, Office of the VP for Research, Extension & Training and Office of the VP for Administration
Total Number of Personnel: 806 Faculty–369; Non-Academic–437
Titles of Regular Publications: CLSU Newsletter, Annual Report of the President, CLSU Scientific Journal
Total Research Budget (1996): P 8,160,000
P 6,793,000 (Extension)

National Tobacco Administration

Address: Scout Reyes St., Corner Panay Ave.
1100, Quezon City, Philippines
Phones: (63-2) 921-2156; (63-2) 922-2074 to 76;
(63-2) 98-26-34
Fax: (632) 922-38-27
Year Founded/Established: 1987
Mother Institution/Affiliates/Subsidiaries: Department of Agriculture
Current Head of Institution: Atty. Amelia M. Guloy
Position: Officer-in-Charge
Organizational Type: National
Areas/Fields of Research: Tobacco varietal improvement, crop resource management (crop production, crop protection and pest management) and agricultural Engineering (post-harvest management and agricultural machineries)

Major Language(s) Used: English, Filipino
Mandate: To improve the economic and living conditions and raise the quality of life of the tobacco farmers including those who depend upon the industry for their livelihood, and to promote the balanced and integrated growth and development of the industry to help make agriculture a solid base for massive industrialization.

Principal Units/Divisions: Research Services/Agricultural Research Department/Industrial Research Department; Operations Services/Farm Development Department/Market Development and Regulation Department/Branch Operations; and Support Services

Total Number of Personnel: 1,056 Male–531; Female–525
Technical–687; Administrative–369
Titles of Regular Publications: Philippine Tobacco News, Tobacco Production Guide (by tobacco type)
Other Services Offered: Industrial Research (quality assurance, product development and waste utilization, laboratory facilities instrumentation); Farm Development (technology information and dissemination, technology verification and development, farm services), tobacco market regulation and research

Total Research Budget (1996):
- P 15,563,469
- P 8,609,285 (Agricultural Research)
- P 6,341,220 (Industrial Research)
- P 612,964 (DARE)

**Philippine Coconut Authority (PCA)**

**Address**: Elliptical Road, Diliman, Quezon City, Philippines

**Phones**: (632) 920-0415; 97-4114

**Fax**: (632) 922-0415

**Year Founded/Established**: 1974

**Mother Institution/Affiliates/Subsidiaries**: Department of Agriculture
- PCA-Albay Research Centre, PCA-Davao Research Centre
- PCA-Zamboanga Research Centre

**Current Head of Institution**: Mr. Virgilio M. David

**Position**: Administrator

**Organizational Type**: National

**Areas/Fields of Research**: Crop agronomy, farming systems, varietal improvement, tissue culture/biotechnology/integrated crop protection, cocowood utilization, socio-eco/technology utilization

**Major Language(s) Used**: English, Filipino

**Mandate**: Agri-research and development, product and market development, field operations expansion, farmers organization/training

**Principal Units/Divisions**: Crop agronomy/farming systems, varietal improvement, tissue culture/biotechnology, integrated crop protection, cocowood utilization, socio-eco/technology utilization, corporate planning, HRDD, public information/relations, administrative/finance, general services

**Total Number of Personnel**: 1,300
- Male–842; Female–458
- Technical–644; Administrative–656

**Titles of Regular Publications**: Annual Report, Technical Notes

**Other Services Offered**: Plant and soil analysis, fertilizer advisory, disease diagnostics
Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD)

<table>
<thead>
<tr>
<th>Address (Headquarters)</th>
<th>Los Baños, Laguna 4030 Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Liaison Offices)</td>
<td>1st Floor, DOST-CO Bldg.</td>
</tr>
<tr>
<td></td>
<td>Bicutan, Tagig, Metro Manila 1631</td>
</tr>
<tr>
<td></td>
<td>Philippines</td>
</tr>
<tr>
<td></td>
<td>2nd Floor, DA-ATI Bldg.</td>
</tr>
<tr>
<td></td>
<td>Elliptical Road, Diliman, Quezon City 1104 Philippines</td>
</tr>
</tbody>
</table>

| Phones                 | (63-49) 536-0014 to 15; 536-0017 to 20 (Headquarters) |
|                       | (63-2) 837-1651 (Liaison Office)                      |

| E-mail                 | pcarrd@phil.gn.apc.org                               |
| Cellular Phones        | (63-912) 310 6354; 310 6355                           |
| Cable                  | AGRESPHIL MLA                                       |
| Fax                    | (63-2) 837-1651                                      |
|                        | (63-49) 536-0152; 536-0016                           |

| Year Founded/Established | 1972 |
| Mother Institution/Affiliates/Subsidiaries | Department of Science and Technology |
| Current Head of Institution | Dr. William D. Dar |
| Position                | Executive Director |
| Organizational Type     | National |
| Major Language(s) Used  | English, Filipino |
| Mandates                | Provides central direction, leadership and coordination of scientific and technological efforts; Formulates and implements policies, plans, programs for the development and promotion of science and technology (S&T); Reviews the needs of S&T in the context of the country's development; Formulates strategies, policies, programs and projects for S&T development programmes; allocates government and external funding for research and development (R&D); Monitors R&D projects; Generates external funds |

| Principal Units/Divisions | Office of the Executive Director, Office of the Deputy Executive Director for Research and Development, Office of the Deputy Executive Director for Institution Development and Resource Management, Applied Communication Division, Finance and Administration Division, Planning and Development Division, Institution Development Division, Management Information Services Division, Technology Outreach and Promotion Division, Agriculture Resources Management Research Division, Crops Research Division, Forestry and Environment Research Division, Livestock Research Division, Socio-Economic Research Division |

| Total Number of Personnel | 295 Male–108; Female–187 |
|                          | Technical–189; Administrative–106 |
Philippine Industrial Crops Research Institute

Address: University of Southern Mindanao, Kabacan, Cotabato 9407, Philippines

Phone: (63-64) 211-211
Fax: (6211720) 310

Year Founded/Established: 1978

Mother Institutions/ Affiliates/Subsidiaries: University of Southern Mindanao

Current Head of Institution: Prof. Reynaldo S. Callano

Position: Director

Organizational Type: National

Areas/Fields of Research: All disciplines of industrial/plantation crops

Major Language(s) Used: English

For Universities: Academic Year: 1996-1997, Semestral

Mandate: Research and development of industrial crops of the Philippines

Principal Units/Divisions: Rubber, coffee, cacao, fiber crops, spices and essential oils, oil crops

Total Number of Personnel: 14
Male: 6; Female: 8
Technical: 9; Administrative: 5

Titles of Regular Publications: USM R and D Journal

Other Services Offered: Farmers' training, demonstration of technologies at farmers' level, publications

Total Research Budget (1996): P 3,150,000
Philippine Rice Research Institute

Address (Central Experiment Station) : Maligaya, Muñoz, Nueva Ecija, 3119 Philippines
Branch Stations
- PhilRice San Mateo
- Malasin, San Mateo; 3318 Isabela
- PhilRice Los Baños
- Pili Drive, College, 4030 Laguna
- PhilRice Midsayap
- Bual Norte, Midsayap, 9410 North Cotabato
- PhilRice Agusan
- Basilisa, Remedios T. Romualdez
- 8611 Agusan del Norte

Phones
- Central Experiment Station (63-04) 456 112; 456 113; (63-02) 843 5122
- PhilRice San Mateo (63-076) 664 2280
- PhilRice Los Baños (63-049) 536 3515; 536 3631 to 3633;
- PhilRice Midsayap (63-064) 98 178

Fax
- Central Experiment Station (63-04) 456 112; 456 113
- PhilRice Los Baños (63-049) 536-3515

E-mail : philrice@silang.slu.edu.ph
Year Founded/Established : 1985
Mother Institution : Department of Agriculture
Current Head of Institution : Dr. Santiago R. Obien
Position : National Director
Organizational Type : Rice - varietal improvement, planting and fertilizer management, rice-based farming systems, integrated pest management, engineering and mechanization, chemistry and food science, social science and policy research, technology promotion

Areas/Fields of Research : English, Filipino

Mandate : PhilRice shall lead, unify and strengthen the manpower capabilities and improve the facilities of agencies involved in the national rice research and development programme. PhilRice shall be a vital force in attaining and sustaining the country's goal of self-sufficiency in rice and in promoting greater access of farmers to agricultural technology.

