Mila Tommaseo Ponzetta

Report
of
Papua New Guinea Mission

A Preparatory Study to EU-ACP Co-operation Programmes in the field of Higher Education

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1. IDENTIFICATION OF THE OVERALL FRAME OF CO-OPERATION

1.1. The country

1.1.1. The environment
Papua New Guinea (PNG) occupies the eastern half of New Guinea island. The western part, Papua (formerly Irian Jaya), is an Indonesian province (Annex 1, map). Its territory comprises over 600 islands (from the north, Manus, New Ireland, New Britain and North Solomons are the largest) and has an extension twice the size of Great Britain (462,840 sq km). Half of its land area is mountainous (some peaks over 4000 m), with large highland valleys. Deep gorges are cut by rushy rivers, which become meandering on the large swampy lowlands. Tropical forest dominates the landscape but gives way, mostly on the south-western side, to savannah-like grassland. Being located in a region of geologic instability, catastrophic events are frequent. This geography has been determinant for the life of its populations - whose first presence is documented around 40,000 years ago (Groube et al. 1986) - and still influences their state of development. Communication and transport by land are difficult. This has caused human isolation in the past and consequent linguistic and cultural variability: over 800 languages are spoken (Grimes, 1992). English has been adopted as the official language of government, education and commerce, but languages used in intertribal transactions have developed, like Hiri Motu and Tok Pisin.

1.1.2. The economy
Agriculture had an early local development in the fertile highlands (Golson, 1977) and still nowadays 80 to 85% of the population are subsistence farmers. Cash crops (coffee, cocoa, palm oil, copra, coconut, rubber and tea) are produced by large estates and smallholders, mainly for export. Nevertheless, the costs of production remain high, due to poor infrastructure and difficult transports.
Fishing resources (PNG has 8300 km of coastline) have an enormous potential, but are underexploited. Fishing licenses given to Asians represent a good source of income for the government, but administrative corruption and environmental damage have been reported.
Mining (gold, copper) and petroleum account for about a quarter of gross domestic product (GDP) and 77% of total export earnings (2000), but after the closure of the Panguna copper mine (Bougainville) and the reduced activity of the Ok Tedi one, the sector is declining. Natural gas reserves have been discovered and their commercial exploitation would give a strong impulse to PNG economy.
Manufacturing accounted for 8.9 % of total GDP (7.5% total exports) in 2000. Agricultural products, canned fish/meat and furniture are among the most relevant products. (Annex 2, Key indicators figures)
Given the natural beauty of the country and the variety of its cultures, Tourism is a sector of great potentiality. It has recently suffered from the consequences of the world crisis, but local criminality is also a deterrent. (Annex 3, Tourism)
Land ownership. Around 97% of the land is owned by traditional right holders: this is considered a challenge to foreign and local investors and one major obstacle to the country's economic development (Sullivan, 2002).
1.1.3. The social context

Demography and Health

PNG’s population approaches 5.2 million (Census 2000). The annual population growth rate is high: 2.7% (1980-2000). Life expectancy is low (58 years in 1998), infant mortality very high (79°/oo in 1998). Malaria and respiratory diseases have the highest incidence. HIV infection is spreading rapidly especially around urban areas, where social conditions are critical.

Literacy

In 1998 almost 37% of PNG adults were illiterate; the majority of this contingent were females. In both lower and higher education, males have a large advantage over females.

Human development index

In 2000, the PNG development ranking is 133 out of a total of 173 countries (UNPD data), which is to be considered as medium-low (L’état du monde, 2003).

1.1.4. The political context

PNG achieved independence in September 1975. Its National Government is based on the Westminster model and comprises three branches, the executive, the legislative and the judiciary. PNG National Parliament is formed by 109 elected representatives. The other two tiers of government are Provincial Governments and Local-level governments. The country is divided into 19 provinces plus the National Capital District, each with its own Provincial Government, which counts 350 provincial assembly members. The powers of each level of government are defined in the national constitution (Statistical Digest, 2000).

In recent years, under a severe economic crisis, the government was forced to revise its structure and financial planning. Consequently, there was a shortage of funding, and several service agencies were abolished. Higher education has borne its share of the government’s decisions, with its operational budget having been cut by over 40%. Since then, foreign aid has become even more important for the state budget and developmental programs. (PNG Commission for Higher Education, 2000; Tagis, 2002).

1.2. Papua New Guinea Education system

1.2.1. Institutions of Higher Education

In the period following World War II, resources were concentrated on elementary education. In the sixties and seventies, the higher education sector received a growing attention, in view of the necessity of preparing the country to face political independence and to raise a national élite which could assume administrative, economic and social responsibilities. At that time, education policies had a major impact and were a crucial force for change.

This expansion brought about the establishment of the four PNG public universities in PNG. The country’s higher education includes all post-secondary institutions, which vary from vocational, professionally-oriented schools to the more traditionally structured academic degrees (PNG National Higher Education Plan, 1991).

Higher education covers 36 institutions that receive government funding through a national commission for higher education and private colleges. There are four public and two private universities. In addition, there are also nine teachers’ colleges, six technical colleges, nine nursing schools, and eight other (essentially two-year courses) technological training institutions (Tagis, 2002).

For a detailed scheme of High Education organisation, see Annex 4.
Table 1 - PNG Universities and Affiliated Colleges in 2001

<table>
<thead>
<tr>
<th>Institution</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of PNG**</td>
<td>4-year all-purpose programs at different levels, occasional post graduate</td>
</tr>
<tr>
<td>Medical Faculty</td>
<td>6 years undergraduate medicine, post graduate diplomas and 2 years Masters in Tropical Medicine</td>
</tr>
<tr>
<td>5 Nursing Schools</td>
<td>4 years General Nursing</td>
</tr>
<tr>
<td>Pacific Adventist University*</td>
<td>4-year limited programs at undergraduate level</td>
</tr>
<tr>
<td>Sonoma Adventist College</td>
<td>2 years Business, Education, Secretarial, Agriculture</td>
</tr>
<tr>
<td>PNG Univ. of Technology**</td>
<td>4-year technology programs at different levels</td>
</tr>
<tr>
<td>Lae Timber College</td>
<td>4-6 months, Wood Processing and Saw Milling</td>
</tr>
<tr>
<td>Bulolo Forestry College</td>
<td>3 years Forestry course</td>
</tr>
<tr>
<td>Divine Word University*</td>
<td>4-year limited programs at undergraduate level</td>
</tr>
<tr>
<td>Lutheran Nursing School</td>
<td>3 years General Nursing</td>
</tr>
<tr>
<td>University of Vudal**</td>
<td>4-year limited programs at undergraduate level</td>
</tr>
<tr>
<td>Popondetta Agricultural College</td>
<td>2 Year Tropical Agriculture</td>
</tr>
<tr>
<td>Fisheries College</td>
<td>1 – 10 months course in Tropical Fisheries</td>
</tr>
<tr>
<td>University of Goroka**</td>
<td>4 year teacher training at undergraduate levels</td>
</tr>
</tbody>
</table>

Source: PNG Commission for Higher Education (modified from Tagis, 2002)

Notes: * Private University; ** Public University

More than 10,000 students enrol each year at the university, and nearly 5,000 more follow other vocational or technical courses in different HE institutions. As already noted, male students largely outnumber females, with the exception of the nursing schools, or of technical colleges, in Goroka and in the capital, devoted to secretarial skills (see also: Annex 5, IHE Enrolment by gender).

Women’s participation in Higher Education is low for a number of reasons: lack of encouragement from the families, scarcity of safe and appropriate accommodation within the campus, personal insecurity far from the tribal homes (harassment and violence towards women are frequent), few job opportunities and future family responsibilities among others (UNPD, 2000).

About 40% of present PNG population are in the work force age group (15-64), but only 12% have a formal employment. The country work absorption capacity is well below the number of the school leavers, and students refuse careers in the rural areas and forestry, which are fields of high state priority (Tagis, 2002).

