



REPUBLICA NG PILIPINAS
REPUBLIC OF THE PHILIPPINES
KAGAWARAN NG EDUKASYON, KULTURA AT ISPORTS
DEPARTMENT OF EDUCATION, CULTURE AND SPORTS
DECS Complex, Meralco Avenue
Pasig City, Philippines

EDTEIP



Sama-Sama
sa DECS

September 26, 2000


Director Erlinda Capones
Social Development Staff
National Economic Development Authority
NEDA sa Pasig
Amber Avenue, Pasig City

Dear **Director Capones**:

We are re-submitting herewith the revised project proposal entitled "Improving Science and Mathematics Education in Philippine Schools". As per our discussions with NEDA and JICA, we focused the requested grant assistance on school based teacher training with minimal support to other components such as provision of equipment and expert services.

We hope that you will favorably endorse the project to JICA for implementation in 2001.

Very truly yours,


MA. LOURDES G. DE VERA
Assistant Secretary for
Programs and Projects

Enclosed: Project Proposal

Cc: Shigeki Fukuda
JICA-Manila Office

APPLICATION FOR PROJECT TYPE TECHNICAL COOPERATION PROGRAM (PTTCP) for JFY 2001

- I. **Official Title:** Improving Science and Mathematics Education In Philippine Schools
- II. **Implementing Organization:**
1. **Name of Implementing Organization:** Department of Education, Culture and Sports (DECS)
 2. **Project Sites:**
 - 2.1 Model Regions of Package Cooperation I
 - 2.1.1 DECS Regions V, Legaspi City ✓
 - 2.1.2 DECS Region VI, Iloilo City ✓
 - 2.1.3 DECS Region XI, Davao City ✓
 - 2.2 Additional Three Regions
 - 2.2.1 Region III, San Fernando City ✓
 - 2.2.2 Region VII, Cebu City ✓
 - 2.2.3 Region X, Cagayan de Oro City ✓
 3. **Related Government Departments:**

Department of Science and Technology
University of the Philippines-Institute of Science and Math Education
Philippine National Volunteers Service Coordinating Agency
National Economic Development Authority
Commission on Higher Education

Outline of Implementing Organization

Mandate of the DECS: The Department of Education, Culture and Sports is the principal government agency responsible for education and manpower development. The Department continually pursues the constitutional mandate of ensuring peoples' right to education, to wit "The State shall protect and promote the right of all citizens to quality education of basic education and shall take appropriate steps to make such education accessible to all

Powers and Functions of DECS: To accommodate its mandate and objectives, the DECS have the powers and functions of formulating, planning, implementing and coordinating the policies, plans, programs and projects for the following areas of responsibilities:

- a) Elementary, secondary, physical and international kinds of education
- b) Non-formal education
- c) Development of culture
- d) Foreign and locally assisted projects and other activities relative to elementary, secondary, non-formal education and development of culture.

5. Organizational Set Up

The Department is organized into two major structural components. Maintaining the overall administration of basic education at the national levels is the Central Office. The Field Offices are responsible for the regional and local coordination and administration of the Department's mandate.

Backstopping the Office of the Secretary at the Central Office are the different services, bureaus and centers. The five services are Administrative Service, Financial and Management Service, Human Resource Development Service, Planning Service and Technical Service.

The four bureaus assist in formulating policies, standards and programs related to curriculum and staff development. These are the Bureau of Elementary Education (BEE); Bureau of Secondary Education (BSE); Bureau of Non-Formal Education (BNFE); and Bureau of Physical Education and School Sports (BPSS).

There are also centers or units attached to the Department similarly provide technical and administrative support towards the realization of the Department's vision. These are: School Health and Nutrition Center (SHNC); National Education Testing and Research Center (NETRC), Educational Development Projects Implementing Task Force (EDPITAF), National Educators Academy of the Philippines (NEAP), and Center for Students and Co-Curricular Affairs. Other attached agencies to the Department are the National Library, National Historical Institute, Records Management and Archives Office and the Teacher Education Council.

The field offices consists of 16 regional offices including the Autonomous Region in Muslim Mindanao (ARMM) each headed by a Regional Director (a Regional Secretary in the case of ARMM); 139 provincial and city school divisions, each headed by a School Division Superintendent; and 2, 128 school districts, each headed by a District Supervisor or a coordinating School principal.

