


No. 001

**BASIC DESIGN STUDY REPORT  
ON  
THE PROJECT FOR THE IMPROVEMENT  
OF  
THE OUTER ISLANDS SECONDARY SCHOOLS FACILITIES  
IN  
THE KINGDOM OF TONGA**

**FEBRUARY 1991**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

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## Preface


In response to a request from the Government of the Kingdom of Tonga, the Government of Japan has decided to conduct a Basic Design Study on the Project for the Improvement of the Outer Islands Secondary Schools Facilities in Tonga and entrusted the study to the Japan International Cooperation Agency (JICA). JICA sent to Tonga a survey team headed by Mr. Masahiko Suzuki, a Development Planning Specialist, Institute for International Cooperation, JICA from September 3 to October 2, 1990.

The team exchanged views with the officials concerned of the Government of Tonga and conducted a field survey in Vava'u Island and 'Eua Island. After the team returned to Japan, further studies were made. Then, a mission was sent to Tonga in order to discuss the draft report and the present report was prepared.

I hope that this report will serve for the development of the Project and contribute to the promotion of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Kingdom of Tonga for their close cooperation extended to the teams.

February, 1991



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Kensuke Yanagiya

President

Japan International Cooperation Agency

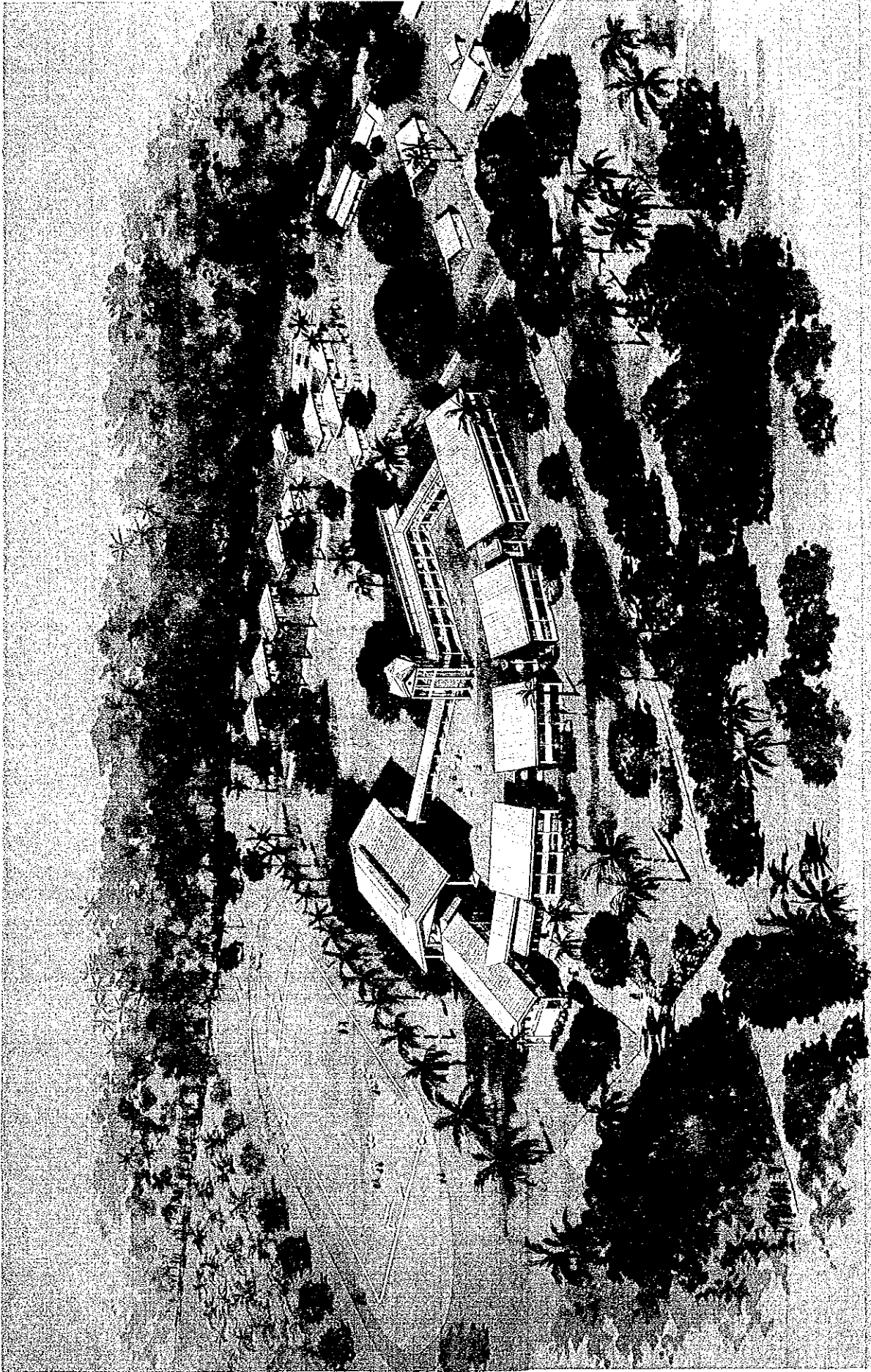






Vava'u High School

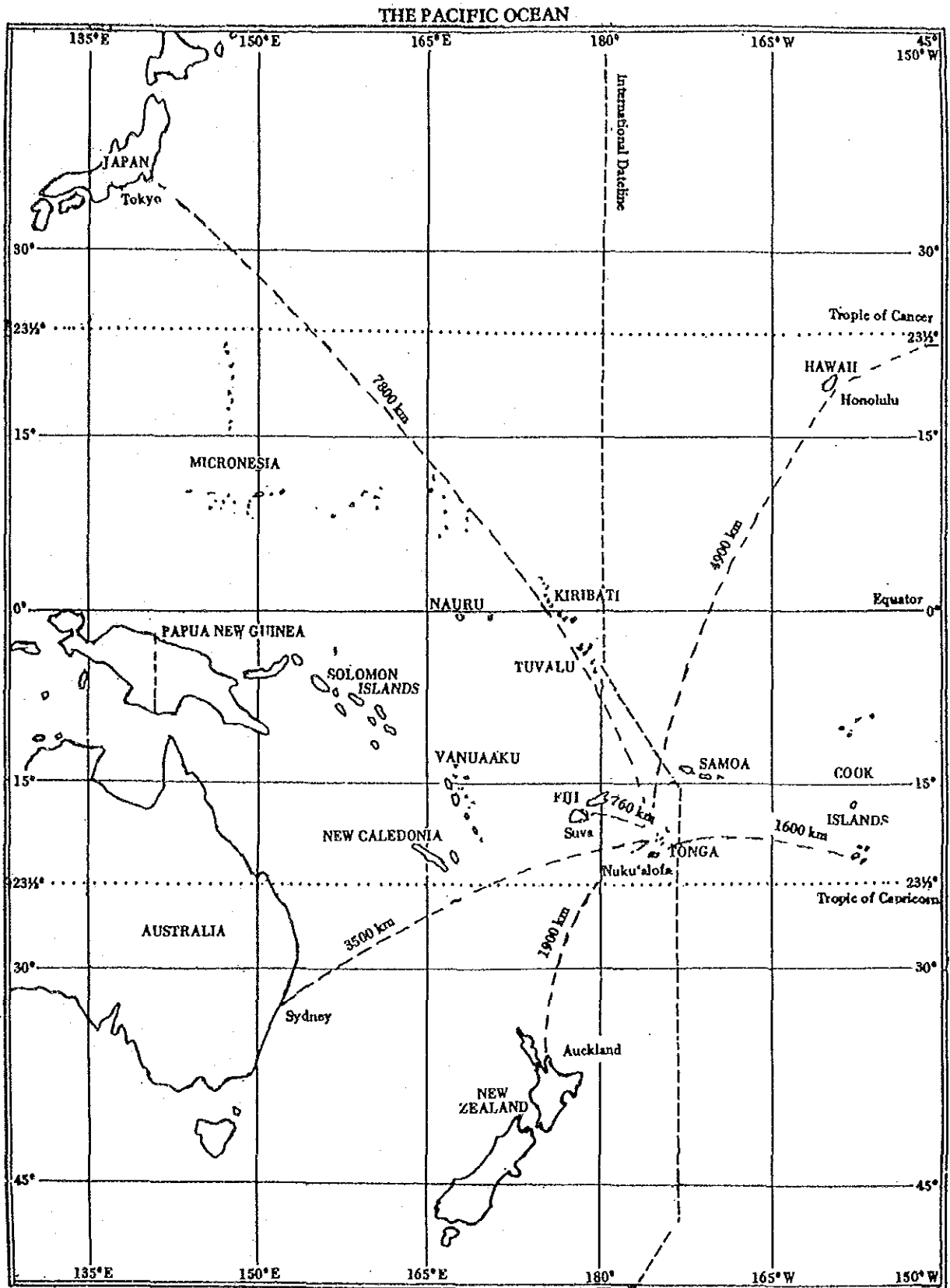




'Eua District High School

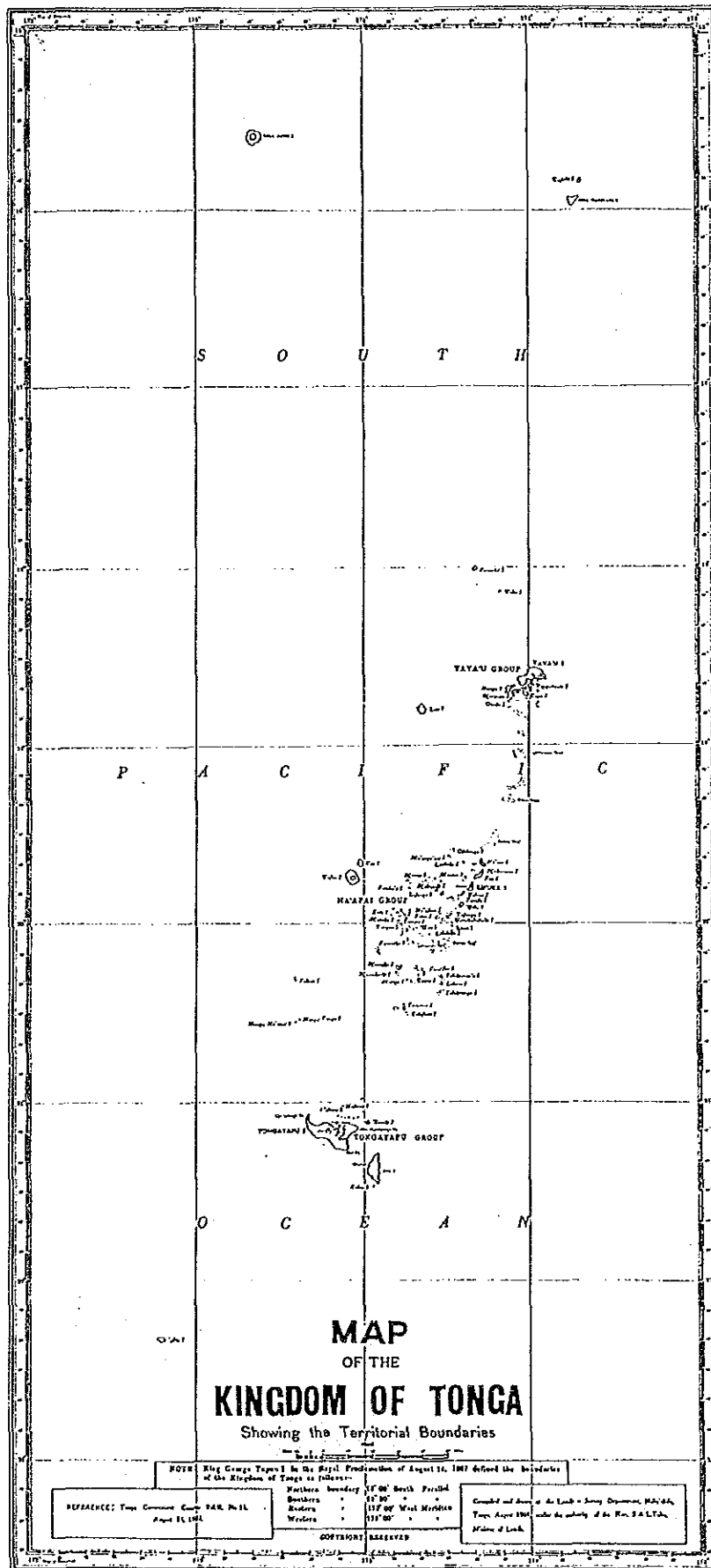


# Location of The Kingdom of Tonga





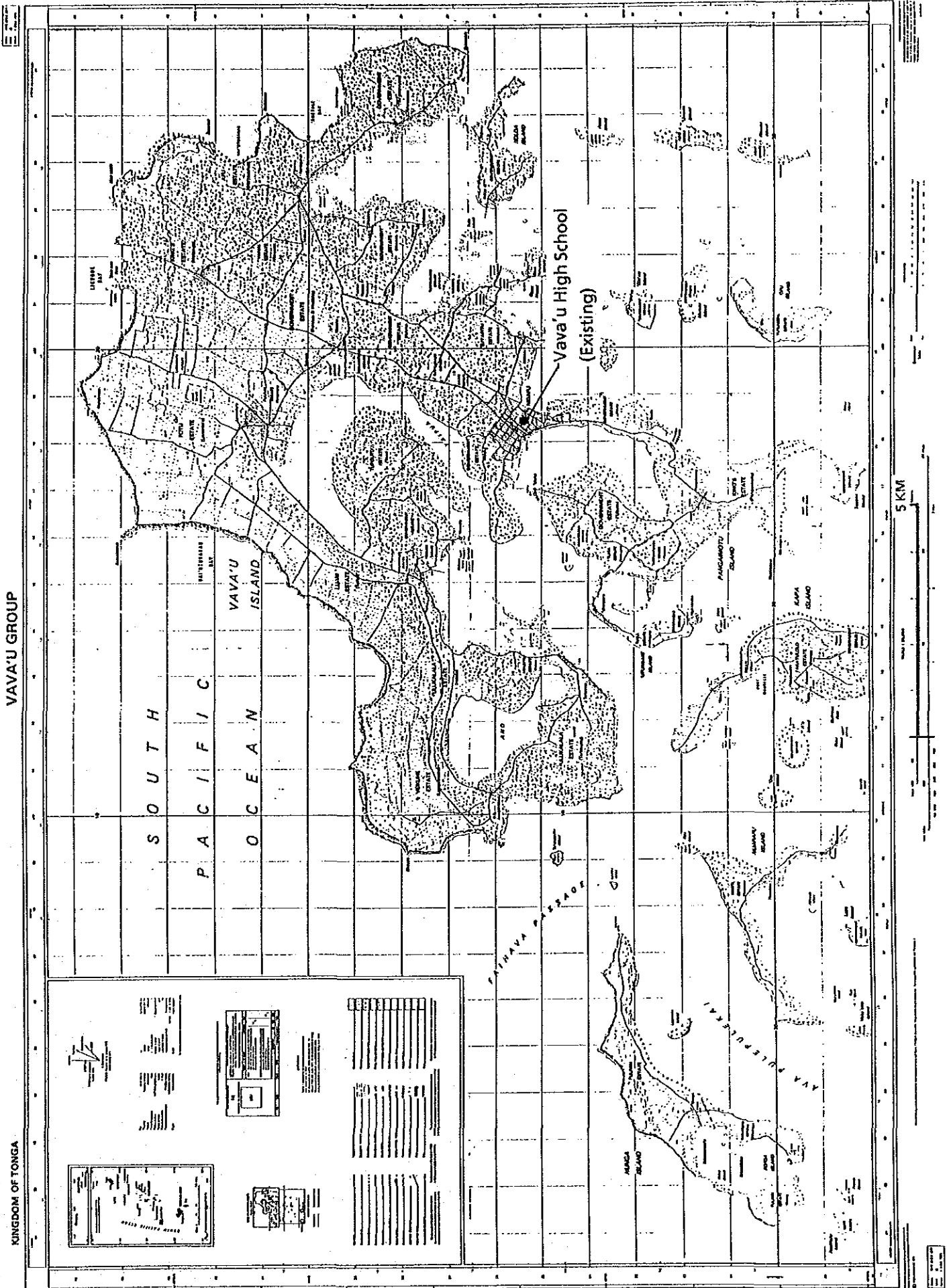
# Map of The Kingdom of Tonga







# Map of Vava'u Islands





# Outlook of the Vava'u High School Project Site

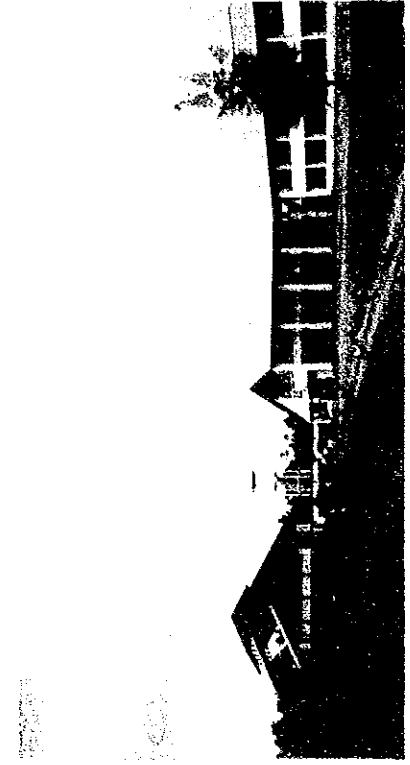
- ① General View of the Vava'u High School  
The Sport Ground is planned to be located at the Coconut Field at the Lefthand Side.



- ② Business Classroom Expansion Site

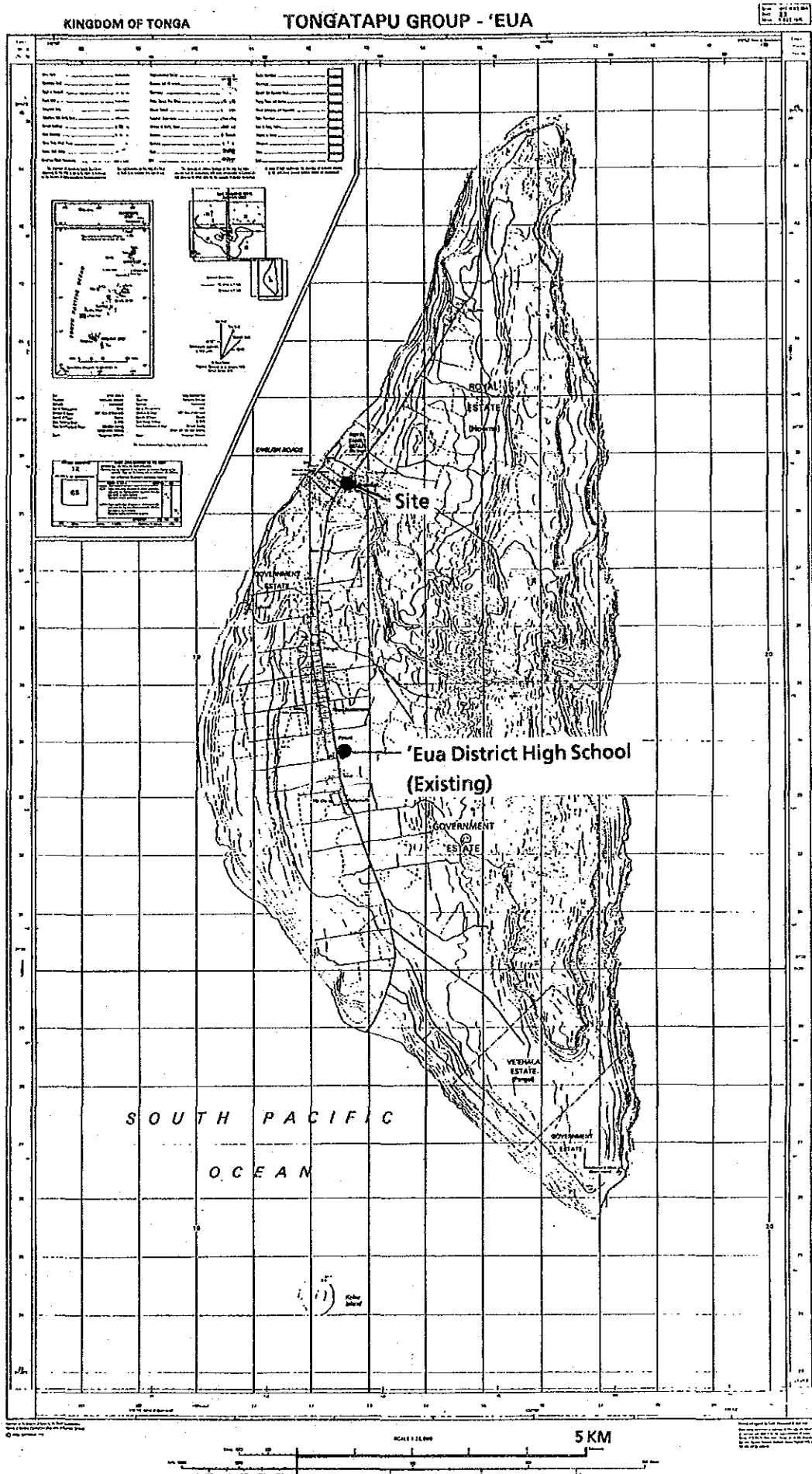


- ③ General Classroom Expansion Site





# 'Eua District High School





## Outlook of the 'Eua District High School Project Site

- ① School Building Site  
(Vicinity of the Special  
classroom site).  
Seeing North from the  
southeastern end of the site.



- ② School Building Site  
(Vicinity of the Teachers'  
Housing Site)



- ③ General Classroom  
Expansion Site  
(Vicinity of the entrance and  
administration block)  
Seeing the site border area in  
the West from the northeast  
end corner of the site.







- ④ Access Road Site  
(Seeing the Entrance and  
School Building Site)  
Seeing the site border area in  
the southwestern part from  
the northern end corner of the site.



- ⑤ School Building Site  
(Vicinity of Administration block,  
lecture hall site)  
Seeing the site border area in  
the southern part from  
the northeastern corner of the site.



- ⑥ Teachers' Housing Site  
Seeing the site border area  
in the western area from  
the southeastern corner.





## SUMMARY



## Summary

In recent years, the capital of the Kingdom of Tonga, which is the economic center of the country, has developed drastically with the rapid increase in relationship with other countries. As a result, the concentration of population and emigration to abroad has gradually increased in the capital and, on the contrary, brought about depopulation in local areas and outer island, with attendant reduction in the productivity of such local areas. The regional gap and economic imbalance has thus widened.

