

Higher Education and Scientific Research in Honduras

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October 2001



SWEDISH INTERNATIONAL DEVELOPMENT
COOPERATION AGENCY

Department for Research Cooperation, SAREC

HIGHER EDUCATION AND SCIENTIFIC RESEARCH IN HONDURAS

Final Report

PREPARED FOR SIDA/SAREC

by

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OCTOBER, 2001



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EXECUTIVE SUMMARY

1. The primary purpose of this study is to present a descriptive and analytical vision of the higher education and research system of Honduras. The general policies of the sector, the structures, the roles and the capabilities of the institutions which compose it, will also be presented. The purpose is to provide input for the medium and long-term decision-making process of the Swedish International Development Cooperation Agency (SIDA), regarding bilateral cooperation between both countries.
2. To undertake this endeavor, a team of two consultants examined the documentation that describes the SIDA's policies for supporting universities. They visited the most relevant institutions in Honduras and other Central American countries, and interviewed 114 recognised scholars, researchers, administrators, politicians, representatives of international organisations, and others who have contributed to the development of higher education in Honduras. They also reviewed documents, publications, and reports related to higher education and research in the country.
3. When analyzing the context within which the Honduran systems of higher education and scientific research evolved, it is evident that during many years Honduras has suffered from chronic deficits of underdevelopment. Even so, progressively civil society movements have begun to generate a consensus for strengthening human rights and a democratic regime, and for facing chronic poverty and social inequality. Today, the country is experiencing a new situation: the traditional political forces and the emerging non-profit sector are engaged in what seems to be an honest dialogue. This dialogue is about how to redirect the economic and social processes for purposes of promoting greater well-being through a collective commitment to sustainable human development.
4. The team of consultants considers that in the short run it is critical to drastically reduce poverty, eliminate chronic malnutrition, and control illnesses preventable by immunization. It is also critical to expand education significantly at the secondary and tertiary levels. Such expansion would be geared to the poorer sectors of the country, who are presently totally excluded from those levels of education and, therefore, of many development benefits. Additionally, it is important to establish a coherent plan for managing natural resources to avoid further damage from natural disasters.



5. It is also believed essential to strengthen the research capabilities within public universities so that they can support the quest for sustainable human development. It is also essential to create a national system of innovation that facilitates the rational, rapid, well-funded, and socially relevant, transfer of suitable technologies. According to what was observed in the interviews, there is eagerness and commitment to change towards a more just and inclusive society on the part of the Honduran community.

THE HIGHER EDUCATION SYSTEM

6. The higher education system of Honduras became institutionally diversified during the last decade. It is currently composed of 13 higher education centers (HECs) which include universities, institutes, schools, and other institutions. Five of the HECs are government funded and eight are privately run.
7. The system is regulated by a coherent legal framework which identifies secularism and democratic defense as basic principles of higher education. Other principles are free access to all graduates of secondary education, the autonomy of its institutions, academic freedom, and the essential connections between the functions of teaching, research, and outreach.
8. The Honduras Constitution and the Higher Education Law gave the National Autonomous University of Honduras (UNAH) the mission of organizing, managing, and developing higher education. It further determined that such a function be exercised through a hierarchical structure whose highest echelon is the Full Senate of UNAH itself. The Board of Higher Education, the Technical Advisory Board, and the Higher Education Administration are subordinate to the Full Senate.
9. Nevertheless, the university itself and the bodies under its authority have not succeeded in establishing a strategic development plan for the sector. This has limited the possibility of having an operational, interconnected, and synergistic higher education system in the country. Such a system would be able to respond through its diverse institutions, to both the demands and the requirements of a developing nation.
10. Currently, the system coverage barely reaches 12% of the 18 to 24 year-old segment of the population. This implies leaving 653,000 youth from that age group and a number yet to be calculated of workers, professionals, and retired persons on the fringe of higher education benefits. These people need to update or continue their current training and skills in order to stay active in the labour force.



11. Students who enter higher education programmes bring along serious deficiencies from their elementary and secondary education, particularly in language skills mathematics, physics, chemistry, and biology. They also have to enter the labour force very early to earn a wage, so as to meet basic family needs. These circumstances influence to a great extent the rates of repetition and failure, as well as the length of careers and the quality of graduates.
12. The professors, likewise, do not update regularly their pedagogical methods and in many cases have serious deficiencies in their own disciplinary training. The lack of laboratories and updated bibliography, as well as the reduced critical mass of teachers in basic sciences, makes the training in matters which require experimental methods to be particularly inadequate. In addition, the low number of teachers with master's degrees (766) and doctorates (152) in the entire higher education system, clearly indicates the scarcity of human resources for scientific research.
13. Furthermore, the difficulties of renewing and updating programmes have had a serious negative impact upon all of the functions of higher education. On one hand, the preponderance of traditional careers offerings is generating graduates who do not find placement in the labour market and cannot make substantial contributions to national development processes. Additionally, research has not attained the necessary minimum level of evolution to ensure an endogenous capacity for creating, converting, adapting and managing knowledge and technology. And, finally, the interaction of HECs with society has not brought about positive outcomes for enhancing innovation capacity.
14. Finally, the system, with some exceptions, shows a low internal efficiency, characterized by high indexes of drop-outs, repetition and failure, low graduation rates, and overextension of length of study. In the light of substantial investment on the part of the State in higher education, the scant delivery of the system is causing growing unease in many sectors of society.

THE QUEST FOR REFORM

15. This pervasive uneasiness has given rise to a vigorous social movement which has analysed and discussed the main problems of Honduran education stressing the need to produce radical changes in the overall system. Motivated by the conviction that the improvement of education is a very important factor in triggering and sustaining an alternative development process, diverse non-profit organisations have urged government entities to formulate consensus-based proposals for



transformations based on their own studies and appraisals. These initiatives have contributed to the generation of a climate favourable to change. This represents a unique historical opportunity of exercising political will in favour of substantive change.

16. The proposal for transformation addresses the need of implementing evaluation and accreditation mechanisms for institutions and programmes. It contains the review of forms of recruitment, training, and evaluation of teachers, as well as the diversification of educational opportunities for purposes of satisfying the sustainable development needs of the nation. Also included is the modernization of the curricular model from its design, objectives, content teaching/learning methods, assessment and delivery of services. The implementation of systematic procedures for selection, admission, vocational orientation, academic follow-up, and student assessment is called for in the proposal, as well as the setting up of follow-up studies of graduates, which would allow for evaluating their impact on the productive sector and on society.
17. To make this reform feasible several factors were considered indispensable: to review the role which each HEC plays in the management of the system; to transform the Higher Education Council into a body which is representative of all institutions of that level; and to adopt accountability mechanisms. This could provide impulse to the continued improvement of the national educational system, and would promote exchanges with HECs and research institutions worldwide, thus enabling the qualitative development of higher education in Honduras.
18. Besides the political will of the legislators and heads of HECs, the successful completion of this reform initiative requires four major actions: i) the constitution of a specialized task force that would provide intellectual support to the transformation process; ii) a training programme in the areas of management and university leadership; iii) the organisation and set up of strategic research and information units; and iv) the creation of a national evaluation and accreditation system for HECs.

THE SCIENCE AND TECHNOLOGY SYSTEM

19. Honduras has not yet developed a national science and technology system. The Honduran Board of Science and Technology (COHCIT), a body which is in charge of formulating and coordinating the policies of the sector, does not have at its disposal the financial resources nor the necessary infrastructure to fulfill this mission conscientiously. Until now, it has basically sought to strengthen its technical and institutional capacity



for the promotion of scientific and technological policy and to learn the basics of international financing of research and development (R&D).

20. As a logical consequence of this situation, the country lacks a strategy which could guide its scientific and technological development. Such a strategy would allow Honduras to utilize advances in knowledge and technology in favour of the economic and social development of its population. It has not been able, either, to create mechanisms to support the interaction of government-academia-private enterprise, which is at the foundation of every national system of innovation.
21. This situation demonstrates the low priority which the generation, adaptation, appropriation, and management of new knowledge and technology have had until now in national strategies, and the disregard of public policy with these key aspects of the emerging information and knowledge society.
22. The few and scattered R&D activities which are carried out in Honduras are within the realm of private HECs. These centers do not necessarily extend their benefits to the majority of the Honduran population nor to state organisations. The state organisations are poorly equipped from the point of view of human, material and financial resources, which are required for R&D activities.
23. The changes being promoted for the Honduran economy, the requirements of on-going regional integration processes, the scientific-technological revolution, and the foreseeable effects of economic globalization at the country's level, suggest an urgent course of action for the improvement of science and technology capacity. Programmes, projects, and activities should be geared to the installation of a national innovation system that could significantly improve productivity in the country.

CONCLUSIONS

24. The changes in the international and national economy, the impact of new schemes for regionalization and integration -particularly the Central American integration process- and the new importance which the generation and transfer of knowledge has acquired, presents Honduras with challenges of enormous magnitude with regard to the creation and development of endogenous capacity in higher education, science and technology. A programme of supportive international cooperation and long-term in scope, such as SIDA normally sets forth, can help reinforce in a very positive way the process of change.



25. Honduran society has sympathized with the peace agreements subscribed to by the Central American governments by strongly supporting the installation of a democratic regime and by defending the full exercise of human rights. It has also promoted the participation of government and civil society in collaborative efforts directed to the alleviation of chronic poverty and social inequality. Traditional political forces and civil society are sustaining what seems to be an honest dialogue. The pivot of this dialogue is about how to redirect economic and social processes with the purpose of promoting a greater well-being through a socioeconomic model that is conducive to sustainable human development.
26. The changes introduced in the last decade of the 20th century have generated some promising results like the increase in non-traditional exports and a yet young tourist industry. The effort carried out has allowed the country to participate more actively in international trade and approach macroeconomic equilibrium. But the economic growth has not been strong enough to improve the standard of living of a significant percentage of the Honduran population and, even less, to eradicate poverty.
27. To achieve this purpose, Honduras must display -to the maximum possible degree- the potential for developing its human resources. It needs to improve health standards, sustain the coverage achieved at the primary level of education, increase the rates of enrollment at the preschool, secondary, middle and higher education levels, strengthen the endogenous capacity to create, import, adapt, and manage knowledge and technology, implement a national system of innovation, and strategically gear toward the well-being of the majority the use of resources furnished by international cooperation.
28. The country needs to strengthen its higher education system in order to offer the growing number of students the competencies and skills required to improve the productivity of all sectors of the national and regional economy. It is also necessary to produce graduates endowed with an overall education which fosters flexibility and innovation, thus allowing for continuous renewal of the economic and social structure required by a world which is undergoing rapid transformation.

GENERAL RECOMMENDATIONS

29. Honduras' efforts to reform and develop its higher education system must be framed within a strategic programme which takes into account the following issues: i) the need to reform higher education in order to



facilitate its transformation as a driving force for sustainable development, ii) the importance of strengthening the research capacity of its public higher education institutions in order to reduce dependence on external factors, and iii) the convenience of establishing a national system of innovation capable of generating benefits to Honduran society from the great advances in science and technology.

30. In order to **support the reform of higher education**, the consultants suggest: i) convening a task force that would provide intellectual and technical assistance to the natural leaders of the process; ii) creating a strategic research and information unit on higher education; and iii) creating a national system of evaluation and accreditation of programmes and institutions.
31. The Higher Education Council seems to be the body legally and politically validated for launching the reform process. It will need, however, the cooperation of *a team of national and international experts to help set in motion the process*. This team could provide advice and transfer of knowledge and experiences from other countries and regions..
32. A *strategic research and information unit on higher education* should be established to improve the statistical base on higher education. In particular, it should address the relationship between science, technology and development and generate new indicators for assessing linkages and monitoring processes of change. This effort will require training a team of highly qualified researchers. The unit would have to seek information and advice from government, universities, international agencies and other key actors. This idea has been discussed with, and was supported by, the universities that integrate CSUCA in a workshop on the subject recently held in El Salvador.
33. The creation of a *national system of evaluation and accreditation* is considered of utmost importance. Its establishment will also require outside advice and supervision from experts coming from countries and academic institutions with longer experience in these processes. The organisation of the system could be entrusted to the Higher Education Council, who could draft and present a complete proposal. This should include policies, criteria, and working arrangements in the short, medium and long term. A significant effort has to be devoted to the collection and systematisation of data and to generating a consensus on the procedures to be established, so that they are consistent with internationally recognized practices.
34. With the goal of **strengthening the research capacity within the universities** three lines of action are recommended: a scholarship



programme for Honduran students to study in nationally recognized postgraduate programmes; the implementation of a postgraduate “sandwich” programme with the participation of Swedish institutions; and the creation of a competitive fund for interdisciplinary research.

35. The *scholarship programme* should be directed to postgraduate students in order to prepare future academic staff of higher education centers and to form a critical mass of researchers in knowledge areas of strategic value for the social and economic development of the country.
36. The assessment conducted as part of this study suggests the following **priority areas** for post-graduate degree programmes: agriculture and agribusiness, manufacturing, productive modernization, community development management, social policies, basic science (mathematics, physics, chemistry, biology), computer science, ecology and the environment, anthropology and archaeology, urban development, health, and education (including higher education).
37. The *international postgraduate programme* should adopt the “sandwich” model in order to reduce the possibilities of “brain drain” and to enhance the chances of retention of the qualified staff.
38. Honduras should seek to establish a *competitive fund*, with resources from the government, the private sector and the donor community, earmarked to strengthen national research competence. It should be open to researchers and professors of all HECs. The programme would stimulate and finance projects based on team work, with an interdisciplinary focus, and inter-institutional cooperation.
39. The country should also move to create **a national system of innovation**. To that end, COHCIT should be commissioned to prepare a strategic plan intended to: i) create close ties between research units and components of the public and private production sector, ii) develop coordinated policies between the higher education, science and technology sectors, iii) implement mechanisms which allow for expediting the transfer of knowledge and technologies, iv) promote the development of a culture of innovation within Honduran society, v) encourage creative linkages between university, society, and business.
40. The government of Honduras should seek to promote the development of the national system by means of financial incentives for business innovation, and a programme of investment in R&D. This would allow for the formation of a basic operational capacity in terms of institutional structures, human resources, and technological capability.



RECOMMENDATIONS TO SIDA/SAREC

41. In our judgment, the cooperation of the Swedish International Cooperation Agency with Honduras ought to be concentrated on high-impact programmes, geared to the following specific goals:
1. A PhD programme established in Honduras, in co-operation with Swedish universities, to form academic and research staff. This will require financing students and teachers mobility, as well as upgrading facilities for ICT, laboratories, and other research infrastructure.
 2. A programme to set the basis and training of personnel for the creation of a national system of evaluation and accreditation.
 3. A programme of workshops and activities in support of the general reform process of higher education in the country.
42. The PhD programme should be the pivot of SIDA/SAREC support to higher education in Honduras. This effort would have to be coordinated initially by a small unit composed of Swedish and Honduran scholars that would design, oversee, and evaluate it. This approach would guarantee high levels of excellence and the transfer of experiences between Sweden and Honduras. The coordinating team - to be mutually agreed upon within the framework of negotiations for a possible SIDA/SAREC support - would analyze the feasibility of new programmes, formulate relevant projects, implement cooperation between institutions, coordinate academic exchanges, and supervise the development of the postgraduate courses.
43. A second component of the SIDA/SAREC cooperation programme should be supporting the creation of a national system of evaluation and accreditation. This component would include training of human resources to carry out all phases of evaluation and accreditation processes, as well as the design and implementation of the Honduras system in compliance with international and national standards. The experience of the regional programme SICEVAES organized by CSUCA, and the cooperation of this regional body with Honduran universities in recent evaluation processes, should be an invaluable reference for this purpose.
44. The third component of the SIDA/SAREC support to Honduras' higher education could be a programme geared to supporting a comprehensive reform of the higher education system to make it more responsive to the needs of a sustainable human development strategy. A suitable first step



for this initiative could be the implementation of a series of thematic workshops to discuss and anchor fundamental ideas about the need and methods of pursuing the reform. These workshops should convene academics, students, policy-makers, civil society leaders, and other important sectors of Honduras.



1. INTRODUCTION

The Stockholm Conference (1999) established the general guidelines of a strategy agreed upon by Central American countries and international cooperation to provide support and technical cooperation for the rebuilding and transformation of countries devastated by Hurricane Mitch. Taking into account the terms of the Stockholm Declaration, the budgetary regulations of the government of Sweden for the year 2000 assigned the mission of working out a new regional strategy of Swedish cooperation with Central America and the Caribbean to the Swedish Agency for International Cooperation (SIDA).

Up to the beginning of 2001 Swedish cooperation with this region had been directed mainly to the promotion of the defense of human rights, the consolidation of democratic regimes, and the strengthening of civil society. The new strategy proposed, also seeks to contribute to the development of a regional capacity in training of human resources and knowledge management. The regional focus will be maintained, as well as a medium and long term perspective. There will be countries that, whether because of a low gross domestic product (GDP) or due to special political and social circumstances, will receive top priority. In the first type, the cases of Honduras and Nicaragua were included. In the second, that of Guatemala.

With regard to Honduras, the bilateral strategy will be developed in two stages. The first will have as its objective that of defining the top priority areas for cooperation, placing them within the framework of the *Strategy for the Reduction of Poverty*¹ agreed upon recently between the government and important civil society organisations. The second one will be configured like a national programme (“country programme”), with an initial time-frame of two years. It will be followed by the definition of an annual plan that will be the frame of reference for the SIDA office in Tegucigalpa.

On account of the implications of economic globalization, business liberalization, the establishment of regional integration processes, and the on-going scientific-technological revolution, the field of higher education and research were identified as top priorities for Honduras. The main objective of this study, thus, consists of testing such hypothesis by presenting a descriptive and analytical vision of the higher education and research systems of Honduras. In addition, the general policies of the sector, the structures, the roles and the capacity of the institutions which comprise it will be discussed.

¹ República de Honduras. *Estrategia para la reducción de la pobreza*. Tegucigalpa, Honduras, March, 2001. Photocopied version, 117 pages.



For the purpose of undertaking this work a team of two consultants was formed. They examined the documentation that describes SIDA's policies for supporting universities, visited the most important higher education institutions in Honduras and other Central American countries, and interviewed prominent scholars, administrators, politicians, and others renowned for their contributions to the development of higher education in Honduras. In addition, they reviewed documents, publications and reports related to higher education and research in the country.

2. METHODOLOGY

This study was carried out between 7 May and 15 August, 2001. It was developed in three phases: i) the gathering of information from government bodies and centers related to higher education, science and technology, ii) the carrying out of formal interviews with relevant personalities and key actors of the sector, iii) the analysis of the information and the drafting of the report.

The compilation of information was facilitated by the attitude of trust and cooperation exhibited by governmental and academic authorities. However, the great variety of methods of gathering information and statistical treatment of the data, the lack of standardized indicators based on international criteria, the frequent interruption of time series of data, a long and difficult protest movement at the National University, and the delay in undertaking the national census of the population, created obstacles of various sorts for our mission.

For example, the interviews could not include a very representative sample of the universe of participants connected to higher education in the country, due mainly to the fact that the time frame for the field work (May 7 to 24, 2001) coincided with that of a long and complex strike that affected the National Autonomous University of Honduras. This circumstance prevented establishing contact with the mobilized students, teachers, and officials, and somewhat limited the participation in our study of some high-ranking government officials, university leaders, members of the legislature and business leaders whose opinions would have enriched, without a doubt, the report's contents.