1.2.2. Higher Education structure
Responsibility for higher education is vested in the Ministry for Education, Science and Technology. Three peak bodies are responsible to the Ministry for provision of relevant information, advice, policies implementation and institutions coordinations: the Commission for Higher Education (CHE), the National Research Council (NRC), the National Rersearch, Science, and Technology Council (NRSTC). The Office for Higher Education (OHE) has been renamed the Office for Higher Education, Research, Science, and Technology (OHERST), with enlarged responsibilities for servicing the three peak bodies.
1.2.3. Education policy

Education policy in PNG has received the greatest attention, before and after independence, but suggestions or proposals have remained largely ineffective for lack of coordination or insufficient funding. Achievements in higher education (HE) since the inauguration of the first university in PNG have been remarkable. However, investment in human resource development has gradually declined (-47% from 1993 to 1998). A National Higher Education Plan II (NHEP) (2000-2004) was launched. This plan incorporates the suggestions of the White Paper on Education, Research, Science, and Technology, a policy framework document, which was approved in 1997 by the National Executive Council (Decision No.III/97) (CHE, 2000a) and of “Vision 2005 Summit” on Higher Education in PNG, which was held on September 1998 (CHE, 1998). The White Paper notes that, “in general, higher education in PNG is small, costly, dependent on foreign expertise, and not very effective in terms of outreach, enrolment, throughput in minimum time, graduation numbers, and other service outputs” (CHE 2000b).

This document presents a Reform Program which strives to achieve improvements in productivity, responsiveness and responsibility, and partnership. NEHP II adds another theme, inclusiveness, stressing the links between education, enterprise and society as a whole (CHE,2000b). Central points of the reform are:

- Rationalisation of HE at a structural level
- More effective resource management
- Academic and administrative quality improvement

Institution accreditation

In 1995, the OHE prepared an extensive report, “Accreditation and Higher Education in Papua New Guinea”. In 1996 the CHE established the “CHE Academic Accreditation Committee” (CHE Resolution 4/96/2), which has since been inactive. In 1997 Loloata HE Evaluation and Planning Workshop suggested the “adoption of a national system to deal with awards, accreditation and quality, and advanced standing in an integrated way”. Finally, the White Paper proposed the establishment of a National Higher Education Accreditation and Quality Assurance Committee (NHEQAAC). The institution seeking accreditation has to prepare an extensive self-study, which is to be verified and evaluated by an External National Monitoring Committee. Accreditation is renewed every five years (Guidelines for Institutional Accreditation, second draft, August 2002; see also Whitson, 1998).

1.2.4. Projects of cooperation and management capacity

Previous International Co-operation Programs at national level:

1. 1994-2002 – PNG and USA entered into a co-operation program to manage a major post-graduate program through the “PNG-Mid-Western Universities Consortia of America”.

In addition, each H.E. institution (mostly Universities) maintains its formal relationships at national and international level. At an international level, the countries traditionally linked with PNG are Australia, New Zealand, Indonesia, South-East Asia, USA, UK and, to a lesser degree, continental Europe.
2. OVERLOOK OF PNG MISSION

2.1. Mission schedule
PNG mission lasted from 6th to 23rd October 2002. This was part of one mission to English-speaking countries in the Pacific, comprising also Fiji Island. This mission in the Pacific was carried out by two of us, Prof. Isidro Lopez-Aparicio (Granada University, Spain) and myself, Prof. Mila Tommaseo-Ponzetta (Bari and Padova Universities, Italy). The schedule of our visit is reported in Table 2.

Table 2 – Schedule of PNG mission

<table>
<thead>
<tr>
<th>Day</th>
<th>Activity</th>
<th>Locality</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-8 October</td>
<td>Journey Europe – PNG</td>
<td></td>
</tr>
<tr>
<td>8 October</td>
<td>Meeting with Higher Education Officers</td>
<td>Port Moresby</td>
</tr>
<tr>
<td>9 October</td>
<td>Visit to University of Papua New Guinea</td>
<td>Port Moresby</td>
</tr>
<tr>
<td>10 October</td>
<td>Visit to Medical School – Taurama</td>
<td>Port Moresby</td>
</tr>
<tr>
<td></td>
<td>Visit to National Research Institute</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Visit to Pacific Adventist University</td>
<td></td>
</tr>
<tr>
<td>11 October</td>
<td>Meeting with Minister of Education</td>
<td>Port Moresby</td>
</tr>
<tr>
<td></td>
<td>Visit to E.U. Delegation Commission</td>
<td></td>
</tr>
<tr>
<td>12 October</td>
<td>Visit to Don Bosco Technological Institute</td>
<td>Port Moresby</td>
</tr>
<tr>
<td>13 October</td>
<td>Journey to Lae</td>
<td>Port Moresby, Lae</td>
</tr>
<tr>
<td>14 October</td>
<td>Visit to PNG University of Technology</td>
<td>Lae</td>
</tr>
<tr>
<td>15 October</td>
<td>Visit to PNG University of Technology</td>
<td>Lae</td>
</tr>
<tr>
<td></td>
<td>Journey to Madang</td>
<td>Madang</td>
</tr>
<tr>
<td>16 October</td>
<td>Visit to Divine Word University</td>
<td>Madang</td>
</tr>
<tr>
<td></td>
<td>Visit to Maritime Institute</td>
<td></td>
</tr>
<tr>
<td>17 October</td>
<td>Journey to Goroka</td>
<td>Madang, Goroka</td>
</tr>
<tr>
<td>18 October</td>
<td>Visit to University of Goroka</td>
<td>Goroka</td>
</tr>
<tr>
<td>19 October</td>
<td>Visit to PNG Institute of Medical Research</td>
<td>Goroka</td>
</tr>
<tr>
<td>20 October</td>
<td>Journey Goroka – Port Moresby</td>
<td>Goroka, Port Moresby</td>
</tr>
<tr>
<td>21 October</td>
<td>Port Moresby</td>
<td>Port Moresby</td>
</tr>
<tr>
<td>22- 23 October</td>
<td>Journey PNG - Europe</td>
<td></td>
</tr>
</tbody>
</table>

Given the limited time at our disposal and the available travelling opportunities, priority was given to visiting the most important Universities and Institutes. From 8 to 12 October (Port Moresby) we worked together, while the second part of the mission was carried out separately and I went on visiting PNG, while Prof. Lopez left for Fiji. In Port Moresby we were generously assisted and accompanied by Dr William Tagis and Ms Prisca Mauve (Higher Education Office), who also helped to arrange all my following meetings in Lae, Madang and Goroka.

3. NEEDS AND PRIORITIES IN THE FIELD OF HIGHER EDUCATION

The Office of Higher Education – OHE – is an independent statutory authority established by an Act of Parliament in 1998 and confirmed by the *Papua New Guinea Commission of Higher Education Act* (GoPNG 1983). The Office of Higher Education’s main aim is to coordinate higher education policies and the nation’s higher education systems, in consultation with the Institution of Higher Education (NHEP II, 2000). The Director of the Higher Education Policy Planning and Development (Dr. W. Tagis) and
the Assistant Director, Ms P.Mauve, illustrated for us the H.E. situation. In particular, they pointed out the need to promote best students’ high level training (scholarships, awards). They had the opportunity themselves to study in the U.S.A., and considered it very positive. Among others, they stressed the importance of coordinating and carefully planning all future H.E. development, in order not to create further unemployment and false expectations.

3.2. Delegation of the European Commission in PNG
The Head of European Union Delegation, Dr. Anthony Crasner, and the Acting Head of European Union Delegation, Dr. Hans Lothar Schmidt, could not assist us in our mission planning because of previous engagements. Nevertheless, Ms Winifred Kavanamur, P.A. to Head of Delegation, kindly reserved for us the Hotel in Port Moresby.
Our staying in the capital occurred in concomitance with the visit by E.U. Delegate Mr. Poul Nielson, responsible for development cooperation and humanitarian aid. We thought it would have been interesting and useful to meet him, even informally, but unfortunately we were not asked to join. We paid a visit to E.U. Delegation Office, but nobody was there at that moment.

3.3. Ministry of Science and Technology
We met the Hon. Dr. Alphonse Morial Willie, Minister of Science and Technology, who joined us at the Hotel. The discussion covered general topics, relating to PNG’s present difficult economic situation and actual opportunities for research and higher education development. He emphasized the importance of the “skills development project”, not only to offer young people higher education opportunities but also to develop skills that would allow them to be self-sufficient. Among major needs, the improvement of teaching capacity and of professional resources in both academic and administrative management are required.

3.4. Universities and Institutions
In the short time of this visit, only five out of six universities could be visited. Unfortunately, the University of Vudal had to be left out, because of its displacement in New Britain. A detailed description of each university and institution, and the expression of particular needs, are reported in the attached Forms. A synthetic account of priorities is given here:
- improvement of management capability, resource planning and accountability, especially in public institutions;
- reinforce and update teacher education programs, to improve the quality of high school graduates;
- develop linkages within PNG or overseas institutions, in order to strengthen teaching methodologies and research opportunities;
- increase access to higher education for rural and disadvantaged categories, through distant and flexible education;
- support women’s access to higher education, and improve their on-campus residential facilities;
- create opportunities for academic staff exchanges and student mobility (last years) for re-training and PhD;
- promote research collaboration within universities and institutions of H.E. in fields of national interest, to improve quality and build local capacity;
- increase attention to the teaching of scientific and technical matters;
- improve and strengthen technical and agricultural colleges;
- reinforce cultural identity through the valorization of natural wealth, artistic and cultural production.