In order to resolve such problems and the widening imbalance brought about by emigration overseas, it is essential to redress the regional imbalance, by promoting the productivity of local areas. To this end, the Government of Tonga is now putting a great deal of effort into the development and economic promotion of local areas and outer islands. Having recognized, during the 4th 5-year Plan (1980 - 1985), that the training of human resources of the society is necessary in order to implement the policy of local economic promotion, the Government of Tonga targeted in the development plan mainly the improvement of educational system as the base thereof. Attaching importance, above all, to the enhancement of secondary education organizations which has played important role in the education of human resources constituting the nucleus of the Tongan society, the Government established a public high school in the main area of each district with a view to enhancing secondary education especially in local areas and outer islands.

Also in the Fifth Five-Year Development Plan (1986~1990) the Government continues to attach importance to the education sector, setting forth objectives such as reformation of mission-run and private schools, which represents 80% of the secondary educational schools, into public schools, standardization of curriculum in all high schools, and reinforcement of the government's support, etc., in order to enhance the standard of secondary education as a whole, in quantity and quality.

Under such situation, the Government of Tonga planned a project consisting of the expansion and improvement of existing high school facilities on the Vava'u and 'Eua islands, and requested Grant Aid from the Government of Japan in the execution thereof, as follows:

1. Expansion of the Vava'u High School
2. Japan Sports Ground Facility Preparation
3. Construction of 'Eua District High School
4. Construction of houses for teachers' of the Vava'u High School and 'Eua District High School

Receiving such request, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a basic design study mission to the Kingdom of Tonga for the period from September 3 to October 2, 1990.

After the confirmation of the construction site, a fact-finding survey of the site areas, collection of data, and discussion with the Government of Tonga, the survey mission prepared minutes of meetings on fundamentally agreed issues. These were countersigned on September 14, 1990 by the chief of the survey mission and the Secretary of the Ministry of Education, Youth, Sports and Culture.

As a result of the site survey, the mission judged that the "spectators roofed stadium with a seating capacity of 500" out of the requested sports ground facilities for the Vava'u High School was not necessary for the enhancement of the education, which is the main objective of the project.

On returning to Japan, the survey mission analyzed the information collected, and formulated a basic design plan summarizing facility plan, equipment and material plans, estimated cost of the project, etc. Based on these results, JICA prepared a draft final report concerning basic design studies and dispatched a survey mission to the Kingdom of Tonga for a period extending from January 14 to 26, 1991 to explain details of the report.

Shown below is the summary of the project thus prepared.

Summary of the Facilities and Equipment to be supplied under the scope of the Project.