As of SY 1998-1999, there are 54, 679 schools nationwide broken down as follows: 8647 pre-schools; 39,011 elementary schools and 7,021

secondary schools. Of the 54,679 schools, 45,290 or 82.83% are government schools. (Refer to **Annex 1 – DECS Organizational Structure**)

6. Outline of Activities

To achieve its mandated objectives, DECS through its Bureau and Regional Offices and various units, performs the following major activities:

6.1 Bureau Elementary Education

6.1.1 Conduct studies and formulate, develop and evaluate programs and educational standards for elementary education

6.1.2 Undertake studies necessary for the preparation of prototype curricular designs, instructional materials and teacher training programs for elementary education

6.1.3 Formulate guidelines to improve elementary schools physical plans and equipment, and general management

6.1.4 Perform other activities provided by laws

6.2 Bureau of Secondary Education

6.2.1 Conduct studies and formulate, develop and evaluate programs and educational standards for secondary education

6.2.2 Develop curricular designs, prepare instructional materials and prepare and evaluate programs to upgrade the quality of the teaching and non-teaching staff at the secondary level

6.2.3 Formulate guidelines to improve the secondary school physical plants and equipment, and general management

6.2.4 Perform other activities provided by law

6.3 Bureau of Non-Formal Education

6.3.1 Serve as a means of meeting the learning needs of those unable to avail themselves of the educational services and programs of formal education

6.3.2 Coordinate with various agencies in providing opportunities for the acquisition of skills necessary to enhance and ensure continuing employability, efficiency, productivity and competitiveness in the labor market

6.3.3 Serve as a means for expanding access to educational opportunities to citizens of various interests, demographic characteristics and socio-economic origins of status

6.4 Regional Offices

6.4.1 Implement laws, rules, regulations, policies, plans, programs of the DECS, within its administrative region

6.4.2 Provide efficient and effective services to the people

6.4.3 Coordinate with local government units

6.4.4 Perform such other activities as may be provided by law

6.5 Planning Services provides the DECS with economical, efficient, and effective services relative to planning, programming and project development

6.6 Financial and Management Services provide the DECS with staff advice and assistance on budgetary, financial and management improvement matters

6.7 Administrative Services provide the DECS with economical, efficient and effective services relating to legal assistance, information, records, supplies, equipment, collection, disbursement, security and custodial work

6.8 Human Resource Development Service

6.8.1 Develop and administer a personnel program which includes selection and placement; classification and pay, career and employment development, performance rating, employee relations and welfare services

6.8.2 Act on matters concerning attendance, leaves of absence, appointments promotions and other personnel transactions;

6.8.3 Conduct training programs in the DECS

7. Annual Budget

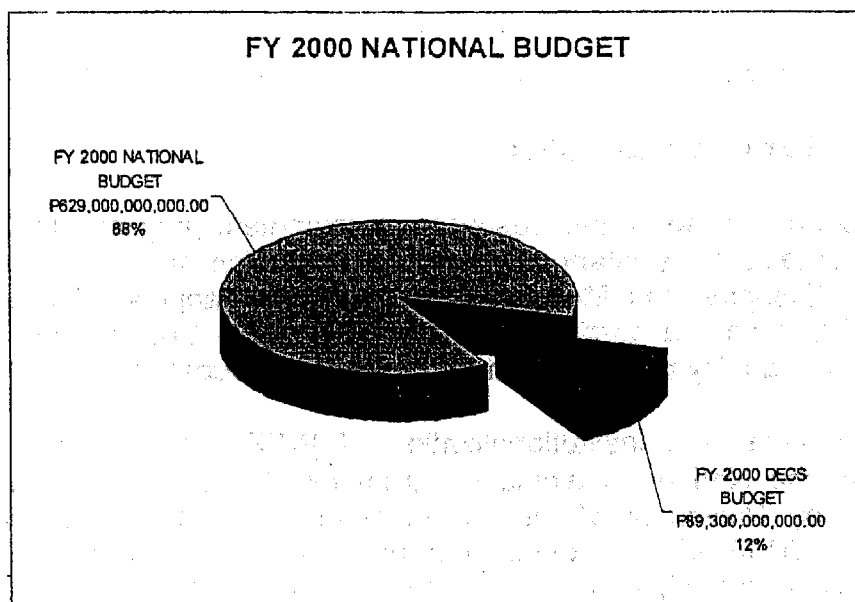
The 1987 Philippine Constitution provides that education shall be accorded the highest budgetary priority by the government. For the past six years, education enjoyed a substantial share in the entire national budget as follows:

Year	National Budget	DECS Budget	% to National	Total Education Budget *	Percentage Share to the National Budget
CY 1995	387.398 B	42.365 B	10.94%	52.264 B	13.49 %
CY 1996	394.855 B	51.485 B	13.04 %	64.328 B	16.29 %
CY 1997	433.817 B	61.445 B	14.16%	75.840 B	17.48 %
CY 1998	546.744 B	83.046 B	15.19 %	104.078 B	19.04 %
CY 1999	585.097 B	83.723 B	14.31 %	102.345 B	17.49 %
CY 2000	562.780 B	87.126 B	15.48 %	105.084 B	18.67 %