Research Department
1. Plant Breeding, Genetics & Biotechnology Division
2. Soils, Agronomy & Plant Physiology Division
3. Crop Protection Division
4. Rice Engineering & Mechanization Division
5. Socio-Economics & Statistics Division
6. Rice Chemistry & Food Science Division
Technology Promotion Department
1. Training Division
2. Technology Demonstration Division
3. Development Communication Division
4. Seed Production & Health Division

Finance & Administration Department
1. Administrative Services Division
2. Finance Division

Auxiliary Support Services Department
1. Physical Plant Division
2. Auxiliary Services Division
3. Farm Operations Division

Total Number of Personnel : 303
Male–175; Female–128
Technical–184; Administrative–119

Titles of Regular Publications : PhilRice Newsletter (quarterly), Philippine
Rice R&D Highlights (annual), PhilRice
Annual Report, Rice Technology Bulletin,
Rice Technical Bulletin, Rice Production
Technoguide (English, Tagalog and Ilocano editions),
Provincial Rice Statistics (1995),
Regional Rice Statistics (1972-1992),
Wild Rices of the Philippines and Manual on
Rice Genetic Resources. Books - Towards
People’s Empowerment, and Manual on
Rice Field Weeds in the Philippines

Total Research Budget (1996) : P 56.7 million

Philippine Root Crop Research and Training Centre

Address : Visayas State College of Agriculture
Baybay, Leyte, Philippines

Phones : (63-2) 521-2027; 58-86-92 (ViSCA Manila Office)
(63-53) 415-2612 (Baybay, Leyte)

Fax : (632) 58-86-92

E-mail : V+VISSCA@Sat. Vitanet.org

Year Founded/Established : 1977

Mother Institution/Affiliates/Subsidiaries : Visayas State College of Agriculture

Current Head of Institution : Prof. Fernando A. Evangelio

Position : Officer-in-Charge

Organizational Type : National

Areas/Fields of Research : Breeding, production, pest management, production tools
and processing equipment, post-harvest handling, post production and utilization, socio-economics and extension of root crops

Major Language(s) Used
Mandate
Principal Units/Divisions
Total Number of Personnel
Titles of Regular Publications
Other Services Offered

English and Tagalog
Development of the root crop industry in the Philippines particularly for the benefit of the rural poor
Crop Management Division, Engineering Division, Post Production and Utilization Division and Extension and Socio-Economics Division
81
Male - 58; Female - 23
Technical - 67; Administrative - 14
The Radix, ISPN Newsletter, PRCTRCC Annual Reports
Training on Root Crop Technologies, Cooperative Management, Institution Building, Consultancies, Germplasm Exchange, Soil and Plant Analytical Services

Visayas State College of Agriculture (VISCA)

Address
Phones
Fax
E-mail
Year Founded/Established
Current Head of Institution
Position
Organizational Type
Areas/Fields of Research

Baybay, Leyte, Philippines
(63-2) 521-2027; 58-86-92 (VISCA Manila Office)
(63-53) 415-2601 (Baybay, Leyte) 723-35 (Cebu Office)
(692) 588-692
V+VISCA@Sat.Vitanet.org
1924
Dr. Samuel S. Go
President
Regional; Zonal (Visayas)
COMMODITIES: Rootcrops, abaca, coconut, farming systems, livestock, vegetables, fruits, cereals and legumes, ecosystems, rural sociology, agricultural economics, agroforestry, marine and aquatic fisheries, spices and botanicals for medicines.
AREAS: Breeding, production, processing, extension, marketing and commercialization and technology dissemination

Major Language(s) Used
Mandate
Total Number of Personnel
Titles of Regular Publications
Total Research Budget (1996)

English, local dialect for local technoguides
-
336 Technical–293; Administrative–43
Annals of Tropical Research (ATR), R and D Newsletter, Research Digest, Radix, Farm Notes, ViSCA Annual Report, Technoguides
P 13,651,000
**Philippine Sugar Research Institute Foundation, Inc.**  
*`PHILSURIN`*

| **Address** | Room 1005, 10th Floor, Ayala Ave. Condo.  
6776 Ayala Avenue, Makati City, Philippines |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phones</strong></td>
<td>(63-2) 891-1398; (63-2) 891-1410 to 12</td>
</tr>
<tr>
<td><strong>Fax</strong></td>
<td>(63-2) 891-1414</td>
</tr>
<tr>
<td><strong>Year Founded/Established</strong></td>
<td>1995</td>
</tr>
<tr>
<td><strong>Current Head of Institution</strong></td>
<td>Mr. Romeo L. Ledesma</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td>Director-General</td>
</tr>
<tr>
<td><strong>Organization Type</strong></td>
<td>National</td>
</tr>
<tr>
<td><strong>Areas/Fields of Research</strong></td>
<td>Sugarcane research, development and extension</td>
</tr>
<tr>
<td><strong>Major Language(s) Used</strong></td>
<td>English</td>
</tr>
</tbody>
</table>
| **Mandate/Mission** | Advancement of the Philippine sugar industry to a sustainable,  
globally competitive position by providing planters and  
millers with appropriate and cost-effective technologies. |
| **Total Number of Personnel** | 6 Male–4; Female–2  
Technical–3; Administrative–3 |
| **Total Research Budget (1996)** | P 10 million |

---

**Regional Coconut Research Centre (RCRC)**

| **Address** | Visayas State College of Agriculture  
Baybay, Leyte, Philippines |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phone</strong></td>
<td>63-415-2618</td>
</tr>
<tr>
<td><strong>Year Founded/Established</strong></td>
<td>1975</td>
</tr>
<tr>
<td><strong>Mother Institution/Affiliates/Subsidiaries</strong></td>
<td>Visayas State College of Agriculture</td>
</tr>
<tr>
<td><strong>Current Head of Institution</strong></td>
<td>Dr. Rebecca M. Santiago</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td>Director</td>
</tr>
<tr>
<td><strong>Organizational Type</strong></td>
<td>Regional</td>
</tr>
</tbody>
</table>
| **Areas/Fields of Research** | Crop improvement, cultural management and multiple  
cropping, processing and utilization, socioeconomics and  
extension |
| **Major Language(s) Used** | Cebuano, Filipino, English |
| **Mandate** | To generate and disseminate appropriate technologies that  
augment the Visayan coconut farmers' income and uplift  
their general well-being |
| **Total Number of Personnel** | 21 Male–14; Female–7  
Technical–17; Administrative–4 |
| **Total Research Budget (1996)** | P 1,359,782.00 |
Sugar Regulatory Administration Research and Development,
La Granja Agricultural Research and Extension

<table>
<thead>
<tr>
<th>Address</th>
<th>La Granja, La Carlota City, Negros Occidental Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telex</td>
<td>(63-912) 510-1003</td>
</tr>
<tr>
<td>Fax</td>
<td>(63-912) 510-1003</td>
</tr>
<tr>
<td>Mother Institution/Affiliates/Subsidiaries</td>
<td>Sugar Regulatory Administration</td>
</tr>
<tr>
<td>Current Head of Institution</td>
<td>Mr. Edmundo P. Gotera</td>
</tr>
<tr>
<td>Position</td>
<td>Manager II</td>
</tr>
<tr>
<td>Organizational Type</td>
<td>National</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>Agricultural research on sugarcane breeding, agronomy, soils and plant nutrition, crop protection, agricultural engineering</td>
</tr>
<tr>
<td>Major Language(s) Used</td>
<td>English, Filipino</td>
</tr>
<tr>
<td>Principal Units/Divisions</td>
<td>Department of Breeding and Genetics, Department of Agronomy, Department of Crop Protection, Department of Soils and Plant Nutrition, Department of Agricultural Engineering, Administration Extension Services Department, and Farm Services Division</td>
</tr>
<tr>
<td>Total Number of Personnel</td>
<td>110 Male–66; Female–44</td>
</tr>
<tr>
<td>Titles of Regular Publications Produced</td>
<td>Annual Report</td>
</tr>
<tr>
<td>Other Services Offered</td>
<td>Five-day seminars for sugarcane planters</td>
</tr>
</tbody>
</table>