Notwithstanding the difficulties, it was possible to undertake individual interviews with a vast number of key actors. A total of 114 interviews were made, distributed in the following categories: 25% were private HECs leaders; 24.1% public HECs professors; 13.4% were researchers in public HECs; 8.9% leaders of public HECs; 7.1% representatives of international organisations; 7.1% private HECs professors; 4.5% government officials; 3.6% business leaders, 2.7% private HECs researchers, 2.7% national consultants, and 0.9% political leaders, (see full list in Attachment I). Interviews sought to gather information and visions on the operation of the higher education system, the evaluation of the national capacity for the training of



qualified human resources, and the development of research and graduate programmes, as well as the distinctive qualities and potential for educational reform that is taking root in the country.

The report presented here does not attempt to be an evaluation of the higher-education system, nor of science and technology in Honduras. Rather, it is a preliminary assessment of its current status and potential, made with the objective of providing SIDA with an outside perspective and input to help the decision-making process regarding strategies of cooperating with this country.

3. CONTEXT²

The Republic of Honduras is located in the northeastern region of the Central American isthmus, bordering to the north with the Caribbean Sea; on the west to Guatemala; on the Southwest to El Salvador and the Pacific Ocean; and on the southeast to Nicaragua. It covers an area of 112,492 square kilometers. It is a surface on which there are coastal plains, basins, fluvial slopes, valleys, plateaus, and mountainous zones.

This topography explains the existence of diverse climactic zones, among which the tropical and subtropical predominate. The country is located in a seismic zone and it is exposed to storms and hurricanes which usually originate near the West coasts of Africa, frequently battering the islands and continental territories of the Caribbean. Its northeastern region is rich in biodiversity and possesses abundant water reserves. Vast space of its territory are suitable for agriculture and forest development.

The Government is composed of three independent branches. *The Executive Branch* is represented by the President of the Republic and three presidential designates, elected directly by popular vote for a period of four years. The President names his Cabinet of Ministers. He is in charge of the general administration of the government, and defines objectives and goals of the economic and social programme of the Republic. *The Legislative Branch* is composed of the National Congress with a Chamber of Deputies, comprised of representatives of each one of the 18 Departments, elected by popular vote for a period of four years, with the right to be reelected. The mission of the Legislative branch is that of creating, decreeing, reforming, and repealing the laws of the Republic. *The Judicial Branch* consists of a Supreme Court of Justice made up of nine Magistrates and six alternates, appointed

² The information about this chapter has been obtained mainly from the *Informe sobre Desarrollo Humano, Honduras 2000*. PNUD, Tegucigalpa, December 2000, and from the publication *Honduras: Situación general de salud y sus tendencias*. OPS, Tegucigalpa, 1999.



by the National Congress for a period of four years, and a Court of Appeals and Tribunals.

From a political-administrative point of view, Honduras is divided into 18 departments (Atlántida, Colón, Comayagua, Copán, Cortés, Choluteca, El Paraíso, Francisco Morazán, Gracias a Dios, Intibucá, Islas de la Bahía, La Paz, Lempira, Ocotepeque, Olancho, Santa Bárbara, Valle and Yoro) and 290 municipalities. PAHO has counted 3,730 villages and 27,764 hamlets.

Its estimated population is currently 6,126,532 inhabitants, reaching an overall population density of 54.5 inhabitants per square kilometer. The country is facing a very rapid urban growth. The urban population increased from 17.3% in 1950 to 47.5% in the year 2000. The two most important cities, Tegucigalpa and San Pedro Sula, make up together 20% of the general population and 50% of the urban population. 42.5% of the population has less than 15 years of age. The age group from 15 to 24 years adds up to around two million persons, but the group that is older than 65 increased, in absolute terms, around 30% during the last ten years.

For several years there has been a growing tendency toward emigration from the countryside to the city and from Honduras to the United States. This process is tied to the scarce possibilities for personal growth and of collective development perceived by the population. Migrants who leave the country tend to be between fifteen and forty-four years of age, with a greater proportion of the group being from twenty to twenty-nine years of age. Seventy-three percent of the total population of the country is poor and fifty percent of this group live in extreme poverty. The life expectancy at birth is 69.4 years, a figure which is quite close to the average for all Latin America, which was estimated in 1997 to be 69.5 years, but much lower than that of industrialized countries, which is 77.7 (PNUD, 1999a). The rate of population growth is 2.8%, one of the highest in the continent, considering that the average rate for the region is only 1.6%.

ECONOMIC GROWTH WITH POVERTY AND INEQUALITY

Regarding the economy, it is worth pointing out that Honduras changed its development strategy at the beginning of the 1990s, moving from a model based on import substitution to an open export-oriented economy, with growing participation in the regional integration process of the Central American Common Market. (CACM) As in most Latin American and Caribbean countries, these changes responded to the neoliberal vision of open markets, macroeconomic stabilization, fiscal balances, deregulation and the transfer to the private sector of many areas of government action. Along with Costa Rica, El Salvador, Guatemala and Nicaragua (the other members of the CACM), the country has continued to reduce tariffs to 1% for raw materials, intermediate goods and capital goods not produced in the region; to 5% for raw



materials produced in the region; to 10% for capital goods produced in the region; and to 15% for final products.

The money exchange policy has been based on the introduction, on the part of the Central Bank, of measures oriented toward preventing an overvaluation of the lempira, the national currency.³ To achieve this, the Bank has maintained the real price of the dollar within a range of 7% of the true value, adjusted monthly due to the inflation differential between Honduras and its primary trading members. Monetary policy had to take into account contradictory trends from the entry of foreign currencies, caused both by sustained external indebtedness and by the remittances of Hondurans who work in the U.S. (estimated at \$600,000,000 in 1999). The remittances have been an important measure that alleviate the low earnings levels which persist in Honduras, but the ample circulation of dollars naturally tends to increase the lempira's value. In spite of this, an exchange rate which has been favourable to a moderate diversification and expansion of exports has been sustained, which is indispensable for the economic growth of the country. Several economists believe, however, that the exchange rate still overvalues the lempira and limits economic growth.

The problem of external debt is much more complex. Honduras is a very poor and highly indebted country, two issues which combine to set in motion a perverse process of economic stagnation. Its level of external debt increased significantly in the 1980s, when the level of debt tripled and went from 1 billion to 3 billion dollars. At the beginning of 1986 the relationship between the debt with the GDP exceeded the critical figure of 80%, making Honduras the second most indebted country in Central America, after Nicaragua. As shown in the Table 1, 62.8% of the external debt is multilateral in nature, which hinders the possibilities of it being able to be reduced within the framework of the Paris Club agreements. The debt service in 1998 climbed to \$329.4 million dollars, the equivalent of 35% of the exports and to almost 40% of the tax revenues, which means great limitations on resources to bolster economic and social development in the country. Honduras has been accepted within the HIPC Initiative of multilateral financial institutions, designed to alleviate the burden of highly indebted poor countries. A good outcome in the management of that initiative would carry with it an extraordinary benefit for the Honduran economy.

³ In May, 2001, one US dollar was equivalent to 15.30 lempiras



TABLE 1
HONDURAS EXTERNAL DEBT
(million US\$)

	1990	1992	1994	1996	1998
Official bilateral	1,249	1,068	1,394	1,465	1,398
Official multilateral	1,412	1,624	2,188	2,231	2,403
Private	139	74	161	189	23
Total	2,799	2,767	3,744	3,885	3,825

Source: UNDP, Informe de desarrollo humano, Honduras 1999 and 2000.

Another important element to emphasize about the Honduran effort of the last few years for advancing collective well-being, is the decrease in military expenses. These went from 8.4% of GDP in 1989 to 1.3% in 1996, as a result of the fulfillment of the peace agreements at the Central American level. If there was not such a strong a pressure from external debt, this peace dividend could be utilized more effectively to create sources of employment and improve the educational, health, and well-being levels of the Honduran people.

Furthermore, the fiscal policy obtained a reduction of the fiscal deficit from a level of 9.3% of GDP in 1993 to 1.6% in 1998, but it has been calculated that in 1999 it rose again, arriving at 3.0% of GDP, mainly as a consequence of the effects of Hurricane Mitch. The important decrease in the level of the deficit, among other factors, is due to: i) the introduction of a sales tax which came to 12% in 1998, and ii) the increase of non-taxable income among which incomes for privatizations and donations are included. These factors came to constitute 17% of the income of the central government, but they decreased to 9% in 1999.

As for privatisations, as in almost all countries of the region, there was fast process of transferring public property to the private sector. Initially, most privatisations were related to the sale of fixed assets and the sale of stock; the leasing of business and state services were a top priority. Then, after a brief period, the decision was made to transfer services such as of telecommunications, airports, and sea ports to the private sector.

Looking for ways to stimulate the economy, in the last decade Honduras has lured foreign investment. In 1992 it eliminated through legislation the maximum required percentages for foreign ownership in Honduran businesses. In so doing it



reaffirmed the principle of egalitarian treatment for national and foreign enterprise. This brought about an important increase in foreign investments in the country, which reached 230 million dollars in 1999. Although the foreign businesses in the country have basically low requirements regarding labour qualifications and low salaries, cross-border assembly plant activity has become an important axis of economic growth for Honduras. The assembly plants obtain benefits from income-tax exemptions for rent, and exemptions from customs taxes on consumables and capital assets. Given the low educational levels which prevail in the country, it is difficult to think that the latter can be substituted in the short term by industries which require a greater amount of capital and know-how.

As a result of these measures, the Honduran economy, which depended basically on the agricultural and livestock sector, is in full transition. It has expectations of overcoming the stagnation which characterised it during more than a decade, although the official figures still indicate that the growth of GDP continues being insufficient. But the structural changes that have been made have brought about an increase in non-traditional exports and an incipient development of tourism, outcomes which, if sustained, appear promising. The changes introduced and the effort carried out have allowed the country to participate more fully in international trade and to move toward a situation of macroeconomic balance. But the growth of the economy has not been sufficient to improve the standard of living of the Honduran population to a significant extent and, even less, to eradicate poverty. Nevertheless, the constant housing surveys indicate that the income growth per person between 1990 and 1999 was 2% annually, which shows some improvement, and highlights the importance of the remittances of the migrants.

In the period from 1990 to 1998 real GDP increased to 3.6% annually, while the GDP per inhabitant made it to 0.7%. Such figures are better than those recorded during the 1980s, but placed within the international context and evaluated from a long-term perspective, one appreciates that they are quite far from the desirable scenario. Using World Bank methodology, the UNDP (1999b) has shown that during the period 1975-1997 the GDP per inhabitant, measured in dollars of purchasing power comparable to that of the United States, fell from something more than 10.5% of the GDP of the United States to less than 8%. On the other hand, the information available shows that during the 1990s the distribution of income improved only in those homes situated from the median level of the scale upwards. The poorest ones did not receive benefits and they will not receive them, although wages in the formal economy might increase. This is true because they do not have education, health, and the quality of life that allows for receiving benefits from economic growth.

In order to overcome poverty, Honduras must grow at much higher rates. It will require an increase in the investment coefficient in the economy and a greater participation in the international economy. The country is decided to continue with the diversification of production, expanding the potential of its comparative advantages, elevating the coefficient of national and foreign investments, and



promoting participation in the international markets, particularly via the CACM. Nevertheless, in order to achieve a better quality of human development, it will be essential to significantly improve the levels of education and health which, as will be discussed next, are today insufficient in order to sustain a process of development.

PROGRESSIVELY EXCLUSIVE EDUCATION

The educational system of Honduras changed for the better in the last decade of the twentieth century, particularly regarding what has to do with the coverage of primary education and the reduction of illiteracy. Nevertheless, deficiencies of coverage persist in preschool, secondary, and middle levels of schooling, and inequality at all levels has been emphasized. The number of poor people that are excluded from education has increased.

The National Forum on Convergence⁴ analyses this problem in its educational proposal for the year 2000. It estimates that the gross rate of education at the preschool, formal and non-formal level, is roughly 38.5%; that of primary education – the first priority in the current educational policy, since it entails the greatest effort by the state– comes to 86%; and that of the secondary level reaches a little more than 30%.

Table 2 summarizes the educational outcomes attained by the twenty-five year old population in 1999.

TABLE 2						
EDUCATIONAL ACHIEVEMENT OF THE 25 YEAR OLD POPULATION (PERCENTAGES BY INCOME GROUPS)						
MAXIMUM LEVEL ACHIEVED	TOTAL	Q1	Q2	Q3	Q4	Q5
Less than primary school completed	38.3	60.4	49.6	63.7	23.3	14.2
Primary level completed	31	28.9	31.6	38.3	38.7	21.6
Secondary incomplete	13.5	7.9	12.5	11.7	17.7	19.4
Secondary complete	9.8	2.9	5.7	9.9	14.1	18.5
University	6.4	0	0.6	2.8	6.1	26.2
Total	100	100	100	100	100	100
Average years of education	6.0	4.4	5.2	5.6	6.7	8.2

Sources: EPHPM, March, 1999;
ESA Consultores, 2001.

⁴ Foro Nacional de Convergencia. *Propuesta a la sociedad hondureña para la transformación de la educación nacional*. Graficentro Editores, Tegucigalpa, 2000.



The facts from this table eloquently demonstrate the importance of the profound inequalities which characterize Honduran society by revealing that, when the education of adults of that age is analyzed in relation to the level of income, in the lower quintile 60% have not completed primary school; only 3% finish secondary, and none reach the university. On the contrary, in the highest quintile, 86% finish primary school, 18.5% complete secondary and 26.2% enter the university.

The restrictions for access for poor children to primary teaching are replicated markedly in the secondary and tertiary levels. At the secondary level –which takes note only of 30% of the goal population– half of the institutions are private and they charge a high price for enrollment, which restricts even more the entrance for the poor population, especially in regions which are different from Tegucigalpa and San Pedro Sula. This additional filter causes the departure of the poorest from the educational system prior to reaching the university level, which does not prove to be fair in spite of the heavy investment which the State makes in higher education.⁵

POOR HEALTH AND SECURITY

The Honduran population suffers from serious health problems and does not have either the human resources or the services necessary to tackle and correct them. Malnutrition is endemic and quite prevalent. The percentage of children with low birth weight that received attention in the health establishments of the Department of Public Health and of the Honduran Social Security Institute varied between 7.0% and 8.7% in the decade of the 1980s, increasing to 9.2% in 1992. The percentage of malnutrition among those less than 5 years of age grew from 48.6% in 1987 to 52.5% in 1991. The censuses of height and weight carried out among school children from 6 to 9 years of age have shown a high percentage of malnourished ones. In 1996 the rate was 39% (33.3% among girls and 42.2% among boys, 26.2% in the urban population and 44.6% in the rural), without a greater variation with respect to 1986.

Infant mortality is 42 per 1,000 live births, that of children younger than 5 years of age is 53 per 1,000 live births. Acute respiratory infections continue to be the primary cause of death in children younger than 5 years of age, reaching ratios of 22% in 1991–1992 and 23% in 1996. Diarrhea follows it as the second cause of death, which increased from 19% to 21% during the same period. Maternal mortality comes to 110 per 100,000 live births.

Honduras has the highest rates of infection in Central America for the human immunodeficiency virus (HIV) (17.7 per 100,000 population in 1995), with a tendency to increase in the last five years. According to the Department of Public Health, in 1995, 16.3% of AIDS cases were registered in the age group 10 to 24 years.

⁵ ESA Consultores. Education Chapter. In: *Honduras Public Expenditure Management for Poverty Reduction and Fiscal Sustainability*. World Bank, Tegucigalpa, 2001.



The population today still evidences high rates of the incidence and prevalence of other transmissible diseases such as tuberculosis, malaria, cysticercosis, and South American trypanosomiasis.

Precise information regarding the health status of the elderly population does not exist, but data about hospital discharges from 1996 show that, in the group aged 50 or older, 17.9% of the admissions had to do with alcohol-dependence syndrome and 16.6% dealt with diarrhea.

In 1992 a national health plan developed for laborers identified six public health problems among its constituents. These were: accidents in the workplace, pesticide poisoning, noise in the manufacturing area, reproductive health of female workers, pervasive use of drugs, and mental health problems (such as depression and alcoholism). The necessary research has not been undertaken to verify these presumptions, nor has a good database about these topics been successfully prepared.

Approximately 4.5% of the population has some handicap that requires rehabilitation. The distribution by sex and age of those affected is still not known. A private foundation maintains three centers for attending to handicapped persons (in Tegucigalpa, San Pedro Sula and Santa Rosa de Copán), where it cared for 26,139 patients between 1990 and 1995.

The indigenous population has still not begun the epidemiological transition from infectious diseases to chronic and degenerative illnesses. In 1993 the estimated life expectancy for this group was 36 years of age for men and 43 years for women. Among them, malnutrition affects 95% of the population younger than 14 years of age. Out of every 100 deaths, 68 are caused by illnesses that are infectious and contagious.

Regarding housing, optimistic figures point out that the deficit of roughly 700,000 living units, affecting 60% of the population. The Multi-Purpose Housing Survey showed that in 1998 only 67% of the existing housing had electricity, 89.7% had water service, and 83.6% had adequate sewage, thus aggravating health and safety problems of people and communities (PAHO, 1998).

A THREATENED ENVIRONMENT

The Honduras environment is affected by serious problems, characterized mainly by defacement of the soil, destruction of the sources of water, pollution of water (49% of the water sources for human consumption have bacteriological contamination), soil and air, damage to biodiversity, defacement of marine resources, and deforestation. In spite of the fact that the national government has taken some remedial environmental measures, this is still not a national priority. Among the measures adopted recently are the strengthening of the legal framework, the creation



of the Environmental Ministry, the organisation of the Center for Study of Contaminants, the establishment of environmental quality indexes in 45 cities, the initiation of the Programme of Environment Vigilance, and the introduction of unleaded gasoline.

Two thirds of the national territory of Honduras is suitable for forest development, but 30% is already deforested and the deforestation progresses on more than 1,000 Km² of land per year. The advance of the agricultural border toward zones of forest propensity, the development of production activities of agroexportation in unsuitable zones, not following plans for managing and controlling wood exploitation, and the intensive use of the forest as a source of energy, deepen the environmental deterioration.

The principal problems of the environmental sector are mainly due to an inadequate combination of insufficient resources to implement laws and to the meager technical knowledge for managing the resources. The vast majority of the municipalities of the country do not have the necessary economic and technological capacity necessary to adopt the control and verification measures which the law confers upon them. The mainly mountainous territory favors the presence of many hydrographic sources (19) that have a great hydroelectric and irrigation potential but which has not been fully developed.

Located in a zone of recurring natural disasters, Honduras faces from time to time the need to reconstruct its economy and to settle serious societal debts. The case of Mitch revealed that the spatial distribution of human settlements, the improper use of land, the persistent social inequality, and the models of economic growth based on an irrational use of natural resources, have been permanent factors which the natural phenomena aggravate. Thus, more than rebuilding, it is a question of permanently transforming those conditions that generate distress. Such a transformation has to be based on a sustainable human development strategy, in the lines of what the UNDP has been proposing.

