Technical Paper No. 201

HUMAN RESOURCE DEVELOPMENT AND PLANNING

IN THE PACIFIC ISLANDS

FISHERIES SECTOR

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A REPORT PREPARED

for

THE SOUTH PACIFIC COMMISSION

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EXECUTIVE SUMMARY

Between 1986 and 1990, regional fisheries managers and planners discussed the education and training needs of fisheries organisations in developing Pacific Island countries and determined that a study was necessary to:

- gather information on fisheries personnel in the region;
- determine on an individual country basis the training and education necessary to meet fishery development objectives;
- provide advice on updating existing staff development plans;
- draw qualitative and quantitative conclusions on future training requirements; and
- seek the views and contributions of national educational establishments on the above.

The four-member study team assembled to undertake this task visited ten countries during December 1990 to March 1991. Five additional countries were visited by three of the team members in April – May, 1991. Each country visit was limited to a three- to five-day period.

For several reasons, this study has not met all of the established terms of reference. It has, however, examined the existing impediments to effective human resource development planning within the region and has made 109 recommendations directly to national governments and formulated 47 recommendations of a more general nature to address issues common to most countries visited. If acted upon, these recommendations will considerably improve the possibility for effective human resource development planning.

The major themes or issues which have emerged as a result of this study, and upon which the team has based its recommendations, include the following:

- the lack of effective regional co-ordination of education and training;
- the absence of long-term human resource development plans;
- the 'project-oriented' approach to fisheries development in the absence of overall fisheries policy;
- the lack of personnel information for use by regional donor and educational institutions;
- the lack of public awareness about fisheries resources, careers, and the principles of sustainable development;
- the failure of government systems, e.g. personnel and education, to keep up with the pace of development;
- the lack of effort in resource assessment;
- the reluctance by donor agencies to support in-country and/or regional educational institutions;
- the immediate need for management training for senior fisheries staff; and
- the need to provide development opportunities to support privatisation.

The team has also provided a model of the human resource planning process to assist national fisheries organisations (Appendix A).

RESUME ANALYTIQUE

Entre 1986 et 1990, les directeurs et les planificateurs des services des pêches de la région ont examiné les besoins que les services et organisations à vocation halieutique des pays océaniens en développement ont en matière d'éducation et de formation et ont décidé qu'une étude était nécessaire afin de:

- recueillir des informations sur le personnel des services des pêches de la région;
- établir, pour chaque pays, les actions d'éducation et de formation qui sont nécessaires pour atteindre les objectifs du développement de la pêche;
- fournir des conseils sur la mise à jour des plans existants dans le domaine de la valorisation des compétences des agents;
- tirer des conclusions, qualitatives et quantitatives, sur les besoins futurs en matière de formation; et
- chercher à obtenir l'avis et le concours des établissements nationaux d'enseignement sur les questions visées ci-dessus.

Composée de quatre membres, la mission d'étude qui a été constituée pour accomplir cette tache s'est rendue dans dix pays entre décembre 1990 et mars 1991. Trois des membres de cette mission se sont déplacés dans cinq autres pays en avril—mai 1991. Les séjours dans chacun des pays n'ont pas excédé trois à cinq jours.

Pour diverses raisons, la mission d'étude n'a pas réalisé tous les objectifs énoncés dans son mandat. Toutefois, elle s'est penchée sur les obstacles qui entravent, à l'heure actuelle, une planification efficace de la valorisation des ressources humaines dans la région et elle a fait 109 recommandations qui s'adressent directement aux gouvernements des différents pays de la région. Elle a, par ailleurs, formulé 47 recommandations, à caractère plus général, qui abordent des questions d'intérêt commun à tous les pays visités. Si ces recommandations sont suivies d'effets, les possibilités de planifier efficacement la valorisation des ressources humaines s'en trouveront considérablement améliorées.