*/ includes DECS, CHED, TESDA, SUCs and other cultural agencies

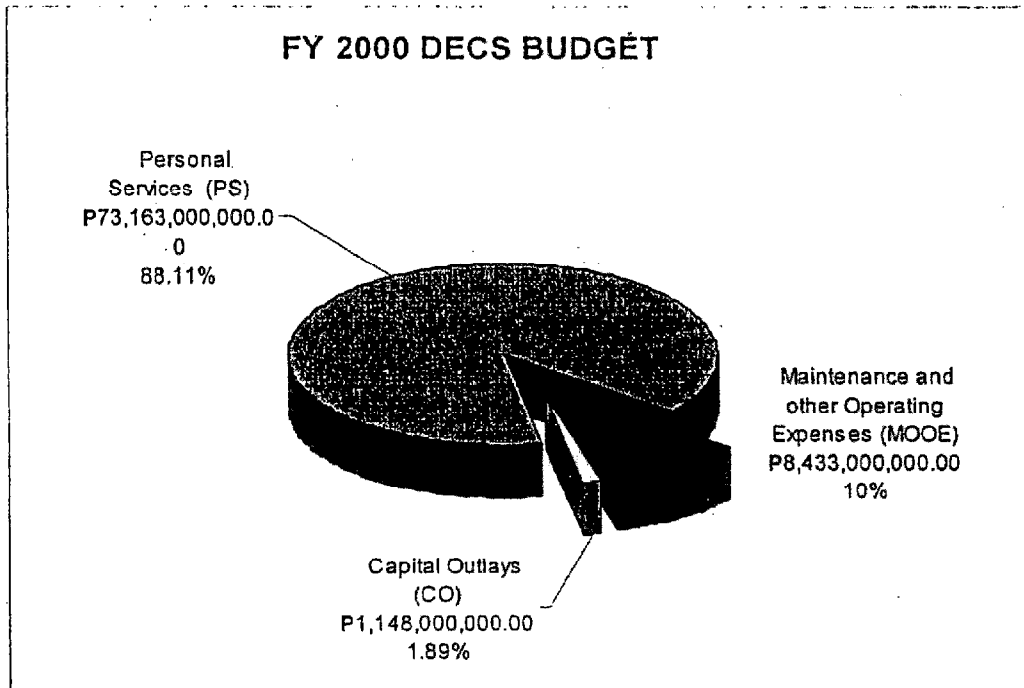
Accordingly, the DECS appropriation in the **2000 General Appropriation s Act (RA 8760)** amounting to P 87.126 Billion was the highest among the other sectors. It covered the operating expenses for public elementary and secondary schools and for literacy and continuing education programs as well as the general administrative and support services of 16 administrative regions nationwide, and the operation of the Central Office and Special Purpose Funds.

The 2000 budget of DECS increased by 3.40B (4% over 1999's appropriation of P83.723 billion). For FY 2000, DECS has a 14.31% share of the total national government budget amounting to P562.78 billion (see Figure 1)



In terms of expense class, a big chunk (88%) went to Personnel Services (PS) intended to cover the salaries of teachers, and all other DECS

personnel.. 10% was allotted for maintenance and operating expenses (MOOE) and the remaining 2% went to capital outlay (CO) to cover the construction, repair and rehabilitation of schoolbuildings and administrative offices and acquisition of school and administrative equipment (please refer to Figure 2)



III. Project Proposal:

1. Background Information:

As part of the human resource development program, the JICA provided a 5-year package of assistance through the provision of In-Service Training (INSET) under the Science and Mathematics Education Manpower Development Program (SMEMDP). It was a core project of the Package Cooperation I which aimed at improving the quality of science and mathematics education in the Philippines.

To assist the institutionalization of INSET for Science and Mathematics Education, the National Training Program (NTP) was yearly conducted under the SMEMDP by University of the Philippines-Institute of Science and Mathematics Education (UP-ISMED) to develop a pool of leader trainers to upgrade teacher competencies primarily in the use of effective and workable teaching and evaluation strategies. Hundreds of elementary and secondary classroom teachers and supervisors were trained as national lead trainers and regional teacher trainers in the three model regions and other regions in the country. A sourcebook of lesson exemplars in Practical Work for the use of teacher trainers and its accompanying

instructional materials are the major outputs developed and produced through the program.

As part of the Package Cooperation I of JICA, the DECS INSET Program in Science and Mathematics maximally utilized the resources and outputs of SMEMDP in terms of the trained trainers and the sourcebook of lesson exemplars particularly in creating the awareness and the subsequent acceptance of Practical Work (PW) as an alternative approach in teaching science and mathematics

Utilizing the GOP counterpart funds for the Package Cooperation I and following the cascading delivery model, the 939 UP-ISMED trained NTP trainers conducted massive Regional Training Programs (RTPs) for teacher trainers throughout the country. The RTPs were conducted by the DECS Regional offices through the Regional Management Teams and in collaboration with the Regional Science Teaching Centers (RSTCs) of the Department of Science and Technology (DOST). The RTP participants who, by program implementation structure were designed to function as teacher trainers, were selected from among well-performing science and mathematics teachers as well as school heads/administrators in the school division, who have had training experience. In close coordination with the Division Management Teams, the RTP-trained trainers in turn have trained more than 12,000 elementary and secondary science and mathematics teachers across the country in the subsequent Division Training Programs (DTPs). **Annex 2** shows the number of teachers trained under the Package Cooperation 1.