(1) School Buildings

① Expansion and Renovation of Vava'u High School

- Expansion 550 m<sup>2</sup>  
 (General classrooms × 4,  
 Special classrooms,  
 Common areas)

- Renovation 182.42 m<sup>2</sup>

② Construction of 'Eua District High School

- General classrooms, Special classrooms, Library 2,223.36 m<sup>2</sup>
  - Administration sector, Common areas 2,314.80 m<sup>2</sup>
  - Lecture hall 771.84 m<sup>2</sup>
- 
- Total 5,310.00 m<sup>2</sup>

③ Vava'u High School Sports Ground

- Levelling of the sports ground
- Main sports equipment

(2) Teachers' Houses

① For the Vava'u High School

For married	64.0 m <sup>2</sup> × 5 houses = 320.00 m <sup>2</sup>
For single	30.0 m <sup>2</sup> × 3 houses = 90.00 m <sup>2</sup>
<hr/>	
Total	410.00 m <sup>2</sup>

② For the 'Eua District High School

For married	64.0 m <sup>2</sup> × 10 houses = 640.00 m <sup>2</sup>
For single	30.0 m <sup>2</sup> × 7 houses = 210.00 m <sup>2</sup>
<hr/>	
Total	850.00 m <sup>2</sup>

(3) Equipment

- Physics, biology and chemistry experimental equipment
- Handicraft, homemaking training equipment
- Office equipment for supportive training and educational supportive equipment

This project will be carried out in two phases. Phase 1 consists of the construction of the school building for 'Eua District High School and the annex facilities. Phase 2 consists of the expansion of the school building, the annex facilities and preparation of the sports ground at Vava'u High School, as well as

the construction of the Hall and the annex facilities of 'Eua District High School. The estimated period necessary for the project consists of three (3) months for the detail design work , twelve (12) months for the construction work in Phase 1, and three (3) months for the detail deisgn work, nine (9) months for the construction work in Phase 2.

The estimated project cost to be borne by the Kingdom of Tonga will be approximately 4 million yen.

The organization of the Kingdom of Tonga in charge of the execution of the project is the Ministry of Education, Youth, Sports and Education. The annual operating and maintenance costs will be approximately 150,000 pa'anga (17,250,000 yen) for 'Eua District High School and 210,000 pa'anga (24,150,000 yen) for Vava'u High School. These sums are within the allowable figures from past budgetary record of school operation.

The realization of the project will improve the accommodating capacity of the schools from 500 students into 700 at the Vava'u High School and 200 students to 630 at the 'Eua District High School, and upgrade the education in quality in conformity with the uniform curriculums and in scholastic achievement.

It will further give people of the outer remote islands equal opportunity to acquire locally secondary and higher education of the same level as that in the capital without moving to the capital. By such equalization of educational opportunities, a redressing of the regional gap in education level and an alleviation of the concentration of students in the capital will be eased.

Further, as education is the basic backbone of the society and economy of the area, when the population drain is eased and the human resources are more educated and retained within Vava'u and 'Eua islands, it will promote not only the development of the regional societies and economies but also the development and stabilization of the society and economy of the Kingdom of Tonga as a whole.



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**CHAPTER 1      GENERAL**



## CHAPTER 1 GENERAL

With the recent rapid change in Tongan society, the demand for corresponding improvements in the standard and quality of education has increased, as has also the social requirements for the improvement and reinforcement of secondary education, especially in outer remote islands. The Government of Tonga has planned an expansion of the Vava'u High School, arrangement of sports ground, construction of housing for the educational staff on Vava'u Island, construction of the 'Eua District High School and housing for the staff setting forth as targets of the Kingdom of Tonga, the following:

- Provision of equal opportunities in education, redressing of regional imbalances and discrimination.
- Improvement of the standard and quality of education.
- Prevention of concentration of population in larger cities.
- Development of human resources.
- Promotion of regional and rural development.

To implement these schemes, the Government of Tonga has requested Grant Aid from the Government of Japan.

Receiving this request, the Government of Japan decided to carry out a basic study for the project and JICA dispatched to Tonga a basic study mission headed by Mr. Masahiko Suzuki, expert in development planning at the International Cooperation Total Research Institute of JICA.

On returning to Japan, the study mission reviewed and analyzed meeting results, assessed on the validity of projects in secondary education and regional gaps of the Kingdom of Tonga, drew out a basic design of the most suitable size with optimum facilities, and summarized them in the Basic Design Study Report. Following this, the mission dispatched the personnel to the site for a period extending from January 14 to 26, 1991 in order to discuss the details of the report.

This report summarizes the basic design, estimated project cost, the validity of the project and suggestions of facilities and materials which are considered to be most suitable based on the above study results.





## **CHAPTER 2**

### **BACKGROUND OF THE PROJECT**



## CHAPTER 2 BACKGROUND OF THE PROJECT

### 2 - 1 Outline of the Kingdom of Tonga

1. Area : Approx. 670 square km  
(equivalent to Tsushima of Japan)
2. Population : 95,000 (1986)
3. Form of Government : Constitutional Monarchy
4. Date of Independence : June 4, 1970
5. Religion : 93% of the Population is Christian
6. Language : Tongan and English (official language)
7. Industry : Copra, Palm oil, Banana, and Fishery
8. G. N. P. : 72 million US\$ (1986)
9. G.N.P. per person : 720 US\$ (1987)
10. Trade : Exports 9,996 US\$ (1984)  
Import 46,663 US\$ (1984)
11. Export Goods : Foods, Livestocks, Coconut Oil Foods, Copra and  
Miscellaneous Goods
12. Currency : Pa'anga or T\$
13. Rate : 1US\$ = T\$1,191 (Sep. 1990)
14. Export to Japan : 0.24 million US\$ (1987)
15. Import from Japan : 2.63million US\$ (1987)
16. Relationship with Japan, Economic Cooperation
  - 1) Grant Aid : (As of December 1988) 3,696 million yen
  - 2) Reception of trainee : " 95 trainees
  - 3) Dispatch of expert : " 171 trainees
  - 4) Supply of equipment :
17. Fiscal Year : July to June

The foundation of the present Kingdom of Tonga was formed when Taufa'ohau (1845-1893) unified the nation and established the Allied Powers in the name of George Tupou I. Before then, it had been separately governed by the kings of each region. After the unification, imperial rule was established based on a constitutional monarchy modeled after that of Britain, and the country thus became a unified independent state, with a modern constitution and system of government. In 1900, under the reign of Tupou II, the Kingdom concluded a treaty of protection and friendship with England and became a full protectorate of England, though the right of self-government was retained. In June 4, 1970, the Kingdom gained complete independence, assuming full administrative power, such as diplomacy, which had previously been under the control of Britain, and joined the British Commonwealth of Nations.

Since the unification of the nation, the Kingdom of Tonga has consolidated its foundation by taking Britain as an example, along with the Christian missionary activities and economic exchanges with Britain. Since around independence day in 1970, intercourse with other countries, including Britain, expanded and this brought about a rapid change in the social economic base of the country. At the same time, the need for development at the national level based on organizational planning increased, and the "Five-Year Development Plan" were thus started.

In the early stage, the Five-Year Development Plan mainly consisted of projects such as those involving Governmental office buildings, national industrial facilities, infrastructures, agrarian reform, etc., and the economic consequences were mainly concentrated in the capital on Tongatapu island. The increasing intercourse with other countries accelerated development in the larger cities and consequently widened the gap with regional areas.

Thus deepening the cultural and economic exchange with other countries gradually, the society of Tonga in modern days has dramatically changed along with the quickly changing situations of the world. In recent years, as the economic and technical exchanges, especially, increase the society, economic structure, life style, moreover natural, cultural environments and consciousness of people also changes. Such change in social environments promoted the distinct development on Tongatapu island, where the capital is located and widened the regional gap between urban and regional areas and outer islands. As a result, it brought about the concentration of the population in the city area and economic stagnation in regional areas and outer islands, which has relied only on primary

industries. In addition to this reason, the fact that the country has only limited land accelerated mass emigration abroad which brought about the present social problem of draining of young manpower and capable human resources. However, the money transferred from such people who work abroad share the top rank in securing foreign currencies and is supporting the economy of the country.

During the period of the 4th and 5th 5-Year Plan, such social situation gradually became more obvious and the government established the objectives, such as the promotion of economic development of regional areas and outer islands in order to stop the concentration of the population in larger cities, and the improvements relating thereto in educational facilities in regional areas and outer islands in order to secure quality human resources and enhance the manpower and up-grade the standard of education generally in the country. In other words, the government has clearly recognized that the redressment of regional gap in economy and education, imbalance, inequality, understanding and preservation of natural environments and traditional folk cultures, and promotion of sports are indispensable. In the 6th 5-Year Development Plan the details of such objectives are to be strengthened.

## **2-2 Summary of Educational Fields**

### **2-2-1 Historical Background and Matters of Education**

Education in the Kingdom of Tonga took the form of practical education under a strict class-related large family system based on the imperial rule of long ago.

In 1797, since the first missionary arrived in Tonga, Western education proliferated, together with missionary activities. When King Tui Haatakaraua, died in 1799, the country fell into a state of civil war, fighting over power, and both mission and educational activities came to a stand still. During the civil war, weak tribal chiefs assumed temporary control over their respective territories. Mission activities restarted and the Methodist Church was established in 1826.

In the 1820s, Taufa'ahau (1845~1893), who was the chief of a tribe on Ha'Apai island at the time, consolidated his power toward the unification of the nation. Taufa'ahau's changed his religion to Christianity and Christianity rapidly spread, mainly on Ha'Apai. During this time, fighting between Christianity, and anti-Christian factions continued. It entirely ended when Taufa'ahau was selected as the nineteenth Tui'Kanokporu under the name of George Tupou I and established the United Power of Tonga, unifying the nation (1845). Later, the Kingdom of Tonga established the foundation of imperial rule under a constitutional monarchy system, taking Britain as an example, and gradually solidified the system as a unified independent state with a modern constitution and governmental organization.

During this time, the new educational system was succeeded by a Wesleyan system and in the capital, Nuku'alofa, a public library was established. But most of the schools were in the hands of missionaries and education using the bible as the only text and the rote method of learning was the norm. In 1865, Tupou I invited J. Egan Moulton from Australia to assist in reforming the education system. His education was religion integrated education. Later, primary school education became compulsory in Tonga in 1876 and the Education Standard Act was instituted in 1974. This forms the base of the present education system.

With the starting of the "Five-Year Development Plan" in 1965, development occurred rapidly, mainly in urban areas, and increased the

imbalance in the economy due to the enlargement of regional gaps, concentration of population in large cities, and stagnation of the regional economies. Such situations hindered the enhancement of the quality of life of the people and the development of the country. In the early stage of the Fourth Five-Year Plan, such conditions appeared on the surface of society. The Government, recognizing the importance of redressing the regional gap and ensuring the availability of manpower and human resources for the development of the country, targeted the improvement of education as its basic philosophy in the development plan. During the period of the Fifth Five-Year Plan, such social situations became more serious and the Government continued to ameliorate them.

90% of the Primary schools now became public-run in Tonga, and showed a certain degree of achievement. Secondary education in this country plays a very important role in the education of manpower and the human resources which are the nucleus of the society and the economy. There were no public-run high schools, except in the capital, Nuku'arofa, until the first half of the 1980s. 12% of Secondary school enrollments were at public-run schools and the remaining 88% were at mission-run schools. As the curriculums at mission-run schools were not uniform and the educational details, levels and facilities were not consistent, students who lived on outer island and wanted to go on to higher education, such as university, had to move to the capital to attend public-run secondary schools. The Government of Tonga established public-run high school at each of the main districts on the outer island for the first time in the early stage of the Fifth Five-Year Development Plan in order to redress the gap in education between the capital and the outer islands with a view to providing equal educational opportunities to all people, enhancement of an equal quality of life for the people and development of a balanced country. This led to increased enrollments in public-run schools from 12% to 20%.

Further, in recent years, with the increase in social demand for post-secondary education, the Government of Tonga has targeted subjects related to this sector in the Sixth Five-Year Plan (1991~1995).

## **2-2-2 Summary of Educational Fields**

### **(1) Educational System and School Conditions**

The educational system of the Kingdom of Tonga consists of 6-years primary, 6-years secondary and post-secondary education. As Tonga does not have any universities, those who want to go on to university have to take entrance examination of foreign universities.

It is obligatory for every child between the ages of 6 and 14 to attend primary school. The ages between 13 to 14 partially overlaps the ages of secondary education.

