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UNESCO/NETHERLANDS FUNDS-IN-TRUST PROJECT

CAMBODIA

CAPACITY BUILDING IN POST-SECONDARY EDUCATION THROUGH SOUTH-SOUTH COOPERATION

Prepared by
The Netherlands Organization for International Cooperation
in Higher Education

In cooperation with UNESCO
Operational Policy and Sector Analysis Division
BAO/PSA

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U N E S C O

Project Title: Capacity Building in Post-Secondary Education through South-South Cooperation

Sector: Bureau for Coordination of Operational Activities, Division for Operational Policy and Sector Analysis

Location: Phnom Penh

Financing Agency: The Government of The Netherlands

Implementing Agency: UNESCO

Estimated Costs: 869,165 US\$

Project Duration: 24 months

I N T R O D U C T I O N

The UNESCO/Netherlands project proposal which is presented hereafter has been designed as an integral part of the global UNDP/UNESCO project on "Capacity Building for Education and Human Resources Sector Management" (KAM/91/009). This UNDP/UNESCO project represents the first large scale, policy oriented inter-sectoral operational activity launched by UNESCO in Cambodia. Designed as an umbrella project, it is seeking inputs from all agencies working in the area of Human Resources Development in Cambodia; coordination arrangements are already under way with ILO, UNICEF, UNFPA, the Asian Development Bank and regional institutions.

The UNESCO/Netherlands project proposal is conceived as a sub-sector analysis in post-secondary education. It was identified and elaborated by the Netherlands Organization for International Cooperation in Higher Education (NUFFIC) in collaboration with UNESCO to complement the UNDP/UNESCO project document in the area of higher education and vocational training.

An inter-sectoral UNESCO Mission on Basic Needs Assessment that visited Cambodia in January/February 1991 initially identified the necessity for carrying out an Education Sector Review and Human Resources Sector Analysis. As a follow-up, a joint UNESCO/NUFFIC mission went to Cambodia in September/October 1991 to discuss with the Government the possibility of launching an analysis covering the whole sector of human resources development, assess its technical feasibility and prepare a project document.

Within the framework of this mission, NUFFIC carried out a first baseline study on higher education and vocational training in Cambodia. ("Focus on Higher Education and Vocational Training in Cambodia: Report on a Nuffic fact finding mission", Feb. 1992, 133 pages). The survey covered all institutes of higher education, except the University of Fine Arts, as well as three leading vocational training centres in Phnom Penh (see Annex I).

The data gathered confirmed the need for external assistance in higher and vocational education. Improvement of the physical infrastructure, institution building and qualified manpower development are high priorities in view of adjusting the education and training system to the countries' new socio-economic settings. Responsible staff in the various ministries and institutions concerned appear, however, to be ill prepared to address these issues entirely on their own and is seeking external assistance in the fields of policy design and regional inter-institutional exchanges. As a result of this mission and in close collaboration with UNESCO, NUFFIC elaborated a project document on post-secondary education.

The present UNESCO/Netherlands proposal is designed to contribute to the output of the global UNDP/UNESCO Sector Study through a sub-sector analysis on higher, technical and vocational education. Its objectives are:

(i) the design of a national policy on higher education and vocational training;

(ii) the establishment of three long-term, sectoral inter-institutional linkage programmes between Cambodian post-secondary institutes and similiar institutes in the South-East Asian region.

These objectives will be realized notably through intensive on-the-job training activities for leading civil servants and through study tours organized within the region.

Project formulation seeks complementarity with the global UNDP/UNESCO Sector Study. The organizational link between the two projects are ensured notably through the coordination of time schedules and terms of reference of the consultants:

Both projects share the same methodological approach in organizing training activities on a participatory basis, with working groups composed of key officials from all ministries and institutions involved in human resource development. The two projects will last over a period of two years during which training activities will be combined through the long term Education Advisers assigned to the projects. The Sector Adviser for Higher and Vocational Education (24 mm) will work in close collaboration with the UNDP/UNESCO project Education Sector Adviser.

The input of 18 mm of short-term consultancy services under this project is designed to complement UNDP/UNESCO's short term assignments which are not providing for inputs pertaining to higher and vocational education in the fields of Agriculture, Industry, Services and Management. The UNDP/UNESCO project will cover all other levels of education for these sectors.

During a UNESCO project preparation mission to Cambodia in February 1992 the UNDP/UNESCO project document was finalized in consultation with the highest national authorities (Supreme National Council), seven of the nine ministries involved and UNDP for a budget of 1,3 million \$US. It has been signed by the Cambodian Supreme National Council in March 1992 and is presently with UNDP New York for final approval.

Project proposal	:	Capacity Building in Post-Secondary Education through South-South Cooperation
Country	:	Cambodia
Project duration	:	Two years
Project costs	:	US\$ 792,000

Foreword

A mission of the Nuffic, the Netherlands organisation for international cooperation in higher education,¹ visited Cambodia from 4 to 29 September 1991 to conduct a first baseline study on higher education and vocational training.

The mission visited the following institutes of higher education: University of Phnom Penh, Ecole supérieure des cadres de gestion de l'éducation, Khméro Soviet Friendship Higher Technical Institute, Chamkar Doung Agricultural Institute, Economic Sciences Institute, and the combined Faculty of Medicine, Pharmacy and Odonto-Stomatology. Together with University of Fine Arts these institutes represent Cambodia's present higher education. The University of Fine Arts was left out since a more or less detailed description of the situation at this university and a subsequent plan for upgrading is given in an existing UNESCO proposal².

The survey also covered three leading vocational training centres in Phnom Penh, namely the Central Nurses Training School, Tuk Thla Technical Training Centre and Russey Keo Technical Training Centre. These training centres come directly under the Ministries of Health, Education and Industries respectively³. The remaining 24 vocational and technical schools and 4 nurses training schools, which are spread over the country were left out, partly because of lack of time, but, particularly, because it is understood that the programmes being introduced at the Centres in Phnom Penh will directly affect the programmes at provincial level.

The data gathered in Cambodia confirmed that external assistance in higher and vocational education is very necessary. Improvement of the physical infrastructure, institution building and manpower development are high priorities to build up a cadre which can adequately contribute to the future development of Cambodian society.

Within a context of rapidly changing economic policies, declining Government resources, altering foreign economic and aid relations and the return of several hundred thousand refugees, there is an urgent need to adjust the country's system of higher education and vocational training. Responsible staff of the various sectoral ministries and

1. The mission consisted of Messrs. H.C.J. Blom and Paul G. de Nooijer of Nuffic's department of human resources and institution development.

2 UNESCO: Inter-Sectoral Basic Needs Assessment Mission to Cambodia, February 1991:pp 43-44.

3. A brief description of the afore mentioned nine institutes in Cambodia is provided in Annex 1 to this project document.

entirely on their own and is seeking external assistance in two major fields :

- the establishment of a higher education and vocational training policy by executing a higher education and vocational training sector analysis [as part of the overall UNESCO/UNDP project on "Capacity Building for Education and Human Resources Sector Management" (KAM/91/009)]
- the establishment of a programme of inter-institutional cooperation linkages between Cambodian higher education and vocational training institutes and similar institutes in the South East Asian Region.

Nuffic's experience with the monitoring of the Direct Support to Training Institutes in Developing Countries Programme ⁴, a programme on South-South cooperation, made the mission members ask assistance of institutes in the Southeast Asian Region if eventually a inter-institutional programme would be established. In that respect the Secretariat of the South East Asian Ministries of Education Organisation (SEAMEO), the Asian Institute of Technology [AIT] and Don Bosco School in Bangkok were visited. All these institutes ⁵ which perform a regional function in training and education would be very willing to participate in this programme.

The following project proposal, the final objective of which is to improve the quality of vocational and higher education in Cambodia, has been developed by the mission in response to the above request.

The project will last two years. The emphasis will be on [i] the establishment of a Government policy on higher education and vocational training a programme; [ii] the organisation and implementation of regional study visits; and [iii] the elaboration of three long-term, sectoral inter-institutional linkage programmes between Cambodian institutes and similar institutes in the South East Asian region.

The project has been designed to foresee for a possible extension into a second phase, the implementation modalities of which would be decided after completion of the initial project. This follow-up project is initially envisaged to last four years during which a series of long term inter-institutional cooperation programmes in the field of training, education and research will be implemented.

However, details about future programmes, activities and required inputs and the financial implications of such programmes will only become available in 1993.

⁴. This programme of the Netherlands' Directorate General for International Cooperation under the Ministry of Foreign Affairs, is designed to provide direct multi-year support to national regional/international educational and training institutes in developing countries, without involving institutes or organisations in the Netherlands.

⁵. Details on the various institutes are furnished in Annex 2 to this project document.

A. PROJECT CONTEXT

1. Introduction

Since independence [1954] the history of education in Cambodia is characterized by a mass schooling process, starting with primary schools [1950-60], followed by secondary level [1960-70]. At the end of the 1960's, the number of pupils enrolled had sharply increased but the relevance of education was far from satisfactory. This was particularly true for the secondary schools which trained too few technicians and too many generalists.

By 1979, following several years of internal conflict, Cambodia's formal education system had been disrupted and the country's technical capacity was severely weakened. Since then, major efforts were made to reconstruct the education system. Given the high number of adult literates (an estimated one million in 1979) and the large number of children who had not been enrolled in school for several years, priority was given to a quantitative expansion of adult and primary education.

Thus, as a result of the efforts of the authorities and the population, in the Cambodia of today a functioning educational system is in place which covers all provinces. This system is divided into pre-primary, basic - sub-divided into primary [grade 1 to 5], lower secondary [grade 6 to 8] and upper secondary [grade 9 to 11] - and post-secondary education, including vocational training and higher education.

The effort to normalize the situation and to reactivate the education process has been great. However, the reconstruction of the educational system has largely been conceived as an effort to overcome the emergency situation towards restoration of the system that existed before the breaking out of the internal conflict, which is unrelated to present-day Cambodian reality. As a result the Government will face a large number of outstanding issues which will have to be addressed to be able to sustain the accomplishments till date.

2. Vocational and higher education

2.1. Vocational training

Vocational training is highly decentralized and encompasses a total of 26 secondary technical colleges. These institutes are either linked to a particular Ministry [Industry, Agriculture, Commerce, Education] or are dependent on local or provincial authorities. The teaching programmes of these institutes vary, as the tendency was to adopt the programmes used in the countries - generally eastern bloc countries - which provided technical and/or material assistance. While the decentralization of vocational training ensures its relevance to local realities at the same time it raises problems of programming at the national level. The low salaries do not attract people with the necessary skills as a result of which it is often difficult to find experienced teachers.

Access to the vocational schools, through a competitive examination, is granted to pupils who have obtained the certificate of lower secondary education or in some cases after the completion of primary school. For two vocational schools in Phnom Penh, the level of access has been raised to the certificate of upper secondary education. The basic curriculum allows for obtaining of a degree (conferred by the Ministry of Education) at the end of a varying number of years (1,2, or 3), depending on the subject and the

institute. Demand for training in different sectors is variable and seems to be fluctuating significantly from one year to the next according to the actual opportunities for employment which may arise.

The opening and operation of vocational schools represents a big expense to the Government, owing to the cost of equipment and the height of recurrent expenditures.

2.2. Higher education

Higher education is provided at a total of seven institutes, detailed in the table below. As in the case of vocational training, these institutes come under the responsibility of different sectoral Ministries [Education, Industry, Health, Agriculture or Culture and Information].

Development of higher education 1987-1990

	Number of Students				Number of Graduates			
	1987-88	1988-89	1989-90	1990-91	1987-88	1988-89	1989-90	1990-91
Univ. of Phnom Penh	1144	1567	1836	2221	244	373	215	310
Khmero-Soviet Higher Technical Institute	582	648	709	602	89	83	110	150
Economic Sc. Inst.	700	850	831	972	149	101	142	155
Ecole de cadres de gestion de l'éducation	63	52	101	37	23	23	67	0
Agricultural Institute	424	534	470	466	0	59	125	119
Univ. des Beaux Arts	0	0	213	417	0	0	0	0
Medical Faculty	868	1163	1253	1411	106	67	134	134
Total	3961	4814	5413	6126	611	706	793	868

Within the framework of an emergency type of programme, aimed at the re-establishment of a minimum of cadre required for running the country's economic and social apparatus, both vocational training and higher education focused on the production of numbers of people. In this respect, national efforts together with external assistance have succeeded in establishing a more or less functioning post-secondary education system. Despite the various deficiencies described above, it has been possible to train a large number of people who could fill - at least part of - the existing vacancies within the various economic sectors. At the same time, however, there remains a shortage of qualified manpower in Cambodia which clearly affects the country's socio-economic development.