4. IDENTIFICATION OF ACTIVITIES OF CO-OPERATION IN THE FIELD OF HIGHER EDUCATION

Priority is assigned by the following marks:
A (very high) - B (high) - C (medium) – D (not urgent)

4.1. Academic and administrative management

1. Management of academic and administrative personnel. (A)
Since most of the IHE are of recent formation, both academic and administrative personnel agreed it would be worthwhile to improve their managerial capability and know-how, or to prepare new material for institutional management, suggesting that this could be done by means of periods (even short ones) of personal training, to be spent in a more advanced overseas institution.
This could result a) for administrative personnel, in writing handbooks or guides, to illustrate new accountability methods/software to share with their colleagues; b) for academic personnel, in drafts of study plans, in restructuring of curricula or in the preparation/publication of work carried out under approved common projects; c) librarians and library sector management would profit from different opportunities (personal re-training, cataloguing methods homogenization projects).

2. Improvement and adaptation of study programmes (B)
Study programmes could be improved or updated by attending regional or international meetings or taking advantage of short study visits.
The implementation of new course modules for distance studies or the up-dating of existing courses could be organized nationally, and result in the preparation of specific study plans and in continuing education programmes.

3. Cooperation between higher education institutions and industry (B)
This kind of synergy is auspicated by the NHEP II, a) in the field of common projects – where different university departments could give their technical and scientific support to the study and realization of common research projects in priority areas, functional to the development of the country; b) in the support by industry of students’ fares c) in offering students periods of training opportunities and d) in the university offering re-training and formal specialization of technical personnel, by short courses or distant-flexible learning modes.

4. Joint training projects in different cultural sectors, (C)
Priority should be given/assigned to developing managerial capacity in those sectors, like Rural health and Sanitation, Sustainable agriculture, Forestry, Fisheries, Agricultural engineering, Mechanical engineering, Electrical engineering, Surveying and Land studies which appear to be the most functional for the development of the Country. This could also help training those skilled technical personnel who could assume future positions of responsibility.

5. Recognition at academic level of studies, qualifications and diplomas (D)
Help should be given to appoint a protocol or a special agreement between partner institutions within PNG and overseas for studies recognition, thus improving international credit transfer and allowing students’ exchanges.
6. Evaluation of the institutions (D)
A detailed protocol for Institution accreditation has already been approved and applied, and is described above (see Whitson, 1998). Nevertheless any project which could help to improve academic programs or teaching methodology by means of external reviewers of would be welcome.

4.2. Developing Human Capital

1. Academic exchanges and student mobility (C)
Student exchanges have already been experienced at a regional level, with positive results. Student mobility should be encouraged especially for advanced training, MA or doctoral theses, and professional specialization. Virtual mobility (distance learning programmes) should be promoted, with the possibility for distance learners to afford periods of residential learning to check and reinforce their personal improvements.

2. Mobility of professionals (B)
Advanced training of teachers/instructors is requested, since teachers’ level is reported to be not always satisfactory (Tagis, 2002).

3. Doctorate grants (A)
There is a large request of/application for doctorate positions, but these can seldom be satisfied because of lack of funding. Also many University teachers who have not yet had this possibility, asked for the opportunity to complete/upgrade their training with a Ph.D. degree.

The encouragement of high level training should help to form a contingent of high level local university teachers, constituting a sound base for further development of University quality and research strategies. UE could offer the possibility to undertake post-graduate degrees through partnership with local Research Institutes (such as IMR or the Institute for Melanesian Studies in Goroka), but also a grant for a one-year period abroad would be most welcome.

4. Refresher courses and re-training (C)
Training or specialization of technical instructors, even for short periods, would be advisable, to keep them updated and in contact with a fast-evolving technology. Of course, their advancement should be associated with an updating of technical implements such as computer hardwares and software programs.

5. EXPERT’S REMARKS AND COMMENTS

Visiting PNG universities, the first impression is that private institutions are much better equipped and efficient than public ones. This seems to depend not only on different dimensions, number of students or budget, but rather on the administrative efficiency, sense of initiative and inner cohesion of the private ones. Therefore, one is tempted to suggest that private institutions can be regarded as point of strength in future networks, at least in management/accountability and in those academic fields where they are competent.

In the introduction to this short report, I stressed PNG’s particular environmental and socio-economic conditions, since Higher Education development should be functional to the primary needs of the country. These are relative to geographic isolation, water
management, land holding, sanitation and health, poor literacy, women's condition, criminality, loss of biodiversity.

A special attention should be given to promote the Country's identity, through the valorization of their cultural heritage. Handicraft and other activities linked to Tourism could represent a feasible source of income also for women. At present, handicrafts are but a poor imitation of traditional items, and true artistic production should be encouraged (schools, competitions, prizes). The same can be said for ritual performances, presently deprived of any original value. The Architecture Department of PNG University of Technology is studying the feasibility of a Centre of Traditional Architecture, where to conserve models of traditional houses now disappearing, to inspire the projecting of modern tropical-adapted architecture according to local artistic identity. I believe that this initiative should be encouraged and supported.

The promotion of Agriculture, Forestry and Fisheries development should also draw particular attention, since they represent fields laden with potentials. As is the case in developing countries, students’ preference is given to studies offering future positions in offices and administration, whereas these domains are considered to be bound to a traditional world and somehow more “backwards”.

Sustainable resource management research and conservation expertise should be encouraged. Local people can effectively participate in these kinds of projects, and benefit from managing their resources, while at the same time encouraging conservation of the fast-declining biological diversity (Sowei, 1999).

PNG is not listed among the Least Developed Countries, nevertheless there is a strong and widespread request of infrastructures, computers, up-to-date teaching material (handbooks), scientific books and journals.

6. BIBLIOGRAPHY


7. LIST OF ANNEXES

Annex 1 – Map of the country
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Annex 5 to 14 – Institutions visited and persons consulted (A1 to A10)
Annex 15 – ERNet project
### Table 46. TOURISM - VISITOR ARRIVALS, by Country of Resident

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>27,670</td>
<td>35,520</td>
<td>35,403</td>
<td>33,818</td>
<td>29,285</td>
<td>27,661</td>
</tr>
<tr>
<td>New Zealand</td>
<td>2,335</td>
<td>2,953</td>
<td>3,660</td>
<td>3,712</td>
<td>2,648</td>
<td>2,731</td>
</tr>
<tr>
<td>Other Oceania</td>
<td>1,307</td>
<td>1,582</td>
<td>1,570</td>
<td>1,674</td>
<td>1,356</td>
<td>1,410</td>
</tr>
<tr>
<td>Japan</td>
<td>3,084</td>
<td>2,702</td>
<td>1,912</td>
<td>2,427</td>
<td>3,244</td>
<td>2,686</td>
</tr>
<tr>
<td>Other Asia</td>
<td>9,995</td>
<td>10,981</td>
<td>10,934</td>
<td>11,424</td>
<td>9,314</td>
<td>8,200</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2,294</td>
<td>2,369</td>
<td>3,450</td>
<td>3,067</td>
<td>2,279</td>
<td>2,133</td>
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<tr>
<td>Germany</td>
<td>1,383</td>
<td>1,025</td>
<td>922</td>
<td>1,701</td>
<td>976</td>
<td>1,148</td>
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<tr>
<td>Other Europe</td>
<td>2,093</td>
<td>1,399</td>
<td>2,638</td>
<td>2,514</td>
<td>1,943</td>
<td>1,880</td>
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<tr>
<td>USA</td>
<td>5,350</td>
<td>5,877</td>
<td>6,101</td>
<td>5,619</td>
<td>5,429</td>
<td>5,314</td>
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<tr>
<td>Canada</td>
<td>842</td>
<td>1,100</td>
<td>912</td>
<td>923</td>
<td>719</td>
<td>705</td>
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<tr>
<td>Other Countries</td>
<td>5,032</td>
<td>594</td>
<td>328</td>
<td>478</td>
<td>1,255</td>
<td>367</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>61,385</td>
<td>66,102</td>
<td>67,830</td>
<td>67,357</td>
<td>58,448</td>
<td>54,235</td>
</tr>
</tbody>
</table>

Source: National Statistical Office and Papua New Guinea Tourism Promotion Authority.

Note: Visitors include: Visit friends and relatives, Holiday, Business Official, Conference and other tourism purposes.