As is known, in the envisioning of the United Nations Development Programme, the notion of *development* refers to a real and integral increase in the well-being of everyone in society. The connotation of *human* attempts to consider every individual as a person with rights and responsibilities, as a legitimate protagonist, and as a receiver of the fruits which development makes possible. And for *sustainable* UNDP understands that the achievement of well-being which the transformations and advances can provide to present generations do not mortgage the future of generations to come. The careful use of environmental resources is absolutely essential for sustainable human development. The Honduras experience clearly shows serious deficiencies in this regard. The vulnerability which the country has displayed in the face of natural disasters of diverse type is directly related to a history of mismanagement of natural resources and the environment. Therefore, both in order to develop a strategy of prevention or mitigation of disasters, and to



strengthen a sustainable tourism industry, it is imperative to establish conservation policies and new management practices of the environment in Honduras.

CONCLUSIONS

During many years Honduras has suffered chronic deficits from underdevelopment, but gradually it has been generating important agreements within civil society in favour of the strengthening of human rights and a democratic regime, and also agreements in favour of policies to mitigate chronic poverty and social inequality. Slowly but consistently, it has been overcoming obstacles and today the country is in a situation whereby political forces and civil society are sustaining what seems to be an honest dialogue. This dialogue is about how to redirect the economic and social processes for purposes of promoting greater well-being through a collective commitment to sustainable human development. *Sustainable human development* is a process of progressive change in the quality of life of a human being. It places people as the center and main subject of development, utilizing economic growth, the transformation of production methods, and the change in patterns of consumption in order to challenge poverty, increase social equality, and maintain ecological balance.

To set up and sustain this process in Honduran society demands, as the National Convergence Forum maintains, “achieving in the immediate future a competitive economy, less dependent and vulnerable; shaping a nation with a fairer distribution of income and wealth, and a society that is more supportive and committed to the struggle against poverty and underdevelopment” ... “to structure a solid state of law where the Constitution and laws prevail, and where institutions take precedence over individuals and those groups whose interests do not coincide with those of the majority of Hondurans” ... to build a country “proud of its identity and with the capacity for solving its problems and proposing its own options in an increasingly complex international context.” To create, in short, “A society ruled by values that are mainly ethical, patriotic and spiritual, based on respect and the advancement of the human being; a society without poverty, with a high degree of education and culture, with a sense of identity, supportive, respectful of human rights, which cultivates peace and harmonious relations.”

That society will not be possible if the levels of public health are not improved, the education of the majority of the population is not increased, and a national capability is not acquired for training high level human resources. That society requires participation in the generation and management of knowledge and to ensure an appropriate process of technology transfer.

It is critical to drastically reduce malnutrition, control diseases preventable through immunization, and significantly expand second and tertiary education to the poor sectors of the country (which are currently excluded from those levels of education and as a result a significant portion of the development benefits). Critical is



also the establishment of a plan for managing natural resources. It will also be necessary to strengthen the research capacity in the universities so that they can support the process of human development and create a national system of innovation. This system would facilitate the rapid, well-funded and socially relevant transfer of appropriate technologies.

According to what was verified in the interviews conducted as part of the study, there is a yearning and a commitment to change toward a more just and inclusive society on the part of Honduran society. The international community should continue to support Honduras in its efforts to accelerate economic growth and human development, but for that to occur it should coordinate its policies and reorient them toward institution-building and the creation of endogenous competence. In sum, conditions do exist in Honduras for managing and making good use of a potential cooperation scheme on the part of the Swedish Agency of Cooperation for International Development.

4. THE HIGHER EDUCATION SYSTEM

ORIGINS AND EVOLUTION

Honduran higher education began to be developed in 1847, a year in which, after multiple thwarted attempts to provide the Republic with an institution of such a level, the Literary Academy of Tegucigalpa was decreed to be transformed into the National Autonomous University of Honduras (UNAH).⁶ The UNAH was the only institution of higher education during 130 years, period in which it was the sole responsible for providing higher education services at the national level.

In 1942, with the approval by the National Congress, the Pan-American Agricultural School began to function. This is a private international entity, registered in the United States of America established in the region of El Zamorano (30 kilometers southeast of Tegucigalpa) and dedicated to the training of professionals and technicians for the agricultural and livestock sector⁷. In 1956 the startup of the “Francisco Morazán” Advanced Teachers' School was authorized by the same process under the office of the Department of Public Education. Its mission was to train teachers needed for secondary education at the national level. Nevertheless,

⁶ Portillo Sáenz, Andrea (1997) *La Educación Superior en Honduras 1733 – 1997*. Programa de Participación con la UNESCO, Volumen I-VI, Septiembre de 1997.

⁷ www.zamorano.hn (2000)



the studies undertaken at these two institutions were not recognized as being tertiary education by the UNAH.

Toward the beginning of 1978, the National Congress passed the *Law of Private Universities*, under whose protection two new universities, that of José Cecilio del Valle (UJCV) and that of San Pedro Sula (USPS) began to function. They were founded in the months of May and August of the same year. In the course of the mid 1980s, the Central American Technological University (UNITEC), created by a group of UNAH professors, was built and began its activities. Additionally, the Major Seminary of Our Lady of Suyapa (SMNSS) and the Pan-American Agricultural School (EAP) received recognition as HECs.

Finally, the *Law of Higher Education*, in force today was passed in October, 1989. It defined the National Education System and established the mechanisms which regulate the organisation, the management and the development of higher education⁸. Supported by this law, in 1990 the “Francisco Morazán” Advanced Teacher's School became the “Francisco Morazán” National Pedagogic University (UPNFM). Two years later new private institutions were created: the Catholic University of Honduras (UNICAH), and the Technological University of Honduras (UTH), whose headquarters is in San Pedro Sula.

In 1994 two other state institutions emerge outside the capital of the country: the National School of Agriculture (ENA) in Catacamas and the National School of Forestry (ESNACIFOR), which today has headquarters in Siguatepeque and in Comayagua. In 1998 the Higher Institute of Police Education (ISEP) was created at the state level and in the private sector the Center of Architectural Design and Construction (CEDAC). Finally, in February 2001 the creation of the New Millennium Christian Evangelical University was authorized. It will begin operation next September.

In this way a system has been configured which is integrated by 13 centers of higher education (5 state and 8 private), among which are included 7 universities, 3 schools, 1 institute, 1 specialized center, and 1 seminary. Those institutions have very diverse characteristics, both regarding their organisation, professional offerings and academic capacity, and related to their size, their geographic location, the origin of their financial resources and their relationship with the State and society.

LEGAL FRAMEWORK

The Honduran higher education system forms part of the National Educational System headed by the Department of Public Education at its basic and medium levels

⁸ Congreso Nacional de la República de Honduras. *Ley de Educación Superior*. Decreto No. 142-89. Diario Oficial La Gaceta, No. 25961, 17 de octubre de 1989.



and the National University of Honduras and its higher level. It is ruled by six main legal documents: the Constitution of the Republic of Honduras (1982), the Law of Higher Education (1989), the General Regulations of the Higher Education Law (1989), the Academic Standards at the Higher Education Level (1992), the Law of Private Universities (1978) and the Organic Law of the National University of Honduras (1957). The organisational framework which prevails is the following:

The *Constitution of the Republic* establishes the fundamental principles of the different educational levels in several articles of Chapter VIII, dedicated to education and culture⁹. Article 151 provides that “national education will be secular... it will be based on the essential principals of democracy... and it will be directly connected to the economic and social development of the country.” By means of article 155 “freedom of research, learning and of being a professor are recognized and protected.” Through article 159 it is stipulated that “the Department of Public Education and the National Autonomous University of Honduras, without impairing their respective jurisdictions, will adopt the necessary measures so that the general national educational planning might be integrated into a coherent system, so that students might adequately respond to the requirements of higher education.”

Articles 160 and 161 are dedicated entirely to the UNAH. The first stipulates that “the National University of Honduras is an Autonomous State Institution” ... which “enjoys the exclusive right to organize, direct and develop higher and professional education”... having to contribute “to scientific, humanistic and technological education for general dissemination of the culture and to the study of national problems”...and “to plan its involvement in the transformation of the Honduran society.” Also assigned to it is the duty of validating academic titles awarded by national and foreign universities, as well as the authority to determine which graduate professionals from the latter obtain re-validation. The second one compels the State to “support, develop and enhance the National Autonomous University of Honduras, with an exclusive annual allowance of not less than six percent of the Budget of Net Income of the Republic, excluding loans and donations.”

The *Higher Education Law*¹⁰ stipulates that terciary education “has as its goal scientific, humanistic, and technological research; general dissemination of culture; study of national problems; the creation and transmission of science and the strengthening of national identity...”. Higher education should “promote national identity...”. Higher education should “promote the transformation of Honduran society”... and be oriented “toward an integrated training of citizens for the achievement of an optimum academic quality, fusing the mastery of wisdom, knowledge of the national reality, and the cultivation of the purest ethical qualities...”. These roles will be complemented by the training of the students “in

⁹ Asamblea Nacional Constituyente. *Constitución de la República de Honduras*. Decreto No. 131 del 11 de enero de 1982. Editorial Guaymuras, Tegucigalpa, 2001.

¹⁰ Congreso Nacional de Honduras. *Ley de Educación Superior*. Decreto No. 142-89 del 17 de septiembre de 1989. Diario Oficial “La Gaceta” No. 25961, Tegucigalpa, 17 de octubre de 1989.



order to promote development and strengthen conditions of national independence within a framework of regional integration processes and international relations.”

The Law identifies the following as principles of higher education in Honduras: its democratic character; unrestricted access for those who have passed the secondary level of education and meet the regulatory prerequisites; freedom of teaching; the interconnection between teaching, research, and extension; work stability, the right to retirement and a dignified lifestyle for professors.

Complying with the Constitution, the same Law confers upon the National University of Honduras “the exclusive right to organize, direct and develop higher and professional education.” To these ends it creates four agencies: i) the *Full Council*, which will function in accordance with the Organic Law of the UNAH, having jurisdictions over the highest appeals body and of letters of application for academic consultation; ii) the *Governing Board of Higher Education*, set up by the Chancellor of the UNAH, six representatives from that University, six high ranking authorities from the remaining centers of higher education, and the incumbent of the Board of DiChancellors of Higher Education; iii) the *Technical Consultation Board*, which gathers representatives from all of the authorized centers of higher education; and iv) the *Direction of Higher Education* which act as the Secretariat of the system and as a means of communication and link with the higher education centers.

The *General Rules and Regulations of the Law of Higher Education*¹¹ defines precisely the sphere of duties of the distinct bodies of the system; it establishes procedures; and disposes that the organisation sets up a Registry of Higher Education; it classifies the centers of higher education into: i) universities, ii) schools, iii) institutes, iv) academies and v) specialized centers; and it formulates the general norms for the creation, organisation and functioning of new higher education centers.

The higher education centers (HECs) are classified by the Rules and Regulations in “a) state or public, when their creation originates from a Law or they are financed by public funds, and b) private or particular, when they are constituted as associations, foundations, or mercantile societies or any other form of association, whether national or foreign.” The document also determines the existence of two types of higher education: i) the *formal* one, condition under which all programmes “offered by authorized centers of higher education, in a permanent way” are included...” and ii) the *non-formal* one, which is to say “that which is imparted in an exceptional way that is not permanent and can serve to meet to an occasional need”.

The *Academic Standards of the Higher Education Level*¹² “provide a philosophical perspective and a pedagogical doctrine in a general sense” by means of

¹¹ Consejo de Educación Superior de Honduras. *Reglamento General de la Ley de Educacion Superior*. DES/UNAH, Ciudad Universitaria, Tegucigalpa, febrero 1994.

¹² Consejo de Educación Superior. *Normas Académicas del Nivel de Educación Superior*. DES/UNAH, Ciudad Universitaria, Tegucigalpa, febrero 1994.



“the specific conceptualization of all the proper language categories and of the academic performance and the emphasis on values, at the core of training and in academic excellence.” In reality they are the instrument which regulates the organisation, management, and academic development of higher education. The internal rules of HECs are based on these norms of academic standards.

Nevertheless, as Salgado (2001) points out, each center has its own internal ordinance. It is worth mentioning that only in the UNAH and the UNPFM are the authorities elected with teacher and student participation. In the rest of the system the authorities are designated by direct appointment. Both public universities have student representation in their governing bodies. At the UNAH this representation is 50% of all positions and at the UPNFM it is one third. In the remaining Honduran centers of higher education students do not participate in the government and the institutional management.

NATIONAL POLICY-MAKING BODIES

In compliance with the current legal order, the UNAH, by means of its Full Council, of the Governing Board of Higher Education, of the Technical Consultation Board, and of the Direction of Higher Education, is the entity responsible for formulating the policies and strategies for the development of higher education in Honduras. Additionally, the Law of Higher Education, in its article 38, specifically stipulates that the sphere of duties of the National Governing Board of Education (a coordinating body of the National Educational System, composed of among others, by the President of the Republic, the secretary of State in the Office of Education, and the President of the National Autonomous University of Honduras), are those of “proposing to the Department of Planning, Coordination, and Budget, the National Project for Development of the Educational Sector”. It also has the duty of “proposing evaluation mechanisms of the system and of the levels which comply” and “to set regulatory norms for accomplishing the complete integration of the National Educational System.”

The Department of Education should act as a catalyst with the rest of the educational sector. Its responsibility is to coordinate with the system of higher education everything that concerns the training of teachers of basic education. This also applies to educational research and quality assessment of preschool primary, secondary level teaching. The Secretary of Finance has to formulate, negotiate and assign the corresponding budgets to the public higher education centers.



POLICIES AND STRATEGIES

Due to the legal arrangements and to the institutional sphere of duties previously described, in Honduras, as in the majority of countries in Latin America, public education policies in general and of higher education in particular, have been determined by successive governments by means of the Parliament and the Executive Branch.

The most important decisions which have guided the philosophy, structure, organisation and operation of the system were implemented by three entities. These are: i) the Constituent Assembly and the Congress by means of the Constitution, the Law of Special Universities and the Law of Higher Education; ii) the government Department of Finance; and iii) international financial institutions, particularly the World Bank, the International Monetary Fund and the InterAmerican Development Bank.

The policies and strategies established in the laws passed since 1982 recognize the value of higher education for social and economic development. They assure unrestricted access to persons duly trained in tertiary education. They establish the lawful legal frameworks for the transformation and creation of a system of higher education. They commit the required resources on a constant fixed base of 6% of the net income budget of the Republic. And, they leave the organisation, management and development of higher and professional education in the hands of the National Autonomous University of Honduras.

Nevertheless, the facts are that the UNAH has not been able to completely fulfill a mission of such magnitude. And it has not succeeded in formulating a strategic plan which provides new directions for tertiary education in the country. This is not an easy task since it requires thinking in terms of probabilities about the challenges that the acceleration of economic globalization and the policies of structural adjustment pose. Other factors are the unrestrained growth of external debt, the on-going technological revolution, and the renewed value of knowledge. The UNAH and the political bodies ruled by the institution have focused their policy making initiatives mostly on aspects of an administrative nature, such as the recognition of studies, titles and diplomas, the authorization of new higher education centers, and the permanent negotiation of resources assigned by the Department of the Treasury.

On the other hand, according to several of those interviewed, the roles of leadership, supervision and control of the entire system given by law to the UNAH generate a profound discomfort in other university leaders. Many of those interviewed expressed the opinion that the roles given to UNAH exceed its capacity to perform them well, and bring about an enormous bureaucratic complexity which limits the possibilities of real transformation in all higher education centers. The vacuum left by UNAH gradually came to be occupied by the ruling power and by



international financial organisations, placing higher education policy-making within the realm of the neoliberal paradigm.

DESCRIPTION AND APPRAISAL OF THE SYSTEM

Honduras cannot not rely on a standardized and updated system of statistics on higher education. The available series of data are not homogenized so as to allow comparison between the different HECs of the country or even less at the international level. Historical time series are incomplete and not trustworthy, since the criteria for collection has varied frequently. Additionally, systematic research on higher education is still lacking, nor is there a body of knowledge that sufficiently covers the aspects that will be analyzed in this report.

For this reason, in spite of the fact that the authors of this report had the support of administrative authorities of all HECs, the figures presented here ought to be considered preliminary. Their validity - including that of tables presented in the statistical attachment- should be verified in the future through a research effort based on standardized methods and suitable indicators internationally recognised.

Enrollment patterns

Rate of enrollment

During the last decade Honduras experienced a rapid increase in the number of students enrolled in its higher education institutions. As shown in Table 3, between 1990 and 2000, the figure went from 43,117 to 90,243, which indicates an increase of 109%. In the same period, the rate of enrollment increased 59%. Meanwhile, the estimated population between 18 and 24 years of age rose from 569,345 to 743,285 persons, increasing 31%. In the last ten years the rate of enrollment rose faster than the goal population, since while the latter rose 3.1% annually the level of graduates of higher education went up 10.9%. This validates the accomplishments of the effort the country has been making.

In spite of the pronounced growth of the student population, the rate of total enrollment only came 12.1% in the year 2000, leaving 653,000 youth outside the system. The comparison with the performance of other countries of the region in the year 1999 leaves Honduras in the next to last place. It is above Guatemala (10.1%), but below Nicaragua (11.9%), below the Dominican Republic (18%); below El Salvador (17.8%), below Panamá (25%) and below Costa Rica (34.5%)¹³.

¹³ Steir, Francis y Yammal, César (2001), "La Educación Superior en Centroamérica y República Dominicana". Draft.



TABLE 3 COVERAGE OF THE ESTIMATED POPULATION BETWEEN THE AGES OF 18 TO 24 (1990-2000)			
YEARS	ESTIMATED POPULATION 18 - 24 YEARS	REGISTRATION	% COVERAGE
1990	569,345	43,117	7.60
1991	586,259	44,158	7.50
1992	693,476	47,350	7.80
1993	620,777	47,562	7.70
1994	638,140	54,106	8.50
1995	655,535	55,536	8.50
1996	672,993	61,279	9.10
1997	690,541	68,000	9.80
1998	708,149	77,768	11.00
1999	725,847	85,722	11.80
2000	743,285	90,243	12.10
INCREASE 1980-2000	30.6%	109%	59%

Source: Prepared by DPL/UPNFM based on data of the Direction of Higher Education.

With regard to the rest of the world, the available data compel us to figures for 1997. For said year the least developed regions of the world had an average enrollment of 10.3% and the most developed had a rate of 61.1%. Honduras had a enrollment rate of 9.8%, while the Latin America average rate was 19.4 %. Asia and Oceania had 42.1%, Europe 50.7% and North America 80.7%.¹⁴

Enrollment by gender

As in most countries of the region, in Honduras the proportion of women who enter the higher education system has been increasing steadily, reaching 43.6% in 1999. This tendency toward feminization of enrollment seems to be greater in the private sector (49.8%) than in the state sector (42.9%). UNICAH and UNITEC could not provide figures about this indicator. (Table 4).

¹⁴ UNESCO. *Informe mundial sobre la educación*. Ed. Santillana/Unesco, 2000.