University of Southern Mindanao Agricultural Research Centre

<table>
<thead>
<tr>
<th>Address</th>
<th>USM, Kabacan, 9407 Cotabato, Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year Founded</td>
<td>1976</td>
</tr>
<tr>
<td>Mother Institution/Affiliates/Subsidiaries</td>
<td>University of Southern Mindanao</td>
</tr>
<tr>
<td>Current Head of Institution</td>
<td>Dr. Demetrio V. Oria</td>
</tr>
<tr>
<td>Position</td>
<td>Director</td>
</tr>
<tr>
<td>Organizational Type</td>
<td>National</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>National centre for corn, sorghum and fruit crops; regional centre for legumes, rice and other cereals, root crops, sugarcane, beef, carabao and chevon, poultry, farming systems, soil resources, water resources, applied rural sociology, microeconomics; cooperating station for coconut and vegetable crops.</td>
</tr>
<tr>
<td>Major Language(s) Used For Universities: Academic Year</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>1996-1967, Semestral</td>
</tr>
</tbody>
</table>
Principal Units: Graduate School, College of Agriculture, Arts and Sciences, Education, Engineering, Human Ecology and Food Sciences, Trades and Industries, Veterinary Medicine and Institute of Development Economics Management, Middle East and Asian Studies, Public Health and Sports, Physical Education and Recreation

Degrees Offered: Ed. D. in Educational Management, Ph.D. in Agricultural Sciences, M.S. in Education, M.S. in Agricultural Sciences, M.P.S. in other fields, Doctor of Veterinary Medicine, B.S. in Engineering, Education, Agriculture, Industrial Education, Chemistry, Biology, Development Communication, Agribusiness, Agricultural Economics, Islamic Studies, Human Ecology and Food Sciences

Mandate: To generate packages of technology to increase farm productivity through increased yield/unit and/or decreased actual production cost; To generate technology on post-harvest handling and processing techniques to improve quality and promote value added farm products; To conduct research that would narrow down the production gap between research CENTRE and farmers field; To develop packages of technology on the proper and optimum utilization of marginal hilly land; To generate technologies on utilization of non-conventional sources of energy for household and agro-industrial use.

Total Number of Personnel: 185 Male–109; Female–74
Technical–139; Administrative–8; Support Staff–36

Titles of Regular Publications: USM R & D Journal, USMARC R & D Journal, USMARC R & D Monitor, Durian Newsletter

Other Services Offered: Extension activities; farmers training; demonstration of technologies at farmers' level; publications; radio programs

Total Research Budget (1996): P 7,322,000

Western Mindanao State University College of Agriculture

Address: Normal Road, Baliwasan, Zamboanga City, Philippines
Telex: 991-1040
Fax: (63-62) 991-3065
Year Founded: 1918
Current Head of Institution: Erdulfo B. Fernando
Position: President
Organizational Type: National
Areas/Fields of Research: Agriculture, science and technology, educational, socio-economic/cultural research, health research
Major Language(s) Used: English
For Universities: Academic Year: Semestral
Zamboanga State College of Marine Sciences and Technology

Address: Fort Pilar, Zamboanga City, Philippines
Phones: (62-62) 991-0643; 993-2567
Year Founded: 1956
Mother Institution/Affiliates/Subsidiaries: Department of Education, Culture and Sports (DECS)
Phuket Marine Education Institute (PMEI)
Philippine Association of State Colleges and Universities (PASUC)

Current Head of Institution: Dr. Edgardo M. Santos
Position: College President
Organizational Type: Institutional/SUCs
Areas/Fields of Research: Marine sciences, fisheries, maritime technology and food technology

Major Language(s) Used: English, Filipino
For Universities: Academic Year: Semestral
Principal Units: Institute of Marine Science Technology, Institute of Maritime Technology, Institute of Arts and Sciences, Institute of Education

Degrees Offered: Bachelor of Science (BS) in Marine Biology, BS in Aquaculture, BS in Education Major in Home Management Technology and General Science, BS in Food Technology, and BS in Marine Transportation Major in Navigation and Seamanship and Marine Engineering
Mandate: It shall provide the necessary leadership in professional and technical instruction in fisheries, maritime technology, marine services and development management in line with the manpower requirement and other development needs of Western Mindanao and neighboring regions. The state college shall offer undergraduate and graduate courses in fisheries, maritime technology, marine sciences, computer technology and development management as well as technical/vocational courses relevant to the needs of fisheries, maritime and other marine resource-based industry. It shall promote research in fisheries and marine sciences and in related agribusiness concerns.

Total Number of Personnel: 216
- Male–122; Female–94
- Technical–116; Administrative–100

Title of Regular Publication: Currents (research journal)

Other Services Offered: Consultancy, Technical Assistance, Project Management and Feasibility Study, Research and Extension, Hatchery and Wet Laboratory, Food Processing, and Seminar-Workshop

Total Research Budget (1996): P 45.314 million
SINGAPORE
**SINGAPORE**

**Selected Indicators of Agricultural Development**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Land Area</td>
<td>600 km²</td>
</tr>
<tr>
<td>Share in Total Land Area (1993):</td>
<td></td>
</tr>
<tr>
<td>Agricultural (Cropped Land)</td>
<td>1.6%</td>
</tr>
<tr>
<td>Permanent Pastures</td>
<td>None</td>
</tr>
<tr>
<td>Forest &amp; Woodland</td>
<td>4.9%</td>
</tr>
<tr>
<td>Others</td>
<td>93.4%</td>
</tr>
<tr>
<td>Cropped Land Per Capita</td>
<td>0.00 ha</td>
</tr>
<tr>
<td>Population (1995)</td>
<td>3.0 million</td>
</tr>
<tr>
<td>Average Annual Population Growth Rate (1995)</td>
<td>2.0%</td>
</tr>
<tr>
<td>Adult Literacy Rate</td>
<td>Male–96%; female–86%</td>
</tr>
<tr>
<td>Labour Force Employed in Agriculture</td>
<td>5,000</td>
</tr>
<tr>
<td>Economically Active Population in Agriculture</td>
<td>Male–0.4%; female–0.1%</td>
</tr>
<tr>
<td>Adult Literacy Rate</td>
<td>Male–95%; female–83%</td>
</tr>
<tr>
<td>Total GNP</td>
<td>US $65840 million</td>
</tr>
<tr>
<td>Per Capita GNP</td>
<td>US $23360</td>
</tr>
<tr>
<td>Share of Agriculture in GDP</td>
<td>US $179.8 million</td>
</tr>
<tr>
<td>Production Index, Agriculture</td>
<td>39,000 metric tons</td>
</tr>
<tr>
<td>Expenditure by Function, Agriculture (1990)</td>
<td>US $94 million</td>
</tr>
<tr>
<td>GDP Share of Agriculture</td>
<td>US $179.8 million</td>
</tr>
<tr>
<td>Major Agricultural Products</td>
<td>None</td>
</tr>
<tr>
<td>Agricultural Exports (By Principal Commodity)</td>
<td>Crude rubber, fixed vegetable oils</td>
</tr>
</tbody>
</table>
Institute of Molecular Agrobiology

Address: 59 A, The Fleming, 1 Science Park Drive
         Singapore 118240
Phone: (65) 872 3339
Fax: (65) 774 2857
E-mail: IMATANHC@LEONIS.NUS.SG
Year Founded/Established: 1995
Mother Institution: IMA is an autonomous body within the national University
                   of Singapore

Degrees Offered: Ph.D.
Current Head of Institution: A/Prof. Venketasan Sundaresan
Position: Director
Organizational Type: National
Areas/Fields of Research: Agrobiological Research
Major Language(s) Used: English
Mandate: To undertake innovative research in agrobiology at the
genetic and molecular levels; To provide the focus to attract
high calibre researchers to undertake world-class agro-
biological research; To provide training at the postgraduate
level in the area of agrobiology; To provide the international
standing and strong 'pull' factor to attract the MNCs to take
up agro-biotechnology R&D and manufacturing activities in
Singapore; To facilitate the development of niche technologies
and commercialisation opportunities in Asia.