### Table 47. TOURISM - VISITOR ARRIVALS, by Purpose of Visit

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit friends and relatives</td>
<td>5,305</td>
<td>6,058</td>
<td>5,356</td>
<td>5,290</td>
<td>5,474</td>
<td>5,536</td>
</tr>
<tr>
<td><strong>Holiday</strong></td>
<td>22,151</td>
<td>20,580</td>
<td>22,469</td>
<td>19,610</td>
<td>14,323</td>
<td>13,896</td>
</tr>
<tr>
<td>Business Official, Conference</td>
<td>32,072</td>
<td>38,558</td>
<td>39,522</td>
<td>41,780</td>
<td>37,437</td>
<td>34,351</td>
</tr>
<tr>
<td>Other</td>
<td>1,857</td>
<td>906</td>
<td>483</td>
<td>677</td>
<td>1,214</td>
<td>452</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>61,385</td>
<td>66,102</td>
<td>67,830</td>
<td>67,357</td>
<td>58,448</td>
<td>54,235</td>
</tr>
</tbody>
</table>

Source: National Statistical Office and Papua New Guinea Tourism Promotion Authority.
Annex 4 - Higher Education organization

The pre-higher education in PNG is divided into Primary (grade 1-6) and Secondary (grade 7-12) levels. Grades 7-10 are undertaken in Provincial High Schools and culminate in the Secondary School Leaving Certificate. Selected pupils may then proceed to grades 11 and 12 at National High Schools, where they obtain the Higher School Certificate, which is the entrance qualification for University degree courses. Most students follow a one year foundation course before entering university.

Higher Education is provided by universities and institutions of higher education (IHE).

a. Non-university level:
   Institutes of technical or vocational type: colleges offer courses of varying length.

b. University level:
   1. First level
      - Certificates and Diplomas (2-3 years);
      - Bachelor’s Degree (4 years). One year preliminary course is required, plus one year for Honours. An alternative is to follow a 2 years’ Diploma plus 2 years for Bachelor’s Degree. Medicine and Law last 5 years;
      - Diploma courses higher technician level (e.g. 5 years Diploma in Applied Physics at the UniTECH).
   2. Second level
      - Master’s Degree (1-3 years + thesis), following a Bachelor’s Degree;
      - Master’s Degree in Education. One year graduate work plus 2 years experience in teaching is required.
   3. Third level
      - Doctor of Philosophy (PhD) (3 years + thesis), following a Master’s Degree or a Bachelor’s Degree plus training.

c. Teacher Education:
   1. Primary school teachers
      - Primary school teacher training college (2 years), following grade 10.
   2. Secondary school teachers, at Goroko University or UPNG (Waigani).
      - Diploma course (3 years) following grade 10
      - Bachelor of Education (4 years).
      - Postgraduate Diploma in Education (5 years).
      - In-service training is provided at In-service teacher training college.

d. Non-traditional studies
   1. Distance Higher Education.
      - Correspondence courses are run by Institute of Distance and Continuing Education (UPNG, Waigani Campus; Divine Word University).
   2. Lifelong Higher Education.
      - Adult Education courses (UPNG, Waigani Campus)
        (from: International Association of Universities, IAU, 1998-1999)
1- UNIVERSITY OF PAPUA NEW GUINEA

2- Country – Papua New Guinea

- University of Papua New Guinea (UPNG)
  - Legal system: public
  - Structure: 5 Schools (Ex-Faculties)
    1. School of Business Administration (Waigani Campus)
    2. School of Humanities and Social Sciences (Waigani Campus)
    3. School of Law (Waigani Campus)
    4. School of Natural and Physical Sciences (Waigani Campus)
    5. School of Medicine and Health Sciences (Taurama Campus)

Proposed degrees:
- University first level stages: Certificate, Diploma, Bachelor’s Degree,
- University second level stage: Master’s Degree
- University third level stage: PhD

- University Administrators (personally met):
  Prof. Les R. Eastcott, Vice-Chancellor. office@upng.ac.pg
  Dr. Andrew Kavana, Pro Vice Chancellor. afkavana@upng.ac.pg
  Dr. Vincent Malaibe, Registrar. regoff@upng.ac.pg

- Other staff of the institution:
  Mr. Brian Tobia. Public Relations. tobiab@upng.ac.pg
  Mr. Vincent Gulaseni, Resp. Archives. Gulaseniv@upng.ac.pg

- Geographical situation of the institution:
capital, urban

Figures giving an idea of the size of the institution:
Statistics not updated.
The UPNG is the oldest university in the country (67 y. old); 5000 students (living in the
campus); 15000-17000 students when including distant education centres. 30% of distant
education students are females.
Distant education study centres all over the country (Madang, Mt.Hagen, Buka, Manus,
N.Ireland, Milne Bay, Enga, Chimbu..), equipped with tutorial rooms, tutors and books;
computing laboratories x 25 std. only in Buka (not active yet)

1.3- Remarks and comments of the institutions and individuals consulted with a view to
establishing a University Cooperation Programme within the Common Framework
Vice-Chancellor: Post-graduate programmes, research scholarships are to be activated to develop
research capacity of the country. Keen to develop relationships with other universities for
supervisors and equipment (Austr., NZ, US, Japan and U.E.)
Networks to be activated for administrative management, high and medium level. Movements of
staff who have common interests and communalities.
Problems: issue of communications, electrical support (in Buka 2h/day electric generator).
Alternative energy system at study and urgently required ( wind, sea water power, sun energy etc.)

Priorities in relation to EU cooperation programmes:
Academic and administrative management
Develop successful planning (keen to provide an opportunity in management, to participate in
decision making and updating institutions)
Developing human capital
Keen to get involved in distance education programmes at PhD level (Virtual mobility)
Post-doctorate training even for short periods abroad (2-3 months), to stimulate and retraining
Mobility of university teachers: need of leading figures, willing to spend a few months a year to give courses and direct research (ex.: Anthropology lacks a director)
2. SCHOOL OF MEDICINE AND HEALTH SCIENCES

1.1-Country - PNG

1.2- School of Medecine and Health Sciences, University of Papua New Guinea, Taurama

- **Structure:** UPNG University, public;
- **Proposed degrees:** Bachelor Degree in Medecine and Surgery
  Diplomas in: Community Health, Medical Imaging, Medical Laboratory
  Sciences, Dental Therapy, Pharmacy
  Bachelor Degree in Pharmacy
  Post Basic Diplomas in: Child Health, Midwifery, Nursing Education and Administration
  Post Graduate Clinical Administration
  Post Graduate Masters in Medecine

- **University Administrators:**
  Prof. Mathias Sapuri, Executive Dean. *e-mail:* sapuri@daltron.com.pg
  Dr. Andrew Masta, PhD, Deputy Executive Dean. *e-mail:* amasta@upng.ac.pg

- **Geographical situation of the institution:** capital, urban, adjacent to Port Moresby General Hospital

School set of enrolment: 50 new students/y

**Current activity:**

**Plans are proposed for:**

1. Infrastructure refurbishment and development of buildings to accomodate nursing program staff offices and Dental Therapy/Surgery programs.
2. Plans to increase the Library and total number of computers.
3. Plans for implementing Nursing Program at UPNG (Bachelors Programs).

**Research plans priorities:**

1. Malaria research project 2001-03 is in progress.
2. HIV viral-genotyping research is in progress.

Academic programs in response to National Health Work Force Plans:

1.3- Remarks and comments of the institutions and individuals consulted with a view to establishing a University Cooperation Programme within the Common Framework

**Needs:**

- Implementing medical care, especially in rural areas.
- Current doctor/population ratio = 1/15,000
- Doctor/rural population ratio = 1/80,000

The school has many vacant positions. Projects of Co-operation which could envisage academic exchanges and student mobility would be required.
3. THE NATIONAL RESEARCH INSTITUTE

1- Country - PNG

- The National Research Institute (NRI)
  P.O.Box 5854
  Boroko, NCD. 111
  Papua New Guinea
  tel. (675) 326 0300- 0061- 0079-0705
  fax (675) 326 0213
  E-mail nri@global.net.pg
  website: www.nri.org.pg

  o Legal system : public
  o Structure: six divisions
    ▪ Economic studies
    ▪ Educational studies
    ▪ Political and legal studies
    ▪ Social and environmental studies
    ▪ Publishing
    ▪ Administration
  o Administrators :
    Dr. Beno B. Boehta, Director
    Dr. Agogo Mawuli, Head Economic Studies
    Dr. Richard Guy, Head Educational Studies
    John Sowei, Head Social Environmental Studies
    James Robins, Head Publishing and Editorial
    Stan Motolova, Administration Manager

  o Geographical situation of the institution : capital, urban
  Category: Applied Research Institute