La mission d'étude a permis de dégager un certain nombre de grands problèmes sur lesquels elle a fondé ses recommandations:

- manque de coordination régionale efficace des actions d'éducation et de formation;
- absence de plans à long terme en matière de valorisation des ressources humaines;
- actions trop axées sur des projets précis de développement de la pêche et non sur la politique générale à mettre en œuvre dans ce secteur;
- manque d'informations sur le personnel, qui pourraient être utilisées par les bailleurs de fonds et les établissements d'enseignement de la région;
- manque de sensibilisation de l'opinion publique sur les questions relatives aux ressources halieutiques, aux carrières de la filière pêche et aux principes du développement durable;
- incapacité des appareils d'Etat à coller au rythme de développement du secteur de la pêche, dans le domaine du personnel et de la formation par exemple;
- manque d'effort dans l'évaluation des ressources;
- réticence des organismes bailleurs de fonds à accorder leur soutien aux établissements nationaux et/ou régionaux de formation;

- besoin immédiat de former les cadres supérieurs des services des pêches dans le domaine de la gestion; et
- nécessité d'offrir des possibilités de formation pour favoriser la privatisation.

La mission d'étude a également fourni un modèle de gestion prévisionnelle de l'emploi afin d'aider les organisations et services nationaux à vocation halieutique (annexe A).

ACKNOWLEDGEMENTS

Members of the survey team wish to express their appreciation for the considerable co-operation and assistance given by many individuals in each country visited. Particular thanks go to the staff of the various fisheries departments and of the SPC Regional Fisheries Training Project in Suva for their logistical support. The team thanks the International Centre for Ocean Development for funding and other support. The contributions of the University of the South Pacific, the Canadian Department of Fisheries and Oceans, and the Government of Fiji in making the team members available and supporting their participation in the study are gratefully acknowledged.

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PREFACE

The draft version of this report was presented to the Twenty-third Regional Technical Meeting on Fisheries held from 5 to 9 August 1991 in Noumea, New Caledonia, and was recommended by that meeting for publication as an SPC technical report. The individual country reports presented as appendices to the draft report were also recommended for publication, subject to authorisation from national governments. These individual country reports have not been included in the published version of the report but will be distributed as a separate volume to the countries concerned. Copies of this will be available on request from national fisheries administrations.

Prior to the publication of this report, the 47 general recommendations of the study were considered by both regional and national fora, resulting in a general consensus that the report provides a useful overview of Human Resource Development (HRD) planning in the countries concerned and that most countries still lack appropriate mechanisms to develop and institute rational manpower development plans and strategies.

The report identifies a lack of effective regional co-ordination of fisheries education and training as one of the main constraints to the implementation of HRD planning and strategies. In considering mechanisms to improve co-ordination, and mindful of opinion solicited from countries, educational institutions, regional organisations and donors, the SPC Secretariat has promoted the following series of activities within the Regional Fisheries Training Project (RFTP) designed to provide a framework for co-ordination of fisheries education and training:

- * The Directory of fisheries training opportunities for Pacific Island fisheries personnel has been substantially revised and converted to a database. It will be circulated throughout the region both in hard copy and diskette and subject to regular revision. In this way it should be a useful tool for more effective planning and selection of appropriate training.
- * The Forum Fisheries Agency (FFA) and the RFTP have agreed to a collaborative approach to the completion and promotion of the Regional Fisheries Personnel Database which is viewed as an essential tool for the efficient planning of HRD strategies.
- * A training and education Special Interest Group publication is planned for introduction during 1993. This publication, co-ordinated by the RFTP and the Fisheries Information Project (FIP) of SPC, will publish fisheries education and training news and views from international, regional, and national training programmes and institutions.
- * Assistance to national administrations in the preparation, review and implementation of HRD plans and strategies is prioritised within the RFTP. The development of training plans to meet HRD requirements can also be undertaken.
- * To allow the RFTP to undertake a wider role in the co-ordination of training and education, approval has been sought for the establishment of a new position of Fisheries Information Associate. The new position will enable the Secretariat to offer the above services without compromising the many other activities undertaken within the RFTP and the FIP.

These activities relate to only four of the recommendations of the report. The concern shown by countries to prioritise HRD issues and the nature of the findings of the report suggest that HRD planning and development will remain a strategic activity in fisheries administrations throughout the South Pacific region for several years to come. The publication of this report serves to summarise the current state of HRD planning in the region and provides a starting point for addressing HRD issues. The associated unpublished appendices summarise individual country situations. It is sincerely hoped that the provision of these two documents to the countries concerned will be of significant assistance in addressing the issues of HRD planning and development.