TABLE 4 TOTAL REGISTRATION BY HIGHER EDUCATION CAMPUS AND BY GENDER (1999)					
CAMPUS	REGISTERED TOTAL*	GENDER			
		TOTAL		PERCENTAGE	
		MEN	WOMEN	MEN	WOMEN
TOTAL*	85,722	44,070	34,095	56.4	43.6
PUBLIC	69,556	39,749	29,807	57.1	42.9
UNAH	56,077	34,095	21,982	60.8	39.2
UPNFM	12,730	5,018	7,712	39.4	60.6
ENA	285	245	40	86.0	14.0
ESNACIFOR	183	140	43	76.5	23.5
ISEP	281	251	30	89.3	10.7
PRIVATE	16,166	4,321	4,288	50.1	49.8
UJCV	1,289	587	702	45.5	54.5
USPS	3,927	1,917	2,010	48.8	51.2
UNITEC	4188	**	**	**	**
SMNSS	100	100	*	100.0	*
UTH	2,347	1,015	1,332	43.2	56.8
EAP	847	665	182	78.5	21.5
UNICAH	3,369	XX	*	XX	*
CEDAC	99	37	62	37.4	62.6

Source: Data provided by the Direction of Higher Education, DES, in Salgado (2001) pp17

* Does not include UNITEC or UNICAH, who did not provide data.

** Data unavailable

As UNICAH and UNITEC are not included, the numbers used to calculate the percentages are 78,165 for Total and 8,609 for Private universities

Nevertheless, it is worth mentioning that gender distribution in different careers still continues to evidence traditional patterns. For example, females predominate in nursing and education, while males make up an important majority in careers of the agricultural sector and basic sciences.

It is worth mentioning that the percentage of men enrolled in UNICAH has been increasing over time and passed from 46% in 1996 to 51% in 2000. However differences prevail according to discipline. Men tend to predominate in postgraduate studies while undergraduate programmes concentrate female students, particularly in the following careers: International relations, Psychology, Environmental Sciences, Finances and Marketing. On the other hand, men prefer Computer Sciences and Engineering, and Civil and Industrial Engineering.¹⁵

¹⁵ UNICAH memories.



Enrollment by socioeconomic levels

One can see in the higher education system a clear predominance of students who come from high income families. The *Permanent Multi-Purpose Household Survey* of 1999 shows that 80% of the students with university studies come from the two highest income quintiles. On a regional level this sector reaches 78.8% in Costa Rica, 70.4% in Guatemala and 46% in the Dominican Republic.

Enrollment based on academic and professional programmes

As Table 5 demonstrates, in the year 1999, 90.4% of the students were concentrated within five study areas. These were trade and business administration (33.0%), engineering and technology (20.7%), education (17.6%), law (10.9%) and medical science (8.1%). The programmes of the Faculty of Economics, Management, and Accounting at the UNAH are in the first group, wherein 12,000 students (13.9%) are included. This faculty offers careers with the traditional emphasis on economics, accounting, business administration, customs administration, banking administration and international trade.

TABLE 5			
TOTAL REGISTRATION BY STUDY SECTORS (1996 AND 1999)			
	1996	1999	Increase (%)
TOTAL	61,279	85,722	39
Teacher Training Education	10,133	15,090	49
Humanities, Religion and Theology	741	739	0.2
Fine and Applied Arts	2	6	200
Law	7,677	9,396	22
Social and Behavioral Sciences	1,733	1,999	15
Business Education and Business Administration	17,792	28,304	59
Social Documentation and Communication	1,202	1,435	19
Training for the Service Sector	149	244	63
Exact and Natural Sciences	280	368	31
Mathematics and Computer Science	28	24	14
Medical Sciences, Health and Hygiene	6,778	7,006	3
Engineering and Technology	12,286	17,750	44
Architecture and Urban Planning	966	1,337	38
Industrial Arts and Occupations	96	193	101
Agronomy, Forestry, and Fishing Education	1,061	1,244	17
Other Programmes	355	587	65

Source: Data provided by the Direction of Higher Education, 2001



It is important to highlight the low number of students enrolled in study areas that are so important for a country in need of furthering development and growth. Among these are the pure and natural sciences (0.45%), architecture and urban development (1.5%), and agronomy and forestry (1.4%). On the other hand, according to sources consulted in the Direction of Higher Education, there is also a scant participation of professors in these important fields. For example, at the UNAH there are only 14 physics professors, 42 sociologists and 70 mathematicians. This is out of a total of 3,486 teachers.

The distribution of the student body and the small number of teachers and researchers in basic sciences demonstrates that the training of human resources at a high level is not addressing adequately the needs of a society that is attempting to overcome underdevelopment. Yielding to apparent market demands, which are extremely volatile in the case of Honduras, does not ensure the absorption of graduates of the five areas preferred by the majority of students.

In 1999 the Honduran system of higher education offered 181 academic programmes, of which 100 (52.2%) were provided by the state sector and 81 (44.8%) by the private sector. Of the total, 30 led to the title of associate's degree¹⁶, 111 to that of bachelor's degree¹⁷, 17 to that of specialist, 21 to that of master's degree and 2 to that of doctor (Table 6). In the last three years those which have experienced greater growth are the associate and master's degrees. The associate's degrees have grown at an annual rate of 22%, while the master's degrees have grown 17 % annually for the same period. The bachelor's degrees and specialised degrees have only increased at a 2 and 1 percent annual rate, respectively.

All centers award bachelor's degrees and 9 offer associate's degrees. Two universities provide a Ph.D. title, 5 centers offer master's degrees and two offer specialised degrees. From this point of view, the most all-inclusive university is the UNAH because it offers all the degrees mentioned.

UNICAH is the private institution that exhibits greater academic coverage. There are 13 degrees offered, 4 Masters, 1 Doctorate and 1 Associate degree in Rural Development. It is worth mentioning that UNICAH will establish the first Faculty of Medicine in San Pedro Sula, a project that will most certainly generate high social returns. In addition, UNICAH is the private university with the broadest geographical outreach, covering 5 cities: Tegucigalpa, San Pedro Sula, Choluteca, Juticalpa and Siguatepeque. It is also worth noting that UNICAH is the fastest growing university

¹⁶ Associate's degrees are characterized by a greater emphasis on practical training and include all short careers (2 or three years in length). Within them there are two modalities: the terminal and non-terminal. The first make up a step up for continuing studies at the degree level and the second are career side departures which lead to a degree and leave open the possibility to return and finish it.

¹⁷ A bachelor's degree is not exactly the same as that of a *licenciatura*, which normally requires five years of study instead of four required for a bachelor's degree.



in Honduras' higher education system. From 1996 to 1999 the rate of growth of enrollment at UNICAH (128%) was by far higher than the average for the rest of the system (40%), or the UNAH (31%) and the UPNFM (49%)¹⁸

The same table reveals that between 1996 and 1999 the UNICAH has started 3 new bachelor's degrees and 1 specialist's degree. The UJCH has implemented two new bachelor's degrees and the UPNFM has eliminated three bachelor's degrees from its academic offerings but has recently opened two new ones. The doctorate programmes continued to be two: that of the UNAH in *Development Administration* and that of the UNICAH in *Business Administration*. It is worth noting that the increase in associate's degrees is predominantly at UNAH, where 10 new programmes of that type are offered. And the increase in master's degrees is mainly found at UNITEC, which offers 5 new master's degrees in the 3 years mentioned.

TABLE 6 EDUCATIONAL OFFERING BY CAMPUS AND BY ACADEMIC DEGREE 1999												
Campus	Total		Associate		Bachelor's		Specialization		Master's		Ph.D.	
	1996	1999	1996	1999	1996	1999	1996	1999	1996	1999	1996	1999
TOTAL	153	181	18	30	104	111	14	17	14	21	2	2
PUBLIC	88	100	1	12	60	60	14	16	10	11	1	1
UNAH	67	79	-	10	42	43	14	16	9	9	1	1
UPNFM	18	17	-	1	17	14	-	-	1	2	-	-
ENA	1	1	-	-	1	1	-	-	-	-	-	-
ESNACIFOR	1	2	1	1	-	1	-	-	-	-	-	-
ISEP	1	1	-	-	-	1	-	-	-	-	-	-
PRIVATE	65	81	17	18	43	51	-	1	4	9	1	1
UJCV	18	20	7	7	11	13	-	-	-	-	-	-
USPS	9	9	-	-	8	8	-	-	1	1	-	-
UNITEC	17	22	6	6	9	9	-	-	2	7	-	-
SMNSS	2	2	1	1	1	1	-	-	-	-	-	-
UTH	7	10	2	2	5	8	-	-	-	-	-	-
EAP	2	2	1	1	1	1	-	-	-	-	-	-
UNICAH	9	13	-	-	7	10	-	1	1	1	1	1
CEDAC	1	3	-	1	1	2	-	-	-	-	-	-

Source: Derived from DES data
- Numbers virtually nil

¹⁸ Source: Annual reports DES



When examining the dynamics of the career offerings by areas, one has to be aware of a noticeable decrease in mathematics and computer sciences, which went from 3 in 1996 to 1 in 1999. On the other hand, the careers in agronomy, forestry and fishing¹⁹ tripled (from 3 to 10). The number of career offerings in the arts and industrial careers doubled (from 2 to 4) and the career offerings in engineering and technology increased (from 26 to 37) for the same period.

In conclusion, it can be said that the academic programme offerings are of traditional duration, profesionalising, and with a notable predominance of bachelor's degrees (61.3%). There is an incipient development of short careers and associate's degrees (16.5%), a paucity of specialised degrees (9.4%) and master's degrees (11.6%), as well as a very small percentage of doctorates (1.1%).

Professors and teaching methods

In 1999 Honduras had 5,391 university professors to meet the needs of 85,722 students. This translates into a ratio of 16 students per professor, which is quite good by international standards²⁰. In Central America this ratio varies between 16 and 20²¹. 4,171 teachers were located in state institutions, which had 69,556 students, and 1,220 in private ones, who served 16,436 students. This produced a student/teacher ratio of 16.6 and 13.4, respectively.

Regarding the academic level of the teaching staff, 4,206 professors in the system (78.0%) only have a bachelor's degree; 766 (14.2%) reached the level of master's; 267 (4.9%) are specialists, and 152 (2.8%) obtained a Ph.D.²² This means that only 21.9% of the total teaching staff in higher education institutions has some graduate studies. The Direction of Higher Education of Honduras itself recommends that at least 25% of teachers have graduate studies. (See Table 7).

There are important differences within the higher education system of Honduras. In the public sector teachers with postgraduate degrees are 19.9%, while in the private sector they make of 29.0% of the total. The UPNFM has a better distribution of teacher staff with high degrees in comparison to UNAH. The private HECs have practically twice the number of teachers with a Ph.D. (4.2% compared to 2.8% of the state ones). Within the private institutions the EAP stands out with 21

¹⁹ The Direction of Higher Education attributes this increase to the regional UNAH centers. DES (1999), pp. 139.

²⁰ However, these numbers might include duplications given that in many occasions the same professor teaches in more than one university. A census of university professors is highly recommended

²¹ Steir Ibid, pp 14

²² UNAH considers medical doctors and chemists as Ph.D.s, fact that would present a favourable bias towards the institution. To partially correct the figure, we have eliminated those that did their degrees nationally (105). This brings the percentage of professors with Ph.Ds to 2.8% and not 4.8% as including them would reflect.



teachers with doctoral studies, 29 with a master's degree, 52 with a specialist's degree, and only 8 with a bachelor's degree. The high number of teachers with master's degrees at UNITEC also stands out.

TABLE 7					
TEACHING STAFF BY CAMPUS AND TYPE OF ACADEMIC DEGREE (1999)					
TEACHERS	Total	PhD.	Master's	Specialisation	Bachelor's
TOTAL	5391	152	766	267	4206
PUBLIC	4171	101	536	194	3340
UNAH	3486	81	418	129	2858
UPNFM	510	17	96	64	333
ENA	68	...	16	1	51
ESNACIFOR	41	3	6	...	32
ISEP	66	...	...	...	66
PRIVATE	1220	51	230	73	866
UJCV	96	2	19	3	72
USPS	298	8	38	...	252
UNITEC	270	8	90	11	161
SMNSS	15	4	1	...	10
UTH	86	1	2	...	83
EAP	110	21	29	52	8
UNICAH	230	5	43	7	175
CEDAC	115	2	8		105

Source: Derived from DES data

As for hourly commitment, the Table 8 shows that 47% of the teachers work full time, 44% by the hour and 9% half-time. When the situation is examined by sectors there are also significant differences. In public institutions 54%, work full time, 41% by the hour, and 5%, half time. In the private institutions the corresponding percentages are 22.0%, 56.0% and 22%, respectively.

The proportion of full time professors has been diminishing; Between 1996 and 1999, it decreased from 58 to 44% for the system as a whole; for UNAH from 64% to 54% ; for UPNFM from 81% to 55%, and for UNICAH from 19% to 14%²³

²³ Source: Annual Reports DES



TABLE 8
TEACHING STAFF BY CAMPUS AND BY ASSIGNMENT (1999)

Campus	Total	Full Time	FT %	Half Time	HT	By Hour	BH
Total	5,391	2,534	47	483	9	2,371	44
PUBLIC	4,171	2,260	54	216	5	1,695	41
UNAH	3,486	1,879	54	164	5	1,443	41
UPNFM	510	282	55	49	10	179	35
ENA	68	59	87	2	3	7	10
ESNACIFOR	41	40	98	1	2		
ISEP	66					66	100
PRIVATE	1,217	274	22	267	22	676	56
UJCV	96	1	1	7	7	88	92
USPS	298	8	3	87	29	203	68
UNITEC	270	102	38	134	50	34	13
SMNSS	10	10	100				
UTH	86	8	9	3	3	77	90
EAP	110	110	100				
UNICAH	230	32	14	17	7	181	79
CEDAC	115	3	3	19	17	93	81

Source: Derived from DES data

...: Data unavailable

- Amount virtually nil

On the other hand, according to our calculations, in the year 1999 there were 2,534 professors working the equivalent of full time in the system. (See Table 7). This creates a relationship of 34 students per teacher working a full time equivalent. This places Honduras in a good position in relation to its neighboring countries. For example, this relationship is of 275 students per teacher in Guatemala, 119 in the Dominican Republic, and 42 in Panama. Costa Rica has the best position in the region in this regard, with only 9 students per professor working a full time equivalent. For the OECD countries, in 1998 these ratios varied between 9 and 19, with an average of 14.8 students per full time professor²⁴.

²⁴ www.oecd.org/els/education/ei/EAAG2000/Tables/B7.xls



It is worth noting that more than 60% of our interviewees expressed doubts about the fulfillment of the schedule of the full-time teachers. They pointed out that there are numerous indications that the majority diminish their presence at the University to half time or less. The informants maintained that it is due above all to the insufficient remuneration of the teachers, and that this forces them to seek out other additional sources of income. The reduction of the work day from 8 hours to 6 at UNAH did not solve the problem since “frequently six hours become four.”

The large state universities (UNAH and UPNFM) have a similar structure regarding the time commitment of professors, which is to say that half are full-time and around 40% are contracted per hour. It was pointed out that the low level of wages make exclusive commitment of teachers extremely difficult. Nevertheless, the smaller state institutions such as ESNACIFOR and ENA, have 98% and 87%, respectively, of full-time professors. This is due in part to their small size and in part to the fact that many teachers live at the institutions themselves. On the contrary, the ISEP pays 100% of its teachers by the hour.

It is also necessary to consider that nearly 40% of the teachers at UPNFM and UNAH are approaching retirement age. This presents both an urgency and an opportunity to enhance creatively the training and recruiting of a new generation of university professors.

Within the private HECs there is a great diversity relating to hourly commitment on the part of professors. The EAP stands out with 100% of its teachers being full-time, the same as the SMNSS. Meanwhile, 38% of UNITEC's professors are full-time. The rest of the institutions pay the majority of their professors on an hourly basis: 92% at the UJCV; 90% at the UTH; 81% at the CEDAC; 79% at the UNICAH, and 68% at the USPS. Though this provides them greater flexibility and generates less pension pressures, it greatly limits the possibilities of developing research and of creating a stable foundation of dedicated staff on which to base institutional development.

Most of the higher education programmes in Honduras are presential. Within the public universities, the UPNFM is the one which has a greater number of students enrolled in the Distance Learning Modality. It has reached 8% of the total number of higher education students in the country and 53% of its own students in 1999. Said figures for the UNAH are 4% to 6% respectively. The only university which offers virtual education programmes is UNITEC, which represents scarcely 0.1% of the total higher education system and 4% of its registered students.

As for teaching methods, the new technologies of computer and communication are beginning to be used. What continues to predominate, though, is the traditional and hierarchical master class approach, based on lectures by the professor and the acritical memorization on the part of the student. There do not seem to be significant advances in pedagogical renovation. The team approach to work is



not encouraged, and the support services which could facilitate the intellectual development of students are generally deficient, for example modernised libraries, electronic communications infrastructure, rapid and cheap access to Internet.

Research activities

According to the information provided by the DES, in 1999 69% of all HECs undertook at least one research project (See table 9). The UNAH conducted 228 research projects in numerous in areas. This represents 29% of the total, being followed by the UNITEC with 222 projects (28%), the EAP with 139 (18%) and the UPNFM with 84 projects (11%). But, if you take into account that UNITEC projects are not strictly research, the total number of projects of the system is reduced to 559. Of these 347 (62.0%) are carried out in state institutions and 212 (38%) in private ones.

TABLE 9								
RESEARCH PROJECTS BY CAMPUS AND BY AREA OF STUDY								
1999								
CAMPUS	PROJECT MANAGEMENT			AREAS OF STUDY				
	RESPONSIBLE UNIT EXISTS	TOTAL No. of PROJECTS	%	FARMING, RANCHING, FORESTRY	BIOLOGY, HEALTH	SOCIAL SCIENCE	ECONOMICS-ADMINIST.	PHYS-MATH
TOTAL		781		219	68	148	217	128
PUBLIC		347	44	80	68	148	27	24
UNAH	X	228	65	45	68	64	27	24
ENA		26	7	26	-	-	-	-
ESNACIFOR		9	3	9	-	-	-	-
ISEP		-	0	-	-	-	-	-
UPNFM	X	84	24	-	-	84	-	-
PRIVATE		434	56	139	...	...	190	104
UJCV*		-	0	-	-	-	-	-
UTH		69	16	-	-	-	54	15
EAP		139	32	139	-	-	-	-
USPS		1	0	-	-	-	-	-
UNITEC		222	51	...	...	...	136	86
UNICAH		...	0	...	...	...	...	...
CEDAC		3	1	-	-	-	-	3
SMNSS		...	...	...	...	...	...	...

Source: Data provided by DES, in Salgado (2001) pp28

--- Data unavailable

- Numbers virtually nil



It is worth analysing thoroughly if the greatest number of projects translate into greater productivity in the state sector or if it is connected to noticeable differences in the number of teachers. Initial estimates lead us to think that this is the case, given that the publications/professor relationship is higher in the private HECs.

The UNAH has a research department, with several research projects in areas like the biological sciences, health, social sciences, agrarian and forest sciences, economics, physical sciences, mathematics, administration and management. Notwithstanding this fact, it has limitations in human capital, financial resources, and infrastructure.

On the other hand, a research culture is not evident on the part of the institution, the teachers, or the students. Several researchers at UNAH consider the teaching load to be quite high and they argue that it does not allow them to do research or outreach projects. There are also several logistical difficulties. For example, the scarcity of telephone lines is a bottleneck for Internet usage. The library does not have access to recent publications in many subject areas. The laboratories are deteriorated and scantily equipped, and it is not easy to get reagents for numerous experiments.