The National Research Institute (NRI) is an independent statutory authority established by an Act of Parliament in 1988 and confirmed by the Papua New Guinea IASER (Amendment) Act of May 1993.
NRI as the premier statutory research authority in Papua New Guinea, plays a vital role in keeping the government and the people informed on the many policies, issues, and problems associated with the development process in the country. The three major functions of the Institute are:
1. the carrying out of practical applied research;
2. the provision of advisory and consultancy services to the national government, provincial governments, government departments, authorities, and instrumentalities, as well as the private sector; and
3. the training of national academics and policy makers.
The results of NRI's research activity are published in the different “NRI Publication Series”, which give a sound insight into areas of government concern as well as reflecting the priorities of external donor agencies such as UNPD, AusAID, NZAID, The World Bank, ADB, MRDC, WHO, JICA, and UNICEF, which have commissioned the Institute to prepare research reports.
1.3- Remarks and comments of the institutions and individuals consulted with a view to establishing a University Cooperation Programme within the Common Framework

Dr. Boeha, the Director of the Institute, explained us that the main weaknesses of the Institute were the Library (to be updated) and the bad need of facilities. We pointed out that financial assistance for institutional capacity building was given only to LDCs, nevertheless the shortcoming of present macroeconomic policies are reflected in general constraints to this and other departments.

Cooperation projects would be welcome in the field of human resources development, since students get no grants or scholarships. In the last two years, only one student could get a Master to go abroad to study Criminology. Exchange of experts, mobility of researchers and students: visiting fellowships would be needed, both short term (3-6 months) and long term (1-3 years) ones. Resources would also be needed to enrol more staff/researchers to assist in extensive field research activities.
4. PACIFIC ADVENTIST UNIVERSITY

1.1- Country - PNG

1.2- Institution: Pacific Adventist University (PAU)
Private Mail Bag,
Boroko, NCD
Papua New Guinea
Phone:(675) 328.1112
Fax: (675) 328.1257

- Legal system: private entity. Owned and operated by the South Pacific Division of the Seventh-day Adventist Church
- Structure and proposed degrees:
  School of Arts and Humanities:
  Bachelor of Arts
  School of Business:
  Bachelor of Business (Accounting; Accounting & Computer Applications; Accounting & Management; Office Administration). A Major in Business Administration Systems may be introduced.
  School of Education:
  Bachelor of Education (Primary)
  Bachelor of Education (Secondary)
  School of Health Sciences
  Diploma in Nursing
  School of Science and Technology
  Bachelor of Science
  School of Theology
  Advanced Diploma in Religion
  Advanced Diploma in Biblical Studies
  Bachelor of Arts in Theology
  Post-Graduate Diploma in Theology
  Master of Arts in Theology

Major teaching fields include: Biology, Business, English, Geography, History, Mathematics, Physics, and Religion Studies. Minor teaching fields include all of the above areas plus Chemistry, Expressive Arts, Industrial Technology, and Office Administration.

- University Administrators:
  Harold E. Peters, PhD, Vice-Chancellor, e-mail: h_Peters@pau.ac.pg
  Contacts:
  School of Business: mmotzev@pau.ac.pg
  School of Education: c_Tasker@pau.ac.pg
  School of Science and Technology: mike_Tarburton@pau.ac.pg
  School of Health Sciences: r_baker@pau.ac.pg
  School of Theology: d_tasker@pau.ac.pg

- Geographical situation of the institution: capital, rural
- Number of Students: 400
1.3- Remarks and comments of the institutions and individuals consulted with a view to establishing a University Cooperation Programme within the Common Framework

The motto of the University is “Educate to serve”. Students are required to participate into physical activities on campus, which is said to have a positive feedback. Their training has a strong ethical component. Students are accepted with different religious orientations.

School of Health Science’s facilities is going to be built. Dormitories are crowded: new women’s dormitories are going to be built (for 200 persons). Ministry of Education requires 30 students x class x 3 years (soon x 4 years) = 120 students. In the next 4 years the University is going to double its capacity. Presently, every year there is room for 85 new enrolments (applicants 1000).

Agricultural Programme is not activated due to the lack of students. Now, there is a Farm-Rice Project, and an “Agriculture Science Course” is at study.

Suggestion to implement the “Educational Research Network System” (Distance Education) a project launched and tested in remote areas. A similar network is active in Australia; the project is led by Unitech in Lae (Noel Mobiha).

Suggested cooperation programmes:
Activities in the field of mobility of students in the last years of their courses;
possibility of advanced training and specialization would be welcome.
5. PAPUA NEW GUINEA MARITIME COLLEGE

1.1- PNG

1.2- Institution: PNG Maritime College, Madang (PNGMC)

- Faculty of Nautical Studies:
  The Faculty offers streams and short courses from the basic Deck Rating up to Master 1. It is made up of 8 permanent staff members, five PNG staff and three expatriates.

- Faculty of Marine Engineering:
  The Faculty offers (8) streams and short courses from the basic Engine Room Rating Grade 2 up to Second/Chief Engineer Grade One qualification. It is made up of 8 permanent staff members, three PNG staff and five expatriates.

The PNGMC courses meet or exceed the STCW 95 (Standards of Training, Certification and Watchkeeping, 1995 Convention) requirements for seafarer training.

- Principal: David Harrod, FNI, e-mail: dharrod@global.net.pg

- Geographical situation of the institution: urban

The PNGMC development has been assisted by Aus AID/PNGMC Institutional Strengthening Project, completed in 1998. The College is currently undertaking a major infrastructure upgrade through the PNG Incentive Fund. This project will see the student accommodation upgraded and extended to 240 places. The ship simulator is to be brought to DNV Class B standard and library and teaching facilities enhanced.

1.3- Remarks and comments of the institutions and individuals consulted with a view to establishing a University Cooperation Programme within the Common Framework

At present, the Institute offers more training than education.

Needs:
- Expertise to build up courses to fill this gap.
- Students mobility and opportunities for further training.
- New equipment would be required, instruments and books.
6. DON BOSCO TECHNOLOGICAL INSTITUTE (DBTI)

1.1- Country - PNG

1.2- Institution:
Don Bosco Technological Institute, PO Box 7579, Boroko, N.C.D. Port Moresby, PNG
tel. (675) 323.1253 – 323.5233
fax. (675) 311.2831/323.5831
e-mail: dbti@datec.net.pg

- Legal system: Private entity, catholic
- People consulted:
  1. Fr. Arnold Sarnico, SDB, School Director
  2. Fr. Vester Casaclang, SDB, Youth Director Catholic Bishops Conference PNG
     and Solomon Islands
  3. Fr. Agustin Miciano, SDB, Dean of the DBTI
  4. Sr. Felicidad Boado, FMA, Superior of the Sisters
     (+ Fr. Valeriano Balbero, who was not present)
- Structure and proposed degrees:
  Bachelor of Education (B.Ed.)- Technical (2 y practical study)
  - Diploma + 2 y education: Teacher for Vocational and Technical Studies
  - Six areas of specialization.
  - Major in Computer Technology
  - Major in Electrical Technology
  - Major in Electronics Technology
  - Major in Mechanical Technology
  - Major in Motor Vehicle Technology
  - Major in Technical Drawing
- Practicum courses:
  - Practice Teaching (12 weeks)
  - In-Plant-Training (practice in industry)

Approved by the OHE; affiliation and accreditation status: DWU Madang. Technical
training program recognized and accredited by the National Training Council

Number of students: 350 (65 females)
Number of teachers: 22
Boarding house males: 100
Boarding house females: planned
Infrastructure: well-equipped laboratories

1.3- Remarks and comments of the institutions and individuals consulted with a view to
establishing a University Cooperation Programme within the Common Framework
Programmes for short training stages for instructors and students would be required.
7. PAPUA NEW GUINEA UNIVERSITY OF TECHNOLOGY (UniTech)

1.1-Country - PNG

1.2- Institution: University of Technology
Private Mail Bag
LAE – PNG
tel. (675) 473 4999
fax (675) 474 7667
website: www.unitech.ac.pg
e-mail: Ifugre@admin.unitech.ac.pg

Legal system: public entity

The University was originally envisaged to occupy a site adjacent to the UPNG in Port Moresby. In the first years the Institute shared temporary premises with the Idubada Technical and Trade School in Port Moresby. Then the House of Assembly decided to establish the Institute of Lae, locating it in the first industrial and manufacturing centre of PNG (1967).