The introduction of Practical Work as an alternative concept in teaching science and mathematics became the focus of the above-mentioned trainings conducted at the regional and division levels. The training also served as the "field-testing" venue for the experimental editions of the sourcebooks developed by UP-ISMED. The outputs of the adaptation workshops conducted in the RTPs and DTPs came in the form of revised, localized lessons including indigenized/improvised instructional materials and equipment, which served as workable substitutes for the expensive laboratory materials and equipment which oftentimes are not available in the classroom. Further, the adapted lessons included new techniques in improvisations and provided manipulative skills for better instructions to increase learners achievement.

These initial gains have to be sustained to enable DECS to benefit from such gains by institutionalizing the PW technology, and installing more efficient systems for better results. The evaluation of the concluded Package Cooperation has pointed out the fact that the concept of PW as a teaching methodology has been extensively introduced and accepted by the target beneficiaries. The skills of adapting lessons and materials to suit local requirements have also been initially developed among the trained teachers and are gradually finding its way into the classrooms. More measures, however, are still needed to fully develop and nurture such skills and to disseminate the technology into every school, every classrooms and every science and mathematics teacher not only in the identified model regions but nationwide.

Although a total of 22,492 science and mathematics teachers in the elementary and secondary levels were already trained as teacher trainers during the conduct of the Regional/Divisional Training Program under the Package Cooperation I (Annex 2), DECS could not fully maximize the utilization of the trained teacher trainers to train a very large number of science and mathematics teachers in elementary and secondary levels nationwide due to funding limitations.

While education's primacy in the national budget has been restored and its share has notably increased with DECS enjoying the largest piece of the pie among other government agencies, still the budget allocation is not enough to support even the basics of educational needs. Education budget still remains inadequate on account of the additional demands in education such as free basic education, assistance to private education and upgrading of teachers salaries, not to mention the perennial pressure of inflation and expanding school population. Because of the said underinvestment in education, the country suffers from among others, shortages in personnel, teaching and learning materials, school equipment/facilities and staff development.

Hence, major foreign-assisted projects (FAPs) in basic education are being undertaken largely to support the various educational needs and also to augment government efforts on the current thrust such as the following areas: institution of reforms or innovations, addressing issues that cannot be sufficiently covered by regular operations and creating institutional capacities for improved management of the basic education sector.

In the light of these emerging needs to further enhance the capabilities of science and mathematics teachers and to direct conscious and concerted efforts to where instructional problems happen – the school, DECS is proposing this project to expand the gains derived from the previous JICA assistance to cover a number of schools in the model regions (V, VI and XI) and three additional regions such as Regions III, VII and X. Selection of these three regions was basically based on the following criteria: a) poor performance in the NEAT and NSAT, particularly in the areas of science and mathematics; b) low cohort-survival rate; and c) lesser number of related foreign-assisted projects (Annex 3).

3. Project Content and Activities:

a. Continuing School-Based In-Service Training Program (CSBITP)

To fully develop and nurture the skills of adapting lessons and materials to suit the local requirements initially developed among the trained teachers in Package Cooperation I and to disseminate the technology to the school level, the proposed project will provide financial and technical assistance in the conduct of a continuing school-based in-service training.

As the project's major strategy, the in-service training of science and mathematics teachers will be delivered at the school and/or school-cluster level, on a continuing and regular basis to provide all teachers in a given school access to training. Moreover, to strengthen the Induction Program of participating Teacher Education Institutions (TEIs), a practical approach of the program will be part of the pre-service curriculum where student teachers will be assigned to pilot schools in Package Cooperation 2 during their practicum period and they will be allowed to participate in the school-based INSET as observers.

Managed by school administrators, monthly training sessions on subject-specific lessons will be conducted by the teacher trainers trained under the RTP and DTP of the Package Cooperation I in close coordination with subject experts. Training specialists from the Regional Science Teaching Centers (RSTCs) of the Department of Science and Technology (DOST) will be tapped as resource persons.

The training will focus on Practical Work as an alternative approach in teaching science and mathematics using the sourcebook of lesson exemplars developed during the SMEMDP at UP-ISMED and localized lessons, aided by improvised and locally-adapted instructional materials as well as indigenized equipment which were already developed during the adaptation workshops conducted in RTPs and DTPs.

b. Provision of basic science and mathematics equipment

Within the elementary and secondary schools, the low achievement particularly in science and mathematics subjects could be attributed to the teachers' capability to handle the subject matter, general shortage of laboratory equipment and supplementary instructional/resource materials, among other factors.

To complement the school-based INSET under the proposed project, basic science and mathematics equipment kit will be provided to selected elementary and secondary schools to improve the teaching/learning processes in the classrooms and the performance of students in above-mentioned subject areas. These inputs will permit the students the actual experimentation and self-discovery of the various scientific and mathematics concepts and principles being taught.