1. BACKGROUND

The management and development of the fisheries sector of Pacific Island countries depend to a very large extent on the leadership and skills of the very limited qualified human resource base available to government fisheries organisations. The private sector, in most countries, is not well developed, for several reasons, including geographic location, economic capability, and the state of the resource itself. Accordingly, the private sector contributes very little to the labour pool upon which fisheries organisations can draw. Indeed, the situation is such that government employees, in many countries, are called on to manage a private business resulting from direct government intervention.

During the last decade, staff in relatively small fishery organisations, with considerable assistance from aid donors, have undertaken a large amount of education and training to meet the growing demands placed upon them both by government and private sector initiatives. Great progress has been made, but lingering concerns continue to exist with respect to the effectiveness of the education and training received.

A survey of the existing education and training being undertaken and the education and training needs of the region's fisheries organisations was completed in 1985/86 by the Regional Fisheries Training Project of the South Pacific Commission (SPC). The survey illustrated a diversity of problems associated with training. Most countries at that time identified lack of skilled manpower as the principal constraint to effective fisheries development.

In August 1988, a working paper 'Can fisheries training be made more effective', was presented to SPC's Twentieth Regional Technical Meeting on Fisheries (RTMF 20/WP.12). The paper summarised several of the problems that the 1985/86 survey identified and which continued to exist. These problems included the following:

- A large and diverse amount of training is easily available to Pacific Island fisheries personnel, yet skilled manpower remains in short supply;
- For a variety of reasons, course participants are often poorly selected and therefore fisheries organisations do not obtain full benefit from courses attended;
- Few countries have developed staff training plans and so training is often undertaken on an *ad hoc*, 'whatever-is-available' basis;
- Trainees are frequently not putting into practice the skills acquired on training courses;
- There is a need for better communication between training establishments, both inside and outside the region, and government fisheries organisations.

The working paper indicated that, unfortunately, little had changed in the two years from 1986 to 1988.

These same issues were again discussed during the Twenty-second Regional Technical Meeting on Fisheries in August 1990. The discussions led to the recommendation by the meeting that the SPC should conduct a study which (in the light of the existing economic constraints of each member country) would assess future personnel needs of fisheries organisations in regard to numbers, qualification and skill requirements, and the education and training required to meet the growing demands placed on fisheries staff.

Human resource development issues have not only been discussed at gatherings organised by the South Pacific Commission. Meetings of the Forum Fisheries Agency (FFA) focused on the same subject and regional fisheries staff were actively involved in the review of the Diploma in Tropical Fisheries programme of the University of the South Pacific (Clift Report, 1989).

As a result of this widely expressed concern over issues related to training and human resource development, SPC obtained funding from the International Centre for Ocean Development (ICOD), Canada, for the present study.

1.1 Objectives

The objectives of the study were stated in the Terms of Reference as follows:

1. Update the existing information already collated by SPC on fisheries personnel in Island fisheries administrations, regional organisations, and elsewhere.

Comment

Educational institutions and regional organisations have made it clear that a personnel database covering all regional fishery workers is needed as a tool in developing educational and training programmes to meet national and regional needs. SPC's Regional Fisheries Training Project is developing a substantial database on regional staff which will shortly be available to national and regional institutions.

Prior to this study, each country visited was requested to provide personnel information on each established employee. Appropriate forms were distributed before the team's visit, with the hope that the completed forms could be collected on site. Unfortunately, due to communication difficulties and the absence of key fisheries staff attending to other priorities, the forms were not completed for many countries. The short time in each country did not permit the team to collect these necessary data: a task which for many reasons (i.e. distances, staff absences, jurisdictional boundaries [federal vs provincial]), is very difficult and time-consuming. In any event, the team managed to collect data on 252 employees, about 30 per cent of the estimated 849 fishery workers in the countries visited. Time did not permit the collection of similar data for regional or private sector organisations.

2. Through review of existing documentation (five-year plans, existing staff development plans, etc.) and by in-country discussion with senior fisheries and government personnel, develop on an individual country basis a perspective of future fisheries management and development programmes planned in the countries, intended staff numbers, and mixes of skills and levels of competence required for the effective conduct of such programmes.