In contrast with the UNAH, the EAP of El Zamorano does not suffer the limitations previously mentioned and it is in the vanguard of scientific research. Projects are carried out in the fields of agroindustry, agricultural and livestock sciences, and rural development. The importance allocated to research at the EAP is reflected in the type of teachers it hires. All are full-time and 93% have graduate studies. It is also evident in its data transmission platform, its documentation center, as well as the laboratories, and the rest of the existing infrastructure. But it is worth remembering that this is an international institution that operates out of Honduras. It does this within the framework of collaborative agreements with the U.S. and an important group of private North American foundations which finance most of its programmes.

At the UPNFM some research is done in the field of education, and currently there are on-going efforts to increase research by professors and students. They will probably transform the current research office into a national institute for educational research. At ESNACIFOR research is geared to the fields of silviculture, biodiversity, protected areas, studies of tree species, protection of watershed areas, and the environment. Two research institutes operate at UNITEC. The Plan of Municipal Improvement is done under the Research Board of DiChancellors. Under the ViceChancellory of Graduate Research is the programme of Biotechnology, Foods and Quality Control, which is more oriented toward studies of planning and investment.



Financial Resources

Honduras invests 4.2% of its GDP in education. The investment in higher education in 1999 reached the total sum of 1,239,711 million lempiras, of which 878 million (71 %) were of public origin and 362 million (29%) came from private sources. (Table 10)

TABLE 10								
ORIGIN OF THE FINANCIAL RESOURCES BY CAMPUS AND BY SECTORS								
HIGHER EDUCATION LEVEL (1999)								
IN MILLIONS OF LEMPIRAS								
CAMPUS	ORIGIN SECTORS							
	TOTAL	PUBLIC		PRIVATE		INTERNAL		
	INCOME	ALLOTMENT	OTHERS	DONATIONS	OTHERS	TUITION	SERVICES	OTHERS
TOTAL	1,239.71	790.23	20.47	3.52	2.44	274.31	80.11	68.79
PUBLIC	878.01	790.23	15.47	0.45	1.25	8.21	49.19	13.19
UNAH	677.77	627.5	12.87	-	1.24	4.41	23.58	8.16
UPNFM	133.4	131.4	-	-	-	2	-	-
ENA	24.3	18.72	2.6	0.45	-	1.5	1.08	2.54
ESNACIFOR	37.66	7.74	-	-	-	0.30	24.53	2.49
ISEP	4.86	4.86	-	-	-	-	-	-
PRIVATE	361.96	-	5	3.07	1.19	266.09	30.92	55.6
UJCV	13.46	-	-	-	-	12.89	-	0.57
USPS	39.33	-	-	-	0.58	38.42	-	0.34
UNITEC	83.97	-	5	-	-	63.03	11.02	4.97
SMNSS	2.94	-	-	1.86	0.48	0.6	0.16	-
UTH	18.07	-	-	-	-	3.01	11.28	3.78
EAP	163.4	-	-	0.38	-	113.87	5.92	43.24
UNICAH	38.17	-	-	0.58	-	32.4	2.51	2.66
CEDAC	2.31	-	-	0.25	0.13	1.86	0.03	0.04

Source: DES

- Amount virtually nil or insignificant



There is a clear differentiation between the sources of financing between public and private HECs. More than 90% of the resources of the public HECs come from budgetary allowances. In the case of the UNAH 93% of its resources are assigned by the State; at the UPNFM it is 99%; at the ENA it is 77%; at ESNACIFOR it is 20%, and at ISEP it is 100%. The income from tuition in the state system does not come to average 1%, although here also the proportion collected varies at each institution, being, for example, 0.6% at the UNAH and 1.5% en the UNPFM.

Private universities are financed mainly with resources coming from tuition fees. The average value is 74%. Nevertheless, the range fluctuates between 70% for the EAP to 98% for the USPS. The UJCV is found between these two extremes. It receives 95% of its income from tuition, while the UNICAH gets 85% and the UNITEC 75%. It bears mentioning that the UTH is the exception, since the majority of its income comes from the rendering of services (62%).

The framework of the expenses shows that the greatest proportion is geared to personnel services (Table 11).

TABLE 11												
DISTRIBUTION OF EXPENDITURES BY CAMPUS AND BY AREA												
HIGHER EDUCATION LEVEL												
HONDURAS C.A. 1999												
CAMPUS	TOTAL		PERSONNEL SERVICES		PS AND OTHER EXPENSES		MATERIALS AND EQUIPMENT		FURNITURE		OTHERS	
	Amount		Amount	%	Amount	%	amount	%	Amount	%	Amount	%
TOTAL	1,035.09		583.31	56.35	300.86	29.07	54.22	5.24	77.14	7.45	1.65	0.16
PUBLIC	859.10		515.79	60.04	266.46	31.02	38.41	4.47	36.72	4.27	1.65	0.19
UNAH	667.85		392.38	58.80	226.05	33.80	17.65	2.60	31.75	4.80	-	-
UPNFM	133.40		97.40	73.00	31.70	23.80	4.30	3.20	-	-	-	-
ENA	18.15		8.69	47.90	1.94	10.70	6.65	36.6	0.57	3.14	0.28	1.60
ESNACIF OR	39.70		17.32	43.60	6.77	17.10	9.81	24.7 0	4.40	11.10	1.37	3.50
ISEP	...		...	...	...	...	...	...	...	...	...	...
PRIVATE	175.99		67.52	38.37	34.40	19.55	15.81	8.98	40.42	22.97	...	...
UJCV	10.06		6.07	60.40	1.82	18.20	0.60	6.00	1.55	15.40	-	-
USPS	39.33		10.95	27.90	5.24	13.30	-	-	23.14	58.80	-	-
UNITEC	83.97		47.02	56.00	11.92	14.20	13.77	16.4 0	11.25	13.40	-	-
SMNSS	2.93		0.68	23.40	1.88	64.20	0.09	3.07	0.25	8.70	-	-
UTH	18.75		1.66	8.90	13.37	71.30	0.01	0.00	3.70	19.70	-	-
EAP	17.75		...	...	...	...	...	...	...	...	...	...
UNICAH	...		...	...	...	...	...	...	...	...	...	...
CEDAC	3.20		1.14	35.90	0.17	5.50	1.34	41.9 0	0.53	16.70		



As an average, HECs spend 56% in personnel services, 29% in personal services and other expenses, 5% for materials and equipment, and 7% in real estate. The state HECs spend 60% on personnel services and the private ones 38%. The UPNFM is the one which dedicates a greater percentage for wages (73%) and of the private one the UJCV (60%). The UNAH reported 58% for personnel services. The way in which the DES presents information does not allow us to know how much is dedicated to research. Nevertheless, in the interviews a modal of 1% was obtained and a range of from 1% to 3% was reported. It is worth noting that the majority of those interviewed had the perception that the payments in wages were at least 95% of the total expenses.

The budget corresponding to external resources destined for higher education is not detailed in the DES reports. Nevertheless, according to the Department of the Treasury, for 1999 the UPNFM received 5.6 million lempiras (equivalent to 7.3% of total transfers) coming from the UMCE agreement with the World Bank, and ESNACIFOR 1.2 million lempiras coming from USAID for a forestry development project, equivalent to 11% of its transfers. The other public HECs only show national resources. For the year 2000, 3 million lempiras were transferred to the UPNFM, coming from the UMCE/WB agreement, plus special UNDP and SE funds. That is 1.6% of the total transfers ESNACIFOR received from USAID 11.3 million lempiras, equivalent to 53% of total transfers. For the year 2001, ESNACIFOR received 3.8 million lempiras for the same purpose, equivalent to 44% of the total transfers .

ANALYSIS OF STRENGTHS AND WEAKNESSES

As in most countries of the region, post-secondary education in Honduras has experienced an expansion, but it is still insufficient *vis -a -vis* the needs of the country. There was also an increase in the number of teachers, and a notable increase on the part of the private sector, followed by a progressive decay in the quality and in the relevance of the nation's institutions and programmes.

The strengths and weaknesses of the system were recently analysed by Ramón Salgado, Chancellor of the UPNFM, in a synthesis document prepared for the Conference on Education in the Central American Countries and the Dominican Republic, organized in Guatemala and sponsored by the World Bank.²⁵ In that document, among the many strengths noted, the author confirms the following ones: "the orderly way whereby the system is evolving, having as its foundation the Higher Education Law, passed in 1989; the evolution of the support system, which has enabled the emergence of a higher number of students, especially those at the state university level; and the verifiable presence of higher equity in gender at the institutions making such adjustments."

²⁵ Salgado, Ramón. *La educación superior en Honduras*. Document presented at the Conference "The education in the Central American Countries and the Dominican Republic," sponsored by the World Bank, Antigua, in Guatemala, 2001.



Among the weaknesses, the following aspects ought to be highlighted: i) the failures identified at the higher administrative levels; ii) the poor elementary education of the students, iii) the low internal efficiency level of the institutions, iv) the insufficient preparation of those students coming from the secondary education level; v) the reduced number of teachers that received graduate degrees; vi) the traditional and professional profiles available to the academic search; vii) the minimal capacity for conducting research; viii) the absence of social reliability found within a large portion of the programmes.

Regarding the *failures at the administrative levels*, Salgado affirms that during the first ten years of operation, a series of weaknesses were discovered that the system must overcome in order to improve its quality and relevance. Four of those aspects were underlined by 114 personalities that were specifically interviewed for the purposes of this survey. The first of them took place when the UNAH, the institution that oversees the system “did not follow the higher education law and its internal application”. The second refers to the absence of “a development plan that clearly indicates where the higher education of the country is headed in areas such as the prioritizing of career majors, evaluation and accreditation, the provision of human resources, the sources of funding, etc.” The third has to do with the need for reviewing the role of the different government service organisations within the system. The system is perceived as “the prison cell of the UNAH, an internal situation within the institution, jointly integrated by both the student body and the teachers, and it should not be a place where the administrative and academic problems of one same level are taken.” Lastly, affirms Salgado, the National Council on Education, which is an instance of connection between higher education and the rest of the National Educational System, did not function as it should. Therefore, it is necessary to be refurbished with the introduction of reforms to make it more efficient and more representative, in order to enable a higher participation of civil society, especially now, since the country is beginning, in a systematic way, the process of educational transformation.”

The poor elementary education of the students has been demonstrated, according to Professor Raquel Angulo, Chancellor of the University Center of General Studies of the UNAH. Multiple studies revealed “enormous failures in their knowledge of Mathematics, Spanish Language, Philosophy and Logic, as well as in their capacity for expression and formulation of critical analysis.” The other interviewees made clear that the deficiencies revealed by such investigations do apply also to Physics, Chemistry and Biology, representing a threat of special importance to the institutions engaged in the academic preparation of teachers for middle and secondary teaching.

The low internal efficiency can be expressed by the high dropout rate (about 35%), repetition (around 20 %) and failure, as well as a remarkable increase in the medium duration of careers (7 to 11 years) and the alarming relationship of graduates for each new 100 students ($x = 5.5\%$ for 1998). In commenting about the costs of the



general inefficiency of the Honduran educational system, researchers from ESA Consultants pointed out, in a recent²⁶ study, that the average number of years of study needed to graduate from elementary education is 9.4 (compared to 6 years as planned); for each one of the cycles of 3 years of secondary education it is 4.2 years; and for the planned average of 5 years for higher education, it is 11 years. Such figures implicitly suggest that, out of 36% of the expenses at the elementary level, 29% at the secondary, and 55% at the higher education level are lost, considering that the system cannot produce a single graduate within the pre-established time frame.

According to Salgado (2001) the current operating factors behind this chronic inefficiency are: i) the time and the priority dedicated to work by the majority of the students at the state's HECs (at the private HECs, only 15% of those registered are working); ii) the high percentage of career changes within the same HECs, or among the different institutions of the sector; and iii) the low number of subjects that the students sign up for during each academic term. To improve this situation universities offer scholarships, orientation services for the students, and courses during vacations. But those actions were not able to reduce either the dropouts or the average time for graduation, probably due to the economic necessity of the students and/or of their families. This was due to a limited number of scholarships and at times the need to balance study and work, in order to generate an income.

The average number of teachers that have graduate degrees is very reduced: It is 29% in the private CES compared to 21% in the public schools, and we consider minimal the percentage of professors holding a doctorate (4.2% versus 2.8%, respectively). The offer of postgraduate work is very scarce, and many are still in its implementation phase. Despite this the following public institution programmes are worth mentioning: i) at the *Central American Postgraduate Center for Economics and Development Planning*, UNAH; ii) Postgraduate studies at the *Latin American Center for Social Work*, UNAH, with a master's degree in Social Work, another one in Demography, and a Doctoral programme in the development phase; iii) *Master's Degree in Astronomy and Astrophysics*, at the Central American Astronomy Observatory, UNAH, iv) *Postgraduate work in Medicine*, offered jointly at the Hospital-School of the UNAH, the Public Health Ministry, and the Honduran Institute of Social Security, and the Master in Education of the UPNFM, and v) *Master's Degree in Education*, at the UPNFM.

According to a generalised opinion among the interviewed, the updating and preparation of teachers at the public universities is severely limited. Since the beginning of the 1990's all the well-paid graduate scholarships were eliminated, which were then offered for study abroad. On the other hand, according to some of those interviewed, the preparation at the graduate level, with a few exceptions, did not interest the nation's professionals. This was because most of the governmental

²⁶ ESA Consulting. Education Chapter. En: *Honduras Public Expenditure Review*. A prepared draft for the World Bank. Tegucigalpa, 2001.



positions were not based on merit, but on political motivation and contacts. In the private sector there was a need for professionals prepared in the financial, accounting, and administrative areas, while in the military sector there was no priority in the postgraduate preparation for their ranks. As an exception it was mentioned that the Central Bank has continued financing the postgraduate studies of its personnel in excellent universities abroad.

The minimal capacity for conducting research is, probably, one of the biggest weaknesses of the system. It is true that there are some notable exceptions, such as the case with the Panamerican El Zamorano Agricultural School, although we must admit that the higher education system as a whole does not offer the necessary conditions for conducting research. Among other reasons, this situation can be explained because: i) the elite leaders of the nation and its educational system do not give priority to research, which translates into its lack of policies, shortage of financial resources, and absence of institutional support for its operation; ii) there is no national postgraduate programme that is adequately financed, evaluated and accredited; iii) with a few exceptions, the HECs do not offer the necessary assistance with regards to personnel, the provision of infrastructure, equipment, and administrative support; iv) there is a clear lack of balance favoring the teaching profession, at the expense of research, social influence, and management; v) there is no consensus in the nation concerning the critical need of researchers who could make a valuable contribution to humanistic and scientific knowledge; vi) there is no low-cost powerful data transmission platform that is able to meet the current needs of communication and information technology.

ESTIMATING THE OPPORTUNITIES FOR CHANGE AND REFORMS

Ever since the advent of hurricane Mitch, Honduras underwent an intense mobilization of the civil population in search of solutions for the main problems of the nation. In regard to education, this mobilization led to the preparation of a document based in dialogue and consensus-building, undertaken by the National Convergence Forum. The document titled *Proposal by the Honduran Society for the Transformation of National Education*²⁷, confirms that: “In almost all sectors of Honduran society there is a great nonconformity with the status of national education. Throughout the different judicial districts this sense of dissatisfaction is manifest. From the employers' perception that the educational system is not preparing the labour force for what is required by the labour market; the professional organisations are sending insistent signals complaining about the low quality of the graduates coming from the different educational levels. The parents and families are criticizing the usefulness of the educational output, and they demonstrate their discouragement in light of the weak results regarding the training in values; and even public

²⁷ National Forum of Convergence. *Proposal by the Honduran Society for the Transformation of the National Education*l. Graficentro Editors, Tegucigalpa, 2000.



administrators admit that those entering the public-service sector are educationally ill-equipped.”

“This generalized feeling has led to a movement designed to overcome the situation. The opinions collected reveal a sense of awareness of the main problems connected to the status of education and with regards to the need to promote radical changes in the system. With that concern in mind for quite some time, several sectors of the civil society and government agencies have formulated proposals aimed at the transformation of education, based on their own studies and reflections. Such initiatives, in addition to coinciding with important aspects of the subject, have contributed to creating a climate favorable to change, which presents an historical opportunity for a political decision.”

The principal points for the proposed educational reform have been defined in the document mentioned earlier. With regards to higher education, it is proposed that the ethical values supported by the Honduran society be taken into account. They should adequately articulate their relationship with society, being present in a proactive manner, for the national development process. It should affect concrete tasks of public interest, galvanize science and technology, placing the emphasis on research, and improve the quality of all institutional services.

The transformation proposal includes the implementation of evaluation and accreditation systems for institutions and programmes; the revision of the systems of selection, training, and evaluation of teachers; the diversification of academic offerings, for the purpose of satisfying the needs of sustainable development of the nation; the modernization of a curricular model since its conception, objectives, contents, learning methodologies, of evaluation, and delivery of services; the establishment of systematic recruitment procedures, admission, vocational orientation, academic follow-up and evaluation of the students; as well as the setting up of follow-up studies of graduates, which would allow for evaluating their impact on the productive sector and on society.

To enable the execution of this reform it is necessary: to widen and diversify the National Council on Education, to review the role which the chancellors play at the higher education level, and to propose amendments in the Law and its procedures; to adopt a mechanisms for balancing the accounts of the State and/or the society; to galvanize continued improvement within the national educational system, and to promote exchange with the HECs and research institutions at the international level, for the purpose of contributing to the qualitative development of higher education.

Based on the judgment of those who wrote the document, it is required that the UNAH conduct a self-analysis which could lead to its transformation. This change will be both in the academic system as well as in the administrative system, thus submitting itself to the Higher Education Law, and to the Higher Education Council.



The authorities of the institutions providing higher education, likewise, as they face “the needs of the Honduran people, vanished within a period of economic and values crisis; the world revolution of scientific knowledge and of the technology; the internal bureaucratization of the UNAH, that makes her inefficient, deteriorates its quality, and blocks it from adequately carrying on its mission; the growth of its student population and the lack of resources”²⁸; have proclaimed the need and the obligation of carrying out a profound university reform that will place the institution in tune with the demands of new times.

The Commission assigned with the task of conducting that reform has decided that the changes which will propel the university, have as their general objectives: to transform and consolidate the university system of the UNAH to provide answers to the need for an integral change in Honduran society; to strengthen the role of the UNAH as an agent and leader in the process of national transformation; to elevate the institution to a level of excellence that will enable the fulfillment of its functions as a strategic factor of global change within Honduran society, and the reduction of the knowledge gap between Honduras and the developed world; to contribute to the creation of human capital that can produce the conditions for the reduction of poverty; to steer and develop a curricular transformation that will lead to the training of professionals with high scientific, technical, and moral values.

The reform process would be developed in two phases: an *internal consultation* aimed at the participation of the greatest number of members of the university community, and an *external consultation* providing opportunity for the input of the varied groups within Honduran society, for the purpose of integrating its conclusions and recommendations into the general reform document.