2.3. *Administrative structure and financing*

The educational delivery structure in Cambodia follows the country's general administrative pattern which allows a considerable autonomy to the provinces and sectoral ministries, but at the same time creates problems for national planning and the enforcement of educational policies.

At the central level the Department for higher education and professional training of the Ministry of Education bears responsibility for establishing national education policies and standards such as school and teacher training programmes, curricula and school hours. The Ministry is furthermore in charge of the production and distribution of books for all school facilities and institutions in the country. Given the lack of both human and material resources, the Ministry faces great difficulties in fulfilling its coordinating role. The Ministry's monitoring and supervisory roles are suffering from the insufficiency of data collection, storage and utilization.

The financial system is rather complicated. The Ministry of Education general budget is allocated autonomously by the Ministry of Finance, according to national priorities set by the Ministry of Planning, the availability of funds and local and ministerial planning. While uncertainty prevails about the level of Government expenditure for education, as well as about the evolution of public expenditures in this field over recent years, the available data indicates that the resources allocated to vocational training and higher education are extremely limited. In general, the funds available are far below the financial means required and virtually completely used for the payment of salaries, child and family allowances. The budgets for maintenance, renovation/improvement of infrastructure, operational expenses and new investments are either very limited or non-existent.

3. *Main features of vocational training and higher education*

The main features of the vocational training and higher education system currently in place in Cambodia can be summarized as follows.

3.1. *A focus on quantitative outputs*

The focus of post-secondary education has been on quantity. Such quantitative outputs were pre-determined by the Ministry of Planning on the basis of a, rather unarticulated demand arising from within the state sector: until recently the country's main - if not sole - employer of qualified manpower. On the basis of these pre-determined outputs, post-secondary education institutes annually produced the requested numbers of graduates.

The *quality* of these graduates was of lesser importance as, upon graduation, their employment within the Government bureaucracy was virtually automatically assured. In turn, such guaranteed employment provided a considerable stimulus for students to embark upon post secondary training and education. Thus, the institutes were assured to receive a new intake of students every year.

3.2. *The quantitative insufficiency of outputs*

Despite numerous problems, the institutes have trained a large number of people who could fill, at least part of, the existing vacancies within the various economic sectors.

At the same time, however, there remains a quantitative shortage of qualified manpower in Cambodia which clearly affects the country's socio-economic development. For example, the two UNDP infrastructure missions conducted in 1990 ascertained with respect to the transport sector that a major constraint, apart from the war effort, to rehabilitation of Cambodia's [tele] communications network was the lack of trained and experienced staff and management.

Summarizing their analysis, the missions stated: "At every turn the two missions were confronted by the shortage of trained human resources, indicating that the education sector also should be given immediate attention. While universal primary education is now provided throughout the country, to the great credit of the Cambodian authorities, higher levels of education have not yet been expanded to a similar degree"¹.

3.3. A lack of resources

Uncertainty prevails about the level of Government expenditures for [higher] education, as well as about the evolution of such expenditures over recent years. The available data indicates, however, that the Government resources allocated to post-secondary education are presently extremely limited and far below the financial means required. Only the payment of salaries, child and family allowances of the employees is guaranteed. The budgets for maintenance, renovation and/or improvement of infrastructure, operational expenses and other new investments are either very limited or non-existent. Together with the observed lack and/or irregularity of in particular electricity and water-supply, the insufficiency of the budget for recurrent expenditures and investments renders an efficient operation of the institutes impossible, particularly in those cases where no foreign donors are present.

One of the main causes in the decline of funding appears to be the dwindling budgetary support provided by the Soviet Union. In the past, such budgetary support enabled the Government to finance, amongst others, the recurrent costs of its education system. No official policies exist thus far to explore other possible sources of funding, though some institutes are already providing training against payment [e.g. the Russey Keo technical training institute].

3.4. The threat to equity of access

The observed lack of Government financing has reduced the number of student fellowships as well as the monthly stipend per student. As a result - and since the costs of living in Phnom Penh are substantially higher than these Government subsidies - the number of new students from the provinces and from low-income families is declining.

Equity of access, until present more or less assured by the Government's policy to provide education free of charge, taking into account a certain geographical equity, has herewith come under great strain. Only students from Phnom Penh and/or those from wealthier families are able to provide the necessary funding for training and education.

This situation is further aggravated by the fact that a system of "sous table" payments has been allowed to develop for those programmes [medicine, pharmacy, economics, western languages] where the private benefits are expected to outweigh the private costs of education. These unofficial payments, which have been noted to exist also elsewhere in the Government sector, do not serve to improve the financial situation of the institutes and do not appear in their respective budgets.

3.5. A dependency on foreign aid

Due to the lack of national financial and human resources, as well as the lack of qualitative planning and coordination of post secondary education, there exists a strong dependency on external financial and technical assistance:

- [a] to the extent that infrastructure has been rehabilitated and/or replaced, this has largely been done with Soviet assistance;
- [b] operational expenses could be financed from funds generated by the subsidized sale

¹. UNDP report of infrastructure mission, 1990, pp. II-261.

- of materials provided under credit agreements with the USSR;
- [c] while, for long, curricula were merely copied from existing curricula from abroad, and teaching languages depended more on the source of funding than a conscious choice of which teaching programme and language would be most appropriate within the Cambodian context.

At the same time, Khmerization of instruction, and in particular of modern technological terminology, remains to be addressed.

B. PROJECT JUSTIFICATION

1. Problems to be addressed

1.1. Introduction

The post-secondary education that has been [re-]established in Cambodia since 1979 and which, till recently, has been functioning within the context of a planned economy, is presently facing a series of developments in its immediate context. Preliminary investigations, conducted by Nuffic, the Netherlands organisation for international cooperation in higher education, in September-October 1991, indicated that the institutes find it extremely difficult to adapt to in particular the following developments.

1.2. Shifts in economic policies and foreign relations

Since 1988 Cambodia has modified its economic policy. This modification implied a shift of a socialist, planned economy to a more liberal, market oriented economic system. This change to a more externally oriented economy is presently evolving quite rapidly: e.g. the privatisation of state industrial enterprises, and of landownership, the disbanding of *krom samakki* etc. while Government subsidies are being reduced, converted into cash or abolished, and prices are increasingly regulated by a "free" market. Furthermore, the country is opening up more and more to foreign investments and economic relations with its non-socialist neighbouring countries.

While the final outcome of these economic changes remains uncertain, some immediate results, relevant for the provision of higher and technical education and training, are quite clear:

- [a] manpower outputs are no longer determined centrally by the Ministry of Planning;
- [b] job-guarantees for students graduating from technical and higher education institutes are no longer given; and
- [c] increasingly, questions are raised about the external efficiency of the education system, the quality of the students and of the education provided.

As a result of the uncertainty about future employment a lack of interest can already be observed amongst students in commencing certain types of training and education. Consequently, the education system is operating to some extent below capacity.

1.3. *Developments in external aid flows*

Until recently, countries like the Soviet Union, the former GDR and other east European countries, and Vietnam, were the main sources of assistance in the field of post-secondary education. Budget support provided by eastern European and other socialist countries has permitted the Government to finance the recurrent expenditures of the institutes while in addition both technical and material [equipment, construction/rehabilitation of infrastructure] assistance permitted the institutes to provide a minimum of education.

Developments in eastern Europe since 1988/1989 have, however, resulted in a sharp reduction of aid flows to Cambodia [and a resulting diminishing Government budget], as well as the departure of expatriate personnel, neither of which has thus far been fully replaced by other sources of assistance. Both the volume and the scope of the assistance from these socialist countries will be further reconsidered by the end of 1992. A major consequence has been that the institutes are increasingly facing difficulties to obtain the necessary funding, both for financing recurrent expenditures and investments. No other mechanisms to raise funds have thus far been identified.

To some extent this socialist support has been supplemented by other sources, most notably western NGOs, which, in many cases contrary to their tradition, have had some involvement in higher and technical education at the central level for some years, and international organizations such as Unicef. The future of NGO assistance in this area at the central level is unclear.

Despite this assistance, the country continues to suffer from an international political and economic isolation which *inter alia* has bereft the country from UN assistance, prevented the development of normal economic relations with ASEAN countries, and hindered familiarization with other development models than the socialist one.

1.4. *Returnees*

An additional factor which will come into play in the near future is the return of over 300,000 Cambodian refugees from the refugee camps across the border. Some 43,000 of these returnees are between 15 and 24 of age, the majority without the necessary skills to find employment upon their return. The absorption capacity of the existing institutes is insufficient to meet the expected increased demand for vocational training, while unclarity prevails over where such training and what kind of training should be provided and to what extend use can be made of the experience, teaching programmes and materials developed in the refugee camps.

2. **The need for adjustment**

The developments described in the above call for an important adjustment process for the education and training systems to be [re-]adapted to the country's needs and to the technological and managerial developments that are currently taking place.

However, ministry staff and staff of higher and vocational training institutes find themselves ill prepared to address the magnitude of issues with which they are confronted. If the staff has had any higher education it has been mainly in eastern bloc countries or Vietnam, countries which are facing similar problems in adapting their educational systems to a changing environment. Due to the country's socio-economic and political isolation of the last 12 years, staff is in general unaware of the developments which have taken place in other, non-socialist countries and of how institutes in those countries have succeeded in adapting to on such changes in their immediate environment. Concepts such as cost-efficiency, curriculum development, the importance of external efficiency of education are virtually unheard of, while an idea of long term planning of higher and vocational education is absent.

Staff members find themselves particularly ill prepared to address the following major issues:

- [a] Within the changing economic environment, what will be the needs in terms of trained, (technically) skilled personnel?
- Many questions remain to be answered in this respect, for example:
- What will be the effect of the decrease in manpower at the various governmental agencies? What new public and private [small scale?] investments will take place in what sector? and within what time-frame? What will be the impact of the anticipated increase in external assistance on the demand of qualified manpower?
- [b] What will be the role of the training institutions? Should they limit themselves to providing a general basic training programme, with an important practical element where applicable, and leave the more specialized training to the private enterprises? Should the University of Phnom Penh turn from a teacher training institute into a degree university? What coordinating mechanisms will be required?
- [c] What sources of funding will be necessary to provide relevant training and how can these sources be found? What possibilities exist in this respect to earn additional income besides the funding provided by the respective ministries? What possibilities exist for increasing financial and managerial independence?
- [d] How to run an institute effectively and efficiently? How should an efficient organisational structure within the institute be set up? How can the functioning of the financial departments be ameliorated? How to develop educational policy and planning?

Staff of the different ministries as well as of the institutes expressed a strong desire for external assistance to enable them to respond adequately to these questions. In this respect, they emphasized the paramount importance of regional collaboration in the field of higher education and vocational training, particularly since - as a result of the re-opening of the Cambodian frontiers and the establishment of diplomatic relations with neighbouring countries - the influence of developments in the South East Asian region will rapidly increase.

The present project proposal on capacity building in post-secondary education through south-south cooperation has been prepared in line with this desire.

3. Expected end-of-project situation

At the end of the project, the Government of Cambodia will dispose, within the ministries and institutions involved in higher education and vocational training, of a core group of leading civil servants trained in the techniques and methodologies for assessing and managing the country's higher education and vocational training system.

Six institutes of higher education and three institutes of vocational training will have concrete proposals for an inter-institutional cooperation with institutes in the South-East Asian region.

Thirty to thirty-five Cambodian staff members from the nine institutes involved and sectoral ministries involved are able to identify and prepare projects for assistance.