Officers of the University: Chancellor (Tololo A.), Pro-Chancellor (Stagg P.),

University Administrators:
Mr Misty E Baloiloi, CMG, Vice-Chancellor, mbaloiloi@admin.unitech.ac.pg
Dr. Philip Siaguru, MBE, Pro Vice-Chancellor (Academic), psiaguru@admin.unitech.ac.pg
Mr. Wilson F. Tovirika, Pro Vice-Chancellor (Administration), etovirika@admin.unitech.ac.pg
Mr. Alan Q Sako, Registrar, asako@admin.unitech.ac.pg
Mr. Guneys Gunemba, Bursar, ggunema@admin.unitech.ac.pg

Other staff of the institution:

Mr. Primus Dam, Sr. Assistant Registrar – Academic, pdam@admin.unitech.ac.pg

Geographical situation of the institution: urban, rural

number of students: around 2500 (20% females, mostly concerned with forestry and agriculture)

number of teachers:

degree courses:

1. D. of Agriculture  
   - Bachelor of Sciences in Agriculture 
   - Post graduate Diploma in Agriculture

2. D. of Applied Physics  
   - Bachelor of Sciences in Applied Physics with Electronics and Instrumentation 
   - Post Graduate Diploma in Applied Physics

3. D. of Applied Sciences  
   - Bachelor of Sciences in Applied Chemistry 
   - Bachelor of Sciences in Food Technology 
   - Bachelor of Sciences in Human Nutrition

4. D. of Architecture and Building  
   - Diploma of Architecture 
   - Diploma of Building 
   - Bachelor of Architecture 
   - Bachelor of Building 
   - Post-Graduate Diploma of Physical Planning

5. D. of Business Studies  
   - Diploma in Commerce - Accountancy
- Diploma in Commerce – Management
- Diploma in Microcomputer Information Processing
- Bachelor of Commerce – Accountancy
- Bachelor of Commerce – Management
- Bachelor of Information Systems
- Bachelor of Commerce in Business Economics

6. D. of Civil Engineering
   - Bachelor of Engineering in Civil Engineering
   - Post graduate Diploma in Civil Engineering

7. D. of Electrical and Communication Engineering
   - Diploma in Electrical Engineering (Communication – Electronics)
   - Bachelor of Engineering in Electrical Engineering. 2 streams, Power and Communication streams, Computer Engineering stream is planned
   - Masters degree in propagation studies, control engineering and instrumentation, power system and computer network.

8. D. of Mechanical Engineering
   - Bachelor of Engineering in Mechanical Engineering
   - Post-graduate diploma in Energy Engineering
   - Master of Philosophy (Mphil)
   - Master of Technology (MTech)

9. D. of Mining Engineering
   - Bachelor of Engineering in Mining Engineering
   - Bachelor of Engineering in Mineral Process Engineering

10. D. of Forestry (Taraka and Bulolo Campus)
    - Diploma in Forestry (Bulolo Campus)
    - Bachelor of Science in Forestry (Taraka Campus)
    - Bachelor in Forest Management

11. D. of Language and Communication Studies
    - Certificate, Associate Diploma, Diploma & Bachelor of Technology Degree in Communication for Development

12. D. of Mathematics and Computer Science
    - Diploma in Computer Science
    - Bachelor of Computer Science
    - Postgraduate Diploma in Engineering Mathematics
    - Postgraduate Diploma in Mathematics
    - Postgraduate Diploma in Computer Science

13. D. of Surveying and Land Studies
    - Surveying Program – Diploma in Surveying and Bachelor of Surveying
    - Cartography Program – Diploma in Cartography and Bachelor of Cartography
    - Land Studies Program - Bachelor of Land Studies, Diploma in Land Administration, Certificate in Land Administration, Post-graduate Diploma in Land Studies

14. Timber and Forestry Training College (Apprentiship Training and General trade Course)

Centres concerned with research: Non-destructive land management centre; Environmental research management centre; Training and Consultancy management centre, attached to the Business Study Dept.
Courses are very structured, fixed into semesters; training (6 weeks/year) is required (Tot: 18
weeks work /4 years).
Colleges: Forestry school; Wood Science School (collaboration with Brussels; export courses to
South Am.Countries (Suriname).
Past and Present Cooperations: AID programme: scholarships, human resource development
Eu (1993-97): infrastructure support. The School of Engineering supervised and assisted in the
project of the Boana road construction. Collaboration in projects concerning water supply to the
rural areas.
Collaboration with Eu University and ACP countries: England & Scotland (Bath, Reading),
Germany (Environmental Engineering Planning), Holland (Land and Development), Sweden
(Mining Engineering and PhD Diploma). Collaboration with Wageneghan University (Holland),
Tropical Agriculture Department, through PROSEA (Plant Resources of South East Asia)
Agency in Jakarta, for botanical research (recording biodiversity). The V-C. is member of the
Board of Trustees of PROSEA.
Other memoranda of understanding with:
PNG: Department of Agriculture and Livestock; Forest Research Institute; Chamber of Mines
and Petroleum; Manus Provincial Govern.; Morobe Proinsel Gavman; Wau Ecology Institute;
PNG Cocoa and Coconut Research Inst..INDONESIA: Univ. Cenderawasih; Univ.Pattimura;
Univ. Hasanuddin, S.Sulawesi; Inst.Pertanian Bogor (Engineering); Foundation
PROSEA;Inst.Technology Bandung (Engineering);
JAPAN: Unico Intern. Corporation, Tokyo
AUSTRALIA: Curtain Univ.Technology; The Intern.Land Manag.Centre (Landmarc); Univ.
Wollongong;
CHINA: South.Inst.Metallurgy Ganzhou; Nanjing Univ. China (Forestry)
USA: Texas A&M University (Industrial dev.area engineering)
SCOTLAND: Univ. of Paisley (Non destructive mining facilities)

1.3- Remarks and comments of the institutions and individuals consulted with a view to
establishing a University Cooperation Programme within the Common Framework
Colloquia with the following academic representatives:
Surveying & Land Studies (Mr. Andrew Pai, Mr. Jones Smyly Bannerman
e-mail: apai@survey.unitech.ac.pg
jtaugaloidi@survey.unitech.ac.pg
sbannerman@survey.unitech.ac.pg
Survey:
Computer hardware and software facilities are limited; capacities of storage and processing
cartographies, image analysis, process of large data set is limited. J.I.C.A. (Japan
Int.Corp.Agency) has given 3 GPS receivers and other computer facilities and detachable
electronic distance devices. Need of new software packages and training; to expose students to
do more research work somewhere between the end of the courses. Heavy costs of the
maintenance of the instrument measuring devices.
Cartography
Technical.-based and application-based (ITC in Europe) EU satellite imagery, monitoring trees.
and forest areas. Use of computers is limited: 10 computers for 30-40 students.
Land studies section
Property management and land administration. Study of land tenure system, which is unique to
this country. Need of equipment, facilities and staff.
Architecture & Building-Heritage Centre (Prof. Milani)
e-mail: mmilani@arch-bldg.unitech.ac.pg or mmilani@datec.net.pg
Major research effort is centered on the preparation of a comprehensive survey of traditional architecture under the auspices of the PNG Architectural Heritage Centre. Other research studies focus on architectural forms in response to local cultures and climatic conditions; locally produced building materials, grass roots tourist accommodation; management procedures for national building contractors; and investigation of appropriate housing conditions for the poor.

Forestry (Mr. Kulala Mulung)
EU already helped forestry training (people to work in the field, to be equipped to help and informed to train other persons). Collaboration with the University of Wagenghem in The Netherlands (collaboration, training, masters, PhD). The interaction of forestry and society gets particular attention, both in teaching and research, because of problems deriving from customary land ownership in PNG. The Department is also very concerned with environment management, conservation of resources and multiple land use. Cooperation programmes relating to this research issues would be welcome.

Mechanical Engineering (Dr. John Pumwa) jpumwa@mech.unitech.ac.pg
This department is actively promoting collaborative research opportunities with the PNG Cocoa & Coconut Research Institute in various agricultural engineering projects. Among these:
1. Design and Development of solar dryers (solar panels) for drying agricultural produce (new project);
2. Modification of imported decorticting equipment at Stewart Research Station in Madang (new project);
3. Modification of existing DME equipment for coconut oil extraction for village scale (new project);
4. Design and development of cocoa pod crushing machine (new project);
5. Testing of coconut oil biodiesel in diesel engines (on-going project);
6. Testing of coconut oil in burners (on-going project).

Cooperation programmes are suggested, for student advanced mobility (PhD). Need to promote local research potentialities, to avoid brain drain and help the development of the country. Funds to buy equipment and instruments would be welcome.