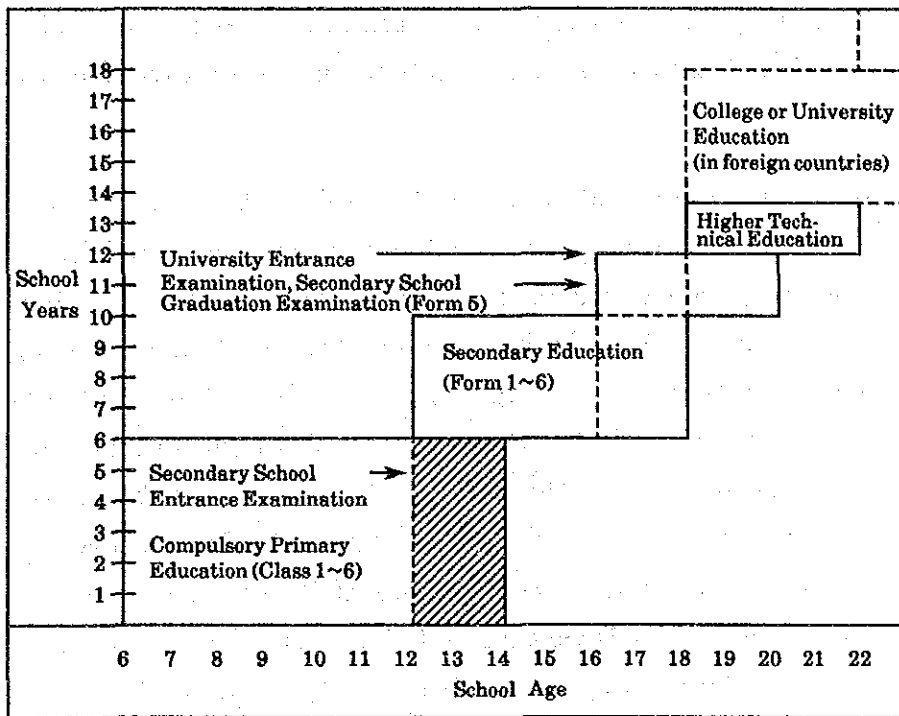
The six year period of secondary education, of which the period from Form 1 to 4 corresponds with that of the Japanese junior high school, and Form 5 to 6, with that of the Japanese senior high school. The graduation examination is taken at the end of Form 5. Only those who have passed the examination can go on to Form 6. Preparation for the university entrance examination is done in Form 6.

As for post-secondary education Tonga has public-run Teachers Training College, Tonga Maritime Polytechnical Institute, as well as mission-run Agricultural College, Vocational and Technical Colleges, Theological College, private 'Atenisi Institute, etc. whose scholastic years vary for each school. Also, the Community Development and Training Center provides various courses and training programmes to meet the requirements of employment in the society.

Educational System in Tonga is as follows:



TABLE 2-1 Educational System in the Kingdom of Tonga



(2) Trends in the Educational Sector in the Kingdom of Tonga as a whole

Shown in Table 2-2 is the change during the period from 1980 to 1987 in educational facilities, enrollment and number of teachers in the Kingdom of Tonga as a whole. This table shows an increase in the total number of schools by 9 (5.3%) and a decrease in the total enrollment by 2,882 (9%). Of this enrollment, there was a decrease at primary educational level of 2,297 (12%), an increase at secondary educational level of 12 (0.1%) and a decrease at other levels of approximately 260 (35%). Whilst the total enrollment has decreased, those who go on to secondary education level has increased. Further, particularly, those who go on to public-run schools at secondary educational level, increased to about double (192.1%), which shows a remarkable increase in social demand for secondary education in this country.

On the other hand, the number of teachers decreased slightly at primary educational level and the student/teacher ratio decreased from 20:1 to 22:1 at primary educational level and increased slightly from 22:1 to 17:1 at secondary educational level. Though the data underlines the fact that the

number of teachers at secondary educational level is insufficient, it does show a tendency of quantitative improvement. The number of students at teacher training educational level remains consistent at around 120 and the student/teacher ratio also shows a tendency of improvement from 13:1 to 7:1.

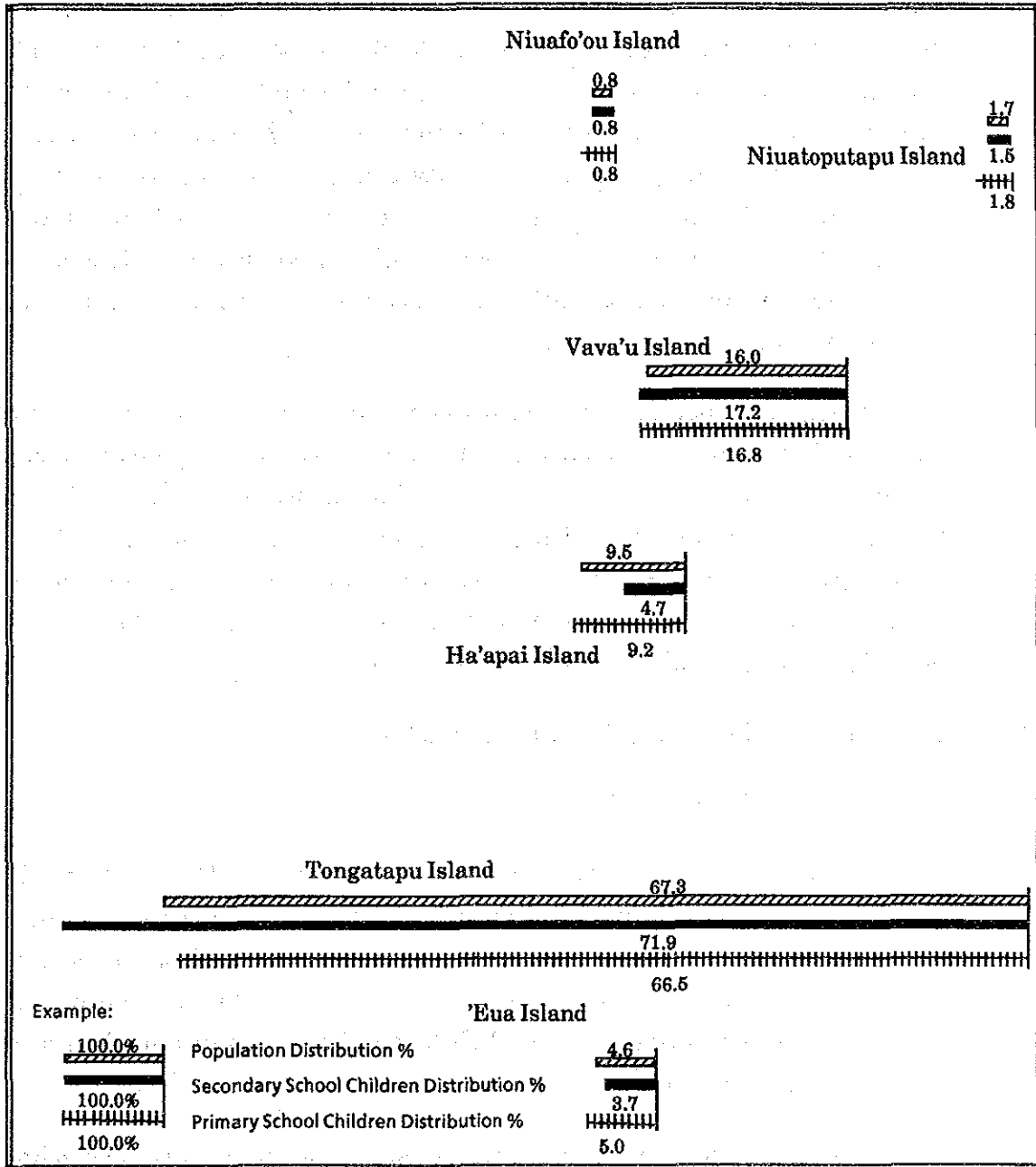
As there was no appropriate data on the ratio of students who went on to secondary education from primary education, the total enrollment at all secondary and primary schools after six years were compared here. The result thereof being, 75.3% during the period 1980 - 1986, 81.4% during the period 1981 - 1987, 81.4% during the period 1982 - 1988 (Table 2-6) and 85.0% during the period 1983 - 1989 (Table 2-6), which shows a tendency of increasing progressively in the ratio of students who go on to secondary education and the enrollment in secondary schools. According to the annual report on education in 1988 and 1989, the enrollment of sixth graders at primary schools was estimated at 3,016. The enrollment of new student first graders at secondary schools in 1989 was 2,538 and those who remained in the same first grade were 274, i.e., 84.2% of primary school children went on to secondary education in 1989. For reference, the rate of students who remained in the same first grade against the total enrollment was 9.7%.

TABLE 2 - 2 Statistical Data of Educational Facilities, Enrollment and Number of Teachers in Tonga

	Unit	Year	1980	1981	1982	1983	1984	1985	1986	1987
<b>Educational Facilities</b>										
Number of Schools (total)	No.		170	171	173	170	174	176	179	179
Government	"		104	105	105	107	106	108	112	116
Others	"		66	66	68	63	68	68	67	63
<b>Enrollment (All)</b>										
	No.		33893	32487	33786	33151	34976	32230	31734	31011
Government	"		19586	18164	17740	17479	17824	18006	18695	18393
Others	"		14307	14323	16046	15672	17152	14224	13039	12618
<b>Enrollment per Level (All)</b>										
	No.		33893	32487	33786	33151	34976	32230	31734	31011
Primary Education Level	"		19012	17364	16701	16329	16921	17019	16912	16715
Secondary Education Level	"		14125	14283	16348	16268	17478	14655	14321	14137
Teacher's Education Level	"		123	182	125	145	138	126	113	...
Technical/Specialist Level	"		633	658	612	409	439	430	388	159
<b>Number of Teachers (All)</b>										
	No.		1514	1395	1567	1613	1611	1520	1549	1580
Primary Education Level	"		781	695	793	832	810	744	768	772
Secondary Education Level	"		722	686	761	767	789	764	774	808
Teacher's Education Level	"		11	14	13	14	12	12	17	...
Technical/Specialist Level	"		...	...	...	...	...	...	...	...
<b>Teacher/Children Ratio</b>										
	No.		24	25	21	20	21	23	22	22
Primary Education Level	"		20	21	21	21	22	19	18	17
Teacher's Education Level	"		11	13	10	10	12	11	7	...
Technical/Specialist Level	"		...	...	...	...	...	...	...	...
<b>Change in Educational Facilities and Enrollment considering index of 1980 as 100</b>										
<b>Educational Facilities</b>										
Number of Schools (All)	Index, 1980		100.0	100.6	101.8	100.0	102.4	103.5	105.3	105.3
Government	"		100.0	101.0	101.0	102.9	101.9	103.8	107.7	111.5
Others	"		100.0	100.0	103.0	95.5	103.0	103.0	101.5	95.5
<b>Enrollment</b>										
			100.0	95.0	97.0	97.0	103.0	95.0	93.0	91.0
Government										
Primary Education	Index, 1980		100.0	91.8	86.9	85.1	88.4	88.9	88.6	88.0
Secondary Education	"		100.0	101.9	129.2	144.2	129.1	136.9	185.4	192.1
Teaching Training	"		100.0	148.0	101.6	117.9	112.2	102.4	91.9	...
Technical/Specials	"		100.0	78.9	118.1	52.3	45.1	45.4	47.7	...
<b>Others</b>										
Primary Education	Index, 1980		100.0	84.6	100.6	96.8	47.0	98.5	90.5	87.4
Secondary Education	"		100.0	101.1	114.2	111.9	123.1	100.0	91.8	89.6
Technical/Specials	"		100.0	122.1	81.2	73.6	86.9	83.9	71.1	43.3

Shown in Table 2-3 are the Regional Distribution Ratio of Primary School Children, Secondary School Children and General Population Per District in Tonga - 1989. According to this table, the distribution ratio of secondary school children is balanced in Vava'u, Niuafu'ou, Niuatoputapu, compared to those of general population and primary school children. The reason thereof lies in that the facilities are sufficient in quantity and located close to Tongatapu where there are not so many emigrants. In Ha'apai and 'Eua, the regional distribution ratio of secondary school children is low, the reason thereof lies in that students leave the islands to go on to schools in Tongatapu, which is relatively close to these islands, due to insufficiency in facilities and regional gaps. The reason for the concentration of secondary school children in Tongatapu lies in that students gather from other islands for its relatively higher level of facilities and scholastic achievement.

TABLE 2-3 Regional Distribution Ratio of Primary School Children, Secondary School Children and General Population per District in Tonga - 1989



(3) Present Conditions of Teachers

The teachers are insufficient in number and quality in the Kingdom of Tonga. Although there is the Teachers' Training Center (TTC), graduates from this school can only teach primary education and Forms 1 through 4 of secondary education but not Forms 5 and 6. For higher levels of secondary schools, the qualification of a university graduate is generally required. Consequently, Tonga, where there are no officially authorized universities, is obliged to rely on graduates from foreign universities for teachers of higher level. This makes it difficult to secure teachers who can teach in Forms 5 and 6.