Comment

The team reviewed 71 documents related to its task (Appendix B). This report incorporates much information gathered by others, not all of which has been directly credited in the body of the text. For each country visited, the team has provided a brief overview of the fishery, current objectives, future development plans where available, and a description of the country's fisheries department. The task of identifying staff members, mixes of skills, and levels of competence required for the effective conduct of future development programmes could only be accomplished in a very preliminary fashion. Most countries have in place fiscal and staffing restraint programmes which will remain in effect for the foreseeable future. In addition, many countries were visited at the end of their national planning cycles and new development plans (sectoral and national) were in the early stages of development.

3. Review existing plans for staff development and, where appropriate, provide advice on updating such plans.

Comment

The team reviewed whatever plans were available. Unfortunately, no country visited had a government-approved human resource plan which listed future training and education requirement priorities in the fisheries sector, or how and when development would take place in a planned way to meet established fishery goals and objectives. In countries where education and training requirements were documented in submissions to national development planners or public service reviews, advice has been provided in the report for those countries.

4. Draw conclusions on future requirements for training in both qualitative and quantitative terms at all levels (both academic and vocational).

Comment

As mentioned previously, quantitative data were not available to the team in most cases and the study was structured in such a way that time in-country was insufficient to complete this complex task. Only preliminary qualitative conclusions could be drawn. These are contained in this report.

5. At all stages of the consultancy liaise with regional and national educational establishments to inform them of the purpose of the study and seek their perspective.

Comment

The team took the opportunity of visiting most of the educational and training institutions in the countries to which they went. The visits sensitised staff of these institutions to the needs of the fisheries sector and the purpose of the study. In all cases, the staff expressed the need for improved communications between educational institutions, national governments, regional organisations and aid donors.

Most institutions demonstrated a helpful attitude and a willingness to be flexible in curriculum development to meet the specific collective needs of longer-term human resource development plans.

1.2 Methods

The consulting team conducted its study in two parts, with one group of countries being visited in January-March, 1991, and the other in April-May, 1991. The following table summarises the country visits.

Country (in order of visit)	Dates in-country	Officials Consulted*	Recommendations
Tuvalu	23–26 January	16	10
Kiribati	26–30 January	13	8
Marshall Islands	30 January–2 February	21	7
FSM	2–6 February	16	10
Palau	7–9 February	14	6
CNMI	10–13 February	15	3
Guam	12–16 February	11	3
Papua New Guinea	16–24 February	21	15
Solomon Islands	24 February–1 March	28	9
Vanuatu	24–28 February	11	10
USA (Hawaii)	17–19 April	7	0
Cook Islands	24–27 April	14	9
Western Samoa	28 April-1 May	15	6
American Samoa	2–5 May	5	0
Tonga	7–10 May	10	4
Fiji	10–15 May	19	9

^{*} A complete list of the 236 officials consulted is attached as Appendix C.

As can be seen from Appendix C, in addition to fisheries sector staff (both public and private), discussions took place with staff of Public Service Commissions or their equivalent, Planning Offices, and Education Departments.

There is no doubt that personnel policies (or the lack of policies noted in several countries) present major obstacles to effective career planning. While it is perhaps not in the power of fisheries organisations to change national personnel policies, they may be in a position to influence future changes, or make minor changes of their own that assist in human resource development planning.

One of the team members (G. R. South) spent considerable time and effort with education officials to enable the team to understand the educational system of each country. The team believes that the status of the primary and secondary school systems in most Pacific Island countries presents a major constraint to the future development of national fishery organisations. It is hoped that the information collected will also prove useful to future studies and/or initiatives in the development of curricula related to marine resources and needed public awareness programmes.

Following the completion of the first round of country visits, the team prepared a discussion paper for consideration at the Forum Fisheries Committee's Workshop on Education and Training (Sutherland et al., 1991). The paper was discussed extensively at the Workshop, and a paper outlining the Committee's response to the issues raised resulted (FFC 20th Meeting, 5th Technical Sub-Committee Meeting, 22–25 April 1991, Record of Proceedings). The issues raised in the FFC discussion paper, together with the FFC response, have been incorporated into this report.

Although regrettably it was not possible to visit all countries of the region, the team hopes that the overview and recommendations contained in this report will be of assistance to all SPC member countries and territories in the development of their fishery-related human resources.