Total Number of Personnel: 77
Technical–66; Administrative–11
Other Services Offered: Contract research in agriculture
Total Research Budget (1996): S$ 13 Million

Primary Production Department

Address: 5, Maxwell Road, #02-00/#03-00
         Tower Block, MND Complex, Singapore 069110
Fax: (65) 220 6068
Year Founded/Established: 1959
Current Head of Institution: Dr. Ngiam Tong Tau
<table>
<thead>
<tr>
<th>Position</th>
<th>Director</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Type</td>
<td>National</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>Agriculture, Fisheries and Veterinary</td>
</tr>
<tr>
<td>Major Language Used</td>
<td>English</td>
</tr>
<tr>
<td>Total No. of Personnel</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>Technical-47;</td>
</tr>
<tr>
<td></td>
<td>Other Support Staff-60</td>
</tr>
<tr>
<td>Title of Publication</td>
<td>Singapore Journal of Primary Industries</td>
</tr>
<tr>
<td>Total Research Budget (1995)</td>
<td>S$ 2.853 million</td>
</tr>
</tbody>
</table>
THAILAND
## THAILAND

### Selected Indicators of Agricultural Development

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Land Area</td>
<td>513,100 km²</td>
</tr>
<tr>
<td>Share in Total Land Area (1993):</td>
<td></td>
</tr>
<tr>
<td>Agriculture (Cropped Land)</td>
<td>40.7%</td>
</tr>
<tr>
<td>Permanent Pastures</td>
<td>1.6%</td>
</tr>
<tr>
<td>Forest &amp; Woodland</td>
<td>26.4%</td>
</tr>
<tr>
<td>Others</td>
<td>31.3%</td>
</tr>
<tr>
<td>Cropped Land Per Capita</td>
<td>0.36 ha</td>
</tr>
<tr>
<td>Population (1995)</td>
<td>59.4 million</td>
</tr>
<tr>
<td>Average Annual Population Growth Rate</td>
<td>1.2%</td>
</tr>
<tr>
<td>Adult Literacy Rate</td>
<td>Male - 96%; female - 91%</td>
</tr>
<tr>
<td>Labor Force Employed in Agriculture</td>
<td>18.245 million</td>
</tr>
<tr>
<td>Adult Literacy Rate</td>
<td>Male - 93%; female - 92%</td>
</tr>
<tr>
<td>Economically Active Population in Agriculture</td>
<td>Male - 43.1%; female - 39.7%</td>
</tr>
<tr>
<td>Total GNP</td>
<td>US $129,860 million</td>
</tr>
<tr>
<td>Per Capita GNP</td>
<td>US $2,210</td>
</tr>
<tr>
<td>Share of Agriculture in GDP</td>
<td>314,974 million Baht</td>
</tr>
<tr>
<td>Production Index, Agriculture</td>
<td>133,000 metric tons</td>
</tr>
<tr>
<td>Major Agricultural Products</td>
<td>Sugarcane, tapioca roots, rice, maize, rubber, coconut, mungbeans, jute and kenaf, cotton</td>
</tr>
<tr>
<td>Agricultural Exports (By Principal Commodity)</td>
<td>Textile products, rice, shrimps (fresh &amp; frozen), rubber, tapioca products</td>
</tr>
</tbody>
</table>
Aquatic Animal Health Research Institute

Address: Kasetsart University Campus
           Chatuchak, Bangkok, Thailand 10900
Phones: (66-2) 579 4122; 579 6977
Fax: (66-2) 561 3993
E-mail: aahri@comnet.ksc.net.th
Year Founded/Established: 1991
Mother Institution/Affiliates/Subsidiaries: National Inland Fisheries Institute
Current Head of Institution: Dr. Kamonporn Tonguthai
Position: Director
Areas/Fields of Research: Aquatic Animal Disease
Major Language(s) Used: Thai
Mandate: Research, training and diagnostic services
Principal Units/Divisions: Parasitology, Bacteriology, Immunology, Histopathology, Virology
Total Number of Personnel: 20 Male; 7; Female 13
Technical 4; Administrative 3; Other Support Staff 13
Titles of Regular Publications: Newsletter, Research reports, Book, Technical papers
Other Services Offered: Health Certificate
Total Research Budget (1996): 2,100,000 B
900,000 B from government
1,200,000 B from international donor agencies and private companies

Aquatic Natural Resources Museum

Address: Department of Fisheries, Kasetsart University
           Campus, Paholyothin Road, Chatuchak,
           Bangkok 10900, Thailand
Phones: (66-2) 562 0600 to 15 ext 6100-2;
           (66-2) 562 0589 to 90
Fax: (66-2) 562 0589 to 90
Year Founded/Established: 1996
Mother Institution/Affiliates/Subsidiaries: Department of Fisheries, Ministry of Agriculture and Co-operatives
Current Head of Institution: Dr. Jaranthada Karnasuta
Position: Director
Organizational Type: National
Directory of Agricultural Research Institutions in the Asia-Pacific Region

Areas/Fields of Research : Taxonomy and Reference Collection
Major Language(s) Used : Thai, English
Total Number of Personnel : 38
  Male—20; Female—18
  Technical—22; Administrative—16
Titles of Regular Publications : Aquatic Natural Resources, Museum Technical Paper
Total Research Budget (1996) : 600,000 Baht (US$ 24,000)

Department of Agriculture

Address : Paholyothin Road, Chatuchak,
Bangkok 10900, Thailand
Phones : (66-2) 579 9636; 561 4671; 561 4674; 579 8539
Telegrams : DEPAGRI
Fax : (66-2) 579-4131
E-mail : doa-info@mozart.inet.co.th
Year Founded/Established : 1972
Mother Institution/Affiliates/Subsidiaries : Ministry of Agriculture and Cooperatives
Current Head of Institution : Dr. Vichit Benjasil
Position : Director-General
Organizational Type : Agency of the Royal Thai Government
Areas/Fields of Research : Rice, Field Crops, Horticulture, Sericulture, Rubber, Agricultural Regulatory, Agricultural Chemistry, Agricultural Engineering, Plant Pathology and Microbiology, Entomology, Zoology, Soil Science, Botany and Weed Science, Agricultural Toxic Substances, Agricultural Research Development

Major Language(s) Used : Thai, English
Total Number of Personnel : 3,284
  Male—1,896; Female—1,388
  Technical—2,558; Administrative—726
Titles of Regular Publications : KASIKORN (Bi-monthly Journal of DOA); Proceedings (produced by each research institute/division); DOA Annual Research Report; DOA Personnel Directory; DOA Highlights, Reports, Technical Papers, Periodicals, etc.
Other Services Offered : Involved in all royal initiative projects, area development, provision of agricultural services to farmers, technology transfer, farmers' training
Total Research Budget (1996) : 2,302,417,000 BAHT
Division of Agricultural Chemistry

Address: Ngamwongwan Road, Chatujak, Bangkok 10900, Thailand

Phones: (66-2) 579 1994; 579 0159
Fax: (66-2) 5615034
E-mail: Nongyowt@mozart.inter.co.th

Year Founded/Established: 1926
Mother Institution/Affiliates/Subsidiaries: Department of Agriculture, Ministry of Agriculture and Cooperatives

Current Head of Institution: Ms. Nongyow Thongtan

Position: Director
Organizational Type: National
Areas/Fields of Research:
- Plant growth regulators; Nuclear technology in agriculture;
- Food processing of agricultural products; Plant physiology relations; Natural products; Vegetable oil; Soil, water and fertilizer

Major Language Used: Thai
Mandate:
- Export inspection and certification for agricultural products;
- Analysis of chemicals, soil and water, fertilizers and agricultural products

Principal Units/Divisions: Agricultural Chemistry

Total Number of Personnel: 221
- Male - 71; Female - 150
- Technical - 211; Administrative - 10

Titles of Regular Publications: Agricultural Chemistry Division Annual Report

Other Services Offered:
- Agricultural products, chemicals, soil, plants, water, and fertilizer analysis service

Total Research Budget: US$ 139,200

Division of Aquaculture Feed Quality Control and Development

Address: Department of Fisheries, Kasetsart University Campus Chatuchak, Bangkok 10900, Thailand

Phone: (66-2) 579 8007
Fax: (66-2) 562 0513

Year Founded/Established: 1993
Mother Institution/Affiliates/Subsidiaries: Department of Fisheries, Ministry of Agriculture and Cooperative
Current Head of Institution: Dr. Mali Boonyaratpalin
Position: Director
Organizational Type: National
Areas/Fields of Research: Finfish and Shrimp Nutrition and Feed Development
Major Language(s) Used: Thai
Principal Units/Divisions: Fish Nutrition Research Group, Aquaculture Feed Research and Development Group, Natural Fish Food Research Group, Aquaculture Feed Quality Control Office
Total Number of Personnel: 22 Male–8; Female–14
Technical–6; Administrative–4; Other Support Staff–12
Titles of Regular Publications: Technical Paper of the National Inland Fisheries Institute
Other Services Offered: Aquaculture feed quality control, Analysis of proximate composition and Extension
Total Research Budget (1996): US$ 20,000