On the outer islands, it is difficult to secure teachers of general level as well as higher level due to regional gap in the working and living environments. Under such a circumstance, members of such organizations as Young Overseas Cooperation Organization from Japan, Peace Cooperation Group from U.S.A. and volunteers from Australia and New Zealand, etc. are covering such insufficiency and are indispensable for high schools on the outer islands, especially, 6 members of Young

(4) Present Conditions Each Educational Sector

1) Primary Education (6 years)

Primary education has been compulsory since 1876. The 1974 Education Act requires that every child between the ages of 6 and 14 living within reach of a government primary school shall receive a complete six-year primary education. This enactment guarantees a certain educational level to all children of this age group who receive primary education.

After the enactment of compulsory education, many primary schools became public-run as shown in Table 2 - 4 accounting for 90% of the total number of primary schools (93.3% of the total enrollment) in 1989. The total number of schools increased from 111 in 1984, to 113 in 1989, but the total enrollment has been decreasing. The number of teachers decreased drastically during the period from 1988 to 1989 and the student/teacher ratio decreased from 20:1 to 30:1 in 1989. The reason for the decreasing tendency since 1983 lies in the conditions of

the educational environment and treatment, such as salary, housing, etc., of which the salary was reviewed in 1989.

Regarding girls education, which traditionally has been disregarded, and redressing discrimination the school attendance is 47.2% which is slightly less than that of boys considering the male/female ratio in the population of 50:50 (See Table 2 - 5).

(a) **The Number of Primary Schools (public-run and mission-run) per District and Controlling Authority**

**TABLE 2 - 4** Number of Primary Schools by District and Controlling Authority - 1989

District	Controlling Authority				Total
	Public-Run	FWC	SDA	TOFE	
Tongatapu	45	5	2	1	53
'Eua	5	0	0	0	5
Ha'apai	19	2	0	0	21
Vava'u	29	0	1	0	30
Niuas	4	0	0	0	4
<b>Total</b>	<b>102</b>	<b>7</b>	<b>3</b>	<b>1</b>	<b>113</b>

Note: FWC Free Wesleyan Church  
 SDA Seventh Day Adventist  
 TOFE Tokaikolo Fellowship

Source: The Ministry of Education of Tonga

(b) The Enrollment of Primary School by District, Sex and Controlling Authority

TABLE 2 - 5 Enrollment of Primary School by District, Sex and Controlling Authority

Controlling Authority	District	Male	Female	Total	% Female	% Total
Government	Tongatapu	5,166	4,582	9,748	47.0	59.8
	'Eua	440	373	813	45.9	5.0
	Ha'apai	753	744	1,497	49.7	9.2
	Vava'u	1,456	1,281	2,737	46.8	16.8
	Niuaotupapu	134	153	287	53.3	1.8
	Niuafo'ou	77	56	133	42.1	0.8
<b>Total</b>		<b>8,026</b>	<b>7,189</b>	<b>15,215</b>	<b>47.2</b>	<b>93.3</b>
Mission	FWC	310	306	616	49.7	3.8
	SDA	82	57	139	41.0	0.9
	TOEF	168	172	340	50.6	2.1
<b>Total</b>		<b>560</b>	<b>535</b>	<b>1,095</b>	<b>48.9</b>	<b>6.7</b>
<b>Total</b>		<b>8,586</b>	<b>7,724</b>	<b>16,310</b>	<b>47.4</b>	<b>100.0</b>

Note: FWC Free Wesleyan Church  
 SDA Seventh Day Adventist  
 TOFE Tokaikolo Fellowship

(c) The Number of Teachers and Enrollment, and the Teacher/Children Ratio.

TABLE 2 - 6 Teacher/Children Ratio - 1980~1989

Year	Enrollment	Number of Teachers	Teacher/Children Ratio
1980	19,012	781	1 : 24
1981	17,364	695	1 : 25
1982	16,701	793	1 : 21
1983	16,329	832	1 : 20
1984	16,921	810	1 : 21
1985	17,019	744	1 : 23
1986	16,912	758	1 : 22
1987	16,715	772	1 : 22
1988	17,729	673	1 : 26
1989	16,310	540	1 : 30

Source: The Ministry of Education of Tonga



## 2) Secondary Education (6 years)

The period of secondary education is six years, of which the period from Forms 1 to 4 correspond with the curriculum of Japanese junior high school and Forms 5 to 6 with that of Japanese senior high schools. The graduation examination is taken at the end of Form 5. Only those who have passed the examination can go on to Form 6 and prepare for the university entrance examination.

As the syllabus, of which those of Forms 1 to 4 correspond with those of Japanese junior high schools, grades up suddenly from Form 5, many children cannot keep up with the gap in grade. There are opinions that it is excessively severe to have to prepare for the university entrance examination only during the year of Form 6, and means of improvement are now being studied. So far, the following methods 1~3 have been studied, but the problems involved in taking the necessary steps, such as the wide-ranging reformation of the curriculums, increase in number of classrooms and teachers, and so on could not be resolved, it being difficult to put them into practice:

1. Add preparatory class before Form 5 for preparation for going on to Form 5.
2. Reclassify Forms 1 to 6 into Levels 1 to 6.
3. Change the Six-Form system into a Seven-Form system.

In recent years, the separate establishment of Form 7 is being considered but how to treat such Form 7 has not been clarified yet. It is incorporated sometimes into secondary education and at other times into post-secondary education. The system is in its transition stage in any case, but its nature as a university examination preparatory course is strong at present. Accordingly, this system will not be adopted simultaneously for all schools but a public Form 7 is scheduled to be established tentatively only at the Tonga High School and Vava'u High School, whose ratio of students who go on to a higher stage of education is highest.

The school system and curriculums of public-run high schools are uniform as shown in Appendice 11. Those schools whose facilities and materials are not sufficiently arranged are unable to teach classes conforming thereto. To this end, the Government of Tonga is hurrying

to ameliorating educational facilities to meet the requirement of such system curriculums. The mission-run schools have different school years and curriculums per school, the Government is enhancing the equalization of education based on the uniform curriculum of public-run schools.

The number of secondary high schools recorded in 1990, was 44, of which 7 were public-run (See Table 2-7.) Besides this, there are schools called junior high schools. In 1983, 88% of the total enrolled in secondary schools went to mission-run schools and the remaining 12% went to public-run schools. In recent years, along with the social development which is gradually becoming more complicated, the need for quality manpower is increasing. The fact that the arrangement of an educational base is indispensable for supplying manpower graduated from secondary education, the policy of educational reformation in regional areas and outer islands have especially been enhanced. As a result, public-run secondary schools were established in 'Eua, Niuatoputapu, Niuafou'u, and with Japan's Grant Aid, Vava'u. These establishments have reflected on the 20% increase in the number of public-run secondary school children.

(a) The Present Conditions of Secondary Education per Region, School District and Controlling Authority

TABLE 2 - 7 Present Conditions of Secondary Education per Region, School District and Controlling Authority

The figures in each box show the corresponding numbers of 1987, 1988 and 1989 from top to bottom.

School District		Tongatapu		Vava'u		Ha'apai		'Eua		Niuas		Total per Type of School	
		No. of School	Enrollment	No. of School	Enrollment	No. of School	Enrollment	No. of School	Enrollment	No. of School	Enrollment	No. of School	Enrollment
Government		3	1450	1	597		-	1	580	3	216	8	2783
		3	1467	1	683		-	1	644	2	182	7	2976
		3	1332/5	1	580/1		-/3	1	472/2	2	307/4	7	2691
Mission school	Free Wesleyan Church	13	3032	2	760	3	269		-	1	41	19	4102
		12	2866	2	478	3	251		-	1	33	18	3627
		10	2828	1	658	2	224		-	(1)	(25)	13	3735
	Roman Catholic Church	2	1677	2	391	1	332		-		-	5	2400
		2	1699	2	378	1	305		-		-	5	2382
		2	1718	1	573	1	305		-		-	4	2596
	Technical School	(3)	(159)		-		-		-		-	(3)	(159)
		2	150		-		-		-		-	2	150
	Anglican Church	1	524		-		-		-		-	1	524
		1	421		-		-		-		-	1	421
		1	421		-		-		-		-	1	414
	Jesus Christ Latter Day Saints Church	8	1641	3	376	3	130	1	48		-	15	2195
		7	1436	2	354	3	99	1	46		-	13	1935
		7	2038	2	428	3	92	1	45		-	13	2603
Seventh Day Adventist Church	1	385	1	20		-		-		-	2	405	
	1	349		-		-		-		-	1	349	
	1	349		-		-		-		-	1	349	
Free Charge of Tonga	1	238	1	144	1	76		-		-	3	458	
	1	204	1	125	1	19		-		-	3	348	
	1	204	1	154	1	30		-		-	3	498	
Tokaikolo Christian Fellowship	1	804		-		-		-		-	1	804	
	1	690		-		-		-		-	1	690	
	1	690		-		-		-		-	1	609	
Private High School (Atenisi Institute)	1	466		-		-		-		-	1	466	
	1	353		-		-		-		-	1	353	
	1	353		-		-		-		-	1	382	
Total per School District		31	10217	10	2228	8	807	2	628	4	257	54	14137
		(3)	(159)		-		-		-		-	(3)	(159)
		31	9635	7	2018	8	674	2	690	3	215	51	13231
		27	9984	6	2393	7	651	2	517	(3)	332	44	13877

Note: As technical schools were not considered as a part of secondary education in 1987, the numbers in bracket are not included in each total.

(Totalized data of Annual Reports on Education for 1987, 1988 and 1989)

1. The school buildings of Vava'u High School were constructed in 1985 with grant aid from Japan. (Grant aid has been requested for the expansion work to be done this time.)
2. The 'Eua District High School was established in 1986, and since then the high school has borrowed the school building from the church which was the fore-runner of this school. (Grant aid has been requested for the new construction work to be done this time.)
3. Although there are no public-run high schools in Ha'apai District, construction plans based on its own funds are set forth in the next Five-Year Development Plan (Sixth Five-year Development Plan).
4. In Niuas, the high school is separated into two islands. As they are very deteriorated, improvement plans based on its own funds are scheduled, as in Ha'apai.
5. The facilities are well prepared in Tongatapu compared to those in other islands. Some schools need expansion or reformation and the improvement projects by own funds are scheduled.

(b) The Change in Enrollment, Number of Teachers and Teacher/Children Ratio in Secondary School

Although the shortage of teachers is posing a problem in secondary education, there is no quantitative problem, the absolute number and teacher/children ratio being consistent.

TABLE 2-8 Change in Teacher/Children Ratio in Secondary School 1980~1989

Years	No. of Children	No. of Teachers	Teacher/Child ren Ratio
1980	14,125	786	1 : 18
1981	14,283	694	1 : 21
1982	16,348	761	1 : 22
1983	16,262	767	1 : 21
1984	17,478	789	1 : 22
1985	14,655	770	1 : 19
1986	14,321	776	1 : 19
1987	14,137	808	1 : 18
1988	13,082	No data	
1989	13,877	767	1 : 18

(c) The Qualification of Teachers of Secondary Schools

It is necessary to upgrade the quality of teachers for the improvement of education. According to Table 2-9, certain improvements are seen in the increased number of qualified teachers and teachers who have obtained higher qualification during the period 1985 through 1989.

TABLE 2-9 Qualification of Teachers of Secondary Schools 1985 and 1989

Qualification	1985		1989	
	No. of Teachers	Total %	No. of Teachers	Total %
Degree + Teaching Certificate	76	10	111	15
Degree only	98	13	126	16
Overseas Trained (Diploma, etc.)	138	18	183	24
Locally Trained	237	31	167	22
High School or High Education (No Post Secondary Qualification)	216	28	180	23
Total	765	100.0	767	100.0

3) Higher Education, Higher Technical and Vocational Education

(a) The Present Condition of Higher Education, Higher Technical and Vocational Education.

TABLE 2 - 10 Higher Education, Higher Technical and Vocational Education 1985 and 1989

Controlling Authority / Organization	Enrollment 1985	Enrollment 1989
A. Free Wesleyan Church		
1. Hango Agricultural School	42	48
2. Mahinae'a Agricultural School	10	15
3. Toafa Agricultural College	8	N/A
4. Sia'atoutai Theological College	89	99
B. Roman Catholic Church		
5. Fualu Agricultural College	33	na
6. St. Joseph's Business School	58	90
7. 'Ahopanilolo Technical School	132	70
C. Seventh Day Adventist Church		
8. Pierson Theological College	5	N/A
D. University of the South Pacific		
9. USP Extension	500	571
E. Private		
10. 'Atenisi Institute	101	80
F. Government (Public)		
11. Queen Salote School of Nursing	79	107
12. Police Training Centre	25	20
13. Tonga Health Training Centre	N/A	
14. MOW Appren. Training Scheme	N/A	33
15. Tonga Teachers' Training College	142	197
16. Community Development and Training Centre	-	N/A
17. TMPI	-	186
18. ILO TTT Scheme	-	77
<b>Total</b>	<b>1,224</b>	<b>1,593</b>

(b) Summary of Main Educational Organizations

(i) Community Development and Training Center (CDTC)

This was established by the Government of Tonga in 1985. The purpose of the establishment was to provide the opportunity for vocational training and acquiring education for adults thereby contributing to the extension of educational and training opportunities in the Kingdom of Tonga as a whole. From such point of view, higher education and, business, vocational and technical educational organizations, such as Teachers' Training Course (TTC), Tonga Maritime Polytechnical Institute (TMPI), etc. have been reorganized under the CDTC.