2. CONSTRAINTS TO HUMAN RESOURCE DEVELOPMENT PLANNING

This section of the report attempts to outline some of the constraints which exist in Pacific Island countries in the formulation of human resource development plans, and provides a series of related recommendations. It has been difficult to generalise, as each country has different development priorities, labour pools, customs and economic status. Therefore, a reader of this report from Fiji or Papua New Guinea may feel that certain constraints do not necessarily apply; the reader from Tuvalu or Palau may relate to most of them and, indeed, identify others that the team has missed.

The degree to which any one constraint impacts on the ability to develop staff in a planned way varies from country to country. Regional organisations, donors, and educational institutions must, however, serve most, if not all, of the countries involved in this survey and therefore must recognise that these constraints exist to varying degrees. They must also design programmes to meet the challenges to planning which these constraints present.

2.1 National educational systems

The capacity of school systems and educational standards varies widely throughout the Pacific. Some countries do not have compulsory education as the school facilities could not handle all the potential students. For the small number of students who qualify for university entrance, comprehensive scholarships are necessary because, with the exception of three countries visited, such education must be obtained overseas.

In general, there are poor communication links between resource managers and educators in terms of both curriculum development and future employment opportunities. It is interesting to note that there is a trend away from the use of old curricula primarily inherited from metropolitan countries. Curricula in most countries now include national elements. However, it was felt by the team that these positive changes have yet to include sufficient material on marine resources.

Most countries continue to experience a shortage of teachers and school supplies, particularly at the secondary school level. Because of curricula and these two shortcomings, science literacy is low, resulting in a high failure rate for students seeking to meet the relatively high recruitment standards required for fishery sector employment.

Most countries have a bonding system for students proceeding overseas for tertiary education. These systems normally require the student to return home to work for a period equivalent to the time spent overseas. In general, these systems are not fully effective and, indeed, could probably be successfully challenged in court. Perhaps bonding could be accompanied by some incentive, such as assistance to purchase housing on forgivable loans, to ensure larger numbers return to serve their country. At the moment, donors play no role in assisting with this problem.

Recommendations

- 1. The primary focus of regional and national attention should be on the overall improvement of educational standards, with a specific goal to improve science literacy in the population at large.
- 2. A regionally co-ordinated mechanism to develop and share curriculum and educational materials should be established, focusing on marine and ocean studies at the primary and secondary school levels. An associated goal should be to develop co-operative, regional programmes for appropriate teacher training, while recognising individual national goals, curricula, and cultural differences.
- 3. Improved liaison between education and fisheries departments must be developed.
- 4. Possible incentive schemes should be investigated by national governments to encourage returnee graduates to work at home. Wherever possible and appropriate, donors should support such initiatives.

2.2 Economic capabilities

Most countries do not have the capability to fund human resource development internally and must rely heavily on outside aid. Such aid is often tied to specific educational opportunities which do not always fit the country's needs precisely.

The public service is, in the majority of countries visited, either the largest or the only major employer. The private sector cannot play a role in developing needed staff skills for the public service as it does in developed countries.

The team did not visit any country where some form of government spending restraint was not in place. These restraint programmes include staffing freezes, public service cutbacks, elevated approval levels for any personnel action which has a cost attached, reduced working hours, and a reluctance to release key staff for development opportunities. This understandable reaction to current economic conditions may in time result in reliance on lesser-paid high school leavers. Such a trend will widen the skills gap within fisheries organisations, resulting in a requirement for even more training and education of staff as the economy improves. Current economic conditions make it even more important that human resource development priorities be established without delay.

Recommendations

- 5. National governments should develop employment schemes similar to Fiji's 'Youth Employment Options' for students during school holidays and for school leavers. Such schemes may assist in the development of relevant experience in the labour market, public awareness, and encouragement for more students to seek careers in fields such as marine sciences.
- 6. During periods of fiscal and staffing restraint, donors should give more consideration to providing temporary staff to replace key employees who are upgrading their education.

2.3 Competition for scarce human resources

A university graduate is a valuable commodity in most developing countries. Professional positions in all Pacific Island fisheries departments require a degree or a diploma in a relevant field, e.g. tropical fisheries. Competition between government departments for graduates can be strong, resulting in inter-departmental movements and perhaps rapid advancement.