As a by-product of the training sessions in the higher education and vocational training sector analysis, a series of working papers will have been prepared by the Cambodian staff members themselves which will serve in the future elaboration of an overall strategy for higher education and vocational training. This strategy will form the framework for future

development assistance in these fields and will, thus, facilitate the coordination of anticipated donor inputs.

Moreover, dialogues among all internal and external agencies involved in the development of the system will have been improved.

4. Target beneficiaries

The direct beneficiaries of the project will be the staff, both management and teaching staff, of nine institutes of post-secondary education, staff of the Department for higher education and professional training of the Ministry of Education, as well as staff of the training departments of the ministries of industry, agriculture, and health.

Through the cooperation established with the UNESCO/UNDP umbrella project KAM/91/009, this project is furthermore targeted to staff of other institutions, including *inter alia* the Ministry of Planning, the Ministry of Finance, women's associations and provincial education committees.

5. Project strategy and institutional arrangements

4.1. Project strategy

The higher education and vocational training sector analysis will be part of the overall UNESCO/UNDP project "Capacity Building in Education and Human Resource Sector Management" (KAM/91/009).

(For the project strategy and institutional arrangements of this sector programme, see Annex 3 to this project document.)

For the elaboration of the regional inter-institutional linkages, representatives from regional institutes of higher education and vocational training will visit Cambodian institutes in order to : [a] conduct a preliminary assessment of the feasibility of future cooperation linkages and [b] identify Cambodian staff for participation in the programme of regional study visits.

Regional study visits will be used to : [a] strengthen the capability of the participants to perform tasks in the envisaged working groups; [b] strengthen the capacity of staff to participate in the elaboration of proposals for a long-term strategy designed to improve and adapt the education system and [c] will provide a basis for the establishment of a regional inter-institutional linkage programme. The planned training in project identification and preparation will enable the Cambodian staff to better participate in the elaboration of these linkages.

5.2. Institutional arrangements

The institution in charge of this project will assist in the implementation of the global UNESCO/UNDP project KAM/91/009 in providing the regional higher education and vocational training inputs in the several national working groups. UNESCO will have the overall responsibility for this programme.

The institution in charge of this project has the responsibility for the development of the regional inter-institutional linkage programme. It shares this responsibility in an appropriate way with the Government, UNDP and other agencies, including NGO's.

6. Reasons for international assistance

A joint UNESCO/Nuffic mission visited Cambodia in September 1991 in order to :

- [a] ascertain whether the Government authorities were willing to undertake an education and human resources sector study;
- [b] assess, given the country's particular situation and conditions, the application of the UNESCO model - applied in e.g. Vietnam and Myanmar - would be feasible in Cambodia.

Meetings with Government officials of different institutions involved in education, training and human resource development indicated that the need to conduct such a sector analysis was felt important and that training of civil servants in the areas to be covered by this analysis, would be a prerequisite.

Nuffic's mission included a third objective i.e.:

- [c] to conduct a preliminary survey of a major part of Cambodia's higher education system, and of some of the major vocational training and professional education institutes in Cambodia.

The results of this preliminary survey are reflected in the "Report on a Nuffic fact-finding mission: Focus on Higher Education and Vocational Training in Cambodia", February 1992.

The survey confirmed the importance of the proposed sector study and, given the current limitations of the available national expertise, the need of external technical assistance in the implementation of this sector study at all levels of education and training.

The findings furthermore indicated that :

- [a] ample opportunities exist for regional cooperation in carrying out the sector study as far as vocational training and higher education are concerned; and that
- [b] the advantages of a coordinated programme of long-term regional inter-institutional cooperation in the field of vocational training and higher education are recognized.

7. Special considerations

An underlying objective of the project is to address particular development concerns such as education for all, poverty alleviation, enhancement of social and economic conditions of specific target groups (e.g. ethnic minorities, border area population, displaced persons and refugees), promotion of women in society, protection of the natural environment, modernization and improvement of economic management, through an inter-disciplinary review of relations between education and society.

Special consideration is also given to technical cooperation among developing countries. The regional team will come from developing countries. In addition, the study tours foreseen will concentrate on the Southeast Asian region, in order to show the Cambodian participants how similar countries have dealt with specific problems in higher education and vocational training.

The way the project is designed also fosters inter-sectoral functional relations and offers a focal programme for inter-agency cooperation at the national level.

8. Coordination arrangements

7.1. National coordinating arrangements

The general responsibility for the coordination of all activities performed within the framework of the UNESCO/UNDP project KAM/91/009 will rest with an Education Sector Committee (ESC) composed of representatives of all Ministries involved in the project and including representation of the SNC among which the Prince will appoint a chairman.

This Education Sector Committee will provide guidance to the whole programme; it will extend needed assistance in securing access to information and documents. It will invite as frequently as necessary the heads of the national working groups which will be set up within the framework of KAM/91/009 around the major subject areas to be analyzed. The day-to-day management of the UNESCO/UNDP project KAM/91/009 will be carried out by the National Project Director and the Education Sector Adviser.

A Project Steering Committee composed of representatives of UNDP, UNESCO, other agencies involved in umbrella project KAM/91/009 and representatives of the SNC will monitor the project implementation and look after timely completion of the different outputs.

For the higher education and vocational training activities to be performed within the framework of KAM/91/009, a project management team, consisting of a national project manager and a higher education and vocational training advisor will be established. This team will assist the National Project Director and the Education Sector Advisor in securing the higher education and vocational training inputs ¹.

For the activities to be performed within the framework of the development of the regional inter-institutional linkage programme, the day-to-day management will be carried out by the project management team. In this respect, the project management team will regularly meet with the management of the different institutes, key officials from the various ministries involved in higher education and vocational training, as well as with donor agencies and NGO's working in the field of higher education and vocational training.

The specific tasks of this project management include:

- [a] to administer and manage the project activities concerning the regional inter-institutional linkage programme as described above;
- [b] to assist the overall programme management in securing the (regional) higher education and vocational training inputs for the overall UNESCO/UNDP project KAM/91/009;
- [c] to organise the planned training in project identification and formulation;
- [d] to contribute to donor coordination in the field of higher education and vocational training, e.g. by arranging meetings for relevant Cambodian authorities with interested donor agencies to discuss details of required assistance and organising briefing sessions on donor agencies' rules and regulations;
- [e] to assist in the drafting of project proposals on higher education and vocational training to be submitted to donor agencies; and

¹. For an overview of the activities planned under this project, and the tentative time-schedule prepared by Unesco/BOA/PSA [November 1991], see Annex 4 to this project document.

- [f] to organise the identification of training programmes in higher education and vocational training for the long term inter-institutional cooperation within the Southeast Asian region.

A project office, which will provide technical and administrative support to the management of the project will be shared with UNESCO. This office will include a data processing team which will develop computer capability in order to facilitate the statistical and computer requirements of the various project activities. The final staffing arrangements will be determined in consultation with the management of the afore mentioned overall Education and Human resources sector programme. The location of the project office will be decided upon in consultation with the Project Steering Committee.

The project management team reports for the activities under the UNESCO/UNDP umbrella project (KAM/91/009) to the National Project Director and for the activities under the regional inter-linkage programme to the Ministry of Education, Department of higher education and professional training, the donor agency (agencies) and institution in charge of the project.

7.2. Coordination with the international community

In the initial years after 1979, external assistance to post-secondary education, both at institutional and ministerial level, was almost exclusively provided by Eastern bloc and other socialist countries, most notably Vietnam. This is true for both higher education and vocational training. This aid is envisaged to be phased out in the course of 1992.

In those years, multilateral and western bilateral assistance was virtually non-existent. This has changed recently, with the signing of the peace agreement in Paris. It will be essential to closely coordinate project implementation with the assistance provided by or envisaged from other sources. Particularly relevant as far as future coordination is concerned, is the afore mentioned Education and Human resources sector project developed by Unesco/BOA/PSA in November 1991. As indicated in the preceding paragraphs close liaison will be maintained with this project the modalities of which will be specified before initiating the activities.

Since the mid 1980s, there has been an increasing aid flow from western NGO's. An overview of the NGO's [October 1991] working in the nine institutes is provided in Annex 5 to this project document. Special coordination mechanisms with these NGO's will be established.

C. DEVELOPMENT OBJECTIVE

The long term objective of the overall project is to have in place a functional higher education and vocational training system which is able to develop and undertake education and training programmes adapted to the evolving socio-economic situation in Cambodia.

D. IMMEDIATE OBJECTIVES, ACTIVITIES AND INPUTS

1. Immediate objectives

The *immediate objectives* of the project are as follows :

- [a] the elaboration, by the end of the first phase of the project, of a higher education and vocational training policy with the Government authorities ¹
- [b] the establishment of a programme of inter-institutional cooperation linkages between Cambodian higher education and vocational training institutes and similar institutes in the South-East Asian region.

2. First immediate objective

For the realisation of the first immediate objective, the following activities will be implemented:

2.1. Activities ²

- [a] to gather and analyze information concerning past and present employment opportunities for graduates of higher and vocational training institutes;
- [b] to design, test and conduct surveys to determine the anticipated demand for qualified manpower;
- [c] to determine, on the basis of the outcomes of these surveys, future training requirements;
- [d] to assess the present and proposed structure of vocational and higher education.

This review will cover the training programmes and courses offered by the existing institutes of higher education and vocational training, working under the aegis of the

¹. The first immediate objective fits in with the Education and Human Resources project proposal prepared by Unesco/BOA/PSA, Paris dated 15 November 1991. The overall aim of this project is to build a national capacity in education sector management.

². For these activities, project implementation will follow the schedule established for the overall Education and Human Resources sector programme, a copy of which is provided in Annex 5 to this project document.

Ministry of Education or other Government bodies such as the Ministries of Agriculture, Industries, Information and Culture, and various provincial authorities.

The review will cover all aspects of these training programmes, including:

- organization and general management
- student profiles
- enrolment and completion statistics
- policies concerning entrance requirements and admission criteria
- qualifications, availability, and number of instructors
- training programme content and curricula, with particular emphasis on training standards and their relevance to employment needs and the technology and management content of these programmes as compared with the conditions prevailing in the country
- certificates or diplomas awarded, and
- teaching infrastructure, including instructional facilities, field and workshop equipment, etc.;

[e] to identify possible trade-offs within the system; and, thus

[f] to assist the Working Groups - envisaged to be established under the afore mentioned proposed UNESCO/UNDP project KAM/91/009 - in the elaboration of policy options and alternative strategies for the future development of the vocational and higher education system.

2.2. Inputs

The inputs required for the implementation of the above activities are the following:

*Personnel*¹

Long-term expatriate project personnel

Higher and Vocational Education Sector Advisor [24 mm]

Short-term consultants from regional institutes, for a total of 22 mm, in the following fields :

- Vocational training and technical education	3.5 mm
- Health education	2.0 mm
- Agriculture education	3.5 mm
- Basic sciences education	3.0 mm
- Foreign language training	3.0 mm
- Economic science education	2.0 mm
- Educational management	3.0 mm

The utilisation of the remaining 2 mm of consultancy services will be decided upon in the course of project implementation. Initial thinking is that these months could be utilised for determining the training requirements and opportunities for particularly deprived target groups, most notably the handicapped².

¹. Terms of reference for the required personnel inputs are provided in Annex 2.

². Due to the war of the last 20 years, the proportion of physically handicapped in Cambodia is reported to be one of the highest in the world. Integration of these handicapped in society is problematic, while thusfar, training opportunities are very scarce.

Local project personnel

The final staffing arrangements of the project office will be determined in consultation with the management of the afore mentioned overall Education and Human resources sector project. The location of the project office will be decided upon in consultation with UNESCO.

Local, regional and international *travel and daily subsistence allowance*.

National personnel

Government personnel will be assigned to act as counterparts to the consultants. They will be selected among civil staff of the ministries and institutions concerned with higher education and vocational training.

3. Second immediate objective

For the achievement of the second objective, the following activities are envisaged :

3.1. Activities*3.1.1. Identification missions of regional institutes*

A series of missions will be undertaken by representatives of AIT, SEAMEO, and Don Bosco in order to make a preliminary assessment of the feasibility of future cooperation and identify Cambodian staff for participation in the programme of regional study visits. Coordination of these initial visits will be handled by the staff of the institution in charge of the project who will accompany the missions.