To sustain the gains derived from previous NSTIC project, where prototype basic science equipment is being produced, DECS also proposed that the center will be tapped to provide instructional support to school based training particularly in the development of indigenized/improvised equipment.

c. Expert Services

A total of six (6) Japanese experts will be engaged in the proposed project to cover the following areas:

1. Conduct of Training

The following five (5) experts will be tapped to accelerate technology transfer:

- 1.1 One (1) Chief Advisor
- 1.2 Four (4) Experiment Manual Development Experts to cover General Science, Biology, Chemistry and Physics

They will be actively involved in school-based INSET particularly in area of developing improvised equipment as well as training and orientation on equipment/materials use and maintenance. They can also perform the role of mobile trainers for highly specialized fields.

2. Technical Advise for NSTIC

One (1) Japanese Expert will also be tapped to further assist the National Science Teaching Instrumentation Center (NSTIC) in the formulation of Prototype Development Plan

4. Expected Beneficiaries:

- a. Generally, all Science and Math teachers in both the elementary and Secondary level in the selected regions are the expected to be the direct beneficiaries of the project
- b. Specifically, in each project region, there will be three (3) pilot divisions with four (4) school clusters, two (2) clusters each for elementary and secondary level per division. In each cluster, there will be 5 and 3 schools with a total estimated number of 12 and 10 teachers in the elementary and secondary levels, respectively. The direct beneficiaries of the school-based training are 3,240 teachers, 288 school administrators and 288 teacher trainers
- c. The target beneficiaries of the school-based teacher training program are the 72,000 students of the pilot schools (at 250 students/school) while around 157,000 students (at 250 students/school of 450 schools) will benefit from the basic science and mathematics equipment to be provided under the proposed project.

will benefit from the basic science and mathematics equipment to be provided under the proposed project.

5. Number of Expected JICA Experts and Terms of Reference

The project would need six (6) Japanese experts in the following areas: i) Training (5); and Technical Assistance for NSTIC (1). The corresponding TOR of the said experts are briefly discussed in item III.3.c above.

6. Number of Counterpart Training and Fields

Six counterparts (one in each region) will be needed to assist in the planning and implementation of teacher-training program.

7. Requested Equipment

Basic Science and Mathematics equipment

Training Equipment (portable overhead projector, notebook computer with printer, photocopier)

Equipment for NEAP (computer and photocopier)

IV. Situation of Project Facilities

1. Existing Building and Equipment

The selected regions will be requested to give a status of the building used for teacher training activities, i.e., Regional Education Learning Centers (RELCs), District Learning Resource Centers (DLRCs) and Divisional Leader Schools (DLSs).

2. Counterpart Personnel and Annual Project Budget

- 2.1 DECS Central Office
- DECS Regional Office
- Division Office

2.2 Project Costings (Detailed Cost Estimates is shown in Annex 4)

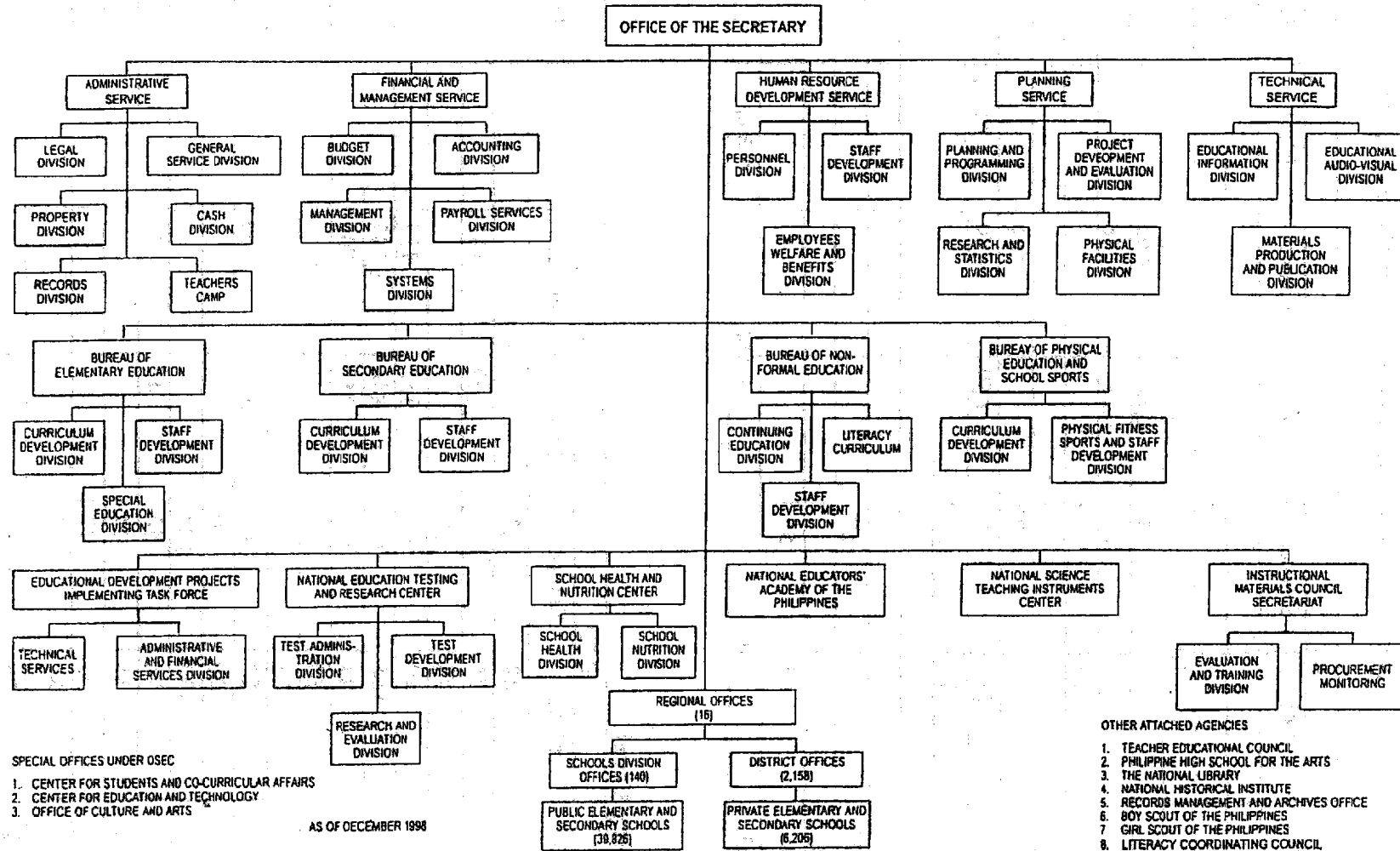
Component	Estimated Cost (in Ph. Pesos)
Continuing School Based INSET	337,905,000
Teacher Training	311,760,000
Administrators Training	8,715,000
Additional Trainers Training	17,430,000
Equipment	87,750,000
Basic Science and Math Equipment	67,500,000
Training Equipment	18,000,000
Equipment for NEAP	250,000
Expert Services (6 Experts)	34,000,000
Project Management	22,882,750
TOTAL Phil Peso	480,537,750
	US\$ 10,446,473
	Yen 1,113,902,990