Mining Engineering (Dr. John Witne)
This Department offers 2 undergraduates degrees (4 y): 1. mining engineering and 2. mineral process; post-graduate are not active, for lack of manpower. Most of the staff concentrate on undergraduates.
Cooperation programmes are suggested for further training, PhD and Post-Doc specializations; Funding for computers and equipment would be required. Presently, consultancies generate a little money to buy computers and others. In the past, Mining was a sector of peak production. Now, there is a decline in industrial activity, and companies are not prospecting. Exploration has declined since the ’90.

Civil Engineering (Prof. Brian Young) e-mail: byoung@civil.unitech.ac.pg
According to prof. Young (who is English, not Australian!), UniTech most urgently needs:
1. well-qualified academics to run research programs;
2. equipment, computers, general maintenance of the infrastructure;
3. enhance the efficiency of the University Security Service in the campus and around it (guard-houses, general security); generators for emergency lights; more fences around the campus. Poor security is a deterrent for the recruitment and retention of quality staff and overseas students;
4. to promote scientific knowledge (young people are not curious about the physical world and feel no need to look for rational explanations, because of the influence of missionaries in education).

Office of Higher Education - ERNet Project Team (Noel Mobiha)

Education and research institutions need to have greater access to computers and to provide the skills and training to use them effectively. An Education and Research Network (ERNet) feasibility study is now being developed in UniTech. The University of Lae has had access to e-mail since 1991 and to internet since 1997. Due to the current monopoly Telikom PNG, through its subsidiary Pacific Mobile Communication (PMC) performs the Internet Service Provider (ISP) function and five companies perform the Internet Service Distributors (ISDs) role in the provision of internet service to the nation. Currently, there is not a comprehensive policy in place to cater for Information Technology (IT); there is shortage of well trained IT personnel; Internet access costs are inaccessible for schools and research institutes to make full use of Internet resources.
ERNet is presented as a sustainable electronic communications infrastructure which could provide information, storage and dissemination of information and knowledge on education and research, with a particular emphasis given to distance and flexible learning.
The project seems interesting and ambitious. It would have a high initial cost, which should be partially supported by partner institutions and universities. Documentation is annexed here, since I have no competence on this matter (Annex 15).
8. DIVINE WORD UNIVERSITY

1.1- Country - PNG
1.2- Institution: Divine Word University – Madang

P.O.Box 483, Madang, PNG
tel. (675) 852 2937 – fax (675) 852 2812
e-mail: info@dwu.ac.pg
website: www.dwu.ac.pg

- **Legal system:** private entity, catholic
- **Structure:**
  - University Council: (Chairperson), President, Head of PNG province of the Society of the DW, 4 other members appointed by the Provincial council of the PNG society of the DW, 6 other persons appointed by the U.C.;
  - Cabinet , advisory functions;
  - Academic board, academic development.
- **Academic Departments and proposed degrees:**
  1. Arts (Papua NG studies)- Diploma/Bachelor of Arts
  2. Business Studies – Diploma in BS; Bachelor of B in Accounting;
  3. Communication Arts (Journalism) – Diploma in CA ; Certificate (Journalism) ; Bachelor of Arts (Journalism)
  4. Health Administration – Certificate in HA, Diploma in HA, Degree in HA.
  5. Religious studies – Diploma in Arts (Religious Studies), Graduate certificate (Religious Education)
  6. Tourism and Hospitality Management – Diploma in THM
  7. Tertiary Distance Education Centre – Diploma of management (Human Resource M.; Hospitality M.)
- **University Administrators:**
  Fr. Jan Czuba, SVD, President, jczuba@dwu.ac.pg (office);
  jiczuba@global.net.pg (home)
  Fr. Patrick F. Gesch, SVD, PhD, Vice-President, Academic, pfgesch@dg.com.pg
  Benjamin B.A.Naing, Vice-President, Administration, bnaing@dwu.ac.pg
- **Other staff of the institution :**
  Mr. Pius Bokorum, Accountant, Finance Division,
  Mr. Rudy Wilczeck, DOS, Student services
  Mr. Makis Dani’ib, Head of The Library
- **Geographical situation of the institution :** urban

**Number of students,** 500, 52% women
**Accomodation:** 240 boarding students
**number of teachers,** 55

**installations and infrastructures:**
The existing library has over 35,000 volumes; a new library is being built, with funding from the AusAID and the DWU; it will be a two storey, air-conditioned building, with separate room for research with internet terminal; room for periodicals , photocopying service ect.. It will accomodate 350 students.

DWU has 5 computer laboratories. The campus is large and continually expanding; a new large conference hall is being equipped with sophisticated audio-visuals.

**Cooperations:** Brisbane, West Timor, Japan, Philippine
The University has a remarquable good training level, and a clear and effective administration.
Among others, DWU offers courses in Tourism and Hospitality Management, Physiotherapy, Journalism, and has a Tertiary Distance Education Centre. The Academic Quality Division (Director Dr. Dick Rooney, drooney@dwu.ac.pg) is in existence since 2002. This University was conceived in 1958. In 1967 became a high school (600 students). Since 1977 the HSchool gradually developed into a University, offering different diplomas. It was recognised in 1996 and fully established in 1999. The Quality Office controls the course levels, the curricula, quantifies what the academic programs have to achieve, their objectives and how they are delivering those objectives, by means of performance indicators; it also analyses teaching strategies and students’ performance. Tourism and Hospitality Department (Head: Spiros Manolakis, smanolakis@dwu.ac.pg) is presently collaborating with WWF and Madang Community Tourism. Among its objectives, are the improvement and nationalisation of tourism.

1.3- Remarks and comments of the institutions and individuals consulted with a view to establishing a University Cooperation Programme within the Common Framework

Needs and suggestions:
DWU has identified the need to develop staff capacities at all levels. A Teaching and Learning certificate will be available to all existing academic staff who do not have formal teaching qualifications. Needs for calling staff developers from outside PNG.
Need to develop heads of academic departments, especially in leadership and administration skills. This could probably be best achieved by short development workshop. Again, overseas expertise would be valuable in achieving this.
DWU needs to increase the research capacities of academic staff, and wish to encourage staff to undertake PhD research degrees. It is nearly impossible to do this within PNG. They would welcome the opportunity to get funding or other kind of help to send appropriate staff abroad for this experience.
DWU is trying to increase its links with overseas universities. At present they have links with Australian universities. An exchange scheme involving DWU academics and EU universities would help to enhance the teaching and research capabilities of DWU staff.
Visiting professors with research interests in PNG would be welcome and research visas would be made easily obtainable for them.
There is a urgent need for teaching material. Could the EU help with obtaining updated manuals with a discount? texts could be sent via-internet and the university could print them.
9. UNIVERSITY OF GOROKA

1.1- Country - PNG

1.2- Institution: University of Goroka – Eastern Highlands
P.O. Box 1078
Goroka EHP 441
PNG
tel. (675) 731 1700
fax (675) 732 1944
fax (675) 732 2620

- Legal system: public entity
- Structure: Faculty of Education
- and proposed degrees: Degree of Bachelor of Education
- University Administrators:
  1. Musawe Sinebare (PhD), Acting Vice-Chancellor, sinebare@yahoo.com or sinebarem@uog.ac.pg
  2. Gabriel Kubul (Mr.), Dean of Education Faculty
  3. Veronica Thomas, Director, Student Administration

Geographical situation of the institution: urban, rural

Characteristics:
number of students, 1200
number of teachers,
degree courses: Faculties of: Education, Humanities, Sciences.
Degree of Bachelor in Education, 4 y (or 2y for in-service people who wish upgrading).
Future possibility of diversifying into Bachelor of Sciences.
Post-graduate Diploma in Education
Diploma in Teaching Agriculture, Diploma in Teaching Health, Diploma in Teaching Technical Sciences, for people graduated in other post-graduate institutions who want to become teachers in those areas.
Bachelor of Education with Honours. 25-28 students will enroll next year to do this degree (+ thesis).
Masters (2 y), off campus courses, home arrangement.
The University recognises other Primary Teachers Courses (Madang Teachers College and PNG Primary school Teachers college in POM), Regional College of Nursing and Agricultural College in Goroka credit for recognition or accreditation of their courses.
Cooperation: University of New England, Australia. 2 of their students came here last year, but the University had no means to send any of its students to Australia

installations and infrastructures:
Publishers:
PNG Journal of Teacher Education
PNG Journal of Education
Requirements:
Joined research and publication work with Europe, EU University reference for the Journals; visiting fellows coming in could be given the task of editing the Journals.
Sciences laboratory equipment (biology, chemistry, physics) was established in the 60’s by the Unesco, but since then it has never been updated. Therefore economic assistance would be welcome.
1.3- Remarks and comments of the institutions and individuals consulted with a view to establishing a University Cooperation Programme within the Common Framework

This University was founded in 1997, previously it was first it was a Primary/secondary Teacher College (Goroka Campus). It is presently the major player in production of teachers in the country (95% of total post-secondary teachers).