3.1.2. Training in project identification and preparation

At the end of these identification missions, a one week training programme will be provided by the institution in charge of the project to staff of the Cambodian institutes in the relevant techniques of project design. Training will be conducted in both French and English and will build upon The Netherlands experience in the provision of such training. Such training will enable the staff to better participate in the elaboration of the linkage programmes.

3.1.3. Study visits

For selected staff of institutes of higher and vocational education above as well as of the Department of Higher Education and professional training within the Ministry of Education and the respective training sections within the other relevant sectoral ministries [Industries, Health, Agriculture, etc.] a programme of regional study-tours will be designed and implemented with the following details:

- teaching and management staff of nine Cambodian institutes will pay a study visit with a duration of fourteen days to relevant institutes in the South East Asian Region in order to:
 - [a] assess the effectiveness and efficiency of the study programmes at these institutes
 - [b] assess the feasibility of introducing these programmes in the Cambodian context.
- management staff from the Department of higher education and professional training of the MinEduc and the sections within the other sectoral ministries in charge of vocational and technical training will pay a visit of ten days to relevant ministries in the Region to:

- [a] to assess the organisation and implementation of training and education programmes
- [b] to assess the organisation of training and education within the different ministries.

The organisation of these study tours will be handled by the afore mentioned regional institutes.

3.1.4. Elaboration of regional inter-institutional linkages

On the basis of the initial visits and the results of the study visits, Cambodian staff together with selected staff members of the regional institutes and Nuffic, will subsequently elaborate, in detail, a series of three sectoral inter-institutional cooperation programmes. These programmes will take into account the results of the activities elaborated with respect to the first project objective, and will include both training institutes and the respective sectoral ministries. The focus of these programmes will be on institution building and manpower development. The proposals will fit into the general Education and Human Resource Development project prepared by Unesco/BAO/PSA.

3.2. Inputs

For the implementation of the above activities, the following inputs are envisaged:

3.2.1. Identification missions of regional institutes

Short-term personnel

A total of 5 mm of short term consultants, for a period of ten days each, sub-divided as follows:

- 2 consultants from AIT
- 6 of the SEAMEO regional training institutes [i.e. RECSAM, RELC, INNOTECH, VOCTEC, TROPED and SEAMES]
- 1 from Don Bosco
- 2 from Nuffic

Local, regional and international *travel costs* and *daily subsistence allowance*.

3.2.2. Training in project identification and preparation

Short-term international personnel

- 0.7 mm of short term consultants

National personnel

A total of approximately 30-35 Cambodian staff from the nine training institutes and sectoral ministries, for a period of 7 days each, sub-divided as follows:

- 3 staff members per institute and
- one each of the respective ministries.

Local transport costs and daily subsistence allowances for the international consultants, per diem for the Cambodian counterpart staff, the [re-]production of training materials, and the rent of facilities.

3.2.3. Study visits

National personnel

The programme of regional study visits, with a duration of some 14 days and covering Thailand, the Philippines or Malaysia, will require a Government personnel input, equivalent to a total of some 32 mm, sub-divided as follows :

- 4 staff members per institute of nine Cambodian institutes of higher education or vocational training
- a total of 10 staff members from the Section Higher Education of the Ministry of Education and education departments of other sectoral ministries.

The nine institutes involved will each appoint a coordinator in charge of mobilizing personnel participating in the regional study visits.

In addition, the participation of staff of NGO's providing assistance to the institutes, as well as of interpreters, is planned for. Related costs of a total of 14 persons have been incorporated into the draft project budget.

Regional and local *transportation costs, per diem* for the Cambodian staff, and, where applicable, *fees* for the regional training institutes.

3.2.4. Elaboration of regional inter-institutional linkages

Short term international consultants

The development of three sectoral inter-institutional linkage programmes will require a total of 6 mm of short-term international personnel inputs, sub-divided as follows:

- 10 staff members from the afore mentioned regional institutes [5 mm], and
- 2 Nuffic staff members [1 mm].

National personnel

The elaboration of linkages will require the availability of some 27 staff members from Cambodian institutes as well as some 10 staff members from the respective sectoral ministries, for a period of 10 days.

Costs of local, regional and international *travel, daily subsistence allowance* for the international consultants and *per diem* for the Cambodian staff.

E. INPUTS

In addition to the inputs mentioned above, the overall project will furthermore require the following inputs ¹:

1.1 Office rent

1.2 Equipment

- 1 vehicle
- vehicle running costs/maintenance
- 1 micro computer and software
- 1 matrix printer
- telephone/fax and international communications
- overhead projector
- paper, diskettes, transparencies, and other consumables
- office furniture

F. RISKS

The Cambodian staff who will carry out the bulk of the project activities are civil servants who already have full-time jobs. Even though the Government wishes to make such staff available on a full- or part-time basis for the project, there will undoubtedly be pressures on the national staff to continue to perform their normal activities. This fact of life could cause delays in the implementation of the project.

A second risk is that it is unlikely that the foreign experts will be fluent in Khmer. It is expected that the Cambodian project participants will have one or more people fluent in English and French; nevertheless, a large part of the work will rely on the presence of skilled interpreters. Such people are in short supply, and it may be difficult to find enough of them to enable all the foreign experts to carry out their tasks simultaneously.

A third risk is on the international side: a key factor in the success of the sector analysis will be the recruitment of high-quality specialists with experience in the South-East Asian region. People with such qualifications are not always easy to find, particularly at the specific times they will be required. This problem could cause delays in the implementation of the project.

¹. Details of the additional inputs are provided in Annex 7 to this project document.

G. PRIOR OBLIGATIONS AND PREREQUISITES

1. Prior obligations : not applicable.

2. Prerequisites

The Government will make funds and staff available to carry out counterpart duties and mount any necessary field surveys.

The Government will provide all necessary existing data and other information.

The project document will be signed by the Government of The Netherlands and international assistance will be provided subject to the donor agency being satisfied that the above prerequisites have been fulfilled or are likely to be fulfilled. When anticipated fulfilment of one or more prerequisites fails to materialize, the donor agency may, at its discretion, either suspend or terminate its assistance.

H. PROJECT MONITORING AND EVALUATION

The project will be subject to tripartite review, i.e. a review including representatives of the Government, the donor agency and the executing agency, in accordance with the procedures of the donor.

This review will be held at the end of the first year, and will be organised by the project management, which will also prepare and submit a progress report on project implementation, which will form the basis for this review.

A Netherlands monitoring mission is to visit the project once a year. These missions will advise project management on the execution of the project and the preparation of the new year's work plan and cost estimate.

An evaluation will be conducted 6 months before the end of a project. The evaluation mission report, together with the project management's terminal project report, will serve as the basis for a terminal tripartite review scheduled 3 months before project completion.

I. LEGAL CONTEXT

To be determined.

J. BUDGET

A draft budget for the international contributions required for project implementation, totalling some US\$ 800,000 plus 13% agency fees is provided in Annex 8 to this project document. Precise international and Government of Cambodia contributions will be calculated after discussions with possible partners and the Cambodian authorities.

ANNEXES

1. *Brief description of three institutes of vocational training and six institutes of higher education*
2. *Brief description of the regional institutes and their respective training programmes*
3. *Project strategy and institutional arrangements of the UNESCO/UNDP project "Capacity Building in Education and Human Resources Sector Management" (KAM/91/009)*
4. *Tentative Workplan (in preparation)*
5. *Overview of external assistance*
6. *Terms of reference for long-term international personnel and consultants*
7. *Additional inputs required for project implementation*
8. *Provisional Budget Estimates*

Brief description of three institutes of vocational training and six institutes of higher education in Cambodia

Institutes of vocational training

Russey Keo Technical Training College

1. The Russey Keo Technical Training College [RK TTC] was established in the late 1950s. In those days, as well as in the 1960s and 70s, most of the external assistance came from the USA, while the curriculum was copied from the French. Teaching was conducted in French, in addition to Khmer.

2. After 1979, the institute, recommenced training activities with some remaining teachers and equipment. The Ministry of Industry, under which the RK TTC resorts, recognizing the need to provide training for the running of state industries, took remaining staff from state enterprises and transferred them to the institute to set up training for these state enterprises. Training was initially limited to a period of 6 months to 1 year in subjects such as general mechanics, welding, electrical engineering and carpentry. In addition, some classes for technical and construction [building] drawing and in the field of statistics, accountancy and generator operation and maintenance, were provided to alleviate acute staff shortages within the Ministry of Industry.

3. Overall staffing of the RK TTC is presently 59, of which 43 workers and administrative staff and 16 instructors. The number of students at the school increased between 1988/89 and 1990/91 from 122 to 335. In this period, the number of graduates of the various training programmes was as follows: *2 and 3 year courses*: 318 and *Short courses [6 months]*: 219.

4. Since 1988, the RK TTC no longer organizes its own short courses. Now, all training is either two years [skilled worker] or three years ["technicien"]. In addition to these regular programmes, the institute organizes 6 month training courses - which are not supported by the Ministry of Industry - but for which it accepts students from various UN agencies and NGOs.

5. The institute's accommodation is quite old; the main building was constructed around 1930. An important part of the infrastructure has been renovated with assistance from OXFAM [offices, and workshops]. Major infrastructural problems remain the five, small wooden classrooms, and the irregularity of electrical and drinking water supplies.

Khmero Soviet Friendship Professional training centre

6. The Khmero Soviet Friendship Professional training centre [KSFPTT], established in 1964, was renovated, re-equipped and re-opened in February 1981 with assistance from the Soviet Union. The mandate of the institute, until 1986 named the Tuk Thla professional training centre, is to train industrial technician trainers in general mechanical work and woodwork and to give vocational training courses in eleven disciplines, such as industrial equipment repair, machining, electrical repairs, and electrical installation.

7. The centre, which comes under the direct responsibility of the Ministry of Education, consists of two campuses with teaching classes and practical workshops in separate locations. The centre faces similar problems of electricity and water supply as

Annex 1 - 2

Russey Keo, as a result of which practical training is limited. The infrastructure suffers from a lack of maintenance.

8. Overall Khmer staffing of the centre is 104, 49 of whom are teachers [19 theory and 30 practice teachers]. The curricula are of Soviet origin. Attempts are being made to adjust the curricula more to the present situation of Cambodia.

9. The number of students at the school evolved between 1986/1987 and 1991 as follows: *instructor training* : from 40 students in 1986 to 223 in 1991; *skilled worker training* : from 287 in 1987 to 414 in 1990 and 305 in 1991. In the period 1987-1991, the number of graduates of the various training programmes was as follows: *Instructor training* [3 years] : 136 and *Skilled worker training* [1 to 2 year] : 1,051.

Central Nurses Training School

10. The school, previously called the Ecole Royale d'Infirmiers et Sage-Femmes, was re-established under its present name in 1980. Until 1984-85, it was the only institute for nurse/midwife training. Now it has also to provide documentation to the regional training centres that have been established in Battambang [1984-85], and Stung Treng provinces [1987-88]. The institute is part of the medical faculty, the dean of which is also director of the institute.

11. The school consists of a newly constructed main building, a building with 13 class rooms and two laboratories and a dormitory building. There is no running potable water, while electricity is absent most of time. Sanitary conditions are rather poor. Classrooms are generally over-crowded: with too many students in a class it is difficult for a teacher to make him/herself understood. The sanitary technician laboratory, where 6 technicians are employed, is equipped by MSF Hollande/Belgique. There is one library, with two librarian staff who do not have a librarian diploma. Most books are in French, a few in English. The library has no subscriptions to journals.

12. The number of teachers is presently 56, a majority of whom are part-timers. There are at present 8 doctors, 5 pharmacists, 16 medical assistants, 14 secondary nurses, 6 secondary midwives and 7 laboratory technicians.

13. The number of students for the school year 1991-92 amounts to 1,794, respectively divided over the four different training programmes as follows: *nurses* : 1,088; *midwives* : 472; *physiotherapists* : 66; and *laboratory technicians* : 168.