Exchange Rate Used:

1 Peso = \$46.00

1 Peso = Yen 0.4314

Figure 1
DEPARTMENT OF EDUCATION, CULTURE AND SPORTS
ORGANIZATIONAL CHART



Annex 2

Number of Teachers Trained under Package Cooperation I

REGION	RTP		DTP		SBT		TOTAL
	Math	Science	Math	Science	Math	Science	
I							
II							
III	100		1,722				1,822
IV	68	68	1,125	1,462			136
V	60	60	1,215	948			2,707
VI	75	76					2,314
VII							
VIII		182		749			928
IX	150	300	469	469	2,834	2,586	6,808
X	30	30					60
XI	75	75					150
XII							
CARAGA		28					28
CAR							
NCR	65	55					120
TOTAL	1,497		8,156		2,834	2,586	15,073

Secondary Level

REGION	RTP		DTP		SBT		TOTAL
	Math	Science	Math	Science	Math	Science	
I	49	43	71				163
II	74	84	209	191			558
III	78	77					155
IV	49	43	153	153			398
V	144	275	844	1,137			2,400
VI	134	215	355	708			1,412
VII	60	60					120
VIII	78	257		104			439
IX	82	168	150	300		125	825
X	30	30					60
XI	132	182					314
XII	74	60	43	55			232
CARAGA	55	44					99
CAR	55	49					104
NCR	84	56					140
TOTAL	1,178	1,643	4,473			125	7,419

**IMPROVING SCIENCE AND MATHEMATICS EDUCATION
IN THE PHILIPPINE SCHOOLS PROJECT**

**Inventory of Related Foreign-Assisted Projects
(On-going and Pipeline)**

Regions	ON-GOING PROJECTS						PIPELINE				TOTAL
	PROBE	TEEP	SEDIP	BIARSP 1	CPC V	EFIP V	EFIP VI	BEAM	MBEDP	BIARSP 2	
	1996-2001	1997-2004	1999-2006	1999-2001	1999-2004	2000					
NCR					/						1
CAR		/	/		/	/					4
Region I						/					1
Region II	/	/	/		/						4
Region III							/				1
Region IV		/	/								2
Region V		/	/		/						3
Region VI		/	/		/						3
Region VII	/	/		/	/					/	5
Region VIII		/	/		/						3
Region IX	/	/	/	/			/		/	/	7
Region X	/								/		2
Region XI					/			/	/		3
Region XII		/	/		/		/	/	/		6
CARAGA	/	/	/						/		4
ARMM		/	/		/		/	/	/		6
TOTAL	5	11	10	2	10	2	4	3	6	2	55

ACRONYMS :