- **Teachers' Training Course (TTC)**

This was established in 1944 and now consists mainly of teaching license course and several specialized post-license courses. Children can proceed to this course through the university entrance examination after completing Form 6 of secondary school. There are courses for primary education and secondary education. The graduates are obliged to work for fixed period in primary or secondary schools. The graduates of TTC are generally licensed to teach in primary school or up to Form 4 in secondary school and those who have obtained degrees in foreign universities are licensed for Forms 5 and 6. The schools for employment of the graduates are determined by the principal of each school according to the applications for employment received from graduates.

- **Tonga Maritime Polytechnical Institute (TMPI)**

This was established in 1985 under the financial and technical aid of West Germany. The purpose of the establishment is to provide training in marine technologies, but expansion to include mechanicals and automobile repair sectors are planned for the future. The training subjects are covered by courses which last for 3 months, 6 months, or 1 year. Entrance is open to people who have completed Form 5 or higher by oral and written examination. Some of the new students have passed the university entrance examination. The graduates are employed both locally and abroad. 60% Work in government related organizations and 40% in private companies.

- (ii) **'Atenisi Institute**

This was established in the middle of 1966 as a part-time school using unofficial teaching method and officially became a full-time school in 1966. This school has not had any relationship with the government or church since the time of its inception and is run

independently. Accordingly, the school provide education based on its own philosophy of education and program as the only private school in Tonga. The philosophy of the principal is to provide non-stereotype education, which is free from encumbrances (priority of the spirit without being bound by materialism) and that is based on the concept that the existence of the school itself is something with which to educate the people on how the whole education system of Tonga should be.

(5) **Educational Administrative System (See Appendices - 10)**

In recent years, the Government of Tonga has been reorganizing its educational administration in keeping with the changes in the social situation and expansion in the field of education and related facilities. Reorganization has been carried out with regard to the primary school system during 1970s, the secondary school system during 1980s, and the reformation of the administrative organization for rearrangement and reinforcement of the organization for secondary and post-secondary education during 1990s. The rearrangement of education at the secondary level is now under way and the administrative organization is also being reformed therewith.

The educational administrative organization plan is characterized by the prominent positioning of the educational organization at secondary and post-secondary level within the regional development and training sector with consideration to its organic and total functioning. It is now under reorganization, with regional development and other organizations being unified by the Community Development and Training Center (CDTC).

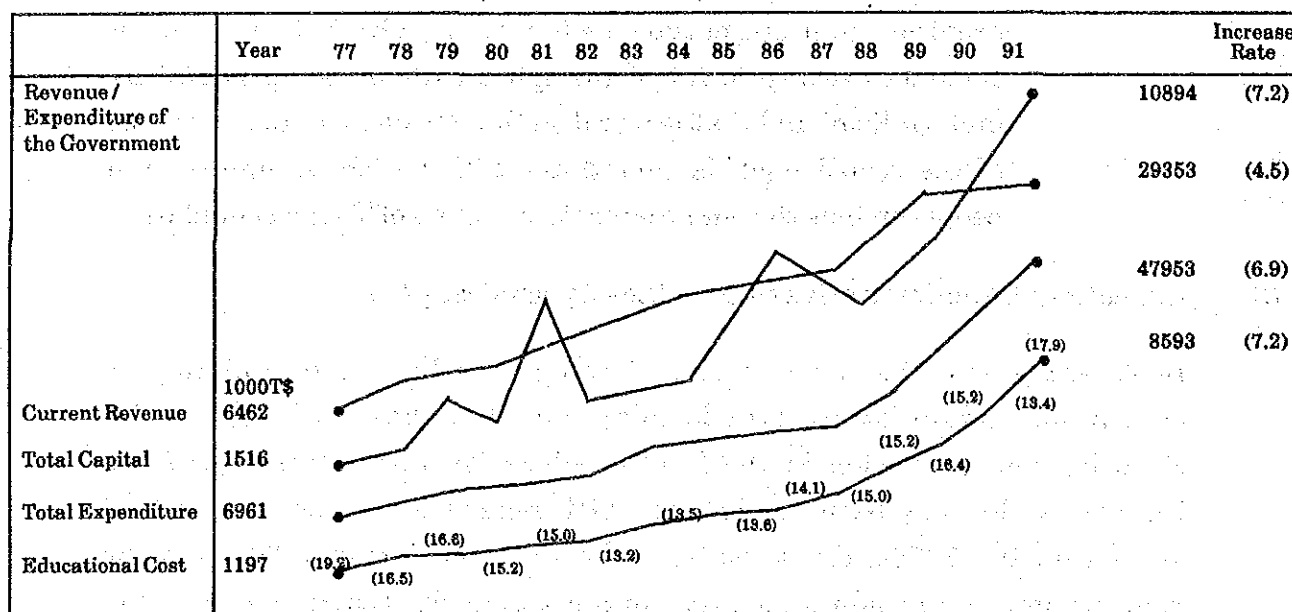
**2 - 2 - 3 Educational Budget and Development Plan**

(1) **Educational Budget and National Budget**

During the past 10 years, an average of 15% of the national budget has been consistently allocated for education. The Educational budget for 1990/1991 increased about double that for 1986/1987 and constitutes 18% of the national budget. The reason for the drastic increase is the increase in salaries brought about by the improvement in the treatment of teachers. On the other hand, the expenses and maintenance cost for teachers' training and licensing decreased slightly or has remained stable.

Shown below is the table of the national budget and educational budget.

Table 2 - 11 National Budget and Educational Budget



Remarks: The figures enclosed in ( ) denote the percentage.

(Source: Ministry of Education of Tonga)

Shown in Table 2 - 12 below is the educational cost 1985/86, 1989/90.

Table 2 - 12 Educational Cost - 1985/86, 1989/90  
(Unit: T\$)

Item	1985/86		1989/90	
	Allocation	%	Allocation	%
Policy, Direction and Administration	135,237	4	643,820	11
General Services	69,930	2	200,021	3
Technical Services	152,904	5	412,115	7
Primary Education	1,459,756	43	2,117,078	36
Secondary Education	645,367	19	874,471	15
Teacher's Training and Licensing	325,826	9	405,430	7
Maintenance	565,360	16	404,501	7
Technical Training	32,050	1	23,501	1
Youth, Sports and Culture	30,709	1	187,920	3
	-	-	550,600	10
<b>Total</b>	<b>3,417,139</b>	<b>100</b>	<b>5,841,560</b>	<b>100</b>

(Source: Ministry of Education of Tonga)



The table 2 - 13 shows the change in the government expenditure per head and level of education for the period from 1985/86 to 1989/90.:

- (i) An increase of about 50% for primary education;
- (ii) An increase of about 195% for secondary education;
- (iii) A decrease of about 48%~60% for vocational and technical education;
- (iv) A 67% increase in total.

This indicates the special effort being made by the government towards the improvement of normal secondary education.

\* The Government of Tonga spends T\$50 per head for mission-run schools and private schools.

Table 2 - 13 Total Government Expenditure per Head and Level of Education - 1985/86, 1989/90

Item	1985/86			1989/90		
	Total Amount (\$)	Enrollment	Amount per Head (\$)	Total Amount (\$)	Enrollment	Amount per Head (\$)
Primary Education	1,464,409	15774	93	2,117,078	15215	139
Secondary Education	229,335	2074	110	874,471	2691	325
Vocational Education	197,589	132	1497	154,430	197	784
Technical Education	36,975	17	2175	112,497	130	865
Total	1,928,308	17997	107	3,258,476	18,233	179

(Source: Ministry of Education of Tonga)

#### 2 - 2 - 4 Foreign Aid for Educational Purpose

Australia and New Zealand are the main contributors offering aid to Tonga in the educational sector, apart from Japan. Most of the aid is used for curriculum development and educational training.

Table 2 - 14 Aid Program from Australia and New Zealand in Educational Sector

		1989/90	1990/91	1991/92	1992/93
Australia	A\$	-	1,145,000	1,215,000	1,165,000
New Zealand	NZ\$	1,000,000	1,080,000	1,200,000	-

※ 1A\$ = 1T\$

※ 1NZ\$ = 0.74T\$

(Source: Ministry of Education of Tonga)

Australia plans an aid program for the period of 1990/91~1992/93 as follows:

- Offer aid for the provision of educational opportunities, training of skilled technicians and human resources in New Zealand.
- Review scholarship system.
- Offer aid for the development of educational materials and examination system.
- Offer aid for the improvement of regional technical and vocational education standard.

New Zealand plans an aid program for the periods 1990/91~1992/93 as follows:

- Offer aid for the provision of educational opportunities, training of skilled technicians and human resources in New Zealand.
- Offer aid for the development of educational materials and examination system.
- Offer aid for the improvement of regional technical and vocational education standard.

The type of aid from Australia and New Zealand consists cooperative financing.

In addition to the above, aid is received from UNESCO, EC, etc. However, the aid offered is in the "software" sector of education, the same as that from New Zealand and Australia. No parts directly overlap. Yet, as this matter concerns the basis of the project, it is very important, though indirectly.

- Shown below is the table of foreign aid to education

Table 2 - 15 Foreign Aid to Education 1990/91

Items	Amount T\$	(%)
Training	2,880,000	72.0
Curriculum & Examinations	522,000	13.1
Technical Education	420,000	10.5
Secondary Education	176,700	4.4
Total	3,998,700	100.0

(Source: Ministry of Education of Tonga)

The principal supporting countries are New Zealand and Australia, whose scope of aid is not limited to education but covers a wide range of activities of the society of Tonga without any unbalanced allocation. Besides, they have formulated aid programs for a period of 3 years, from 1991 to 1993 or from 1990 to 1992. (See Appendices - 14)

## **2 - 3 Summary of Related Projects**

As the economy of the Kingdom of Tonga is state operated, the economic scale of private companies is very small. Consequently, we can consider that the "Five-Year Development Plan" formulated by the Government globally concerns general socioeconomic trends of the Kingdom of Tonga as well as general development plans at the state, regional and private levels.

As the basic study of this project was carried out in September 1990, the 5th 5-Year Development Plan (1986~1990) was in its final stages, the next plan (the 6th 5-Year Development Plan) already been prepared, the nature of the 5th was continued further to be developed and enhanced.

The "Five-Year Development Plans" started in 1965 and this is the last year of the Fifth Five-Year Development Plan (1986 - 1990). In the earlier stages of Five-Year Development Plans (First through Third), importance had been attached to programs such as those related to the construction of public facilities, provision of infrastructures, and agricultural land improvement. However, they brought about a rapid development of the capital along with on the other hand increased regional gaps, and caused depopulation of the outer islands, concentration of population into larger cities, and economic stagnation in local areas. In the early period of the fourth Five-Year Development Plan, the importance of the promotion of regional development and development of human resources was recognized and, consequently, improvement of education became one of the most important policy issues. Later, these problems became more serious and the improvements continue to be the targets of the fifth Five-Year Development Plan which is now in force.

### **2 - 3 - 1 Fifth Five-Year Development Plan 1986-1990**

The long term national economic and social objectives of the fifth Five-Year Development Plan are basically a continuation and development of those of the fourth Five-Year Development Plan, which have been relatively successful.

The objectives targetted in this Plan are:

- Achieve a sustained increase in the production of goods and services and real incomes of the people.

- Achieve effective management of the economy.
- Enhance the quality of life and the security of the people, the cultural heritage of the nation and the preservation of the environment.
- Develop harmonious relations and mutual cooperation in economic, social and related spheres with all nations and international organizations.
- Create an environment in which individuals can achieve higher levels of income and a better standard of living through their own efforts and endeavors and through the most effective and efficient use of the available financial, human and other natural resources.

In particular, the fifth Five-Year Development Plan underlines the following:

- Important role of private companies in the economic sector.
- Necessity of enhancing the development of regional areas and outer islands.
- Necessity of the people, as individuals, to focus their attention more toward the development and extension of productive activities.

Based on the above national objectives, the following plans for fund procurement and allocation shown in Table 2-16 were formulated. The funds from foreign aid was decreased from 81% in the fourth period to 68% in the fifth period, based on the intention of increasing the funds supplied from within the country.