14. A majority of students in nursing is male. Most graduates are placed in the provinces. However, many of them leave the rural areas to work in the cities, since where the possibilities to have private income earning activities are greater.

Institutes of higher education

University of Phnom Penh

15. The University of Phnom Penh (UPP) was re-created in March 1988 through the merger of the Ecole Normale Supérieure with the Ecole de Langues. UPP, mainly involved in the training of teachers for the higher secondary schools, is sub-divided into 11 faculties, including philosophy, Khmer language and literature, Vietnamese and eastern languages and literature, Western languages and literature, psycho-pedagogy,

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geography, and basic sciences.

16. The university buildings are in a very bad condition. A plan for restoration, made by the USSR in 1986, was never implemented though some construction materials and equipment arrived in the course of 1989. Due to the large numbers of students enrolled, class rooms are overloaded. The UPP's seven laboratories lack electricity, equipment and materials, while its library does not avail of modern books, journals, or copying facilities.

17. Overall staffing of UPP is 131, 26 of whom are, mainly Russian, expatriates. Because of the lack of teachers until now all graduates with high examination results were appointed as teaching staff. Also teachers from provincial training institutes and staff members from the various ministries were asked to assist as part-time teachers. In 1991, UPP employed 10 staff members with a Ph.D. degree from Ho Chi Minh city, and 9 staff members who followed post-university courses in the USSR or the former GDR.

18. The number of students in 1990-91 was 2,221, about 50% of whom were engaged in the field of sciences and 24% in modern languages. The capacity to accommodate more students in English and French - for which there is a great interest - is restrained. The drop-out rate of 30-40% is high compared to other Cambodian institutes of higher education. To become a teacher is not very attractive, unless in English, French, Physics and Mathematics in which fields possibilities exist to earn income outside the regular teaching hours.

19. UPP has submitted a proposal to the Ministry of Education for a reform of its Soviet-based educational programme and structure. According to this plan, UPP will be divided into two faculties: the Faculty of Arts and Humanities and the Faculty of sciences with studies leading to a Ph.D. degree. In addition, UPP intends to continue to cover the present teacher training, to commence training of teachers of lower secondary schools and the training of interpreters.

The Economic Sciences Institute

20. The Economic Sciences Institute [ESI] was established in 1984 with assistance from the Soviet Union and Vietnam. Curricula used in the institute's five faculties [agricultural economics, industrial economics, finance, commerce and economic planning] were, as a result, based on those developed in the USSR and Vietnam and focused on the role of economics in a centrally planned economy. The teaching language is Khmer.

21. Overall staffing of the ESI is 77 of whom 47 teachers and 30 supportive staff.

22. The number of students, participating in the ESI's five-year programmes and the special courses organised at the ESI, increased from 701 in 1987-88 to 963 in 1991-92. The number of graduates from the five faculties increased from 99 in 1987-88 to 155 in 1990-91.

23. Since the 1991-92 school year, the ESI has reduced the number of faculties from five to two: a faculty of Economic Sciences and a faculty of Commerce and Management. The revised curriculum, which allows for general training in the first three years, followed by a specialisation of two years, has been copied from western universities. However, there is no staff to provide training in accordance with this curriculum.

24. In terms of infrastructure, the institute encompasses three buildings, two of which require rehabilitation, while the third one remains to be completed. Due to the insufficiency of infrastructure, double shifts have been introduced.

The combined faculty of Medicine, Pharmacy and Odonto-Stomatology

Annex 1 - 4

25. Since the school year 1981-82, the institute consists of three faculties: medicine, pharmacy and odonto-stomatology [previously dentistry]. At all faculties, training at the higher [doctors, pharmacists and dentists] and at the middle level ["médecins auxilliaires"] is provided.

26. Total staff of the institute is some 113, of which 21 Khmer teaching staff and 92 support staff.

27. The number of students admitted to the institute in the school year 1990-91 was 1,411, an increase of more than 160% in comparison with 1987-88. From 1980-81 to 1988-89, total graduates at various levels have been as follows: *Doctors* : 513; *Reg. med. assistants* : 575; *Spec. med. assistants* : 447; *Pharmacists* : 248; *Pharmacy assistants* : 40; *Dentists* : 34 and *Dentist assistants* : 45.

28. Before 1975, all training was conducted in French; only after 1980 did some Khmerization take place. At present, teaching languages are Khmer and French, while at the faculty of odonto-stomatology English has been introduced instead of French.

29. Curricula at the combined Faculty of Medicine, Pharmacy and Odonto-stomatology underwent some change starting with the school year 1989-90, when a preparatory year was introduced to improve the students' knowledge of basic sciences. Since then, the structure of the training is as follows : [a] a preparatory year; [b] a year devoted to basic medical sciences; and [c] a period of three to four years devoted to all relevant subjects with theoretical classes in the morning and practicals in the afternoons in the Phnom Penh hospitals.

30. The available infrastructure is insufficient to accommodate the high number of students enrolled.

The Chamkar Doung Agricultural Training Institute

31. The institute was established in 1966 with assistance from France. In the period 1966-1975, some 200 agricultural engineers were trained in six faculties. After 1979, the institute's training focused on the re-training of agricultural staff from all provinces. Short training courses of 2 to 4 months were given for inter alia tractor drivers, and in the field of maintenance of agricultural machinery, irrigation pumps and the use of insecticides.

32. With assistance from the Soviet Union, regular training re-commenced in the school year 1984-85. Training is presently provided at the following faculties: agronomy, forestry, fisheries, veterinary services and agricultural mechanisation.

33. Staffing of the institute is some 131, of which 26 teachers and 105 support staff, including labourers. Most of the teaching staff is not employed by the institute on a full-time basis, but is seconded by the Ministry of Agriculture.

34. The number of students at the Chamkar Doung agricultural institute increased from 424 in the school year 1987-88 to 672 in 1991-92. Since 1989, the total number of graduates in the five faculties have been as follows: *Agronomy* : 82; *Forestry* : 61; *Fisheries* : 28; *Veterinary services* : 58 and *Agricultural mechanization* : 61.

35. Curricula at the institute were originally of Soviet origin. However, with the pull-out of the Soviet technical experts [1990] and the commencement of assistance from CIDSE, GRET and IRRI, the curricula are increasingly being modified to be more in line with Cambodia's specific agricultural situation.

Khmero Soviet friendship higher technical institute

36. The Khmero Soviet friendship higher technical institute, established in 1961-62 with Soviet assistance, provides training at the engineer [5 years] and technician [3.5 years] level. Training is provided in five fields: construction, chemistry, agricultural hydraulics, mining and geology and electrical engineering. Curricula are from Soviet origin.

37. The total number of students increased from 1,014 in 1987-88 to 1,375 in 1990-91. Since 1984, a total of 633 technicians and 451 engineers have graduated from the institute.

38. Total Khmer staffing of the institute is reported to be 96, of which 56 teachers. In addition there are some 54 expatriate teachers, at the engineer level, from the Soviet Union.

39. In terms of infrastructure, buildings were renovated after 1979, while equipment and materials were provided by the Soviet Union. Major problems in this respect include the unreliability of electricity and water supplies and the broken sewage.

Ecole Supérieure des Cadres de Gestion de l'Education

40. The buildings of the Ecole Supérieure des Cadres de Gestion de l'Education date back from colonial times. As was the case for many other institutes, the school was abandoned from 1975 to 1979. In 1979 it became the Ecole Politique of the Ministry of Education, followed by the establishment of the present school in 1987.

41. Since 1987, the two main tasks for the Institute are to provide [a] training and re-training of cadres de gestion with the ranks of school principal and higher and [b] training and re-training of teachers of kindergartens, primary school, and secondary schools. Special attention is paid to the [re-]training of teacher trainers and regional pedagogical centres. For the future, the Institute wants to undertake the training of "cadres d'inspection" [in the sense of "conseillers pedagogique"] and to consolidate the training of school management cadres, e.g. school directors, staff of provincial/district education committees. The emphasis will be on courses of short duration.

42. Since 12 years the institute has trained more than 10,000 persons in over 100 training courses of different duration and with different subjects.

43. At present the Institute is undertaking the following training activities: re-training of French and English language teachers; complementary training programmes for "maitres maternelles" for heads and sub-heads of provincial and district level education committees. Duration of these programmes varies from 6 months, 12 months to 3 years. The 3-year training programme will be terminated in 1992.

44. Total staffing is 56, of which 29 male and 27 female. Non-teaching staff is 46. Furthermore, depending on the training given, teachers are invited from the various departments of the Ministry of Education and the UPP.

45. The 18 classrooms and three laboratories are in urgent need of repair. Teaching materials and equipment are lacking, while the available books are mainly French and Khmer and not up to date. The dormitory is old, and electricity and water are intermittent.

46. Curricula have been altered over the years, depending, in particular, on the period in which training was to be provided. Presently the focus is on improvement of curricula and education manuals.

Brief description of the regional institutes and their respective training programmes

SEAMEO

SEAMEO, the Southeast Asian Ministers of Education Organisation, was created in 1965 with the principal aim of promoting regional cooperation through education, science and culture.

The organisation encompasses a total of eight member countries, including Cambodia, and the following five associate members: Australia, Canada, the Federal Republic of Germany, France, and New Zealand.

From 1967-68 to 1988-89, SEAMEO provided some 20,000 scholarships to government education personnel for various types of training, in order to up-grade their expertise at the SEAMEO regional centres and project. In addition to this training, these regional centres and project have undertaken regional research, development and information dissemination programmes.

The organisation is governed by the SEAMEO council, composed of the ministers/secretaries of education of all members, which meets once a year. The executive arm of the council is the SEAMEO secretariat [SEAMES], based in Bangkok, the functions of which are to execute council-decisions and to coordinate the programmes and activities of all SEAMEO institutions. In addition, SEAMES *inter alia* plans and studies the feasibility of regional education project proposals, administers small or temporary projects of regional significance, and helps to secure financial support for the organisation from interested countries, organisations or other sources.

SEAMEO has established programmes of cooperation with Australia, Canada, France, the Federal Republic of Germany, Japan, New Zealand, the Netherlands, Unesco, ASEAN and the Lee foundation. The cooperation programmes include the provision of technical assistance, funds for fellowships, the financing of institutional linkages, etc.

SEAMEO conducts specialized training programmes, research and development activities through its seven regional centres and regional project, hosted by the governments of its member states. An overview of these regional centres and regional project is provided in the following paragraphs.

BIOTROP

The SEAMEO regional centre for tropical biology, BIOTROP, was established in 1968 in Bogor, Indonesia. The main functions of the centre are:

- [a] to identify important and critical biological problems in the SEAMEO region, the solution of which will enhance balanced economic development and the conservation of natural resources;
- [b] assign priorities to these problems and develop programmes that attempt to solve the most critical ones through e.g. research development and the translation of research into practical policies;
- [c] to play a key role in developing a cadre of regional expertise in tropical biology;
- [d] to disseminate relevant information on BIOTROP's activities and research; and
- [e] to foster international cooperation, communication and exchange of scientific data and professional services among scientists involved in the various fields of tropical biology and environment.

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In line with these functions, BIOTROP has programmes and projects in fields such as tropical forest biology [e.g. forest ecosystem management], tropical agricultural pest biology programme [e.g. integrated pest management], and tropical aquatic biology. Activities include training [6 weeks to one year], research, workshops and seminars, extension and consultation services in the above fields.

INNOTECH

The main functions of the SEAMEO Regional centre for educational innovation and technology, INNOTECH, established in 1970 in Manila, the Philippines, are to undertake training programmes, research and development, publications and other activities.

Present training activities include:

- [a] 3-month course on educational planning, management, innovation, and technology;
- [b] 2-month course on educational development through research and evaluation;
- [c] 1-month courses in the field of educational management and supervision and development and utilisation of innovative instructional technology and
- [d] a series of short, non-formal courses on e.g. monitoring and evaluation, approaches for disadvantaged and handicapped, etc.

INNOTECH also conducts special courses on request of SEAMEO member states. In terms of research and development activities, INNOTECH furthermore undertakes the publication and dissemination of research monographs, and the development of training materials.