- PROBE - Project on Basic Education
 TEEP - Third Elementary Education Project
 SEDIP - Secondary Development and Improvement Project
 BIARSP - Belgian Integrated Agrarian Reform Support Program
 CPC V - Fifth Country Programme for Children
 EFIP - Educational Facilities Improvement Project
 BEAM - Basic Education Assistance for Mindanao
 MBEDP - Mindanao Basic Education Development Project

IMPROVING SCIENCE AND MATHEMATICS EDUCATION IN THE PHILIPPINE SCHOOLS PROJECT
Selection of Three Additional Regions

Regions	Performance in NEAT and NSAT (50%)										Cohort Survival Rate (30%)				Number of Related		Grand	RANK 2/		
	NEAT (25%)				Total % Share	NSAT (25%)				Total % Share	Elem. (15%)		Total Percent Share	FAP's 20% 1/		Total of % Share		Within Country	Within Zonal Area	
	Science (12.5%)		Math (12.5%)			Science (12.5%)		Math (12.5%)			CSR	% share		CSR	% Share		Number			Percent Share
	MPC	%Share	MPC	%share	MPS	%Share	MPS	%share												
A) LUZON																				
NCR	50.40	0.0080	42.26	0.0070	0.0149	48.87	0.008	51.56	0.0081	0.0161	82.78	0.0117	72.29	0.0101	0.0217	1	0.0036	5.644	3	3
CAR	51.21	0.0081	44.93	0.0074	0.0155	47.80	0.008	50.37	0.0079	0.0158	63.59	0.0090	64.17	0.0089	0.0179	4	0.0145	6.372	6	5
Region I	45.82	0.0072	42.61	0.0070	0.0143	47.36	0.008	51.09	0.0080	0.0158	81.02	0.0114	79.23	0.0110	0.0225	1	0.0036	5.617	2	2
Region II	48.54	0.0077	47.33	0.0078	0.0155	46.08	0.008	50.9	0.0080	0.0156	72.35	0.0102	74.98	0.0104	0.0206	4	0.0145	6.623	7	6
Region III	45.37	0.0072	41.75	0.0069	0.0140	46.03	0.008	50.32	0.0079	0.0155	81.20	0.0114	71.42	0.0099	0.0214	1	0.0036	5.456	1	1 3/
Region IV	47.81	0.0076	43.91	0.0072	0.0148	45.88	0.008	50.00	0.0078	0.0154	78.17	0.0110	71.61	0.0100	0.0210	2	0.0073	5.846	5	4
Region V	50.56	0.0080	50.93	0.0084	0.0164	44.33	0.007	47.08	0.0074	0.0147	69.83	0.0098	63.53	0.0088	0.0187	3	0.0109	6.067		
B) VISAYAS																				
Region VI	46.59	0.0074	41.52	0.0068	0.0142	43.04	0.007	40.64	0.0064	0.0135	63.59	0.0090	61.86	0.0086	0.0176	3	0.0109	5.616		
Region VII	43.60	0.0069	39.34	0.0065	0.0134	53.53	0.009	40.69	0.0064	0.0152	67.95	0.0096	69.49	0.0097	0.0193	5	0.0182	6.602	2	1 3/
Region VIII	62.78	0.0099	64.46	0.0106	0.0205	56.12	0.009	63.09	0.0099	0.0191	60.90	0.0086	61.53	0.0086	0.0172	3	0.0109	6.775	9	2
C) MINDANAO																				
Region IX	50.59	0.0080	52.34	0.0086	0.0166	48.97	0.008	55.36	0.0087	0.0168	52.55	0.0074	53.66	0.0075	0.0149	7	0.0255	7.371	13	5
Region X	49.28	0.0078	49.12	0.0081	0.0159	46.24	0.008	50.92	0.0080	0.0156	70.47	0.0099	64.62	0.0090	0.0189	2	0.0073	5.769	4	1 3/
Region XI	48.12	0.0076	47.17	0.0078	0.0154	43.86	0.007	46.9	0.0073	0.0146	64.98	0.0092	64.46	0.0090	0.0181	3	0.0109	5.901		
Region XII	44.27	0.0070	41.96	0.0069	0.0139	42.01	0.007	44.5	0.0070	0.0139	54.50	0.0077	62.79	0.0087	0.0164	6	0.0218	6.606	10	2
CARAGA	56.05	0.0089	58.20	0.0096	0.0184	49.38	0.008	53.6	0.0084	0.0165	60.55	0.0085	77.68	0.0108	0.0194	4	0.0145	6.889	11	3
ARMM	49.61	0.0078	51.12	0.0084	0.0163	46.22	0.008	52.75	0.0082	0.0159	39.35	0.0055	64.17	0.0089	0.0145	6	0.0218	6.845	12	4
TOTAL	790.60	0.1250	759.0	0.1250	0.2500	755.72	0.125	799.77	0.1250	0.2500	1063.8	0.1500	1077	0.1500	0.3000	55	0.2000	100.00		
AVERAGE	49.41		47.43			47.23		49.99			66.49		67.34			5.25				

Note:

 Model Regions of Package coop I

1/ See annex 3.1 for details

2/ Region with the lowest total % share of the criteria - First priority (Rank 1)

Region with the highest total % share - Last Priority (Rank n)

3/ Additional 3 Regions to be considered under the project based on the ranking within the zonal area

MPS - Mean Percent Score

MPC - Mean Percent Correct

A>Scimath>Roger Doc.