**Fishery Technological Development Institute**

Address: Charoenkrung Road Yannawa, Bangkok 10120, Thailand
Phones: (66-2) 211 1261; 212 4552
Fax: (66-2) 212 9446
Year Founded/Established: 1956
Mother Institution/Affiliates/Subsidiaries: Department of Fisheries, Ministry of Agriculture and Cooperative
Current Head of Institution: Dr. Poonsap Virulhakul
Position: Director
Organizational Type: National
Areas/Fields of Research: Post Harvest Fishery Technology and Development
Major Language(s) Used: Thai
Total Number of Personnel: 48
Male–17; Female–31
Technical–20; Administrative–12;
Other Support Staff–16
Titles of Regular Publications Produced: Annual Report of Fishery Technological Institute
Other Services Offered: Fishery Post Harvest Technology Training Centre, Industrial Consultation Centre, Traditional Fishery Product Inspection and Certification
Total Research Budget (1996): 60 Million Baht
Forest Products Research Division

Address : Royal Forest Department,
          Jatujak, Bangkok 10900, Thailand
Phones : (66-2) 579 8532; 579 5412
Fax : (66-2) 579 8532; 561 4872; 579 5412
Year Founded/Established : 1934
Mother Institution/Affiliates/Subsidiaries : Royal Forest Department Forest Research Office/Forest Products Research Division
Current Head of Institution : Mr. Paisal Kuwalarat
Position : Director
Organizational Type : National
Major Language(s) Used : Thai, English
Mandate : Study and develop utilization of wood and other non-wood forest products as well as serve as forest products technical information centre
Total Number of Personnel : 143 Male–91; Female–52 Technical–74; Administrative–69
Titles of Regular Publications : FPRD Annual Research Book, FPRD Annual Report
Other Services Offered : Technology transfer, technical cooperation between the government and private sector, training and Thai Standards of timber products preparation

Marine Fisheries Division

Address : Department of Fisheries, Kasetsart University Campus
          Phaholyothin Road, Bangkok 10900 Thailand
Phones : (66-2) 562 0542; 562 0543
Fax : (66-2) 562 0543
Year Founded/Established : 1965
Mother Institution/Affiliates/Subsidiaries : Department of Fisheries
Current Head of Institution : Mr. Udom Bhatiyaseve
Position : Director
Organizational Type : National
Areas/Fields of Research : Marine Fisheries Research
Major Language(s) Used : Thai
Mandate : Marine fisheries research activities
| Principal Units/Divisions                        | Marine Fisheries Management and Conservation |
| Total Number of Personnel                      | 279                                              |
| Titles of Regular Publications                 | Technical Papers                                 |
| Other Services Offered                         | Advises administrators on technical issues       |
| Total Research Budget (1996)                   | 40,379,700 Baht                                   |

National Aquaculture Genetics Institute

<table>
<thead>
<tr>
<th>Address</th>
<th>Department of Fisheries, Ministry of Agriculture and Cooperatives Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phones</td>
<td>(66-2) 579 5591; 562 0600 Ext. 5204, 5205</td>
</tr>
<tr>
<td>Fax</td>
<td>(66-2) 561 3023, 579 5591</td>
</tr>
<tr>
<td>Year Founded/Established</td>
<td>1989</td>
</tr>
<tr>
<td>Mother Institution/Affiliates/Subsidiaries</td>
<td>Department of Fisheries</td>
</tr>
<tr>
<td>Current Head of Institution</td>
<td>Mr. Panu Tavarutmaneeekul</td>
</tr>
<tr>
<td>Position</td>
<td>Director</td>
</tr>
<tr>
<td>Organizational Type</td>
<td>National</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>Aquaculture genetics</td>
</tr>
<tr>
<td>Major Language(s) Used</td>
<td>Thai, English</td>
</tr>
<tr>
<td>Total Number of Personnel</td>
<td>85 Male–40; Female–45 Technical–75; Administrative–10</td>
</tr>
<tr>
<td>Titles of Regular Publications</td>
<td>Technical Reports (Individual)</td>
</tr>
<tr>
<td>Other Services Offered</td>
<td>Training, seed distribution</td>
</tr>
<tr>
<td>Total Research Budget (1996)</td>
<td>5 Million Baht</td>
</tr>
</tbody>
</table>

National Biological Control Research Centre

<table>
<thead>
<tr>
<th>Address</th>
<th>Kasetsart University, P.O. Box 9-52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone</td>
<td>(66-2) 579 3649</td>
</tr>
<tr>
<td>Fax</td>
<td>(66-2) 579 3649</td>
</tr>
<tr>
<td>Cable</td>
<td>BIOCONTROL BANGKOK</td>
</tr>
<tr>
<td>Year Founded/Established</td>
<td>1975</td>
</tr>
<tr>
<td>Mother Institution/Affiliates/Subsidiaries</td>
<td>Kasetsart University, National Research Council of Thailand</td>
</tr>
<tr>
<td>Current Head of Institution</td>
<td>Dr. Banpoth Napompeth</td>
</tr>
<tr>
<td>Position</td>
<td>Executive Director</td>
</tr>
<tr>
<td>Organizational Type</td>
<td>National</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>Biological control of insect pests and weeds of agricultural importance and insect vectors and pests of medical and public health importance</td>
</tr>
</tbody>
</table>
National Inland Fisheries Institute

Address: Kasetsart University Campus, Bangkhen
          Bangkok 10900, Thailand
Phone: (66-2) 5620426
Fax: (66-2) 5796439
Year Founded/Established: 1976
Mother Institution/Affiliates/Subsidiaries: Department of Fisheries
Current Head of Institution: Mr. Pinit Sihapitukgat
Position: Director
Organizational Type: National
Areas/Fields of Research: Aquaculture Research
Major Language(s) Used: Thai
Mandate: To research on freshwater fishes; To provide information necessary to protect and restore the essential habitats of freshwater fishes.

Principal Units/Divisions: Aquaculture Technique Unit, Fish Population Unit, Fisheries Environment Division, Aquafeed Quality Control and Development Division, Aquatic Animal Health Research Institute

Total Number of Personnel: 136 Male—88; Female—48
Titles of Regular Publications: Technical—37; Administrative—99
Other Services Offered: To organize the Aquaculture training programme for any Thai student and international delegate by cooperating with the network of Aquaculture CENTREs in Asia-Pacific (NACA)
Total Research Budget (1996): 5,527,600 Baht
### National Institute of Coastal Aquaculture

<table>
<thead>
<tr>
<th>Address</th>
<th>Kaosan Soi 1, Muang District Songkhla, Thailand 90000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phones</td>
<td>(66-74) 312 091; 321 036; 311 895</td>
</tr>
<tr>
<td>Fax</td>
<td>(66-74) 442 054</td>
</tr>
<tr>
<td>Year Founded/Established</td>
<td>1981</td>
</tr>
<tr>
<td>Mother Institution/Affiliates/Subsidiaries</td>
<td>Department of Fisheries, Ministry of Agriculture and Cooperatives</td>
</tr>
<tr>
<td>Current Head of Institution</td>
<td>Dr. Siddhi Boonyaratpalin</td>
</tr>
<tr>
<td>Position</td>
<td>Director</td>
</tr>
<tr>
<td>Organizational Type</td>
<td>National</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>Nutrition, Disease, Environment, Natural Resources, Breeding</td>
</tr>
<tr>
<td>Major Language(s) Used</td>
<td>Thai</td>
</tr>
<tr>
<td>Principal Units/Divisions</td>
<td>Administrative Division, Reproductive Biology Research Division, Nutrition Research Division, Pathology Research Division, Coastal Environment Research Division, Coastal Research Division</td>
</tr>
<tr>
<td>Total Number of Personnel</td>
<td>225 Male–156; Female–69</td>
</tr>
<tr>
<td>Titles of Regular Publications</td>
<td>Technical Paper, Distribution Paper, Newsletter, Annual Report</td>
</tr>
<tr>
<td>Other Services Offered</td>
<td>Issue the aquatic health certificate, diagnosis service for water analysis disease and training service.</td>
</tr>
<tr>
<td>Total Research Budget (1996)</td>
<td>48,495,610 Baht</td>
</tr>
</tbody>
</table>