Independently of the positions assumed by organized civil society in the National Convergence Forum, and by the administration of the UNAH, in the present Honduran situation, what is most likely is that the future of higher education of the nation will be decided on the basis of: i) the importance that might be given to higher education and research in the *Strategy for the Reduction of Poverty*, done jointly between the Government of the Republic, civil society organisations of Honduras, and the international financial institutions, and ii) the investment in research and development with the nation recovering its funds within the guidelines for Initiative for Highly-Indebted Poor Countries. (HIPC).

Among the components of the strategy mentioned, worked out by the Ministry of the Presidency of the Republic, general priority guidelines corresponding to the area of education were established. They made it perfectly clear that support and quality for pre-basic and basic education will be a priority, and medium and technical-vocational education will also be supported, in order “to adapt the educational

²⁸ UNAH, Commission of the Reform IV. General Guidelines for the *University Reform IV*. University City “José Trinidad Reyes”, October 2000.



offerings to the needs of the market and labour force”, and the reforms needed by public higher education will be promoted, “to improve quality and efficiency and to meet the requirements demanded by the workforce.”

It is our view that this ample social, institutional and doctrinaire framework provides the necessary conditions for embracing the urgent changes which the higher education system of Honduras needs.

CONCLUSIONS

The higher education system of Honduras has diversified institutionally in the last decade, and is presently comprised of 13 higher education centers (CES), integrated by universities, institutes, schools and other centers. Five of higher education institutions belong to the public administration and four belong to the private sector.

The sector is regulated by a coherent legal instrument that identifies autonomy and the defense of democracy as principles of higher education; as well as free access for graduates of the secondary education system; the autonomy of the institutions; the freedom of professional teaching, and the examination and testing for hiring professionals for higher education teaching positions, research and extension.

The Constitution and the Higher Education Law grant to the National Autonomous University of Honduras (UNAH) the mission of organizing, directing and developing the higher education system, determining that such functions be conducted through a hierarchic structure by means of its maximum organisation, known as *Claustro Pleno* (Plenary Board of Professors) of the UNAH, under whose umbrella are the Higher Education Council, the Consulting Technical Council, and the Direction of Higher Education.

Despite this, the university itself and the organs under the *Claustro Pleno*'s (body of professors) supervision, have not been able to establish a plan for the strategic development of the sector, which until now were impeded from outlining a higher education system that was coherent, complementary, synergetic to meet, by means of the various institutions, the demands and the needs of a nation in the process of development.

Within that framework, the system only reaches 12% of the population between 18 and 24 years old. This indicates that the benefits of a higher education are not enjoyed by about 633,000 young students within that age bracket, as well as an unknown number of professional workers and senior adults who need retraining to complement their present abilities for continuing to be active in the workforce.



The students struggle through a secondary and middle school formation that is deficient in providing fundamental subjects such as the Spanish language, Mathematics, Physics, Chemistry, and Biology. That deficiency has an impact on the rate of repetition and failure, as well as on the duration of careers and on the academic quality of the completions.

The teachers, on the other hand, have not received the pedagogical preparation, and in many instances have serious deficiencies in teaching the subjects assigned as their teaching load. The absences of laboratories and updated bibliography, as well as the reduced availability of teachers for basic math and sciences, make academic performance in areas that require methods and hands-on experience particularly insufficient. In addition, the low number of teachers with postgraduate and doctoral degrees clearly indicate the lack of human resources for research.

On the other hand, the technical and professional areas did not receive curricular and pedagogical updating, keeping careers locked within the traditional careers and teaching methods, making it very difficult for student to find employment and therefore to contribute to national development. Furthermore, research has not reached the minimum level of development necessary to ensure the capacity for the generation, assimilation, adaptation and management of knowledge and indispensable technologies for the nation. Lastly, the interaction with the society have not brought about significant changes in the perception of the role that research needs to play in the development process.

Finally, the system, with few exceptions, shows low internal efficiency, characterized by a high dropout index, combined with repetition, failure, low graduation rates, and high cost due to the long preparation for careers. All these, in addition to the large State funding of the sector, has generated dissatisfaction in many social circles.

That generalized dissatisfaction has led to a vigorous social movement to examine the chief problems with the Honduran education, and to develop strategies to produce radical changes. Motivated by the conviction that the educational system's improvement is an important factor in order to unleash and sustain an alternate process of development, several sectors of the civil society and government agencies have submitted proposals for the transformation of education, based on their own studies and reflections. These initiatives, besides coinciding with the important aspects of this matter, have contributed to generating a favorable climate for change that constitutes a singular and historical opportunity for the political power to make decisions.

The proposal for change includes the implementation of evaluation and accreditation systems of institutions and programmes; the revision of selection mechanisms, the training and evaluation of teachers; the diversification of academic



course offerings designed to meet the sustainable development of the nation; the modernization of curricular models, including their conception, outlined objectives, learning methodologies, and evaluation and delivery of services; the establishment of systematic processes of selection, admission, vocational orientation, academic sequence and student evaluation; the implementation of a follow-up system to enable the evaluation of the impact of graduates on the productive sector and on society.

In order to enable the implementation of this reform it will be necessary to expand and diversify the National Education Council; to revise the role of Chancellors within the higher education level, and to propose amendments to the Law of Procedures; to adopt mechanisms for the financial analysis of the State accounting and expenses, and/or the society; to promote the continuous improvement of the national education system, activating cultural exchange among the higher education centers, the research institutions at the international level, for the purpose of contributing to the qualitative development of higher education.

A good evolution of this initiative requires, in addition to the political will of the legislators and HECs leaders, the organisation of a specialized task force to support the Commission created under the supervision of the UNAH; the implementation of a programme of personnel training in the area of university management; the organisation of a strategic research and information unit, , and the creation of a national evaluation and accreditation system of institutions and higher education programmes.

5. THE SCIENCE AND TECHNOLOGY SYSTEM

GOVERNMENTAL POLICY-MAKING BODIES

The Honduran system of science and technology is, theoretically, based on two main organisations: The Honduran Council of Science and Technology (COHCIT) and the National Council of Science and Farming Technology (CONACTA). Despite that, the capacity for research and the delivery of scientific and technological services are dispersed throughout several laboratories within the university and government sectors, where the work is performed mainly in the agricultural, livestock farming and food areas.

The COHCIT and its activities are regulated by Executive Decree No. 55/92²⁹. The main functions of the COHCIT are advising, formulating, coordinating, and promoting programmes and actions that tend to implement the policies and

²⁹ Executive Power, Decree 55-92. Diario Oficial "La Gaceta" November 2, 1992.



programmes leading to the scientific and technological development of the nation. Currently, they are in the process of analyzing and getting the approval by the National Congress of a project on Science and Technology. Once approved, it is expected that it will grant COHCIT a better presence, autonomy, and effectiveness for the actions which it executes and seeks to promote.

INSTITUTIONAL STRUCTURE

The COHCIT reports to the Presidency of the Republic, which assigns a budget to the same, based on the Annual Work Plan. It is comprised of a Council of DiChancellors constituted by representatives from the following sectors: i) *Governmental* –a National Commissioner for Science and Technology, a State Secretary, representing the Finance Cabinet, a State Secretary, representing the Social Cabinet; ii) *Academic* –the Chancellor of the National Autonomous University of Honduras, the Chancellor of the National Pedagogical University “Francisco Morazán”, a Chancellor representing the Governmental Institutions of Scientific and Technological Research; iii) *Corporate* –the President of the Honduran Council for Private Sector, the President of the National Association for the Medium and Small Industry of Honduras.

At the executive level the COHCIT operates through the Office of the National Commissioner for Science and Technology, which is a position appointed by the President of the Republic, having the administrative rank of Secretary of State. The main attributions of the Commissioner is to preside the Board of DiChancellors of the COHCIT, to advise the President of the Republic, working as an official representative of the government in forums and at national and international events of interest to the country relating to Science and Technology.

Until now, the COHCIT has concentrated its efforts on the strengthening of its technical and institutional capacity, in order to gain effectiveness for the promotion and execution of the scientific and technological policies, aimed at innovation. It has also sought to obtain a legitimate space, and to gain access to international funding.

Another related organisation which integrates the system is the DiChancellorate of Science and Technology (DICTA), attached to the Secretary of Agriculture, Livestock, and the Environment. Its main function is the transfer of technology for agriculture and cattle farming. The COHCIT is a member of the National Council of Science and Farming Technology (CONACTA), an organ constituted by the highest authorities within the agriculture sector.



RELATED BODIES

The Health Secretariat is of fundamental importance for strengthening research in the field of public health. A concerted effort in policy-making between the UNAH and the Honduran Institute for Social Security (IHSS) would be of great help. The Honduran Institute of Science and Technology (IHCT) is charged with the mission of coordinating at the national level the various possibilities of research projects and the disbursement of funds from abroad within universities.

The Technical Secretariat of Cooperation (SETCO), on the other hand, coordinates scholarships and the training of governmental personnel. The Secretariat of Culture, Arts and Sports supports research through two institutions: the Honduran Institute of Anthropology and History, whose projects deal with colonial and republican history, and the Department of Anthropological Research, which develops historical and demographic studies, and raises topics of an anthropological nature that relate to projects in some cities (see "Memoria de Labores," 1999).

The Secretariat of Agriculture and Livestock, on the other hand, is becoming less and less connected to research, although it plays an important role on the orientation of the policies related to the nation's agriculture and cattle farming. Finally, the Central Bank of Honduras, in addition to providing training for its personnel, displays and exerts great influence in defining and applying the orientation of its monetary policy.

STRATEGIES FOR A RESEARCH PROGRAMME

The activities of research and development (R&D) that are conducted in Honduras and the scientific, and technological services rendered to the nation are scant and dispersed, being performed by several institutions. A partial listing of them includes: i) the UNAH, equipped with laboratories in some areas of knowledge; ii) the EAP, with excellent physical infrastructure, laboratories and computers aimed at the agroindustrial sciences, and of the earth and the environment; iii) The UNITEC, well-equipped with computer labs; iv) the Central Laboratory of the Public Health Ministry, prepared for diagnosis and research especially in the field of infectious and parasitical diseases; v) the Institute for Coffee Research (IHCafe); vi) The laboratory of the National Service of Water and Sewage (SANAA), capable of undertaking studies of lake waters; and vii) The FHIA, a center for specialized research in the agricultural sector, especially biogenetics.

The results produced by this information system were analyzed recently by the Ibero-American/Latin-American Network of Indicators of Science and Technology



(RICYT)³⁰. This organisation has selected 42 indicators for conducting national and comparative studies on the situation of science and technology in this region. In Honduras they were able to collect data for only 19 of such indicators.

Out of this data, which highlights the early stages and the little dissemination of the C&T system, we wish to draw attention to the following points:

1. Until now it has not been possible to determine the operating expenses of science and technology in Honduras;
2. The number of researchers is unknown in the country;
3. For 1995 the number of university graduates was 635, a very low figure, compared to other countries of Central America. For example, Costa Rica (3,048) and Panamá (3,840).
4. In the same year, the number of graduates with master's degree was only 32, compared to 385 in Costa Rica and 52 in Panamá;
5. We are not aware of requests for registering patents in Honduras;
6. In 1998 there were only 30 scientific publications from Honduras included in the Science Citation Index, compared to 240 from Costa Rica, 64 from Guatemala, 24 from Panamá, 23 from Nicaragua and 4 from El Salvador.

These figures indicate that Honduras produces 0.5 scientific publications for each 100.000 inhabitants, while in Central America, Costa Rica generates 6.3, Panamá 5.1, Guatemala 0.6, Nicaragua 0.5 and El Salvador 0.1.

CONCLUSIONS

Honduras has not yet developed a national system for science and technology. COHCIT, the entity responsible for formulating and coordinating policies for this sector, has no financial resources nor the needed infrastructure to carry out her mission. Until now her concentrated efforts have been in the search for strengthening its technical and institutional capabilities in order to gain effectiveness in the promotion and execution of the policies for scientific and technological innovation, as well as in obtaining legitimate space and priority for having access to international funding.

⁶ RICYT. *Leading indicators of science and technology in Iberoamerica, 2000*. Estilos Gráficos, S.A., Buenos Aires, 2001.



6. CONCLUSIONS AND RECOMMENDATIONS

GENERAL CONCLUSIONS

The changes in the international and national economy, the impact of new regionalization and integration schemes -particularly the Central American integration process- and the new importance which the generation and transfer of knowledge has acquired, presents Honduras with challenges of enormous magnitude with regard to the creation and development of endogenous capacity in higher education, science and technology. A programme of supportive international cooperation, and long-term in scope, such as SIDA normally sets forth, can help reinforce in a very positive way the process of change.

Hondurans are making serious efforts to leave behind years of internal strife and have set forth promising dialogue and reform efforts led by civil society groups. They have achieved a national consensus on the need of peace as a fundamental element of social and economic development, and have been succesful in getting the government's endorsement of the Central American peace agreements. They are working on the day to day construction of a democratic regime and defending the full exercise of human rights. Government and civil society are working together in several collaborative efforts directed to the alleviation of chronic poverty and social inequality. The pivot of the on-going dialogue and collaboration is about how to redirect economic and social processes with the purpose of promoting a greater well-being through a socioeconomic model that is conducive to sustainable human development.

The changes introduced in the last decade have generated some promising results, like the increase in non-traditional exports and a yet young tourist industry. The effort carried out has allowed the country to participate more actively in international trade and approach macroeconomic equilibrium. In spite of that, economic growth has not been vigorous enough to improve the standard of living of a significant percentage of the Honduran population and, even less, to eradicate its most pressing problem: extreme poverty.

To achieve this purpose, Honduras must display -to the maximum possible degree- the potential for developing its human resources. It needs to improve health standards, sustain the coverage achieved at the primary level of education, increase the rates of enrollment at the preschool, secondary, middle and higher education levels, strengthen the endogenous capacity to create, import, adapt, and manage knowledge and technology, implement a national system of innovation, and strategically gear toward the well-being of the majority the use of resources furnished by international cooperation.



As the knowledge society moves into every corner of the international scene, its importance as a factor of production and source of competitiveness is growingly recognised. Thus, higher education - the locus of generation, adaptation, application and management of new knowledge - becomes an unsurpassed tool for the economic and social development. Youngsters, especially those from the poorer sectors of society, cannot be victimized and denied the possibility of having a better future. Poor countries in particular, must develop a coherent strategy, identifying concrete activities and programmes, potential sources of local and external funding, and human resources to help in the endeavour.

A higher education certificate or diploma is today required for a growing number of employment opportunities. Research has also shown that the level of schooling of a population bears on a tremendous importance for the competitiveness of a country. Unless poor countries can make a kangaroo jump in terms of expanding and improving overall their educational system, they will face the risk of an increasing knowledge gap. In this challenge, higher education - and particularly public universities - have a double mission to play. First to revamp teacher training and methods at the elementary and high school levels so that the country can embrace a substantive expansion of a solid; up-dated, and relevant basic education offering. Secondly, higher education institutions have to transform themselves so that they can really become the cornerstone of a sustainable human development process. This will require a number of strategic actions like improving and expanding post-graduate programs to generate critical mass and high level professionals, fostering an academic culture which places a greater value on research, opening up the rigid disciplinary boundaries that have prevailed over the years to enable interdisciplinary and collaborative projects, and undertaking a profound curricular reform, among others.

Honduras requires international support to strengthen its institutions of higher education so that they can embrace a full restructuring process. The country cannot do it alone, even though Hondurans have generated the conditions for such a process to take hold. Among the many competing priorities of higher education reform, we believe that Honduras would need to address the following particular concerns:

1. Respond to the growing demand for higher education, making it accessible in particular to the poorer sectors of the society who have been totally excluded of the system.
2. Ensure that the higher education offer is diversified but with high quality standards for every offering, be them a technical, one or two year diploma courses, or a post-graduate research degree.
3. Address the needs of the national and regional economy, but recognise that the fast pace of knowledge generation requires that teaching be addressed



not only to what is known today, but also to self-learning methods so that students can keep their knowledge permanently updated.

4. Generate graduates with a sound education that promotes creativity, flexibility, entrepreneurship, and that at the same time contributes to the strengthening of citizenship and the development of new leadership qualities.
5. Embrace a programme to generate and sustain research capacity, identifying key development problems where a substantial difference can be made. Help to set up think tanks which can engage in collaborative, interdisciplinary, research and provide the necessary infrastructure.

GENERAL RECOMMENDATIONS

Honduras' higher education institutions and its government need to make a coherent and significant effort - which will certainly require support from international cooperation- to increase level and the quality of schooling of its population, and to ensure that higher education is given an opportunity to demonstrate its capacity to help bring about another kind of development. Towards that end, among others strategies, the country has to transform its higher education system, strengthen its research capacity, and create a national system of innovation.

▪ TRANSFORM HIGHER EDUCATION

Create a task force to support the reform process

The reform of the higher education system is essential to develop its capacity of forming human resources, undertake research, generate social projection, and streamline administrative management. Currently, one can find the social and political conditions that are indispensable to undertake this reform in Honduras. The social environment is sensible to the needs and possibilities of higher education, and even though a change such as the one needed will certainly raise conflicts and power struggles, the momentum for change is there. The extent of dialogue between different sectors of society and the increasing consensus-building capacity of Honduras's civil society are quite encouraging. But there is not an organised group with enough time and experience to embrace the preparation of a blueprint for conducting the process of change.

Different social actors have to be brought on board to be able to generate a momentum and a commitment to higher education reform. Key actors are the Presidency of the Republic, the National Congress, the Supreme Court of Justice, the UNAH, plus representatives of the System of Higher Education, of civil society, and



of the private business sector. Such a coalition would certainly provide clout to the process.

The Higher Education Council seems to be the institution legally and politically validated for launching the reform process. It will need, however, the cooperation of *a team of national and international experts to help set in motion the process*. This team could provide advice and transfer of knowledge and experiences from other countries and regions.

Create a strategic research and information unit on higher education

The statistical base of Honduras is truly precarious, in all fields. The expansion of higher education of the last decades has generated a complex universe of institutions and disperse programmes about which there are barely any statistical records.

Notable deficiencies prevail. There is discontinuity in historical time series of data which is fundamental to monitor the processes of change, serious problems of comparison, and lack of reliability in the information that is gathered. Indicators developed in the international sphere are not generally taken into account, and there is an urgent necessity to develop new indicators to improve the formulation and implementation of public policies, as well as to develop managerial tools for the functioning of a true system of higher education.

The *strategic research and information unit for higher education* that is being proposed should aim to improve the statistical base on higher education. In particular, it should address the relationship between science, technology and development and generate new indicators for assessing linkages and monitoring processes of change. This effort will require training a team of highly qualified researchers. The unit would have to seek information and advice from government, universities, international agencies and other key actors. This idea has been discussed with, and was supported by, the universities that integrate the Central America Superior University Council (CSUCA) in a workshop on the subject recently held in El Salvador.

The unit would seek to constitute a network of research centers to share resources, engage in collaborative work and make the best possible use of Internet and other communications technologies, perhaps leading to the creation of a Central American system of research and information, that could monitor progress of higher education reform in the region.



Create a national system of evaluation and accreditation

The evaluation of institutions and programmes could be an important tool to induce the transformation of Honduras's higher education. This process can help to redefine the vision and conformation of the system, to update the particular mission of each one of its institutions, to establish objectives and goals, and to elaborate instruments that will allow monitoring the process. Evaluation processes may also be vehicles for achieving greater legitimacy of higher education *vis-a-vis* society.