After the Reform, up to secondary teaching in PNG, more teachers are needed, therefore there is an effort to expand the campus to accommodate a larger number of students (new buildings, a conference room, a library are under construction).

Possibility of giving accreditation (PNG Institute in Port Moresby and Madang Teacher Program).

In a climate of reduced government budget, it is difficult to think of helping both academic and administrative staff. Important ideas can be applicable here (Students, Academics, Student service). Student administration system is not computerized, and account staff are still using a manual system.
10. THE PAPUA NEW GUINEA INSTITUTE OF MEDICAL RESEARCH

1.1-Country: PNG

1.2- Institution:
The Papua New Guinea Institute of Medical Research – Goroka, Eastern Highlands Province (HEP)
P O Box 60, Goroka, EHP 441,
Papua New Guinea
e-mail: general@pngmr.org.pg
web site: www.pngimr.org.pg

- Legal system: private entity
- Structure: Institute of applied medical research, accepting students from UPNG and abroad to come for training

Administrators:
1. Director: Prof. John C. Reeder
   Phone: (675) 732 1469
   Fax: (675) 732 1998
   e-mail: j_reeder@pngimr.org.pg
2. Deputy Director: Prof. Charles Mgone
   Phone: (675) 732 1446
   Fax: (675) 732 1998
   e-mail: csmgone@pngimr.org.pg

- Geographical situation of the institution: urban, rural
- other branches: Madang (Madang Province), Maprik (East Sepik Province), with smaller branches in Port Moresby and Wewak.
- employees: over 250 people network
- degrees: students are trained for Bachelor of Medical Sciences, Masters, PhD, and abroad PhD. In-house scientists are trained through research in collaboration with UPNG.
- elective attachment: clinical, Goroka Base Hospital
- affiliated to: Ministry of Higher Education, Science and Technology. Though independent of the Dept. of Health, the Institute is the research arm of the Department.

- capacity building:
  - library services
  - seminar rooms
  - IT

Main international cooperations:
1. Australia:
   - Case Western Reserve University
   - Temple University
   - Queensland Institute of Medical Research
   - Walter Eliza Hall Institute
   - Burnet Marcfarlane Institute

2. UK:
   - Oxford University
   - Leeds University

3. Switzerland:
   - Swiss Tropical Institute
Main research fields: health problems of the people of PNG, with a particular concern for the poorest and those living in remote areas. Respiratory diseases, malaria, malnutrition, enteric diseases, sexual health and women’s health.

1.3- Remarks and comments of the institutions and individuals consulted with a view to establishing a University Cooperation Programme within the Common Framework

The high scientific standard of research in the Institute, its prestigious publications and longstanding collaborations with research groups in Australia, North America and Europe, make it the most suitable coordinator of national and international networks in the field of medical research.
**KEY INDICATORS**

### GENERAL

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Area</td>
<td>462,840 Sq. km</td>
</tr>
<tr>
<td>Capital City</td>
<td>Port Moresby</td>
</tr>
<tr>
<td>Population</td>
<td>5.2 million (2000 Census)</td>
</tr>
<tr>
<td>Annual Population Growth Rate</td>
<td>2.7% (1980-2000)</td>
</tr>
<tr>
<td>Population Density</td>
<td>11 people per sq km (2000 Census)</td>
</tr>
<tr>
<td>Life Expectancy at Birth</td>
<td>58 years (1998)</td>
</tr>
<tr>
<td>Infant Mortality Rate (IMR)</td>
<td>79 per 1,000 live births (1998)</td>
</tr>
<tr>
<td>Crude Birth Rate (CBR)</td>
<td>36 per 1,000 people (1996)</td>
</tr>
<tr>
<td>Crude Death Rate (CDR)</td>
<td>12 per 1,000 people (1996)</td>
</tr>
<tr>
<td>Total Fertility Rate</td>
<td>4.6 children per woman</td>
</tr>
<tr>
<td>Climate</td>
<td>Tropical</td>
</tr>
<tr>
<td>Languages</td>
<td>English (Official language)</td>
</tr>
<tr>
<td></td>
<td>Pidgin, Motu and over 700 languages</td>
</tr>
<tr>
<td>Adult Literacy Rate (age 15 and above)</td>
<td>63.2% (1998)</td>
</tr>
<tr>
<td>Youth Literacy Rate (age 15-24)</td>
<td>74.7% (1998)</td>
</tr>
<tr>
<td>Religion</td>
<td>Christianity</td>
</tr>
<tr>
<td>Currency</td>
<td>1 Kina (K) = 100 Toea (t)</td>
</tr>
</tbody>
</table>

### ECONOMY

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal GDP</td>
<td>9,815.5 million kina (2001)</td>
</tr>
<tr>
<td>Real GDP (1983 Prices)</td>
<td>3,626.4 million kina (2001)</td>
</tr>
<tr>
<td>Real GDP Growth</td>
<td>-3.4% (2001)</td>
</tr>
<tr>
<td>Nominal GDP Per Capita</td>
<td>Kina 1891 (2001)</td>
</tr>
<tr>
<td>Balance of Payments (Overall surplus)</td>
<td>708.0 million kina (2001)</td>
</tr>
<tr>
<td>Foreign Debt (Public)</td>
<td>4,982.2 million kina (2001)</td>
</tr>
<tr>
<td>Domestic Debt (Public)</td>
<td>2,115.1 million kina (2001)</td>
</tr>
<tr>
<td>International Reserves</td>
<td>1,617.0 million kina (2001)</td>
</tr>
<tr>
<td>Import Cover</td>
<td>6.1 months (2001)</td>
</tr>
</tbody>
</table>

### MONEY, INFLATION & EXCHANGE RATES

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1* (Narrow Money)</td>
<td>1,321.2 million kina (2001)</td>
</tr>
<tr>
<td>M3* (Broad Money)</td>
<td>3,904.6 million kina (2001)</td>
</tr>
<tr>
<td>6-Month Treasury Bill Rate</td>
<td>10.23% (2001)</td>
</tr>
<tr>
<td>Commercial Bank Average Loan Rate</td>
<td>16.4% (2001)</td>
</tr>
<tr>
<td>Inflation Rate</td>
<td>9.3% (2001)</td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>1 Kina = 0.30 US$ (2001)</td>
</tr>
<tr>
<td></td>
<td>1 US$ = 3.33 Kina</td>
</tr>
</tbody>
</table>
**Budget Balance (Deficit)**

- (363.0) million kina (2001)

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**TRADE**

**Merchandise Exports**

- **Total Exports Value**: 6,105 million kina (2001)
- **% of GDP**: 62.2% (2001)
- **Major Items**: Cocoa, Coffee, Copra, Tea, Rubber, Copra Oil, Palm Oil, Marine Products, Logs, Copper, Gold, Silver, Crude Oil.
- **Major Buyers**: Australia, Japan, Singapore, United States, Rep. of Korea, Germany, Philippines

**Merchandise Imports**

- **Total Imports Value**: 3,165 million kina (2001)
- **% of GDP**: 32.2% (2001)
- **Major Items**: Machinery & Equipment, Vehicles, Food, Mineral Fuels, Chemicals and Manufactured Goods.
- **Major Suppliers**: Australia, United States, Singapore, Japan, New Zealand, Malaysia

**Balance of Trade (Surplus)**

- 2,940 million kina (2001)

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**MANUFACTURING**

- **Nominal GDP**: 796.7 million kina (2001)
- **Real GDP (1983 Prices)**: 288.5 million kina (2001)
- **Manufacturing Real GDP Growth Rate**: (-)8.8% (2001)
- **Manufacturing Contribution to Total GDP**: 8.1% (2001)
- **Manufacturing Contribution to Non-mining GDP**: 11.5% (2001)
- **Employment in Manufacturing**: 32,000 (2001 est)
- **As % of Total Formal Employment**: 20.7% (2001 est)
- **Manufactured Goods traded**: Palm Oil, Copra Oil, Copra Cake, Black Tea, Sawn Timber, Woodchips, Veneer, Cement, Tinned Fish, Tinned Meat, Paints, Furniture, Sugar, Biscuits, Tissue Paper, Fish Meal.

**Total Manufactured Exports**

- 506.4 million kina (2001)

**As % of Total PNG Exports**

- 8.3% (2001)