RECSAM

RECSAM, the SEAMEO regional centre for education in science and mathematics, was officially inaugurated in 1967 and is located in Glugor, Malaysia. The centre was established to assist SEAMEO member states in ameliorating the teaching of science and mathematics.

The main functions of RECSAM thus include:

- [a] training of educators in modern methods of teaching science and mathematics;
- [b] development of curriculum materials and teaching aids; and
- [c] stimulate SEAMEO countries to initiate and conduct research in the various aspects of science and mathematics education.

In terms of training programmes, RECSAM conducts scheduled training courses, development and diploma courses for, amongst other, school teachers and principals, curriculum officers, etc. In addition research training is provided, while training courses have been developed for teaching of science and mathematics in vocational training. Special training courses and workshops are also conducted on request of SEAMEO members, either at the centre or in the country concerned. RECSAM publishes a *Journal of Science and Mathematics Education in Southeast Asia*.

RELC

The SEAMEO regional language centre [RELC], was established in 1968 in Singapore with the purpose of assisting SEAMEO members to improve the teaching of English and other foreign languages.

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The functions of the centre include :

- [a] to conduct advanced training courses for e.g. administrators, teachers, curriculum specialists in the planning and implementation of programmes in the field of language training;
- [b] to provide short-term training courses to up-grade teaching skills;
- [c] to promote and undertake research and disseminate the results of research relevant to the teaching, learning and utilisation of foreign languages; and
- [d] to assist in strengthening language teaching, planning and development in SEAMEO member states by providing consultancy and advisory services.

RELC furthermore arranges and supports the exchange of personnel to improve the standards of language teaching in the region and to promote regional cooperation.

SEARCA

The SEAMEO regional centre for graduate study and research in agriculture, SEARCA, situated at the campus of the University of the Philippines in Los Banos, aims to :

- [a] provide graduate education and training in agriculture;
- [b] to promote, undertake and coordinate research programmes related to the needs and problems of the region; and to
- [c] disseminate the findings of agricultural research and experimentation.

SEARCA's programmes and activities are concerned with instruction, research and extension, training and publications, as follows:

- [a] graduate education and institutional development, geared to assist SEAMEO member states in meeting their needs for high level manpower in the field of agriculture, fisheries and related sciences and in developing their institutions of higher learning in these areas. In 1989, SEARCA launched the University consortium for graduate education in agriculture and natural resources [¹], which enables institutes of higher learning in agriculture to share resources and academic strengths;
- [b] in terms of research, the focus is on the application of technological innovation to rural development.

TROPMED

The SEAMEO regional tropical medicine and public health project [TROPMED], established in 1967, consists of a network of national centres, as follows :

- [a] **TROPMED/Indonesia**, based in the faculty of Medicine of the University of Indonesia, which provides diploma, M.Sc. and Ph.D. training in applied nutrition
- [b] **TROPMED/Malaysia**, based at the Institute of medical research in Kuala Lumpur, where diploma and M.Sc. courses are provided in applied parasitology and medical microbiology;
- [c] **TROPMED/Philippines**, based at College of Public Health of the UPS in Manila, which provides master courses in public/rural health, and occupational health, M.Sc. and Ph.D. courses in public health and master courses in hospital administration;

¹. Including the UPLB in the Philippines, IPB and the Universitas Gadjah Mada in Indonesia, Kasetsart university in Thailand and the Universiti Pertanian Malaysia in Malaysia.

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- [d] **TROPMED/Thailand**, established at the Faculty of tropical medicine of Mahidol university [Bangkok], where a variety of diploma, master, M.Sc. and Ph.D. programmes is provided in the fields of tropical medicine and hygiene, clinical tropical medicine, public/urban health, and tropical paediatrics.

In addition to above longer-term training, a series of short term [10 weeks] training courses are provided at the centres with financial support from the ASEAN scholarship programme for applied tropical medicine and public health.

In terms of research, TROPMED centres conduct research in a wide range of areas, including epidemiology of tropical diseases of public health importance, malnutrition and nutritional diseases, maternal health practices to lower maternal morbidity and mortality and vaccine production and vaccine trials on some important tropical diseases.

THE ASIAN INSTITUTE OF TECHNOLOGY

The Asian Institute of Technology [AIT], is an autonomous international post-graduate institute based in Bangkok, Thailand.

AIT focuses on the provision of advanced education, training [diploma, masters, M.sc and Ph.D.] and research.

These activities cover a wide range of subject areas, including the in following:

- [a] **infrastructure development** : geotechnical engineering, transportation engineering, water resources engineering, etc.
- [b] **management and planning** : including urban, rural/regional planning and management science;
- [c] **agriculture and natural resources development** : post-harvest technology, natural resources management, integrated farming system, etc.
- [d] **computer and communication** : including software engineering and information systems; and
- [e] **manufacturing systems engineering**, which covers industrial engineering and manufacturing systems engineering.

Furthermore, AIT's Continuing Education Centre [CEC], is to provide Asian professional training and development in new expertise, technologies and strategies, linking AIT's expertise with the human resource development needs of the region.

The CEC's services include :

- [a] an international training programmes consisting of a series of training courses, held regularly at AIT in subjects such as human resource management, planning and design of small scale irrigation projects, small business management, etc.
- [b] a custom-designed training programme, composed of courses designed to the requirements of specific clients, which may be delivered either at AIT or on-site and
- [c] consultancy services in the field of e.g. the development and evaluation of human resource development programmes, management audit, etc.

For students from Laos, Vietnam and Cambodia, AIT/CEC has developed an adapted training programmes to include, amongst others, additional language training, basic sciences' and relevant technical training.

DON BOSCO SCHOOLS

The Don Bosco congregation operates since 1930 an increasing number of training institutions in Thailand, including Bandon [Surat Thani], Bangkok, Hua Hin, Udoonthani, Aranyaprathet and several camps for Cambodian refugees along the Thai-Cambodian border.

Technical schools are operated under Don Bosco auspices in Bangkok, BanPong, Surat Thani, Ron Phibun and Aranyaprathet, in collaboration with the Thai Ministry of Education.

The schools provide formal three year vocational training courses [day and evening classes] and informal two year training programmes in a variety of subjects, including car repair, electrics, printing, and welding. In addition, teacher training programmes are conducted. The focus of the training is on practical work, which is done both in the school workshops and local industries. A substantial part of the school budgets is generated by contracts with these local industries.

Project strategy and institutional arrangements of the UNESCO/UNDP project "Capacity Building in Education and Human Resources Sector Management" (KAM/91/009)

The main characteristic of the project is its "action training" orientation. As the objective of the project is to enhance the national capacity in Education Sector Management, the key officials of the sector will be placed in the real conditions for learning and applying, with the required professional performance, all the techniques related to their functions.

The proposed method is to convene national Working Groups composed of representatives of the leading officials of all ministries and institutions involved in education, training and human resource development and to define with them the tasks to be undertaken in the area of higher education and vocational training. A team of consultants, selected for their operational know-how, will assist them technically. One long-term Education Sector Advisor will coordinate international consultant inputs and ensure a real transfer of skills.

Practical training activities will be built around the analysis of the present Cambodian situation. As part of the training schemes, the participants will gather information and data, carry out interviews at national and local level, and undertake field studies to define the major issues to be tackled and propose ways to improve the system and its management.

These officials will, as a second step, act as national trainers and organize working sessions and discussions on their findings and recommendations at provincial/district level in order to enrich the dialogue and spread, at decentralized levels of the administration, the techniques they have acquired.

The accumulated knowledge of the system will serve, at a later stage, to formulate objectives for improvement of sub-sectors and elaborate draft proposals for a long-term strategy designed to improve and adapt the education and training system as a whole.

Institutional arrangements

For the overall activities to be performed within the framework of the overall UNESCO/UNDP project the general responsibility will rest with an Education Sector Committee, composed of representatives of all Ministries involved in the project including representation of the SNC among which the Prince will appoint a chairman (see point 7. Coordination arrangements).

Several national working groups will be set up, each responsible for one of the major subjects to be analyzed.

- WG 1 Access, efficiency and quality in General Education
- WG 2 Agricultural development and Education
- WG 3 Industrial development and Education
- WG 4 Education needs for the Informal Sector
- WG 5 Education needs for Health and Social Welfare
- WG 6 Statistics and Planning
- WG 7 Costs and Financing
- WG 8 School construction and maintenance

Each group will consist of four to five professional staff recruited within the different ministries/institutions concerned. The members of all working groups will be selected so as to cover all levels of education, including basic, vocational, technical, higher and non-formal education. Working group leaders will be responsible for organizing sessions and plan their work in a flexible way, adapted to the groups' specific tasks.

The Working Groups are assisted by an International Team recruited by UNESCO. The

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International Team ensures the initial training, provides substantive support, proposes methodologies for the various parts of the work, organizes upgrading or reinforcement training activities, when deemed necessary, and plans the overall implementation of the programme. Throughout the project period, the National Working Groups and the International Team engage in periodic dialogue on key issues and options with the Sector Programme Committee.

The International Team, headed by an Education Sector Advisor (resident in Cambodia), is composed of international consultants in specific fields related to the tasks of the Working Groups. The experts, who are engaged by UNESCO on a part-time basis over a long period, undertake missions periodically to work closely with the Working Groups. In particular, they assist the Working Groups at the beginning of each activity and at critical periods thereafter. Twinning arrangements with the institutions to which the consultants belong are organized by the Education Sector Advisor.

UNESCO, as the executing agency, has overall responsibility for the project. It shares this responsibility in an appropriate way with the Government and UNDP and liaises with the other donors with the view to widening the inter-agency cooperation. Within UNESCO, the Operational Policy and Sector Analysis Division (BAO/PSA) is responsible for UNESCO's participation in the present programme and provides overall coordination and support for the substantive and technical activities of the project. For this purpose, a senior BAO/PSA staff member will be assigned as UNESCO Task Manager for the Project.

Annex 4

Tentative Workplan (in preparation)