### Phuket Marine Biological Centre

<table>
<thead>
<tr>
<th>Address</th>
<th>51 Mu 8, Sakhidet Rd., Muang district, Phuket, 83000, Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone</td>
<td>(66-76) 391128</td>
</tr>
<tr>
<td>Fax</td>
<td>(66-76) 391127</td>
</tr>
<tr>
<td>Year Founded/Established</td>
<td>1971</td>
</tr>
<tr>
<td>Mother Institution/Affiliates/Subsidiaries</td>
<td>Department of Fisheries</td>
</tr>
<tr>
<td>Current Head of Institution</td>
<td>Mr. Somsak Chulasorn</td>
</tr>
<tr>
<td>Position</td>
<td>Director</td>
</tr>
<tr>
<td>Organizational Type</td>
<td>Regional</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>Marine Science</td>
</tr>
<tr>
<td>Major Language(s) Used</td>
<td>Thai</td>
</tr>
<tr>
<td>Mandate</td>
<td>Reference Collection, Administration Unit, Marine Ecology, Fisheries Oceanography, Marine Productivity, Marine Endangered Species, Phuket Aquarium</td>
</tr>
</tbody>
</table>
Songkhla Rubber Research Centre

Address : Khanchanawanich Road, Hat Yai, Songkhla 90110, Thailand
Phones : (66-74) 212401 to 6
Fax : (66-74) 212407
Year Founded/Established : 1965
Mother Institution/Affiliates/Subsidiaries : Rubber Research Institute of Thailand
Current Head of Institution : Mr. Charuck Boonsrirat
Position : Director
Organizational Type : Regional
Areas/Fields of Research : Rubber
Major Language(s) Used : Thai
Mandate : Research on rubber production and processing
Principal Units/Divisions : Two divisions, Administer and Rubber Activities;
Two groups, Rubber Production and Rubber Processing
Total Number of Personnel : 63 Male-43; Female-20
Technical-58; Administrative-5
Titles of Regular Publications : Annual Reports
Other Services Offered : Rubber testing and training
Total Research Budget (1996) : US$ 1,000,000

Thailand Institute of Scientific and Technological Research

Address : 196 Phahonyothin Road, Chatuchak
Bangkok 10900, Thailand
Phones : (66-2) 579 0160; 579 5515; 579 1121
Telex : 21392 TISTR TH
Fax : (66-2) 561 4771
Cable : TISTR, Bangkok
E-mail : daranp@mozart.inet.co.th
Year Founded/Established : 1963
Mother Institution/Affiliates/Subsidiaries : Ministry of Science, Technology and Environment (MOSTE)
<table>
<thead>
<tr>
<th>Current of Institution</th>
<th>Mr. Chalermchai Honark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
<td>Governor</td>
</tr>
<tr>
<td>Organizational Type</td>
<td>National</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>Biotechnology, Agro-industry, Natural Products, Corrosion Technology, Engineering Materials, Polymers and Composites, Energy Technology, Environmental Technology, Ecology Technology</td>
</tr>
<tr>
<td>Major Language(s) Used</td>
<td>Thai, English</td>
</tr>
<tr>
<td>Mandates</td>
<td>To initiate and conduct research and to provide scientific and technological services to state agencies and private enterprise for economic and social development of the country</td>
</tr>
<tr>
<td>Principal Units/DivisionS</td>
<td>Biological Science Research Department, Industrial Material Research Department, Energy and Environmental Research Department, Engineering Development Department, Material Properties Development Department, Business Development Department</td>
</tr>
<tr>
<td>Total Number of Personnel</td>
<td>784 Technical–564; Administrative–220</td>
</tr>
<tr>
<td>Other Services Offered</td>
<td>Industrial Metrology and Testing Service Centre, Thai Packaging Centre, Thai National Documentation Centre, Microbiological Resources Centre (Bangkok MIRCEN)</td>
</tr>
<tr>
<td>Total Research Budget (1996)</td>
<td>280,000,000 Baht</td>
</tr>
<tr>
<td></td>
<td>Approx. US$ 11,200,000</td>
</tr>
</tbody>
</table>
VIETNAM
## VIETNAM

**Selected Indicators of Agricultural Development**

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>331,700 km²</td>
</tr>
<tr>
<td>Share in Total Land Area (1992)</td>
<td></td>
</tr>
<tr>
<td>Agriculture (Cropped Land)</td>
<td>20.6%</td>
</tr>
<tr>
<td>Permanent Pastures</td>
<td>1.0%</td>
</tr>
<tr>
<td>Forest &amp; Woodland</td>
<td>29.6%</td>
</tr>
<tr>
<td>Others</td>
<td>48.8%</td>
</tr>
<tr>
<td>Cropped Land per Capita</td>
<td>0.10 ha</td>
</tr>
<tr>
<td>Population</td>
<td>72.54 million</td>
</tr>
<tr>
<td>Average Annual Population Growth Rate</td>
<td>2.3%</td>
</tr>
<tr>
<td>Adult Literacy Rate</td>
<td>Male–92%; female–84%</td>
</tr>
<tr>
<td>Labor Force Employed in Agriculture (1993)</td>
<td>23.7 million</td>
</tr>
<tr>
<td>Total GNP</td>
<td>US $ 12,000 million</td>
</tr>
<tr>
<td>Per Capita GNP</td>
<td>US $ 170</td>
</tr>
<tr>
<td>Share of Agriculture in GDP</td>
<td>47082.0 billion Dong</td>
</tr>
<tr>
<td>Production Index in Agriculture</td>
<td>177</td>
</tr>
<tr>
<td>Major Agriculture Products</td>
<td>Paddy rice, coconut, maize, rubber, coffee, tea</td>
</tr>
<tr>
<td>Agricultural Imports (By Principal Commodity)</td>
<td>Cotton</td>
</tr>
<tr>
<td>Agricultural Exports (By Principal Commodity)</td>
<td>Rice, coffee, frozen shrimp, rubber</td>
</tr>
</tbody>
</table>
Centre for Biotechnology Hanoi University of Technology

Address: Dai Co Viet Road, Hanoi, Vietnam
Phone: (84-4) 869 2515
Fax: (84-4) 869 2006
E-mail: nhuong@bio.hut.edu.vn
Year Founded/Established: 1986
Current Head of Institution: Prof. Dr. Sc. Le Van Nhuong
Position: Director
Organizational type: National
Areas/Fields of Research: Microbial Technology (Fermentation Engineering, Genetic Engineering, etc.); Biochemical technology (Enzyme Engineering, Synthesis of protein, Amino acid); Biotechnology for Environmental Protection (Biological treatment of wastewater, solid waste); Bio-technology for Agriculture (Biological, Pesticide, Fertilizer, Animal Feed, Tissue Culture).

Major Language(s) Used: English, Vietnamese
For Universities: Academic Year: August-June Semestral
Principal Units: Biotechnological Engineering, Chemical Engineering, Computer Science, Communication and Electronics; Technology, Electrical Engineering, Food Engineering, Economics and Management, Mechanical Engineering; Power Engineering, Physical Technology

Degrees Offered: BS Engineering, Master, Ph.D.
Mandate: 5 years – BS Engineering
2 years – Master
4 years – Ph.D.

Principal Units/Divisions: Industrial Microbiology, Industrial Chemistry, Industrial Biochemistry, General Biology, Enzyme Engineering, Fermentation Engineering

Total Number of Personnel: 26 Male-12; Female-14
Technical-5; Administrative-10 Other Support Staff-11
Total Research Budget: 500,000,000 DVN.