**Table 2 – 16 Structure and Sources of Financing of Development Expenditure**

	%	
	Fourth Five-Year Development Plan	Fifth Five-Year Development Plan
<b>Grant/Technical Aid</b>		
a) Bilateral Grants	63.8	52
b) Multilateral Grants	12.2	16
Total	81.0	68
<b>Loans</b>		
a) Foreign		
– Concessionary terms	8.7	13
– Commercial terms	5.2	9
Sub-Total	13.9	22
b) Local Loans		
– Development Loans	1.4	1
– Bank of Tonga (1)	–	2
Sub-Total	1.4	3
Total	15.3	25
Local Appropriation	3.6	7
Total	100.0	100.0

(Source: the Fifth Five-Year Development Plan)

**2 - 3 - 2 Allocation of Government Controlled Financial Resources for Development in the Fifth Five-Year Development Plan**

Next to civil aviation educational development ranks second highest rate (Table 2-17) in Tonga. The reason as to why civil aviation ranks highest in the budget allocation lies in the fact that Tonga consists of so many outer islands and therefore many air routes.

Table 2 – 17 Allocation of Educational Budget in the Fifth Five-Year Development Plan

Sector	Allocation Rate %	Allocation Graph
Agriculture and Forestry	7.2	_____
Fisheries	8.4	_____
Manufacturing & Commerce	3.5	_____
Tourism	4.2	_____
Finance & Banking	10.1	_____
Energy	1.4	_____
Water	3.3	_____
Construction & Housing	4.3	_____
Health	4.6	_____
Education	12.3	_____
Roads	6.6	_____
Marine Transport	5.9	_____
Civil Aviation	15.0	_____
Telecommunications	7.4	_____
Government Services	0.6	_____
Broadcasting	1.4	_____
Law & Order	1.6	_____
Staffing & Administration	2.2	_____
<b>Total</b>	<b>100.0</b>	

Source: Ministry of Education of Tonga

Remarks: This budget allocation plan is formulated including expected foreign aid.

### 2 - 3 - 3 Educational Objectives contained in the Draft of the 6th 5-Year Development Plan (1991 - 1995)

- **Fundamental Educational Targets**

- To provide a balanced program of education with emphasis on the full development of Tongan nationals, both as individuals and as productive members of society.
- To develop Tonga's human resources so as to create the manpower it needs to maximize national economic development and growth.
- To promote awareness and understanding amongst Tongans of the importance of their social, physical and cultural environments to the development of the country amidst increasing contact with the outside world.

- **Specific Objectives of Educational Development**

- To provide more educational and training opportunities locally for children at the tertiary level.
- To provide training opportunities at the post secondary level to enable Tongans to acquire the technical skills necessary for the development of the country.
- To develop and implement educational programs in fields such as ocean development, population education, environmental awareness, and so on, which are considered important to Tonga's development.
- To continue to upgrade the standard and quality of education at all levels.
- To continue to upgrade educational and training facilities at all levels.
- To improve the quality of education available to children in the regional area and outer islands.
- To continue to provide pre-service and in-service training for teachers both at the primary and secondary levels.
- To continue to assess, evaluate, and re-structure the educational system so that it can keep abreast with the rapidly changing situations in Tonga.
- To continue to increase the government's commitment towards the sector through the provision of more educational opportunities for children at the secondary and tertiary levels.
- To strengthen cooperation and co-ordination between government and other educational authorities to ensure complementary activities and hence the achievement of the long term objectives of education.



## 2-3-4 Objectives of Educational Sector under the 6th Five-Year Development Plan

### (1) Projects related to Primary Education Sector

- Construction of teachers' housing on outer island
- Improvement of school facilities (with aid from UNICEF)
- Improvement of school facilities
- Reconstruction of deteriorated school buildings and temporary buildings.

According to the development plan for primary education under the sixth five-year development plan, T\$68,000 is allocated for the first year 1990/91. The above items, which were the objectives under the Fifth Five-Year Development Plan but were not achieved due to financial problems, will continue to be targetted during the 6th Plan period.

Table 2 - 18 Development Programmes in Primary Education Sector - 1990~1995

Project	Total Estimated Cost (T\$)	Estimate for 1990/91 (T\$)
School Building	1,400,000	—
Facilities	400,000	53,000
Teacher's Housing	500,000	15,000
Total	2,300,000	68,000

(Source: Ministry of Education of Tonga)

### (2) Projects related to Secondary Education Sector

- Up-grading educational facilities such as science equipment for Tonga High School, Tonga College, and establishment of a national Form 7
- Building of language laboratories for Tonga High School and Vava'u High School
- Construction of library for the Tonga College and Administration Complex Building
- Establishment of Ha'apai High School

- School buildings for Niuatoputapu and Niuafu'ou District High Schools
- Extension of Vava'u High School and Nippon playground (Grant Aid applied for to the Government of Japan)
- Building of 'Eua District High School (Grant Aid applied for to the Government of Japan)

Table 2 - 19 Development Programmes for the Secondary Education Sector in the Next Five-Year Development Plan 1990~1995

Projects	Total Estimated Cost T\$	Estimate for 1990/91 T\$
Science Equipment	330,000	200,000
Language Laboratory		
Tonga High School	92,000	89,000
Vava'u High School	94,700	94,700
Outer Island School Facilities	4,200,000	1
Tonga College Library/Administration Complex	330,000	1
Ha'apai High School Establishment	5,000,000	1
Niuatoputapu District High School Building	701,000	1
Nauafu'ou District High School Building	300,000	1
<b>TOTAL</b>	<b>11,047,700</b>	<b>383,705</b>

(Source: Ministry of Education of Tonga)

According to the above, the plan for the next period calls for the establishment of a national Form 7 at Tonga High School and Tonga College, and language laboratories at Tonga High School and Vava'u High School. Of these, only the establishment of Form 7 is under way.

The Ministry of Education considers there will not be any influence imposed on school facilities due to the program of establishment of Form 7 and language laboratories for the time being.

(3) **Development Programs for Post-Secondary Education Sector**

Table 2 - 20 **Development Programmes for Post-Secondary Education Sector 1989/91**

<b>Projects</b>	<b>Total Estimated Cost for the Next Period (T\$)</b>	<b>Estimate 1990/91 (T\$)</b>
Teacher's Training Programme	1,752,600	
Training	12,076,928	2,880,000
Regional Development, Training Planning	5,500,000	390,000
Technical Assistance	50,000	50,000
National Form 7	252,000	235,000
<b>Total</b>	<b>19,631,538</b>	<b>3,555,000</b>

According to the reformation plan of the educational administrative organization, with secondary education having attained a certain degree of improvement in 1990, it is inevitable to continue attaching importance to this level of education and it will be the objective most required by the change in the social environment.

(4) **Development Program in Curriculum and Examination**

- Review of the present curriculum, to provide a sound education program, both at the primary and secondary level (from year 1 to year 12).
- Continuation of the development, assessment and evaluation of curriculum of Forms 1-4 of the secondary level.
- Continuation of the development of valid and reliable assessment procedures
- Up-grading and review of population education and environmental study programs at both primary and secondary levels.

The development of this sector has been traditionally and continuously proceeded with, under the aid programs of Australia and New Zealand. Progressive continuation, in principle, of programs of the last period is planned in the next plan.

Table 2 - 21 Development Programmes for Curriculum and Examinations for 1990~1993

Projects	Total Estimated Cost for 1990-1993 (T\$)	Estimate for 1990/91 (T\$)
Curriculum Review Programme (Australia)	1,462,000	523,000
Forms 1 - 4 Curriculum Requirements (New Zealand)	170,000	50,000
Examinations Development (New Zealand)	260,000	80,000
Population Education (UNFPA)	96,000	24,000
<b>Total</b>	<b>1,988,000</b>	<b>677,000</b>

(Source: Ministry of Education of Tonga)

(5) Educational Development Programs (for the Sixth Five-Year Development Plan)

Table 2 - 22 Budget Allocation in the Educational Development Programme of the Sixth Five-Year Development Plan

Projects		Allocation (T\$1000)					Total
		90/91	91/92	92/93	93/94	94/95	
A. Primary	2,257						
1. School Buildings	(6.3%)	0	350	350	350	350	1,400
2. Sanitation Infrastructure		53	76	76	76	76	357
3. Teachers Housing		15	121	121	121	122	500
B. Secondary	11,048						
4. Science Equipment	(30.9%)	0	200	130	0	0	330
5. Language Lab. (Tonga High School)		89	3	0	0	0	92
6. Language Lab. (Vava'u High School)		95	0	0	0	0	95
7. Outer Island School, Facilities		0	1,050	1,050	1,050	1,050	4,200
8. Vava'u High School Extension		0	0	****	0	0	***
9. 'Eua District High School Buildings		0	****	0	0	0	***
10. Tonga College Admi./Lib.		0	0	0	0	330	330
11. Ha'apai High School		0	0	0	0	5,000	5,000
12. Niuatoputapu District High School		0	0	0	701	0	701
13. Niuafo'ou District High School		0	0	300	0	0	300
C. Post Secondary & Tertiary Education	20,594						
14. Technical Education	(57.6%)	1,113	3,150	178	214	250	4,905
15. Marine Science		30	35	30	30	30	155
16. Teacher Education Programs		0	438	438	438	438	1,752
17. Training		2,880	2,300	2,299	2,299	2,299	12,077
18. CDTC Project		390	450	563	0	0	1,403
19. Technical Assistance		50	0	0	0	0	50
20. National Form 7		235	17	0	0	0	252
D. Curriculum & Examination	1,881						
21. Curriculum/Examination and Development	(5.2%)	130	150	75	75	0	430
22. Curriculum Review		523	495	313	0	0	1,331
23. Population Education		24	24	24	24	24	120
<b>Total</b>		<b>5,627</b>	<b>8,859</b>	<b>5,947</b>	<b>5,378</b>	<b>9,969</b>	<b>35,780</b>

○ denotes the projects concerned.

(Source: Ministry of Education of Tonga)

In the Sixth Five-Year Plan, 57.6% of the budget is allocated to post-secondary education. During the 5th 5-Year Development Plan, importance had been attached to the provision of more educational opportunities at the secondary level, especially the redressing of the social handicaps of children who live on the outer islands. Assuming that a certain degree of achievement would be obtained, importance will be attached in the 6th 5-Year Development Plan to improvements in the standard and quality of education at all levels, with continuous emphasis on the up-grading of secondary and post-secondary education and redressing of the regional gap.

The budget of secondary education shown in the table being 30.9% does not include the budgets for the Vava'u High School and 'Eua District High School. When they are included the figure of ratio will be bigger.

The budgeting for the construction of 'Eua District High School and the extension of Vava'u High School, for which grant aid has been requested from Japan will be incorporated into the budgets respectively for the years of 1991/92 and 1992/93. Tonga's own budgetary cost for development is scheduled to be fixed after determination of the amount of grant aid to come from the Government of Japan.

## **2 - 4 Details and Contents of the Request from the Government of Tonga**

### **2 - 4 - 1 Background of Requirements**

The educational system of the Kingdom of Tonga consists of six years compulsory primary education and six years of secondary, vocational and specialized education. In the Kingdom, there are no officially authorized educational institutions at university level, except an extension of the University of the South Pacific. In addition, the Atenisi Institute provides university level education, though it is not official.

Historically, school education in Tonga has been spread along with the diffusion of Christianity and 90% (comparison in number of schools) of the primary schools were already compulsory by 1876. As for secondary education, 20% (comparison in number of schools) of the secondary schools are now public-run owing to the educational up-grading policy of the Government of Tonga in recent years, while only 12% of them were public-run until the first half of 1980. As for the remaining 80%, which are mostly mission-run, their facilities are inefficient and curriculums are not uniform. Therefore, the Government of Tonga is promoting up-grading of secondary education as a whole, with programs such as the reforming of mission-run schools into public-run schools, enhancing of the proliferation of uniform curriculums and increasing governmental support to mission-run schools.

On the outer islands, excluding Tongatapu island on which the capital of Tonga is located, secondary education facilities of inadequate quality and quantity brought about a remarkable decrease in the school population and many students moved to Tongatapu island, where the scholastic achievement level is relatively good, to obtain secondary education.

#### **(1) Present Situation at Vava'u High School**

Vava'u High School has been provided with more comprehensive facilities compared to other mission-run schools since its establishment as the first public high school in the district under grant aid from the Government of Japan, and its curriculums and standard of education are now competitive with public high schools on Tongatapu island. Such conditions brought about, since its opening, an increase in applicants for admission to the school, including those who previously had to go to Tongatapu for higher educational opportunities, and the school had to accommodate excessive

enrollments in relation to the size of the facilities. Consequently, the inadequacy of the facilities and insufficiency of teachers became apparent immediately after its opening. Admission has now been unavoidably limited to 100 students, in order to cope with such problems. On the other hand, within a period of several years, the high school recorded the second highest in scholastic achievements, next to the Tonga High School. This confirmed the high effectiveness of the amplification of facilities and also the importance and necessity of the project. However, four years later, in 1989, the number of applicants for admission to the school increased to 455 (See Table 2-24) it has become unable to cope with the demand. Therefore, projects, such as, the expansion of the general and special classrooms of Vava'u High School, the construction of teachers' housing and the preparation of the sports ground were planned.