There is a consensus in Honduras regarding the need and convenience of designing and implementing a national system of evaluation and accreditation. But for political and institutional reasons, the initiative has never been embraced.

Nevertheless, in the last few years evaluation and accreditation practices have become a major theme of discussion amongst higher education specialists and practitioners. There have been quite successful experiences conducted by CSUCA in other Central American countries. In Honduras itself, the UPNFM, along with CSUCA, has been generating materials of great value for the formulation of a model for a national system of evaluation and accreditation.

The creation of a *national system of evaluation and accreditation* will require outside advice from experts coming from countries with longer experience in these processes. Its organisation could be entrusted to the Higher Education Council, who could draft and present a complete proposal. This document should include policies, criteria, and working arrangements in the short, medium and long term. A significant effort has to be devoted to the collection and systematisation of data and to generating a consensus on the procedures to be established, so that they are consistent with internationally recognized practices.

▪ STRENGTHEN RESEARCH CAPACITY

Changing higher education in Honduras will depend mostly on creating the human resources able to fulfill in an excellent way the tasks of teaching, research and social projection. Public universities have the greatest responsibilities, as they are financed by public funds and must respond to the public interest. UPNFM must be able to improve significantly the training of teachers for middle and high schools. UNAH must increase its capacity to form the new academic, scientific and technical staff required by Honduran society to make inroads into the process of achieving sustainable human development.

With the goal of strengthening the research capacity within the universities, three lines of action are recommended: i) the awarding of scholarships for Honduran students for nationally recognized postgraduate programmes; ii) the implementation



of a postgraduate “sandwich” programme with the participation of Swedish institutions; and iii) the creation of a competitive fund for interdisciplinary research.

The scholarships programme

This programme should be directed to postgraduate students in order to prepare future academic staff of higher education centers and to form a critical mass of researchers in knowledge areas of strategic value for the social and economic development of the country.

The assessment conducted as part of this study suggests the following **priority areas** for a post-graduate degree programme: agriculture and agribusiness, manufacturing, productive modernization, community development management, social policies, basic science (mathematics, physics, chemistry, biology), computer science, ecology and the environment, anthropology and archaeology, urban development, health, and education (including higher education).

The international postgraduate programme

The nurturing of science, technology and innovation require a high level of academic preparation, which is normally achieved at the post graduate level (M.A. and Ph.D. degrees). Thus, the articulating axis the effort to strengthen research capacity should be placed in furthering the development of rigorous post-graduate programmes in key areas for sustainable human development.

The analysis of the results of the international cooperation in most Latin American countries suggest that this programmes should adopt the “sandwich” model, in order to reduce the possibilities of “brain drain” and to enhance the chances of retention of the qualified staff.

Some suggestions emerge out of the study conducted, among which one could stress the following:

1. Concentrate on the training of human resources able to lead in an independent way the processes of basic research, applied research and development research.
2. Devise specific policies to ensure that trained resources remain in the country – or return if they have left - to avoid the costly “brain drain” problems experienced by most underdeveloped countries.
3. Make good use of the natural competitive advantages of Honduras such as, its geographical location, natural resources, historical patrimony, traditions and culture, for the execution of R&D activities whose results would



constitute a real and original contribution to the advance of universal knowledge.

4. Gear R&D projects to the creation of knowledge and technologies required for the production of goods, processes and services at the national scale.
5. Support projects and activities that will improve knowledge about the social, economic, and cultural problems of the country.
6. Give preference to projects of a multidisciplinary or interdisciplinary nature, as the cross fertilization of ideas and experiences has demonstrated to have a positive impact on the generation of new knowledge.
7. Establish an adequate infrastructure, train researchers, and support the development of project teams before embracing in any major research project, so as to ensure that time and resources are well utilised.
8. Assess more precisely the small and fragmented research capacity currently established in the country, so as to construct a map of possibilities and needs. There are several foci of good researchers currently active that could very well become the axis of the process to construct critical mass.

The training programmes that may eventually be implemented must be based in a rigorous academic post-graduate effort, aimed at generating replacements of university professors, and forming leaders, intellectuals, scientists, and professors able to elaborate, propose and sustain from a scientific perspective the process of transformation that higher education and the country require.

Establish a fund for interdisciplinary research

National research capacity could also be improved through the creation of a trust fund that would be open to researchers, university professors and higher education institutions, with the purpose of stimulating collaborative, interdisciplinary, and inter institutional cooperation. Perhaps an international agency could provide initially some seed money and technical advice on fund-raising, so as to bring in other cooperation agencies. The Honduras government should provide resources to this fund by making direct allocations and by providing corporate and personal tax incentives to donors. An interesting possibility to be further analysed would be requesting World Bank or IDB financing of this fund. An important measure would be to conceive this as a trust fund, where programmes would be sustained with the yields of the financial investment, while the principal, or trust fund, would remain untouched.



This fund would help researchers obtain grants directed to the production of new knowledge in frontier areas of science and technology, as well as national priorities. The existence of such a fund would help create a tradition of conceiving and designing research projects, preparing and submitting proposals, negotiating them, while at the same time provides a means for intellectual renovation.

The fund would be earmarked to develop national research competence. Among the priority areas that could be emphasised are agriculture, agro industry, manufacturing processes of productive modernization, management and development of municipalities, basic sciences, ecology, environment, anthropology, archaeology; social policies, urban development, education, and public health. It is proposed that it be administered by a Committee of academic peers, with representatives of other sectors of society.

▪ **CREATE A NATIONAL SYSTEM OF INNOVATION**

A national system of innovation should seek to develop strong linkages between all the spheres that could potentially generate new ways and methods of doing things, as well as that could generate new products and services for the market. Constructing such a system requires many years of conscious policies and work, and significant human and financial resources, which Honduras simply does not have. But the country will lose many opportunities if at least it does not set a first stone in the long path to building this road. The COHCIT could be the point of departure for this initiative and certainly the experiences of other developing countries could serve as a reference. For example, the experience of Costa Rica and of the Quebec province of Canada (Rivera, 2000), can be of great value while designing a model of innovation which takes into account the opportunities which the regional processes of economic integration offer.

Among the objectives which this initiative ought to pursue are:

1. The development of coordinated policies of higher education, science and technology;
2. The building of strong connections between research centers, government, and the private production sector;
3. The implementation of mechanisms which allow for expediting the transfer of knowledge and technologies;
4. The creation of a culture of innovation in the Honduran society.

The basic steps in the construction of a national innovation system could be the following activities:



1. The creation of a national data bank of human resources that could provide technical assistance, deliver short seminars on key issues of S&T management, or participate in research or technology transfer projects on a voluntary basis. Many professionals in the business world, particularly graduates from national universities, would be willing to provide some voluntary time to set in motion this national effort.
2. In collaboration with national universities, organise training seminars and courses on issues of technology transfer, knowledge management, intellectual property rights, patents, entrepreneurship, cooperative organisation and other themes related to S&T in the development effort.
3. Provide technical assistance to small business, be that through courses and seminars, hotlines, or through solidarious transfer of experiences from successful well established businesses to emerging ones.
4. Organise sectorial commissions for the scientific and technological development of agriculture, health, education and business sectors.
 5. Stimulate the improvement of creativity, design and packaging through national competitions and exhibitions.
 6. Create and make available to small and medium enterprises a computerised information system on markets - local, regional, and international - for goods and services being produced in Honduras or with a potential for being produced in the country.
 7. Participate eagerly in the regional efforts to construct indicators of science, technology, and innovation and use them to monitor progress.

The preparation of a strategic plan would logically be the first activity that could be undertaken by COHICIT.

SPECIFIC RECOMMENDATIONS FOR SIDA/SAREC COOPERATION TO HIGHER EDUCATION IN HONDURAS

The Department of Cooperation for Research (SAREC) within the Swedish Agency of International Cooperation, sustains that *the strengthening of research capacity in poor countries is in itself an important contribution to development on the global scene. Articulated perspectives from these parts of the world are needed in order to address major global issues, many of which must be addressed locally. Analytical capacity is also essential for the understanding and solving of local*



problems, avoiding health threats, managing natural resources, and interacting in international negotiations. Along with this view, the circumstances of Honduras today warrant that international cooperation support the strengthening of higher education, science and technology.

In our judgment, the cooperation of the Swedish International Cooperation Agency with Honduras ought to be concentrated on high-impact programmes geared to the following specific goals:

1. A PhD programme established in Honduras, in co-operation with Swedish universities, to form academic and research staff. This will require financing of students and teachers mobility, as well as upgrading facilities for ICT, laboratories, and other research infrastructure.
2. A programme to set the basis and training of personnel for the creation of a national system of evaluation and accreditation.
3. A programme of workshops and activities in support of the general reform process of higher education in the country.

The PhD programme should be the pivot of SIDA/SAREC support to higher education in Honduras. This effort would have to be coordinated initially by a small unit composed of Honduran and Swedish scholars that would design, oversee, and evaluate it. This approach would guarantee high levels of excellence and the transfer of experiences between Sweden and Honduras. The coordinating team - to be mutually agreed upon within the framework of negotiations for a possible SIDA/SAREC support - would analyze the feasibility of new programmes, formulate relevant projects, implement cooperation between institutions, coordinate academic exchanges, and supervise the development of the postgraduate courses.

This activity could adopt the form of “sandwich” post-graduate programmes, used with success in the past by SIDA in cooperation with Central American countries, including Honduras. In meetings held with researchers of the Microbiology Department of the UNAH, which were formed within the framework of Swedish cooperation, they pointed out that “sandwich” programmes are very advantageous because they reduce the time when the student is away from his country, thus diminishing the “cultural shock”. Their experience proved to be extremely important for the design of further international collaboration programmes.

Researchers that had gone through this experience considered that the horizontal nature of the programme encouraged and made possible their personal and intellectual development. They stressed that the attitude of the Swedish researchers and hosts of the programme were extremely positive. They emphasised that these had visited Honduras before receiving students in order to get acquainted with the real conditions of life and work in the country. They also underlined the encouragement



they received to engage in research on problems of importance to the Honduran population, and their commitment to continue collaborating as peers after completion of the degree.

The main obstacle or difficulty of this modality of post-graduate training was the language barrier. Those interviewed suggested that students be required to strengthen their English language skills before traveling to Sweden. They also highlighted the difficulties of adapting to the weather conditions and their personal limitations in basic science skills (mathematics, physics, chemistry, and biology).

A second component of the SIDA/SAREC cooperation programme should be supporting the creation of a national system of evaluation and accreditation. This component would include training of human resources to carry out all phases of evaluation and accreditation processes, as well as the design and implementation of the Honduras system in compliance with international and national standards. The experience of the regional programme SICEVAES organized by CSUCA, and the cooperation of this regional body with Honduran universities in recent evaluation processes, should be an invaluable reference for this purpose.

The third component of the SIDA/SAREC support to Honduras' higher education should be a programme geared to supporting a comprehensive reform of the higher education system to make it more responsive to the needs of a sustainable human development strategy. A suitable first step for this initiative should be the implementation of a series of thematic workshops to discuss and anchor fundamental ideas about the need and methods of pursuing the reform. These workshops should convene academics, students, policy-makers, civil society leaders, and other important sectors of Honduras



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APPENDIXES

APPENDIX 1

PERSONS INTERVIEWED

- 1) **Acosta, Adamy** – Nurse, CURLA.
- 2) **Aguilar, Ruben Darío** - Animal Production, CURLA.
- 3) **Alvarenga Amador, Elio D.** – Rector, UNICAH.
- 4) **Alvarenga, Eugenia** - Directors Office of Higher Education, UNAH.
- 5) **Améndula, Lilian** – Nurse, CURLA.
- 6) **Arguijo, Misael** - Dean of the School of Engineering, UNICAH.
- 7) **Arita León, Jorge A.** - Director of Institutional Developmen, UNAH.
- 8) **Avena, Jeffrey** – Representative PNUD, Honduras.
- 9) **Bados R., Delmy** - Teacher of Ecotourism, CURLA.
- 10) **Barahona, Daisy I.** - Coordinator of the degree in Psychology, UNICAH.
- 11) **Barahona, Luis R.** – Educator, Technical Commission, UNAH.
- 12) **Barrantes, Ramiro** - Vice- Rector, University of Costa Rica.
- 13) **Burgos de Gálvez, S.** - Director, Office for Higher Education, UNAH - Coordinator of the Program For Education, National Party.
- 14) **Caballero, Flavio** - Technical Director, Honduran Council for Science and Technology (COHCIT). (Interviewed by phone)
- 15) **Ciceres, Enrique** - Deputy Secretary , UNITEC.
- 16) **Cardenas Helmis** – Expert, ESA Consultores.
- 17) **Carías, Marco** - Social Sciences Department, UNAH.
- 18) **Carías, Rafael A.** – Researcher, CURLA.
- 19) **Castañeda, Ivette de** – Nurse, CURLA.
- 20) **Castellanos, José L.** - Administrative Coordinator, UNICAH.
- 21) **Castillo de Rodríguez, Ana B.** – Rector, UNAH.



- 22) **Castillo, Ivette** – COHCIT (Interviewed by phone).
- 23) **Cerrato, Marco A.** - Director's Office for Economic Research, CURLA.
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- 26) **Corrales, José Carleton** - Central American Coordinator of the National Culture Institute - Program for the Promotion of Educational Reform in Latin American and the Caribbean (PREAL).
- 27) **Curie** - Disease Prevention and Control, OPS.
- 28) **Del Cid, Rafael** - President, Board of Directors, ESA Consultores.
- 29) **Díaz, Raúl.** - Dean of Industrial and Civil Engineering, UNICAH.
- 30) **Domínguez, Pablo José** - Director of Scientific Research, UNAH.
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- 33) **Escobar, Roberto A.** - Plant Production, CURLA.
- 34) **Espinal Larios, Vilma** - Dean of Marketing, UNICAH.
- 35) **Euceda, Armando** - Vice-Minister, Ministry of Education, Honduras.
- 36) **Falk, Mayra** – Researcher, EAP El Zamorano.
- 37) **Ferrera Boza, Anabell** - Molecular Biology, UNAH.
- 38) **Flores de Boquin, Fatra** - Campus Director, UNICAH.
- 39) **Flores de Salgado, Gloria** - Dean of Human Resources, UNICAH.
- 40) **Flores, Antonio** – Researcher, EAP El Zamorano.
- 41) **Fo de Chávez, Lourdes** - Educational Affairs, BCEI.
- 42) **Galo, Reyna Isabel** – Dean, UNICAH.



- 43) **García Benavidez, Roberto** – Laboratory of Soils, CURLA
- 44) **García, Denni** - Plant Production, CURLA.
- 45) **Gesto Roldin, Alejandro** - Administrative Academic Director, University of San Pedro Sula.
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- 50) **Irías, Wilfredo** - Former Dean School of Economics, UNAH.
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- 55) **López Chinchilla, Santos** - Plant Production, CURLA.
- 56) **Lorenzana de Rivera, Ivette** - Microbiology Department, UNAH.
- 57) **Machoca, Miguel E.** – Consultant, OPS.
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- 68) **Morales, Ricardo** - National Expert, GTZ Honduras.
- 69) **Morales, Santiago** – Researcher, School of Economics, UNAH.
- 70) **Muñoz de Paz, Mélida** – Researcher, Director`s Office of Higher Education, UNAH.
- 71) **Najera, Rolando R.** - Plant Production, CURLA.
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- 73) **Oseguera de Ochoa, Margarita** - Director, Autonomous System of Graduate Studies, UNAH.
- 74) **Oseguera, Salvador** - Plant Production, CURLA.
- 75) **Padget, Dennis** - School of Medicine, UNAH
- 76) **Pineda de Carias, Maria C.** - Central American Astronomy Observatory of Suyapa, UNAH.
- 77) **Pineda, Lelany A.** - Coordinator of the Bacteriology Section Microbiology Department, UNAH.
- 78) **Pineda, María A.** - Dean of Finance, UNICAH.
- 79) **Pineda, María E.** - National Technical Coordinator for Honduras, CATIE.
- 80) **Ponce Fiallos, Alirio** - Teacher of Philosophy, CURLA.
- 81) **Prodor, Elías** - Teacher of Entomology, CURLA.
- 82) **Quan, Doris E.** - Microbiology Department, UNAH.



- 83) **Quezada, Esperanza** - Continuing Education, UNICAH.
- 84) **Ramin, Dulce M.** – Nurse, CURLA.
- 85) **Ramírez Lozano, Adela** – Nurse, CURLA.
- 86) **Raidales de Napley, C.** - Director's Office of Graduate Program, UNICAH.
- 87) **Restrepo, Jorge I.** - Coordinator of Farming and Livestock, EAP El Zamorano.
- 88) **Reyes, Norma Martin de** - Secretary of the Fourth Reform, UNAH.
- 89) **Rivas, Orlando E.** - Plant Production, CURLA.
- 90) **Rivera de Donarse, Elba L.** – Teacher, Technical Commission, UNAH.
- 91) **Rivera, Rebeca.** - Immunology, Microbiology Department UNAH
- 92) **Robbarts, Jan** – Counselor, Swedish Embassy, Honduras.
- 93) **Rodas, José H.** - Director of the Institute of Economic and School of Economic, Administrative, and Social Research (IIES). Accounting Sciences, UNAH.
- 94) **Sabillón, Suyapa de** - Plant Production, CURLA.
- 95) **Salgado, Ramón** – Rector, UNPFM.
- 96) **Samayoa, Carlos** - OPS Representative to Honduras, OPS.
- 97) **Sierra, Freddy R.** – Researcher, CURLA.
- 98) **Sierra, Manuel** - School of Medicine, UNAH.
- 99) **Sol, Ricardo.** - Executive Secretary, CSUCA.
- 100) **Soriano, Oscar** - Philosophy Teacher, UPNFM/UNAH.
- 101) **Soriano de Batres, Mélida** - Director's Office for General Classes, UNICAH.
- 102) **Soto, Manuel J.** - School of Medicine, UNAH.
- 103) **Steenwyck, Net Van** - Advisor to the Unit of Transformation of AID National Education of the Ministry of Education, AID/USA.
- 104) **Su Chan, Edgardo** - Director. Department of Records, UNICAH.



- 105) **Suazo, Maximino** - Director, Pyramid Project, UNPFM.
- 106) **Tavel, Antonio** – President, Honduran Chamber of Commerce.
- 107) **Torres, Gladis E.** – Nurse, CURLA.
- 108) **Umanzor, José A.** - Plant Production, CURLA.
- 109) **Valladares, César A.** - Plant Production, CURLA.
- 110) **Valladares, Nahún** - General Accountant, UNICAH.
- 111) **Velásquez, Sandra de** - Assistant to the Rector, UNICAH.
- 112) **Vargas, Carlos** - Director. Directors' Offices of Teaching and Research and of Graduate Programs in the School of Medicine, UNAH.
- 113) **Vilialban, Martha C. de** – Nurse, CURLA.
- 114) **Walker, Ian** - General Manager, ESA Consultores - Director's Office for Research, UNPFM.