Cuulong Delta Rice Research Institute

Address: Omon, Cantho – Vietnam
Phone: (84-71) 861954
Fax: (84-71) 861457
E-mail: CLRRI@CLRRI.ac.vn.
Year Founded/Established: 1977
Mother Institution/Affiliates/Subsidiaries: –
Current Head of Institution: Prof. Dr. Nguyen Van Luat
Position: Director
### Food Crops Research Institute

**Address**: Gialoc, Haihung, Vietnam  
**Phone**: (84-32) 826465  
**Fax**: (84-32) 826385  
**Year Founded/Established**: 1968  
**Mother Institution/Affiliates/Subsidiaries**: Ministry of Agriculture and Rural Development  
**Current Head of Institution**: Prof. Vu Tuyen Hoang  
**Position**: Director  
**Organizational Type**: National  
**Areas/Fields of Research**: Plant Breeding, Cropping System Research, Plant Biotechnology, Agronomy, Seed Production Technology, Development and Transfer of Production Technologies  
**Major Language(s) Used**: Vietnamese  
**Mandate**: Research on varietal and technological improvement of major food crops such as rice, root and tuber crops, legumes, vegetable and fruit tree crops.  
**Principal Units/Divisions**: Rice Breeding, Cropping System, Root and Tuber Crops, Legumes, Plant Biotechnology, Crop Introduction  
**Total Number of Personnel**: 260 Male–156; Female–104  
**Technical–220; Administrative–40**  
**Titles of Regular Publications**: Bulletin of Food Crops Research (every 2-3 yr.)  
**Other Services Offered**: Supervising PhD and MSc students for their thesis research  
**Total Research Budget (1996)**: US$ 500,000
Institute of Agricultural Science of South Vietnam

Address: 121 Nguyen Binh Hiem Street, District 1
          Ho Chi Minh City, Vietnam
Phones: (84-8) 821746; 8297889; 8230950
Fax: (84-8) 8297650
E-mail: system@ias.ac.vn
Year Founded/Established: 1925
Current Head of Institution: Prof. Pham Van Bien
Position: Director
Organizational Type: National
Areas/Fields of Research: Crops and Animal Sciences
Major Language(s) Used: Vietnamese, English
Mandate: Research on the breeding and screening of plant varieties and animal breeds and on technical aspects of crops and livestock production; Research on the improvement of existing farming systems and on the transfer of technology; Scientific services on agriculture; Post-graduate and non-degree training for researchers and technical staff in agriculture.

Principal Units/Divisions: The institute is organized into 10 Research Departments: Food Crops Research, Maize Research, Vegetable Research, Legumes Research, Soil Science and Fertilizer Research, Plant Protection Research, Farming Systems Research, Pig and Poultry Research, Ruminant Research, Feedstuffs and Animal Nutrition Research. It has also five affiliated centres, namely: Hung Loc Agricultural Research Centre, Binh Thang Animal Husbandry Research and Development Centre, Ben Cat Ruminant Research and Development Centre, Dong Thap Muoi Agricultural Research Centre, Agricultural Training and Technology Transfer Centre; and three Functional Bureaux, namely: Human Resources and Administration, Planning, Research Management and International Cooperation, Finance and Accounting

Total Number of Personnel: 365
          Male–260; Female–105
          Technical–315; Administrative–50

Titles of Regular Publications: Annual Reports and Directories

Total Research Budget: US$ 800,000

National Institute for Agricultural Planning and Projection (NIAPP)

Address: 61 Hang Chuoi Street, Hanoi, SR Vietnam
Phones: (84-4) 821 1639; 821 3317
Fax: (84-4) 821 4163
Year Founded/Established: 1961
### National Institute for Soils and Fertilizers (NISF)

<table>
<thead>
<tr>
<th>Address</th>
<th>Chem, Tu Liem, Hanoi, Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone</td>
<td>(84-4) 836 2380</td>
</tr>
<tr>
<td>Fax</td>
<td>(84-4) 8343294</td>
</tr>
<tr>
<td>Year Founded/Established</td>
<td>1969</td>
</tr>
<tr>
<td>Current Head of Institution</td>
<td>Dr. Nguyen Van Bo</td>
</tr>
<tr>
<td>Position</td>
<td>Director</td>
</tr>
<tr>
<td>Organizational Type</td>
<td>National</td>
</tr>
<tr>
<td>Areas/Fields of Research</td>
<td>Soils, fertilizers and environment</td>
</tr>
<tr>
<td>Major Language(s) Used</td>
<td>Vietnamese, English</td>
</tr>
<tr>
<td>Mandate</td>
<td>Soil genesis, classification, survey and mapping; fundamental research on soil physics, soil chemistry and soil biology; utilization, conservation and improvement of soils; rational and economic use of fertilizers; soil monitoring</td>
</tr>
<tr>
<td>Principal Units/Divisions</td>
<td>6 departments and 4 stations: Department of Soil Genesis, Classification, Survey and Mapping; Department of Soil Ecology and Environment; Department of Soil Chemistry; Department of Soil Biology; Department of Soil Improvement; Department of Plant Nutrition</td>
</tr>
<tr>
<td>Total Number of Personnel</td>
<td>173</td>
</tr>
<tr>
<td>Male–90; Female–83</td>
<td></td>
</tr>
<tr>
<td>Titles of Regular Publications</td>
<td>Annual Reports</td>
</tr>
<tr>
<td>Other Services Offered</td>
<td>Application of technology (innovative and introductory) to agricultural production</td>
</tr>
<tr>
<td>Total Research Budget (1996)</td>
<td>US$ 60,000</td>
</tr>
</tbody>
</table>
National Institute of Plant Protection

Address : Chem, Tu Liem, Hanoi, Vietnam
Phones : (84-4) 834 4724; 836 3119; 838 5578
Fax : (84-4) 836 3563
Year Founded/Established : 1969
Mother Institution/Affiliate/Subsidiaries : Ministry of Agriculture and Rural Development (MARD)
Current Head of Institution : Prof. Le Van Thuyet
Position : Director
Organizational Type : National
Areas/Fields of Research : Study on the etiology of diseases and insect pests of agricultural and forestry plants and appropriate methods of control. Study on biological plant protection. Coordinate plant protection works throughout Vietnam
Major Language(s) Used : Vietnamese and English
Mandate : Overall research on plant protection. Transfer research results to farmers and technicians, training and providing education in BSc, MSc and PhD degrees in cooperation with other universities
Principal Units/Divisions : Plant Pathology Division, Entomology Division, Weed and Pesticide Science Division, Biological Control Research Centre, Administrative and International Cooperation, Scientific and Planning Division
Total Number of Personnel : 141
Male–65; Female–76
Technical–51; Administrative–16
Other Support Staff–74
Other Services Offered : Identification services and consultancies in plant protection
Total Research Budget (1996) : US$ 200,000

Postharvest Technology Institute

Address : 4 Ngo guyen, Hanoi, Vietnam
Phones : (84-4) 8253846; 8265679
Fax : (84-4) 8258440
Year Founded/Established : 1981
Mother Institution/Affiliates/Subsidiaries : Food Research Institute
Current Head of Institution : Dr. Nguyen Kim Vu
Position : Director
Organizational Type : National
Areas/Fields of Research:
Food processing and storing (grains, fruits, vegetables, meat, fish), design and manufacture of machines for food processing and storing, food quality control and food sanitation, and food standards set up.

Major Language(s) Used:
Vietnamese, English

Mandate:
To conduct the basic and applied research in post harvest stage of agriculture; To transfer technologies to farmers; To undertake educational programs and training courses; To set up food standards and food quality control

Principal Units/Divisions:
Food Processing, Food Storage, Milling and By-product Utilization, Entomology, Microbiology, Food Physiology and Bio-Chemistry, Food Quality Control and Standardization

Total Number of Personnel:
108 Male–50; Female–58
Technical–92; Administrative–16

Other Services Offered:
Consultant for the Ministry of Agriculture and Rural Development, Ministry of Science Technology and Environment on Post Harvest Technologies, Food Processing and Food Production

Total Research Budget (1996):
3 Billion VND

Research and Design Institute of Agriculture Machine (RIAM)

Address:
Km. No. 9, Nguyen Trai Road, Hanoi, Vietnam

Phones:
(84-4) 854 4331; 854 4429
(84-34) 826 6777 RIAM

Fax:

Year Founded/Established:
1970

Mother Institution/Affiliate/Subsidiaries:
Industrial Institute

Current Head of Institution:
Dr. Nguyen Van Hoi

Position:
Director

Organizational Type:
National

Areas/Fields of Research:
Research and design of all agricultural machine types including machines for land preparation, plant protection post harvesting and primary processing machines, machines for high quality processed products

Major Language(s) Used:
Vietnamese, English, Russian

Total Number of Personnel:
130
Male–102; Female–28
Technical–91; Administrative–39

Titles of Regular Publications:
Quarterly Research and Design of Agricultural Machines

Other Services Offered:
Design and install machinery and systems for tea processing, silk yarn reeling and rerelling machines, plastic tube press systems, fruit processing and preservation machine