Annex 5

Overview of external assistance

Institute	Agency assistance	Future support	(prospects)	Past support (not continued)		
Central nursing school	Belgium International ICF Belgium/ ATI-Welland ICF France ICF Korea	Two teachers for four years for physiotherapy training. Two long-term (3-6 years) teachers and equipment (incl. generator for laboratories) for the training of laboratory technicians. Specialist nursing training and ancillary and recreation training (consultants). Training of trainers (consultant) and two teachers' professional verse and scientific trainer.				
Coedined faculty of medicine, pharmacy and dental stoeatology	France ICF France Exterior Espoir University of Ind World Concerns	Cooperation with the University of Marie Curie (Faculte de Medecine de Sante Salvatriens) and the medical faculty of Free Sciences University (teaching & scholarships). French language training. Teaching staff sent to Thailand. Provision of teaching staff. English teaching at dental stoeatology faculty. Assistance to dental stoeatology faculty.	France	Cooperation with the medical faculty of the University of Lyon is envisaged. Under the programme of cooperation each year six teachers will be upgraded in several disciplines in France for 6-10 months. Upon return trainees will be provided with books and documentation. In addition 15 missions envisaged for training by French professors in Cambodia.	World Vision/ AFSA Unicef Assistance for the rehabilitation of infrastructures. Provision of teaching materials. Training in health education methodology and techniques.	
Agricultural school Chastar Bay	UNICEF ICF UNEP UNESCO	Agreement/advisee. Assistance in field of curriculum development. Development of learning and teaching materials. Funds (US\$ 8,000) for maintenance and repairs. Support for the repair of agricultural machinery vehicles. Assistance for training. Translation of agricultural textbooks into Cham. Training of staff in the Philippines. Coordinate translation of UNEP publications into Cham. Revisiting of curricula since beginning of 1971. Financial internship at Baselstun university in field of agronomy (financed by France).	UNICEF ICF Thailand	Assistance in the field of fisheries. Assistance in the field of forestry. Pedagogical support for training activities. Five fellowships in the Philippines. The Ministry of Education has visited the institute to discuss possibilities for future collaboration. A decision by the Thai Ministry of Agriculture is awaited. Possibilities of collaboration with MIT, Iowa State and Ohio Wesleyan universities being explored.	UNICEF, UNICEF, Vietnam UNICEF UNESCO UNESCO UNESCO	A majority of the teachers have received training in either the Soviet Union, Vietnam or Czechoslovakia. UNICEF support consisted of technical assistance and equipment/materials for agronomy and veterinary sciences and technical assistance only for the other facilities. Fellowships financed in Laotia (fisheries) and Vietnam. Financial internship at Chulalongkorn university in field of veterinary sciences. English language training.
Benay Inn technical training college	UNESCO AFSA	Technical assistance (technical and educational adviser) and equipment for machine vehicles. Technical assistance (auto mechanic) and equipment for car repair unit. Assistance for the translation of curricula into Cham.	UNESCO UNESCO	Two teachers in electrical engineering and sheet metal work (October 1971). Work is expected to start soon its involvement in the institute as the organization will be working more at the provincial level in future.	UNESCO In the 1970's the institute received support mainly from the USA. This support included fellowships abroad.	
Economic sciences faculty			UNESCO	Possibilities of future assistance in English language training being explored with UN programme and Australia UNDP (UNEP).	Vietnam UNESCO Technical assistance provided in the period 1963-1971. Under the IC-Indochina reconciliation programme English language training was provided by the University of Buffalo.	
Indo-Viet technical training college	UNESCO	Technical assistance (eight teachers of which two Russian language teachers).	UNESCO	This technical support is to be phased out in 1972.	UNESCO In February 1971 the institute was re-equipped with assistance from the Soviet Union. Support included technical assistance, books, materials and equipment.	
Centre universitaire des cadres de l'Education	Alliance Francaise UNESCO	Intensive French language training programme for 15 teachers for 6-8 months. This is to be followed by 3 months training in France. Trainees will upon return organize training at provincial teacher training schools. English language training for teacher trainers.	Indo Korea UNESCO France France	Bill Finney (a teacher in [primary] school inspection). Nine month fellowship at the Victoria university in Australia in 1972. French have been discussing the possibilities for support in the field of management and inspection and the provision of fellowships for up-grading of staff. A request has been forwarded to France Liberté for support in terms of documents on management, pedagogy etc.	Vietnam UNESCO Indo Korea France Both 1970 technical assistance for the training of school management. Training in school management in Vietnam. Assistance for the rehabilitation of laboratories. Financial seminar on primary education in 1970. Short term study visits have been organized for staff to Hungary, Czechoslovakia and the Soviet Union.	
University of Phnom Penh	France Liberté Alliance Francaise UNESCO	Interinstitutional cooperation programme under which books and teaching aids are supplied and an exchange of lecturers in various disciplines. French language teaching for students. English language training for students. Provision of fellowships for interpreter training in Australia (AFSA funded). Technical assistance (12 professors).	UNESCO UNESCO	Possibilities of collaboration with UN in English language training being explored under the UN programme. Technical assistance to be phased out in 1972.	UNESCO Vietnam UNESCO UNESCO Both countries provided teachers in the past. They have been replaced by Cham teachers. The number of Vietnamese teachers declined from 24 in 1967/68 to 5 in 1971/72. Provision of educational support services (library support, A/V equipment, textbooks).	
Cham Soviet Friendship Higher technical school	UNESCO	Provision of technical assistance (20/100) teachers.	UNESCO UNESCO	Staff of MIT (Bangkok) has visited the school in 1971. Timor to follow-up. Technical assistance to be phased out in 1972. Possibilities of future support in collaboration	UNESCO Institute rehabilitated/re-equipped with Soviet assistance after 1970.	

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Terms of reference for long-term international personnel and consultants

Long-term Higher Education and Vocational Training Advisor

Duration: 24 months

Qualifications and experience:

a minimum of a master's degree from a recognized university in education/social sciences, with no less than 7 years' experience in the administration of a public education system.

In addition, he/she must have had experience in educational planning and in the management of education projects in one or more developing countries, preferably in the South-East Asian region and be familiar with the principles of inter-institutional linkage programmes.

He/she should be proficient in both French and English. Knowledge of Khmer would be an asset.

Responsibilities :

The advisor will have the following *administrative* duties:

- exercise general responsibility in the administration and management of the project, the overall conduct of the work and the direction of international/regional consultants;
- serve as principal liaison between the project, the Government, UNDP, Unesco, other external donor organisations and NGO's;
- assist in cooperation with the national project counterpart the project management of the Education and Human sector development project, in securing the higher education and vocational training input in the project.
- prepare the reports required by the international agencies, supporting the project, including progress reports, interim review reports, and final reports.

The advisor will have the following *substantive* duties:

Sector review

- assist the overall project management in the design of training programmes, surveys and studies to be undertaken, oversee statistical collection activities, assist to identify and interpret indicators, advise on strategic and policy options and provide other professional education inputs;
- in coordination with the national project counterpart, and with the assistance of the other internationally/regionally recruited specialists, assist the overall project management to identify substantive components to be included in working groups' studies and activities, as well as institutions to be involved; and
- together with the national project counterpart, assist the overall project management in ensuring the timely completion and quality control of the working papers and reports.

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- assist the Working Group - envisaged to be established under the UNESCO/UNDP project KAM/91/009 - in the elaboration of policy options and alternatives for the future development of the vocational and higher education system.

Inter-institutional cooperation programme:

- in cooperation with the National project director, exercise general responsibility for the management and administration of the programme of study visits between institutions in higher and vocational education in Cambodia and the Southeast Asian region;
- exercise general responsibility for the identification and formulation of inter-institutional cooperation project proposals to be presented for financing to various donors;

Other responsibilities of the advisor include :

- to advice the Cambodian ministries involved in higher and vocational training and the UNDP liaison office in Phnom Penh on the coordination of external assistance in higher and vocational education.

Consultant : *Vocational training and technical education specialist*

Duration: 3.5 months (in 2 missions)

Qualifications and experience:

a basic vocational degree or engineering followed by an advanced degree in education from a recognized university. He/she should have had at least seven years' experience in the administration of vocational education in the Southeast Asian region.

He/she should be proficient in both French and English. Knowledge of Khmer would be an asset.

Responsibilities:

The consultant will assist the Higher Education and Vocational Training advisor in the following activities:

- collect and analyze information on past and present employment opportunities for graduates from institutes of vocational training and higher technical education;
- design, test and conduct surveys to determine the anticipated demand for manpower trained at these institutes;
- review the present structure of vocational training and technical education at post-secondary school level.

This review will include programmes and courses offered by the Ministry of Education as well as those provided by other agencies and Ministries.

The review will cover all aspects of training, including: organization, general management, financing, types and length of courses offered, certificates or diplomas awarded, qualifications, availability, and number of instructors, instructional facilities, and workshop equipment. Programmes and curricula will be assessed with particular emphasis on training standards and their relevance to employers' needs;

- analyze student profiles, enrolment and completion statistics, and policies concerning entrance requirements and admission criteria to each specific programme or course;
- design and conduct surveys of employers;

In this respect the study should elicit, *inter alia*, the views and perceptions of employers as to the effectiveness of the pre-service training.

The survey report should also include a description of actual or potential cooperation between employers and training institutions;

- identify possible trade-offs within the system, including proposals for especially effective programmes which might be expanded and especially ineffective programmes which might better be terminated;
- assist the Higher Education and Vocational Training advisor in the preparation of studies on the status and future development of the vocational training and higher technical education system, including policy options and alternative strategies.

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Moreover, the consultant will have the responsibility to prepare appropriate documentation and simple training material which can be left with the national staff upon the consultant's departure. He/she will hold one or more informal seminar(s) for the members of the Working Group - envisaged to be established under the UNESCO/UNDP project KAM/91/009.

Consultant : *Health Education Specialist*

Duration: 2 months (in two missions)

Qualifications and experience:

an advanced degree in health education from a recognized university. He/she should have had at least seven years' experience in the administration of health education in the South East Asian region.

He/she should be proficient in both French and English. Knowledge of Khmer would be an asset.

Responsibilities:

The consultant will assist the Higher Education and Vocational Training advisor in the following activities:

- collect and analyze information on past and present employment opportunities for graduates from institutes of vocational training and higher education in the health sector;
- design, test and conduct surveys to determine the anticipated demand for manpower trained at these institutes;
- review the present structure of vocational training and higher education in the field of health.

This review will include programmes and courses offered by the Ministry of Health as well as those provided by other agencies and Ministries. The review will cover all aspects of training, including: organization, general management, financing, types and length of courses offered, certificates or diplomas awarded, qualifications, availability, and number of instructors, instructional facilities, and laboratory equipment and materials. Programmes and curricula will be assessed with particular emphasis on training standards and their relevance to anticipated needs;

- analyze student profiles, enrolment and completion statistics, and policies concerning entrance requirements and admission criteria to each specific programme or course;
- design and conduct surveys of employers; the studies should elicit, inter alia, the views and perceptions of employers as to the effectiveness of the pre-service training.

The survey report should also include a description of actual or potential cooperation between the various levels of institutions in the field of health and central, regional and/or provincial training institutions;

- analyze and evaluate programmes and curricula, with particular emphasis on training standards and their relevance to the needs of the various elements in the health system;
- identify possible trade-offs within the system, including proposals for especially effective programmes which might be expanded and especially ineffective programmes which might better be terminated;

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- assist the Higher Education and Vocational Training advisor in the preparation of studies on the status and future development of the health education system, including policy options and alternative strategies.

Moreover, the consultant will have the responsibility to prepare appropriate documentation and simple training material which can be left with the national staff upon the consultant's departure. He/she will hold one or more informal seminar(s) for the members of the Working Group - envisaged to be established under the UNESCO/UNDP project KAM/91/009.

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Consultant : Agricultural Education Specialist

Duration: 3.5 months (in two missions)

Qualifications and experience:

an advanced degree in agricultural sciences from a recognized university, with special attention to agricultural extension and agricultural training.

He/she should have had at least seven years' experience in agricultural science education, including the management and organisation of agricultural training institutes, in the Southeast Asian region.

He/she should be proficient in both French and English. Knowledge of Khmer would be an asset.

Responsibilities:

The consultant will assist the Higher Education and Vocational Training advisor in the following activities:

- collect and analyze information on past and present employment opportunities for graduates from institutes of vocational training and higher education in the agricultural sector;
- design, test and conduct surveys to determine the anticipated demand for manpower trained at these institutes;
- review the present structure of vocational training and higher education in the field of agriculture, taking into account present and anticipated policies for development of the agricultural sector.
- review and evaluate the structure of agricultural education and training at post-secondary school level. The review will include programmes and courses offered by the Ministry of Agriculture as well as those offered by other agencies.

The review will cover all aspects of training, including organization, general management, types and length of courses offered, certificates or diplomas awarded, qualifications, availability, and number of instructors, instructional facilities, laboratory and workshop equipment;

- analyze student profiles, enrolment and completion statistics, and policies concerning entrance requirements and admission criteria to each specific programme or course;
- design and conduct surveys of employers; the studies should elicit, inter alia, the views and perceptions of employers as to the effectiveness of the pre-service training. The survey report will also include a description of actual or potential cooperation between employers and training institutions;
- analyze and evaluate programmes and curricula, with particular emphasis on training standards and their relevance to employers' needs;
- identify possible trade-offs within the system, including proposals for especially effective programmes which might be expanded and especially ineffective programmes which might better be terminated;

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- assist the Higher Education and Vocational Training advisor in the preparation of studies on the status and future development of the agricultural science education system, including policy options and alternative strategies.

Moreover, the consultant will have the responsibility to prepare appropriate documentation and simple training material which can be left with the national staff upon the consultant's departure. He/she will hold one or more informal seminar(s) for the members of the Working Group - envisaged to be established under the UNESCO/UNDP project KAM/91/009.

Consultant : *Basic Sciences Education Specialist*

Duration: 3 months (in two missions)

Qualifications and experience:

a science [mathematics, physics, chemistry or biology] degree from a recognized university.

He/she should have had at least seven years' experience in the field of science education, including the management and organisation of science education institutes, in the Southeast Asian region.