Details of the Estimated Total Number of Beneficiaries and Project Cost

A. Number of Beneficiaries

1. Continuing School-Based INSET

1.1	Total number of schools	=	288
	6 regions x 3 divisions x 2 elem school x 5 elem schools		= 180
	6 regions x 3 divisions x 2 sec school x 2 elem schools		= 108
1.2	Total number of Teachers	=	3,240
	6 regions x 3 divisions x 2 elem school clusters x 5 schools x 12 teachers		= 2,160
	6 regions x 3 divisions x 2 sec school clusters x 3 schools x 10 teachers		= 1,080
1.3	Total number of Administrators	=	288
	6 regions x 3 divisions x 2 elem school clusters x 5 schools x 1 admin		= 180
	6 regions x 3 regions x 2 sec school cluster x 3 schools x 1 admin		= 108
1.3	Total number of Teacher Trainers	=	288
	6 regions x 3 divisions x 2 elem school clusters x 5 teacher trainers		= 180
	6 regions x 3 divisions x 2 sec school clusters x 3 teacher trainers		= 108
1.4	Total number of Facilitators		
1.4.1	Teachers Training	=	144
	6 regions x 3 divisions x 2 elem sch clusters x 2 facilitators		= 72
	6 regions x 3 divisions x 2 sec school clusters x 2 facilitators		= 72

1.4.2	Teacher Trainers Training 1 facilitator/region/training x 6 regions x 2 trainings	=	12
1.4.3	Administrators Training 1 facilitator/region/training x 6 regions x 2 trainings	=	12
1.5	Total number of Pupils/Students	=	72,000
	6 regions x 3 divisions x 2 elem school clusters x 5 schools x 250 students = 45,000		
	6 regions x 3 divisions x 2 sec school clusters x 3 schools x 250 students = 27,000		

2. Provision of Basic Science and Mathematics Equipment

2.1 Total number of Beneficiaries

2.1.1	Number of Schools 6 regions x 3 divisions x 25 schools	=	450
2.1.2	Number of Pupils/Students 6 regions x 3 divisions x 25 schools x 350 students	=	157,500

B. Detailed Cost Estimates

1.0 Training

1.1 Teacher Training:

Meals = 3,240 teachers x 450/day x 40 days x 5 years	291,600,000
Facilitators Fee = 144 facilitators @ 1000/day x 8 days x 5 yrs **	5,760,000
Venue of Training = P1000/day x 40 days x 4 clusters -x 3 divisions x 6 regions x 5 years	<u>14,400,000</u>
Sub-total	311,760,000

** Services of facilitators will be engaged once a week only (for 8 weeks) during the training period

1.2 Administrators Training

Meals = 288 administrators + 12 facilitators x 450/day x 7 days x 5 years	4,725,000
Accommodation= 288 administrators + 12 facilitators x P300/night x 7 nights x 5 yrs.	3,150,000
Facilitators Fee = 12 facilitators @ 1000/day x 7 days x 5 yrs	420,000
Venue of Training = P1,000/days x 7 days x 2 trainings X 6 regions x 5 years	420,000
Sub-total	----- 8,715,000

1.3 Additional Trainers Training

Meals = 288 Trainers + 12 facilitators x 450/day x 14 days x 5 years	9,450,000
Accommodation= 288 trainers + 12 facilitators x 300/night x 14 nights x 5 yrs.	6,300,000
Facilitators Fee = 12 facilitators @ 1000/day x 14 days x 5 yrs	840,000
Venue of Training = P1000/day x 14 days x 2 trainings x 6 regions x 5 years	840,000
Sub-total	----- 17,430,000

Sub-total (item 1. training)

337,905,000

2.0 Equipment

2.1 Basic Science and Math Equipment	67,500,000
P150,000/school x 450 schools	
2.2 Training Equipment (portable projector, notebook computer with printer and photocopier)	18,000,000
P250,000/set x 4sets(1 set/cluster) x 3 divisions x 6 regions	
2.3 Equipment for NEAP	250,000
2 units of computer with printer = P150,000 1 photocopier = P100,000	-----
Sub-total (item 2. Equipment)	85,750,000

3.0	Expert Services	
3.1	Training Experts	
	1 Chief Advisor x P200,000/month x 12 months x 5 years	6,000,000
	4 Experts x 120,000/month x 12 months x 5 years	28,800,000
3.2	Technical Advice for NSTIC	
	1 Expert x P120,000/month x 6 months	720,000

	Sub-total (item 3. expert services)	34,000,000
	Sub-total (items 1 to 3)	457,655,000
4.0	Project Management Cost (5% of the total input cost)	22,882,750

	GRAND TOTAL (items 1 to 4)	P480,537,750