Total Research Budget:
5,354 MILVN DONG
Southern Institute of Water Resources Research (SWIRR)

Address: 2A Nguyen Bieu Street, 5th District
            Ho Chi Minh City, Vietnam

Phones: (84-8) 8352320; 8362825
Fax: (84-8) 8355028
E-mail: system@SIWRR.ac.vn

Year Founded/Established: 1978
Mother Institution/Affiliates/Subsidiaries: -
Current Head of Institution: Dr. Sci Nguyen An Nien
Position: Director
Organizational Type: Regional
Areas/Fields of Research: Water Resources Research, Environment Impact Assessment
and Protection, Disaster Protection, Soil Reclamation, Hydraulic Works

Major Language(s) Used: Vietnamese
Mandate: Three CENTREs: CENTRE of Irrigation and Water Supply, CENTRE of New Technology, CENTRE of Information; Six Divisions: Hydraulics, River Hydraulics, EIA, Construction Materials, Geotechnique, and Administration
Principal Units/Division: -

Total Number of Personnel: 82
            Male-56; Female-26
            Technical-71; Administrative-11

Titles of Regular Publications: Annual Reports
Other Services Offered: Feasibility study, Design of Hydraulic Works, Mini and micro
                        hydropower stations, Training
Total Research Budget (1996): VND 20 Billion (US$ 2.0 Million)

Vietnam Agricultural Science Institute

Address: Thanh Tri, Hanoi, Vietnam
Phone: (84-4) 861 5487
Fax: (84-4) 861-3937

Year Founded/Established: 1952
Mother Institution/Affiliates/Subsidiaries: Ministry of Agriculture and Rural Development (MARD)
Current Head of Institution: Dr. Nguyen Huu Nghia
Position: Director General
Organizational Type: National
Areas/Fields of Research: Strategies for agricultural development, agro-systems, rice
                        breeding, hybrid rice, wheat and barley breeding, root and
                        tuber crops, vegetables, biofertilizers, soil chemistry, animal
                        genetics, plant genetics and pathology, plant genetics
resources, agricultural environment, grain legumes, animal feed and physiology

Major Language(s) Used
: Vietnamese

Mandate
: Serve as the nodal institution coordinating research activities to improve crop yield and quality, mainly rice, root crop and legumes, with orientation on development of sustainable agricultural production

Principal Units/Divisions
: 11 research departments, 8 administrative offices, 7 research centres and experimental stations

Total Number of Personnel
: 450 Male - 218; Female - 232
Technical - 322; Administrative - 73
Other Support Staff - 55

Titles of Regular Publications

Other Services Offered
: Serve as the principal institution conducting post graduate training for Master and PhD degrees in agricultural sciences for Vietnamese and foreign researchers

Total Research Budget (1996)
: US$ 1,000,000

---

**Vietnam Institute for Water Resources Research (VIWRR)**

Address
: 299 Tayson Street, Dongda, Hanoi, Vietnam

Phones
: (84-4) 852 2086; 852 3766; 852 1863

Fax
: (84-4) 536 290

Year Founded/Established
: 1959

Mother Institution/Affiliates/Subsidiaries
: Ministry of Agriculture and Rural Development

Current Head of Institution
: Prof. Nguyen Thanh Nga

Position
: Director

Organizational Type
: National

Areas/Fields of Research
: Irrigation and drainage, environmental engineering, hydraulics and hydraulic works, river and coastal engineering, pump and pumping station, turbine, geotechnique, concrete, construction, economical research works

Major Language(s) Used
: Vietnamese, English

Mandate
: Apart from research activities, the VIWRR organizes seminars, implements the Ph.D. program for internal and external staff of VIWRR

Principal Units/Divisions
: Irrigation and Drainage, River and Coastal Engineering, Hydraulics and Hydraulic Works

Total Number of Personnel
: 297; Male=231; Female=66; Technical=252; Administrative=45

Titles of Regular Publications
: Each specific research field has periodicals and directories after completing research topics in plan-period. In addition, research results are also published in Science and Technology Journal issued by the Ministry of Science and Environment, etc.

Other Services Offered
: Advisory activities, application and technology transfer, international cooperation, research on request of client
APPENDICES
Table 1. Major research goals/objectives in Southeast Asia

<table>
<thead>
<tr>
<th>Countries</th>
<th>Agricultural Modernization</th>
<th>Efficiency</th>
<th>Food Self-Sufficiency</th>
<th>Employment Generation</th>
<th>Resource Conservation/Sustainability</th>
<th>Diversification</th>
<th>Global Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Malaysia</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Lao, PDR</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Myanmar</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td>x**</td>
</tr>
<tr>
<td>Cambodia</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Available reports explicit security as a goal as against food self-sufficiency as a goal.
** Available reports indicated mere generation of surplus for export as a goal rather than to become globally competitive.
<table>
<thead>
<tr>
<th>Commodity</th>
<th>Cambodia</th>
<th>Indonesia</th>
<th>Laos</th>
<th>Malaysia</th>
<th>Myanmar</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cereal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rice</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Wheat</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corn</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td><strong>Rootcrops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cassava</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Sweet Potato</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Irish Potato</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td><strong>Legumes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mungbean</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Peanut</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Soybean</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td><strong>Vegetables and Fruits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tropical vegetables</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Starchy bananas</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Fruits</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td><strong>Plantation Crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rubber</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Palm oil</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Coconut</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Tea</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Coffee</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Cacao</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Spices</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Cotton</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Tobacco</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Commodity</td>
<td>Cambodia</td>
<td>Indonesia</td>
<td>Laos</td>
<td>Malaysia</td>
<td>Myanmar</td>
<td>Philippines</td>
<td>Thailand</td>
<td>Vietnam</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------</td>
<td>-----------</td>
<td>------</td>
<td>----------</td>
<td>---------</td>
<td>-------------</td>
<td>----------</td>
<td>---------</td>
</tr>
<tr>
<td>6. <strong>Livestock and Poultry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cattle/Carabao</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goat/Sheep</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. <strong>Fisheries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquaculture</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Artisanal fisheries</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Deep sea fisheries</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>8. <strong>Farming System</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farming systems research</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>On-farm research</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>9. <strong>Postharvest</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crops</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Livestock</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Fisheries</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>10. <strong>Resource-Based</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agrometeorology</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Soil resources</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Water resources</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>11. <strong>Agricultural Engineering</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm machinery</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Small tools development</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>12. <strong>Biotechnology</strong></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>13. <strong>Socio-Economics</strong></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Table 3. Major commodity research areas classified by regional importance

<table>
<thead>
<tr>
<th>Commodity Discipline</th>
<th>Common</th>
<th>Importance to Few Countries</th>
<th>Unique (Country)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereal</td>
<td>Rice, Corn</td>
<td></td>
<td>Wheat (Myanmar)</td>
</tr>
<tr>
<td>Rootcrops</td>
<td>Cassava, Sweet Potato, Irish Potato</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legumes</td>
<td>Mungbean, Peanut Soybean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetables and Fruits</td>
<td>Tropical Vegetables Fruits</td>
<td>Starchy Bananas</td>
<td></td>
</tr>
<tr>
<td>Plantation Crops</td>
<td>Rubber, Palm Oil Coconuts, Tea, Coffee, Cacao, Spices, Sugarcane, Tobacco</td>
<td>Cotton</td>
<td></td>
</tr>
<tr>
<td>Livestock and Poultry</td>
<td>Cattle/Carabao/Goat/Sheep/Chicken</td>
<td>Swine</td>
<td></td>
</tr>
<tr>
<td>Fisheries</td>
<td>Aquaculture, Artisanal Fisheries, Deep Sea Fisheries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systems</td>
<td>Farming Systems Research</td>
<td>On-Farm Research</td>
<td></td>
</tr>
<tr>
<td>Postharvest</td>
<td>Crops</td>
<td>Livestock Fisheries</td>
<td></td>
</tr>
<tr>
<td>Resource-Based</td>
<td>Soil resources</td>
<td>Agrometeorology Water Resources</td>
<td></td>
</tr>
<tr>
<td>Agricultural Engineering</td>
<td></td>
<td>Farm Machinery Small Tools Development</td>
<td></td>
</tr>
<tr>
<td>Specific Disciplines</td>
<td>Socio-Economics</td>
<td>Biotechnology</td>
<td></td>
</tr>
</tbody>
</table>
References