APPENDIX 2

INSTITUTIONS VISITED

NAME	ACRONYM
1) Atlantic Coast Regional University Center	CURLA
2) Catholic University of Honduras "Our Lady 3) Queen of Peace"	UNICAH
4) Central American Bank for Economic Integration	BCIE
5) Central American Technological University	UNITEC
6) Directors Office for Agricultural and Farming Sciences, Technology	DICTA
7) Economic, Societal, Environmental Consultants	ESA Consultores
8) German Cooperation for Development	GTZ
9) Higher Central America Unversitary Council	CSUCA
10) Ministry of Agriculture and Livestock	SAG
11) Ministry of Education	SE
12) Ministry of Finances	SFP
13) National Autonomous University of Honduras	UNAH
14) National Pedagogical University Francisco Morazán	UPNFM
15) National University of Heredia, Costa Rica	UNH
16) Pan American Health Organization	OPS
17) Programme for the Promotion of Educational Reform in Latin America and the Caribbean	PREAL



- 18) School Hospital
- 19) Swiss Consulate
- 20) Tropical Agronomy Center for Research and Teaching CATIE
- 21) University of Costa Rica UCR
- 22) United Nations Program for Development UNDP
- 23) United States Agency for International Development USAID



APPENDIX 3

SUMMARY ON THE CONSULTATION MEETING WITH UNAH RESEARCHERS

(National University of Honduras)

Note: The following questions were submitted by the SIDA consultants to a group of around twenty UNAH researchers from the department of microbiology after a consultation meeting was held. The responses provided by them were worked out collectively.

1. **In light of Honduras' present situation, how can external cooperation help to improve higher education?**
 - Supporting the strengthening of a scientific and technological base that would consolidate nuclei of excellence in strategic sectors and areas, for national development, both in the short and long term.
 - Supporting the creation of interdisciplinary Institutes, thereby creating a critical mass that would enjoy certain autonomy from the governmental bodies, and allowing their full development.
 - Developing and strengthening the infrastructure for scientific research, improving communications, and having access to information that could serve to strengthen the educational system.
 - Supporting sandwich-type graduate programmes designed for both the Masters' degree and the Doctorate, so that there be a link with thesis projects in the undergraduate program.
 - Carrying out refresher programs at the higher education level, thus strengthening the previous levels.
2. **How can research contribute to the efficiency and sustainability of the university system?**
 - Stimulating creativity, innovation and inventiveness in science and technology, as instruments in the search for productivity and competitiveness,



in order to satisfy the demands of the local market and the requirements of the international market, thus contributing to the solution of national problems.

- Once research has achieved a preponderant place among the academic activities of the University, the critical mass of the researchers will be able to, first of all, strengthen other academic functions by providing feedback from their findings and intrinsic experiences.
- By publishing in scientific periodicals there will be greater awareness of the academic level being offered, thus achieving greater efficiency and sustainability, within the context of the demands and rigour required in research.

3. Which would be the strategic elements of cooperation, both internal and external, that would allow the creation of a sustainable base of research within the public Universities?

- Internally, the Honduras government and the University authorities would have to make a commitment to grant higher education and scientific research a high priority in development plans.
- At the level of the Universities, provide incentives for, develop, and require research activities of all units academically responsible for the degrees they offer.
- To strengthen and develop scientific and technological research units and programmes of excellence in priority areas, with high economic and social impact.
- To establish external monitoring and evaluation mechanisms, that will provide follow-up to the process, thus guaranteeing its sustainability.

4. Which measures do you believe the public universities are prepared to take in this sense?

- They could apply the constitutional mandates that grant universities the right to develop human resources in higher education
- Apply national policies of scientific and technological development in the sectors of Education, Farming and ranching and Environment.
- To create an up-dated inventory of institutions, researchers, titles of projects and levels of financing, in order to develop an infrastructure that will allow research to assume the preponderant position it is due within the universities.



- To develop the priority needs of research and human resources.
- To establish the conditions that will allow researchers to overcome the individual obstacles that they face in the universities.

5. How could external cooperation support that intention?

- By requiring that all agreements, from the very onset, include stipulations guaranteeing compliance with the obligations incurred by the universities, regardless of any changes of authorities that may occur during the process.
- To ensure that cooperation provided reach the executing groups, with the cooperating entities acting as catalysts in the process.

6. At which level of the system do you believe that cooperation should be focused?

- Strengthening the existing graduate programmes and providing incentives for the creation of new programmes.
- Supporting the academic units responsible for the undergraduate degrees, avoiding centralisation bureaucracy.
- Supporting existing research groups that already have a certain amount of structure within the universities.

7. Which could be strategic areas of research needed to strengthen the development of Honduran society?

- Technological research in those areas identified as priorities by the sector and inter-sectorial commissions, and in those that promote improvement of conditions in education, health nutrition, and housing.
- To promote the rational use of renewable natural resources, in order to ensure their conservation and enhancement.
- To prevent environmental pollution and to protect the national ecosystem.

8. What are the needs in these areas?

- To develop the national educational system at all levels.



- To provide competitive support for projects that focus on scientific research and technological development in those areas that are important for the development of the country.
- To establish mechanisms of cooperation within and between institutions that will allow an optimum and prompt use of existing resources.

9. How can the programmes or regional or international networks contribute to the strengthening of national capabilities to develop research?

- Developing human resources in areas that are important for national development.
- Linking the universities and research centers with the productive sector, for the solution of problems that limit their quality, competitiveness and productivity.
- Preparing professional and technical personnel dedicated to these activities, in order to achieve greater effectiveness and efficiency in the application of the results obtained.
- Preparing and strengthening the critical mass of top level researchers, training them for the implementation and/or modification of cutting-edge techniques.
- Consolidating the infrastructure of the higher education and research institutions of the country in the aforementioned areas,

10. In what way is the sandwich program policy more or less positive for the country?

- Allows for the in-depth study of national problems.
- Facilitates the transfer of appropriate and adequate technologies to the needs and resources of the country.
- Facilitates the re-insertion of the individual to his national reality.
- Helps scientists to develop their ideas, so that they may successfully utilise their results.



APPENDIX 4

CONSULTATION MEETING WITH CURLA PROFESSORS

(Atlantic Coast Regional University Center)

Workshop held on May 28th, in the CURLA Library, 8am-12:30 noon.

Participants: 28 teachers divided in 3 groups:

Group 1: Nursing and philosophy

Group 2: Agronomy and others

Group 3: Eco-tourism

- 1. In the light of Honduras' present situation, how do you believe that external cooperation might help to improve Higher Education?**

Group 1:

By providing advice on the re-structuring of higher education, and halting financial foreign assistance until higher education is properly regulated.

Group 2:

Preparing the most suitable personnel (teachers and students) to carry out research providing technical and financial support to improve the infrastructure necessary for carrying out research (laboratories, experimental stations, computer centers, etc)

Group 3:

Honduras has natural resources that make its territory one of the richest places in Central and Latin America. This fact led the UNAH to create the degree in Eco-tourism in 1998, as a formative response of higher education to tourism's being declared a national priority. Studies carried out by the Ministry of Tourism demonstrate the urgent need for formal training of specialists in this area. It is, therefore, necessary to strengthen the degree in Eco-tourism with financial, technical and logistic support from international and national entities.



2. How can research contribute to the University system being more efficient and sustainable?

Group 1

Evaluating the present university system and stimulating research leading to improving decision-making processes.

Group 2

Research can contribute to the generation of knowledge and technologies applied to the present situation of the country, thus improving the quality of life and reducing poverty, Research lends strengthens education and thereby makes it more sustainable.

Group 3

One of the greatest problems faced by our professionals is their limited preparation in the design of projects to be presented to different entities and/or friendly countries willing to collaborate with our country and our university. Honduras is just beginning to create the political, economic and social platform that will make sustainable tourism the best alternative of development. We believe that it is indispensable that we investigate social, economic and cultural phenomena in order to create strategic short, medium and long term planning for tourism.

3. Which would be the strategic elements of cooperation, both internal and external, that would allow the creation of a sustainable base of research within the public universities?

Group 1

Controlling the funds allotted to the different departments. Ensuring that the results of research projects are presented, and that follow-up is provided. Identifying lines of research based on the country's priorities, establishing strategic alliances with other sectors, creating research networks.

Group 2

The strategic elements can be:: the preparation of nuclei of researchers; the creation of incentives for researchers; economic support for carrying out the projects;



definition of research policies according to the needs of the region; exchanges of information and technical personnel with other international centers and similar universities; linking research institutions with the international communication networks; building alliances with regional producers and similar institutions.

Group 3

An important strategic element of cooperation is collaboration in the preparation of personnel in the area of project formulation, strategic planning, and the design of sustainable development programs. The internal element would be the willingness of the University to allow and motivate personnel to benefit from this training.

4. Which measures do you believe the public Universities are prepared to take in this sense?

Group 1

The qualified technical resource exists, but there is lack of commitment. There is a lack of cutting-edge technology, and a wide base to follow. There is a research policy, but it has found little support. The incentives are lacking.

Group 2

The measures that may be taken by the public universities are: creating interdisciplinary research groups; creating alliances with appropriate public entities in order to carry out research related to the real needs of the regions and of the country; strengthening the curriculum of UNAH academic programmes; and giving a greater importance to methods and techniques of research.

Group 3

Public universities have the most highly qualified personnel at the higher education level, but they are limited by their lack of training in designing research project proposals.

5. How could external cooperation support that intention?

Group 1

Providing consultancies and technical advice, financial support, controls and achievement of results. It is important to require accountability of the resources granted.



Group 2

. External cooperation may support institutions conducting research in financial and technical aspects, with the proper oversight of the resources provided, in order to ensure that goals are met.

Group 3

Providing scholarships, or facilitating short courses, seminars, or workshops offered by experts.

6. At which level of the system do you believe that cooperation should be focused?

Group 1

Cooperation should be directed at local levels of the University.

Group 2

Within the agricultural -forestry area; it should be focused at the regional level, with participation of both teachers and students.

Group 3

At the teaching level

7. Which would be the strategic areas of research needed to strengthen the development of Honduran society?

Group 1

We suggest action-oriented research in health, education, economics, forestry, and tourism as key areas for Honduras.

Group 2

Sustainable tourism, which could be a basis for social and economic development.

Group 3



The strategic areas of research may be: food security; protection of the natural resources (river basin management, reforestation, sustainable agriculture, management of chemicals, quality of water, biotechnology, etc.); protection of the environment.

8. What are the needs in these areas?

Group 1

Financial: food security; environmental dangers to human health; maternal and infant mortality; transmissible diseases (AIDS, Tuberculosis, Hepatitis); to join efforts and design research projects reflecting the particular situation of CURLA and its surroundings.

Group 2

Needs in the areas of: training, technical and financial support, logistical support.

Group 3

There are financial needs, and needs of training techniques that would strengthen the teaching and research. Also, basic infrastructure and equipment.

9. How can the programmes or regional or international networks contribute to the strengthening of national capabilities to develop research?

Group 1

Networks can help. Decentralising, socialising results, decision-making (technical consultancy)

Group 2

They can contribute by integrating national institutions to international networks, having national institutions participate in technical meetings, courses, and conferences held at both the national and international level, supporting research initiatives presented by national institutions.

Group 3



Supporting the Honduran Institute of Tourism and the Municipal Chambers of Tourism.

10. In what way is the sandwich program policy more or less positive for the country?

Group 1

We feel that this may be a good option for the preparation and enrichment of human resources, especially in the field of research. This option may be valuable if the preparation is based on the national reality and is proportionate to its possible resources. Cutting-edge technology.

Group 2

The sandwich program would be more positive if it were addressed to the specific needs of the country and if foreign experts came to train national researchers on-site, where the studies would be carried out. Resources could thus be used more efficiently, and a greater number of experts could be trained with the same or a smaller amount of resources. In some specific cases, the sandwich programme may be positive in the general application of technologies (laboratory techniques, use of equipment, theoretical analysis, etc.)

Group 3

It is positive; yet having to leave our country is a great limiting factor. We believe that the best option lies in experts coming to provide the training and/or facilitate the financial resources necessary to secure distance learning.



Diarienummer:

AN OVERVIEW OF HIGHER EDUCATION AND RESEARCH SYSTEM IN HONDURAS

1 BACKGROUND

Providing assistance for strengthening of national research capacity is one of the fundamental tasks of Sida's Department for Research Co-operation, SAREC. The support aims at building up sustainable conditions for research and research administration and to promote research of high relevance for the development of the country in question. In this context, Sida/SAREC considers national research councils and public universities as key institutions. In planning Sida's contribution, the country's overall situation of higher education and research is taken into account. National efforts for developing and improving the efficiency of the higher education system and a commitment to research at the national and international levels are presupposed.

The systems of higher education and research vary from country to country. Sida's support for research development is therefore flexible and it may be tailored to match the local institutional conditions. For instance, support for national research councils or other central research bodies may imply assistance towards reform processes, strengthening of planning functions and research administration. At universities, it may contain support for reform processes, staff development in terms of management issues and training of academic staff into PhD levels, contribution to faculty funds for research, equipment of laboratories, information and communications technology and transferring modern scientific methodologies. It may also embrace establishment of structures for evaluation and quality work and strengthening of financial administration systems.

In Honduras, Sida has not yet established any bilateral co-operation in the area of research and research capacity building. Some researchers from the Universidad Nacional Autónoma de Honduras (UNAH) have been trained within Sida supported Central American regional programmes in biomedicine and in seismology.

2 PURPOSE AND SCOPE OF THE STUDY

The purpose of this study is to present a descriptive and analytical overview of the higher education and research system in Honduras including the overall sector policies, structures, roles and capacities of the institutions involved in the system. A potential for and possible orientation of constructive external (Sida) support shall be highlighted. In view of the weak existing capacity for research and the existence of a large number of institutions for higher education, a possible Sida support should especially contribute to reforms aiming at focussing resources for academic research and enhancing the quality and examination rate of the central university.

Currently, some initiatives aiming at improving the quality of the higher education has been taken by the action of Consejo de Educación Superior in co-operation with CSUCA (the Central American Council of Universities). In view of this, the Consultant is also requested to make comments on the situation in relation to options for future change.

The report of this study is expected to serve as input into Sida's decision regarding the scope and orientation of possible future support for higher education and research in Honduras. It should cover the following items:

2.1 Description and assessment of the system of higher education and research

Brief description of organisation and system

- The existing policies and development of policies and strategies for higher education and research on the national and university levels.
- A general presentation of national policy making bodies in charge of higher education and research, including Consejo de Educación Superior, ministries and other relevant bodies. A presentation of their mandate and role in policy making, implementation, evaluation and financing.
- A general presentation of the Honduran universities and research bodies (public and private) and their mandates and funding strategies. Number of students, examination rates, orientation, and levels of degrees produced. The efficiency and efficacy of the present system.
- Research carried out. Research promotion at universities.
- The financing structures showing channels, sources and flows of funding higher education and research. The proportion of national budget resources as well as external support destined to the university sector (undergraduate training, postgraduate training and research, respectively). The sustainability of the system.

- The main international research bodies and programmes operating in Honduras and their relationship with local research structures. The modes of implementation preferred by these organisations. Their ways of channelling financial resources to higher education research and research training in Honduras.

Analysis of strengths and weaknesses

- Fundamental problem areas within the system of higher education and research, shortcomings and bottlenecks of the system. An analysis of problems and issues under debate.
- The relation between overall research and higher education policies and practices at universities and relevant ministries.
- The educational capacity at universities related to the need of professionals in Honduras. The capacity of the existing system to meet Honduras' research requirements.
- The present status of the Honduran system of higher education and research as compared with other countries in Central America. Examples from Central American universities of successful development strategies that have led to good governance, high quality of education and research.

Assessment of opportunities for change –reform

- Existing plans for reforming the higher education system in Honduras on a central and on university level. The efforts towards making the education more efficient, strengthening of the academic quality of education and improvement of examination rates.
- In the Consultants opinion, is it likely that the existing reform plans can be implemented? What kind of changes could be expected and what would be their presumed impact on higher education and research in Honduras, especially at the public universities?

2.2 Description and analysis of education, research and research training at the two public universities, Universidad Nacional Autónoma de Honduras and Universidad Pedagógica Nacional

- Organisation and management of universities (including research management), administrative capacity, funding and allocations. Strengths and weaknesses.

- Faculties/departments: number of students and lecturers/researchers, number of staff on PhD level. The relevance of the presently offered undergraduate education in relation to the development needs of the country. Quality of education. Examination rates. Employment opportunities.
- The post-graduate programmes, including short specialist training and training on the MSc and the PhD level. The potential capacity of the existing system to meet national research requirements. The demand for post-graduate staff (teachers, researchers).
- Research resources: human resources, infrastructure, ICT facilities, research and research training. Strengths and weaknesses. Constraints. Access to research grants and funds from national sources and from external research councils, foundations or other organisations.
- Mechanisms for setting research priorities, promotion and co-ordination of research. Existing institutional strategies for development of research. The main areas of current research. The scientific areas given priority in the institutional development plans. The relevance of the present research in relation to the development needs of the country. Links with the Honduran society and productive sector. Relation between priority setting and funding opportunities.

2.3 Recommendations by the Consultant on external support for higher education and research

In the light of the findings of the study, the criteria and Sida's policy indicated in the "Background" and in view of the present development efforts in the public universities, the Consultant should make recommendations for a strategic use of external resources for promotion of sustainable development of higher education and research in Honduras. The Consultant should specifically discuss the following:

- In view of the present situation, how could external resources contribute to making the university system more efficient. How could external resources contribute to enhancing the quality of education and examination rates at the public universities of Honduras?
- How could research contribute to making the university system more efficient and sustainable?
- What strategic elements of internal and external resources are essential in order to create a sustainable basis for research and research development in the public universities? What measures are

the public universities prepared to take in order to contribute to this end? How could external co-operation support these efforts?

- To which organisational level in the public universities should, in the Consultants opinion, external resources be addressed in order to support sustainable development of education and research most efficiently? What kind of strategy is recommendable?
- In view of the current changes in the Honduran society and specifically their impact on the social development, natural resources and industrial development, in which scientific areas is a strengthening of research capacity considered most urgent? What are the long-term needs of research development?
- How could Central American regional and other international research programmes and networks contribute to the strengthening of national research development in Honduras?

The Consultant is free to add and comment upon issues of relevance to the Honduran University system apart from what has been described in these Terms of Reference.

3 METHODOLOGY

A team of two Consultants of whom one is the team leader will carry out the study.

In order to perform the study the Consultants shall

- Read the documentation describing Sida's policies for university support.
- Visit the relevant Honduran institutions, CSUCA in Costa Rica and, if needed, relevant institutions in some other Central American country, interview relevant people for the study and review documents, publications and reports provided by them or acquired from other relevant sources.

It is expected that the Consultants will use a total of four weeks for the study. The Consultants shall make their own travel arrangements.

4 REPORTING AND UTILISATION OF THE REPORT

The report shall be written in English. It should comprise not less than 40 and not more than 60 single spaced pages, excluding annexes. Format and outline of the report shall follow the guidelines in Sida Evaluation Report – Standardised Format (see annex 1).

The draft report shall be submitted to Sida/SAREC no later than September 15, 2001. Within three weeks after receiving Sida's comments on the draft report, the final version shall be delivered on paper as well as diskette (compatible with Word 6.1 for Windows). The report should be presented in a way that enables publication without further editing. The report should begin with the Executive Summary and close with a section of Conclusions and Recommendations.

5 REMUNERATION AND TRAVEL COSTS

These are set out in the accompanying Contract.

Enclosures:

Annex 1. Sida Evaluation Report – Standardised Format



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