He/she should be familiar with training opportunities offered by relevant institutions within the Southeast Asian region.

The consultant should be proficient in both English and French. Knowledge of Khmer would be an advantage.

Responsibilities:

The consultant will assist the Higher Education and Vocational Training advisor in the following activities:

- review and evaluate the structure of science education and training at post-secondary school level, with a particular emphasis on science teacher education provided for both lower and upper secondary education teachers.

The review will include programmes and courses offered by the Ministry of Education as well as those offered by other agencies and Ministries.

The review will cover all aspects of training, including organization, general management, types and length of courses offered, certificates or diplomas awarded, qualifications, availability, and number of instructors, instructional facilities, and laboratory and workshop equipment;

- analyze student profiles, enrolment and completion statistics, and policies concerning entrance requirements and admission criteria to each specific programme or course;
- analyze and evaluate programmes and curricula, with particular emphasis on training standards and their relevance to employers' needs;
- assist the Higher Education and Vocational Training advisor in the preparation of studies on the status and future development of the science education system, including policy options and alternative strategies.

Moreover, the consultant will have the responsibility to prepare appropriate documentation and simple training material which can be left with the national staff upon his/her departure. The consultant will hold one or more informal seminar(s) for the members of the Working Group - envisaged to be established under the UNESCO Education and Human Resources sector project.

Consultant : *Foreign Language Training Specialist*

Duration: 3 months (in two missions)

Qualifications and experience:

an advanced degree in the teaching of French/English as a foreign language, followed by several years of professional experience, both in the organisation and management of foreign language teaching and related curriculum development, teaching methodologies, etc.

He/she should have had at least seven years' experience in the administration of foreign language training programmes in the Southeast Asian region.

The consultant should be proficient in both English and French. Knowledge of Khmer would be an advantage.

Responsibilities :

The consultant will assist the Higher Education and Vocational Training advisor in the following activities:

- review and evaluate the structure of foreign language training at post-secondary school level, with a particular emphasis on the training of foreign language teachers.

The review should include programmes and courses offered by the Ministry of Education as well as those offered by other agencies and Ministries. Special attention will be paid as well to the private foreign language training which has developed e.g. in Phnom Penh over recent years.

The review will cover all aspects of training, including organization, general management, types and length of courses offered, certificates or diplomas awarded, qualifications, availability, and number of instructors, instructional facilities, and language laboratory equipment;

- analyze student profiles, enrolment and completion statistics, and policies concerning entrance requirements and admission criteria to each specific programme or course;
- design and conduct surveys of employers; the studies should elicit, inter alia, the views and perceptions of employers as to the effectiveness of the pre-service training. The survey report should also include a description of actual or potential cooperation between employers and training institutions;
- analyze and evaluate programmes and curricula, with particular emphasis on training standards and their relevance to employers' needs;
- identify possible trade-offs within the system, including proposals for especially effective programmes which might be expanded and especially ineffective programmes which might better be terminated;
- assist the Higher Education and Vocational Training advisor in the preparation of studies on the status and future development of the foreign language training system, including policy options and alternative strategies.

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Moreover, the consultant will have the responsibility to prepare appropriate documentation and simple training material which can be left with the national staff upon his/her departure. The consultant will hold one or more informal seminar(s) for the members of the Working Group - envisaged to be established under the UNESCO Education and Human Resources sector project.

Consultant : *Economic Sciences Education Specialist*

Duration: 2 months (in two missions)

Qualifications and experience:

an advanced economic sciences degree from a recognized university, with a specialization in teaching of economics at the post-secondary level.

He/she should have had at least seven years' experience in the development and administration of economic science education, including the elaboration of curricula and teaching methodologies, preferably in the Southeast Asian region.

The consultant should be proficient in English and French.
Knowledge of Khmer would be an advantage.

Responsibilities:

The consultant will assist the Higher Education and Vocational Training advisor in the following activities:

- review and evaluate the structure of foreign language training at post-secondary school level. The review should include programmes and courses offered by the Ministry of Education as well as those offered by other agencies and Ministries and should cover all aspects of training, including organization, general management, types and length of courses offered, certificates or diplomas awarded, qualifications, availability, and number of instructors, instructional facilities, and equipment;
- analyze student profiles, enrolment and completion statistics, and policies concerning entrance requirements and admission criteria to each specific programme or course;
- design and conduct surveys of employers; the studies should elicit, inter alia, the views and perceptions of employers as to the effectiveness of the pre-service training. The survey report will also include a description of actual or potential cooperation between employers and training institutions;
- analyze and evaluate programmes and curricula, with particular emphasis on training standards and their relevance to employers' needs;
- identify possible trade-offs within the system, including proposals for especially effective programmes which might be expanded and especially ineffective programmes which might better be terminated;
- assist the Higher Education and Vocational Training advisor in the preparation of studies on the status and future development of the economic science education system, including policy options and alternative strategies.

Moreover, the consultant will have the responsibility to prepare appropriate documentation and simple training material which can be left with the national staff upon his/her departure. The consultant will hold one or more informal seminar(s) for the members of the Working Group - envisaged to be established under the UNESCO Education and Human Resources sector project.

Consultant : *Educational Management Specialist*

Duration: 3 months (in two missions)

Qualifications and experience:

a higher degree in management and finance, with a specialisation in the field of education, followed by at least seven years' experience in management [including personnel management] and organization of higher education and/or vocational training systems in the Southeast Asian region.

The consultant should be proficient in English and French. Knowledge of Khmer would be advantage.

Responsibilities:

The consultant will assist the Higher Education and Vocational Training advisor in the following activities:

- review the overall organization of the higher education and vocational training system;
- review and assess the organization systems and policies for school administration and academic supervision for higher education and vocational training at the institutional, including operating procedures and methods, performance standards and evaluation, career progression, working conditions, and authority/responsibility relationships;
- assess personnel policies applicable to higher education and vocational training and identify possibilities for improvement. This assessment shall include recruitment, compensation, in-service training, promotions, leaves, transfers, and retirement;
- draw a responsibility chart showing the relationships among all the internal actors in higher education and vocational training in the following areas:

policy development; curriculum planning and development; pre-service and in-service teacher training; teacher supervision; information systems; and financing and accounting; and
- in collaboration with the Management Specialist in the UNESCO National Working Group, design the flows of information between the managers of the education and training system and external institutions.

Moreover, the consultant will have the responsibility to prepare appropriate documentation and simple training material which can be left with the national staff upon the consultant's departure. He/she will hold one or more informal seminar(s) for the members of the Working Group - envisaged to be established under the UNESCO Education and Human Resources sector project.

Consultant : *Project identification and preparation*

Duration : 1 month [2 consultants]

Qualifications and experience :

a higher degree in social sciences, economics, or development administration from a recognized university, with a specialisation in issues related to developing countries followed by several years of experience, including field experience, in the identification and design of development projects and the elaboration of project documents

experience in training in project identification and preparation and the development of long-term inter-institutional linkage programmes

the consultants should be proficient in English and French. Knowledge of the Khmer language would be an advantage.

Responsibilities :

The consultants will have the following duties:

Preparation of the workshops

- determine, in collaboration with the national authorities and the project advisor the organisation, the precise content of the training programme, data and places of training, criteria for selection of participants [in order to ensure a more or less homogeneous audience], lodging arrangements of the participants.

During this preparatory phase particular attention will also be paid to the most pressing issues faced by the institutes in the identification, preparation and formulation of project proposals and their experience in the above field till date. Furthermore, existing project proposals, which can be used as reference/training material will be identified. This will permit a good matching between training needs and the training programme to be adapted to the differing local circumstances and requirements.

Training workshops

- The two consultants will conduct two workshops, one in French and one in English, with a total of approximately 30 participants. The subjects to be treated and the duration of these workshops will *grosso modo* be as follows:
 - [a] a general introduction into the methodology of project planning and the preparation of project proposals.
 - identification of projects. Particular emphasis will be on the importance of relations between the training institutes and their programmes and the envisaged "environment", in particular with future employers of students graduating from these institutes. The importance of accurate problem definition will be emphasized as this is imperative for the development of projects.
 - the importance of defining objectives - in relation to the problems identified - and of analyzing the different project strategies that, in principle, can be identified to achieve such objectives.

Annex 6 - 15

- the presentation of project proposals according to the so-called "logical framework", in which a logical relation is maintained between project objectives, envisaged outputs, proposed project activities and the inputs required for undertaking these activities. This logical framework is at the basis of virtually all existing instructions regarding the presentation of project proposals.
- the possibilities of project planning on the basis of the above logical framework.

If so desired the introduction can be completed with sessions on project monitoring and evaluation.

Training will be oriented to future practical use. Theoretical introductions will be provided by the consultants which will be followed by both group exercises [group work will be a basic feature of the seminars] and individual exercises in which the theory introduced is to be applied. The individual exercises will permit the participants to start developing the proposals of their respective institutes;

- provide the participants with the necessary documentation prepared for the workshops;
- monitor the progress of workshop participants in mastering the techniques introduced; and
- conduct a final evaluation of the workshops in collaboration with the participants and project staff.

The consultants will prepare and submit a report on the work performed to the project management.

Annex 7 - 1

*Additional inputs required for project implementation**Equipment*

	US\$
1 4 wd vehicle [Toyota landcruiser or equivalent] with hard top, diesel engine, air-conditioning, electric winch, lw-base, and essential spare-parts	18,000
1 IBM compatible computer, one 5" 1/4 HD floppy and one 3" 1/2 floppy disk drive; high resolution VGA colour monitor and MS-DOS 3.3 or later operating systems; English keyboard	4,000
Computer software packages, including WP 5.01, Lotus 1-2-3, D-base	2,000
1 Printer	1,500
1 600 watt uninterruptable power supply [UPS], with 15-20 minutes powerdown capacity	1,000
1 Overhead projector	450
1 Telephone/Fax	1,500
Office furniture	1,000
Total equipment costs	29,450
<i>Operational expenses</i>	
Diskettes, paper, etc...	4,500
Vehicle operation and maintenance costs	6,000
International communications [post, telex, fax, etc.	2,500
Office rent	6,000
Miscellaneous	1,000
Total operational expenses	20,000
Total additional inputs	49,450

Annex 8 - 2

Salaries	: 1.5	7250	4.5	3750		11000
Travel costs	:	7000		3500		10500
Per diem Phnom Penh	:	2331		1110		3441
Other expenses	:	200		100		300
Sub-total	:	3.5	4831	2.5	2720	6751
Implementation						
Travel costs	:	12000		32000		44000
Allowances	:	8400		23000		32000
Local transport	:	1200		2750		3950
Agency costs	:	4000		10000		14000
Other expenses	:	1000		2250		3250
Sub-total	:	26000		70000		97000
Linkage development						
Travel costs	:		5	15000	5	15000
Per diem	:			15500		15500
Local transport	:			450		450
Cambodian staff allowances	:			3500		3500
Salaries reg. institutes	:			30000		30000
Co-ordination linkages						
Consultants	:		1	7500	1	7500
Travel costs	:			7500		7500
Per diem	:			3100		3100
Other costs	:			500		500
Sub-total	:		6	83000	6	83000
Training						
Project identification/preparation						
Salaries	:	0.5	3750			3750
Local transport	:		250			250
Allowances [US\$ 10/day]	:		1350			1350
Miscellaneous expenses	:		100			100
Materials	:		1250			1250
Rent facilities	:		1500			1500
Sub-total	:		8200			8200
Equipment						
Vehicle	:		18000			18000
Vehicle running costs and maintenance	:		1500	3000	1500	6000
Computer equipment and software	:		7500			7500
Photocopier	:		1500			1500
Fax	:		1500			1500

Overhead projector	450			450
Consumables	1800	1500	2000	4500
Office furniture	2000			2000
Sub-total	133450	4500	3500	41450
Office rent	1500	3000	1500	6000
Total costs	238521	377270	154788	762579
Contingencies [10%]		37727	15479	53206
Agency fees [7%]	16136	26409	10835	53381
TOTAL GENERAL	245657	441406	181102	869165

Not included 13 % Agency fees