(a) Change in Enrollment in the Vava'u District Generally and at the Vava'u High School

Table 2 - 23

Year	Enrollment Vava'u High School	Enrollment Other Schools	Number Teachers Vava'u High School
1983	—	2,125	—
1984	—	1,865	—
1985	292	1,799	17
1986	515	2,066	24
1987	537	1,691	35
1988	683	1,335	43
1989	580	1,813	38
1990	579	—	40

(Source: The Annual Report on Education)

(b) Change in Applicants for Admission to the School and Newly Enrolled

Table 2 - 24

Year	Applicants for Admission	Newly Enrolled
1985	301	130
1986	320	144
1987	331	130
1988	346	100
1989	455	100
1990	—	100

(Source: The Vava'u High School)

(2) Present Situation at 'Eua District High School

This belongs to the Tongatapu group, where the capital is situated which is a geographic and economic center. Along with the expansion of economic development in the capital in recent years, the agricultural economy has expanded and the population of the island has been increasing. However, as the public facilities on the island and the conditions of the infrastructures could not be expanded along with the changes in society, the regional gap in the environment became more remarkable, and on the contrary the population started decreasing.

The 'Eua District High School was established in 1986 as the first public school on the island, taking over from the former mission-run school. After its establishment, as the details of educational content became the same as those of the public high schools on Tongatapu island, the number of applicants for admission to the school has rapidly increased, as with the Vava'u High School. In 1988, there were 796 registered students against an accommodating capacity of 200 students and the number of attendants was actually 644. However, with the facilities utilizing the small and deteriorated school buildings of the former mission-run school, the educational activities were not adequate. Consequently, the number of students decreased and more students moved away to Tongatapu island. With a view to improving such conditions and having acquired confidence based on the favorable result of the expansion of the Vava'u high school facilities, the Government planned construction of 'Eua District High School facilities. As the existing facilities, borrowed from church, are located 5 km from the central area of the island and are inconvenient with regard to commutation, it was planned to move the location of the school to land secured in the central area of the town and to construct new school buildings.



• Change in Enrollment at the 'Eua District High School

Table 2 - 25

Year	Enrollment	Number of Teachers
1986	(448) 472	25
1987	(608) 580	35
1988	(796) 644	36
1989	(547) 453	32
1990	(508) 580	33

(Source: Ministry of Education of Tonga)

※ The figures in ( ) denote the numbers at registration time

(3) Environments of Teachers' Housing in Vava'u and 'Eua District

For the upgrading of education, it is important to secure a certain number of teachers and to improve the quality of these. However, teachers' living environments, including housing conditions on the outer islands are now regionally disparate and it is very difficult to secure and employ sufficient numbers of good quality teachers for the upgrading of education. Although there is public housing commonly shared with the staff of other administrative organizations at Vava'u, the housing units are as small as 12m<sup>2</sup> in floor area, generally, cramped and not conveniently located. On 'Eua Island, there are only four deteriorating housing borrowed from the church and no other rental houses. Most of the teachers are from 'Eua and either own their own houses at 'Eua or live with their relatives or acquaintances. Few foreign teachers rent church facilities.

Shown in Table 2-26 and 2-27 below are the present conditions of teachers and their housing in both Vava'u and 'Eua districts.

(a) The Present Conditions of Teachers at the Vava'u High School

Table 2 - 26

Origin	Number	Holder of Degree	Government's House	Own House	Rent House (Church)	Others
Vava'u	20	3	2	18		
Tonga (excluding Vava'u)	10	7	4	1	1	1
USA	2	2			2	
Australia	1	1			1	
England	1		1			
Japan	6		6			
Total	40	13	13	19	4	1

(Source: The Vava'u High School)

(b) The Present Conditions of Teachers at the 'Eua District High School

Table 2 - 27

Origin	Number	Holder of Degree	Government's House	Own House	Rent House	Others (Church)
'Eua	17	1	1	13	0	3
Tonga (except 'Eua)	10	4	2	1	0	7
USA	2	0	1	0	0	1
Fiji	1	0	0	0	0	1
Australia	2	0	0	0	0	2
Papua New Guinea	1	0	0	0	0	1
Not clear	1	—	—	—	—	—
Total	34	5	4	14	0	15

(Source: The 'Eua District High School)

※ The government's houses are those borrowed from the church along with the school building.

2 - 4 - 2 Summary of Requirements

Shown below is the summary of the requirements from the Government of Tonga

1. Extension of Vava'u High School

Enrollment at the time of request approx. 600 people

Present Capacity 500 people

Capacity after completion 700 people

(i) General Classrooms

Classrooms (4) with 7,200 × 8,600

small store 3,600 × 1,800

(ii) Specialist Classrooms (2)

General Science room (1) 7,200 × 9,600

Advanced Science room (1) 7,200 × 9,600

Annex (Form 6) (1) 6,400 × 6,400 physics

Preparation Room with stores, 7,200 × 4,800

store for gas cylinder

The existing Science room will be utilized as

Chemistry/Geology room

(iii) Staff Housing	
Standard units for married staff	10 units
Standard units for single staff	8 units

- (iv) Equipment
- Test Equipment for Physics, Biology and Chemistry
  - Training Equipment for craft work and home economics
  - Teaching supporting and business study equipment

## 2. Nippon Sports Ground Facilities

- (i) Ground leveling
- (ii) Provision of spectators facilities with a seating capacity of 500  
(with changing rooms, showers and toilets)
- (iii) Provision of basic sports equipment

## 3. 'Eua District High School Facilities

Enrollment at the time of request	approx. 640 students
Capacity of the existing school building	approx. 200 students
Capacity after completion	700 students

- (i) Administration
  - Principal's Office (1) 3,600×4,800
  - Deputy-Principal's Office (1) 3,600×3,600
  - Staffroom (for 40 staff members) (1)
  - Reception and Office (for 3 people) (1)
  - (including space for telephone, type, cabinet, etc.)
  - Copy room (1)

- (ii) Library/Resource Unit
  - Library (1) 9,600×9,600
  - Librarian's Office (1) 3,600×2,400
  - Workroom/stockroom (1) 3,600×3,600

- (iii) General Classrooms
  - Classrooms (18) with 7,200×8,600
  - small store 3,600×1,800

- (iv) (a) **Specialist Classrooms (3)**
- |                                  |             |
|----------------------------------|-------------|
| General Science room (2)         | 7,200×9,600 |
| Advanced Science room (1)        | 7,200×9,600 |
| Annex (Form 6) (1)               | 6,400×6,400 |
| Preparation room with stores (1) | 7,200×4,800 |

- (b) **Craft rooms (2)**
- |                                      |             |
|--------------------------------------|-------------|
| Woodwork room (1)                    | 7,200×9,600 |
| Metalwork room (1)                   | 7,200×9,600 |
| Store for raw materials delivery (1) | 7,200×4,800 |
| Small Tool room (1)                  | 1,800×3,600 |

- (c) **Home Economics Unit (1)**  
comprising:

Kitchen Area (1)	7,200×9,600
with practical kitchens (2), gas, solid fuel, kerosene, food store, outside "umu" yard, delivery of raw materials	

Sewing Area (1)	7,200×4,800
with washing machine, water boiler, ironing space, outside enclosed drying yard	

- (d) **Business Studies Room (1)**

Classroom (1)	7,200×8,600
Annex (1)	6,400×6,400
with small office (including reception, file, type, phone space)	

\* Provide small staff cubicles for staff members to supervise the specialist classroom to each rooms (a) through (d) (1 for Science, 1 for Craft, 1 for Home Economics, 1 for Business Studies).

- (v) **Toilets for male/female (Capacity 350 each for male/female)**

Female	15WC, 15hb
Male	8WC, 15ur, 15hb
with drinking fountains and cleaners closets	

**(vi) Teachers' Housing**

\* Standard units for married staff 10 units

\* Standard units for single staff 8 units

**(vii) Equipment**

Test Equipment for Physics, Biology and Chemistry

Training Equipment for craft work and home economics

Teaching supporting and business study equipment

**(viii) Hall**

Enough space for indoor basketball or three badminton courts with stage, changing room and toilets.



## **CHAPTER 3**

### **NATURE OF THE PROJECT**





## CHAPTER 3 NATURE OF THE PROJECT

### 3-1 Goal of the Project

The Government of Tonga is putting a great deal of effort into economic social development in the educational sector, etc., with a view to redressing regional gaps, preventing the concentration of population in the larger cities and enhancing the quality of life of the people. In the 80s, the Government established a public high school on each of the outer islands, where there was no public-run secondary educational organizations. In 1985, the Vava'u High School was opened on Vava'u island with aid from Japan. In areas other than Vava'u, the demand of regional people for a new school building is as high as in Vava'u after the establishment of public high schools, but the old deteriorated buildings are still used. Teachers are also insufficient in quality and quantity and it is difficult to secure those for higher grades. Since amelioration of the school facilities in the Vava'u High School, the Government of Tonga is attaching importance to the improvement of newly opened public-run high school facilities in particular the enhancement in scholastic achievement by facility arrangement and securing of teachers by improving conditions of quality of teachers, such as housing, etc.

From such a point of view, the Government has planned the facility arrangement project of the Vava'u and 'Eua District High Schools. The objectives of the project are the expansion of the Vava'u High School and construction of sports ground, construction of 'Eua District High School, construction of teachers' housing and educational equipment at Vava'u and 'Eua districts, in order to arrange the educational environments on the outer islands.

### 3 - 2 Review of Details of Request

#### 3 - 2 - 1 Location and conditions of the Site on Vava'u Island

##### (1) Social and Economic Situations

Vava'u island is located approximately 300km north-northeast (lat. 18° 40' S, long. 174° 0'W) of Tongatapu island (lat. 21° 10' S, long. 175° 10'W) and is 119.21 km<sup>2</sup> in area of the total populated islands. The total population of the Vava'u group was 15,170 and that of the central area, Neiafu, where this project is sited was 5,273, according the survey done in 1986. As for the population movement trends, the population of the Vava'u group increased slightly from 15,068 in 1976 to 15,170 in 1986, and that of Neiafu increased from 4,661 to 5,273 during the same period. There is a trend for the population to concentrate toward the larger cities. Further, 4,233 people left the island for the other islands during the eight years. On average, this is 530 people/year and most of them moved to Tongatapu, where the capital of Tonga is located, or went abroad. (See Appendix 15)

On the island, personal cars, trucks, taxies and buses are used for transportation. There are only a few taxies and periodical bus services which connect the airport to the city which operate on a time table adjusted for people who visit the airports which operates in frequent. There is a flight once a day between the island and Tongatapu. There is periodical marine transportation service mainly for the transportation of agricultural products and cargoes.

The main industry on the island is agriculture (coconuts, taro, vanilla, etc.). There are fisheries, the products of which are mainly consumed on the island.

Although tourism is one of the most important sources of foreign currency (10% of GDP), the facilities are not as well arranged as those of other countries in the South Pacific. As Vava'u is rich in tourism development resources (nature and landscape) compared to the other islands in Tonga, the number of tourists has been increasing recently.

Vava'u island is the center of the main local economy, being the second most important island. In recent years, however, economic development on Tongatapu island, where the capital is located, has, rapidly advanced, thus further widening the regional gaps. Imbalances in the quality of life and

economy of the people, etc., have brought about industrial stagnation and a drain of population and human resources.

(2) Natural Environment

The island is formed of risen coral and the northern part of the island forms a steep terrace starting from the coastline. On the flat top of the terrace, there is an airport. In the southern part of the island, formed by an intricate inlet with small peripheral islands and very little flat land, the village has developed mainly inside the inlet. Formed of intricate features, with the sea being close from any point, there are no rivers on the island. During heavy rain, the water runs along low spots and roads like a river, but the earth drains well.

As for the geological features and soil quality, the soil consists of sheets of old red volcanic ash and coral limestone covered with new brown volcanic ash on the surface. Generally, the land formed of risen coral is infertile and unsuitable for agriculture, but, owing to the volcanic ash covering the surface, appropriate nutrition is maintained in the earth and the growth conditions of plants are good. (See Appendix 17)

Climate: The climate is tropical, with much rain. The temperatures and humidity are high and it is hot all the year round. (See Appendix 15)

(3) Site and the Peripheral Environment

As the project entails expansion work, there are no problems in ground conditions such as soil quality, drainage, underground water level, etc. Further, considering the size of the expansion, there are no problems in such facilities as power, water supply, sewage and telecommunication. For these the existing facilities can be extended or reinforced.

The location of the Vava'u High School is shown in Table 3-1.

Fig. 3-1 Location of Site for Vava'u High School