Unfortunately, it would appear that fisheries departments suffer from outward migration, making it difficult to maintain continuity of adequate skill levels. To meet national priorities, B.Sc. graduates are often encouraged to enter a field other than fisheries. For example, in Fiji the pay for teachers has been elevated to meet severe staff shortages. The Fisheries Division cannot compete for a B.Sc. graduate, as the pay differential is large (approximately \$F2,000).

In the past, fisheries departments have concentrated their efforts on developing scientific and technical expertise to meet fisheries development needs. Such expertise is indeed required but the survey team noted that many of the staff returning to the departments with a B.Sc. or a Diploma in tropical fisheries (for example) are being employed within the department in work areas for which they were not educated. Many are employed in general project management, administration, financial management, etc. Others have had to assume responsibility for overseeing the privatisation of fisheries activities, which requires skills and education in such areas as small business management, marketing and post-harvest fish handling. Technical areas such as stock assessment are receiving less than adequate attention as a result of qualified staff being reassigned to meet other priorities.

In addition to this in-country competition, wage disparities between adjacent countries, and the attractive salaries associated with positions in regional agencies often attract the better qualified fishery workers. For Island countries closely associated with metropolitan nations the problem is worse. These countries have suffered a major 'brain drain' as their citizens may constitutionally remain overseas in the United States or New Zealand, and do so for better career and salary opportunities.

Recommendations

- 7. Every attempt should be made within public services to redress the differences in classification and pay scales and so avoid unwarranted shifts from disciplines for which officers have been trained.
- 8. Mechanisms need to be established to ensure that staff sent overseas for both long- and short-term training return to their home countries on completion of such training.
- 9. Regional organisations should formalise a regional 'interchange' programme which would provide reciprocal exchanges of staff (not necessarily concurrent) for periods of one or two years, between countries and between countries and regional organisations. These exchanges may involve aid donor salary subsidisation, should not require an established position to facilitate, and should guarantee the return of the employees to their former positions at the termination of the agreed interchange assignment.

2.4 Personnel management systems and practices

Most countries still depend on personnel policy systems and practices inherited from the colonial past. Some have been modified slightly to meet local needs, but most have not. Such systems were designed for much larger bureaucracies and human resource pools, and present many barriers to appropriate career progression in developing countries.

For example, most job classification systems do not recognise specialisation in fisheries, e.g. research, extension, enforcement, licensing. Selection standards, for the most part, demand a university degree or a diploma for an individual to be recruited as a fishery officer, regardless of the specific area of work. Such barriers to upward mobility often lead to lateral movement at the lower

levels, frustrations, low morale, low productivity, and the neglect of some hard-working, talented, dedicated but unqualified staff in selection for higher-level positions.

Job evaluation processes rarely measure performance against agreed work objectives — an arrangement which, if used, can act as an accountability accord between a superior and a subordinate. Most evaluations use very subjective performance indicators. The training and/or educational needs of an individual were identified in the annual performance evaluation process of only two countries visited. It appeared to the team that, if a commitment were made by the fisheries organisation to institute human resource development plans, then some modification to job evaluation forms would ensure that such plans could be updated annually, and development opportunities approved in a fair and equitable manner. The team has collected the performance evaluation forms used by most countries visited and copies are available from SPC's Regional Fisheries Training Project.

Perhaps it is unreasonable to expect rapid major changes in these established systems. However, a better understanding of how these systems work would prove helpful. In general, there appears to be poor communication between central agencies and specialised government departments, as well as between subordinates and superiors. For example, in few countries did senior fisheries staff know how job classification standards are applied. In no country does a line manager participate in classifying a job except for writing appropriate documentation (basic job description and required qualifications). Many fishery departments do not have up-to-date job descriptions nor do they follow national policy with respect to the completion of job evaluations. In several of the countries visited, staff may be appraised on their performance but no discussion takes place between superior and subordinate, as the evaluation remains confidential.

Donors, educational institutions and regional organisations must deal with a wide range of differing centralised or decentralised systems to co-ordinate and approve training, in some cases even requiring the approval of the Head of State. Other countries allow such training and education to take place on a bilateral basis between departments and outside funding agencies. By prior agreement, some regional agencies must deal exclusively with Foreign Affairs Departments even though circumstances have changed in-country and alternate central agency bodies have been established to co-ordinate aid-funded training (e.g. PNG). It is easy to understand the frustrations experienced by both sides as overseas agencies must adjust their lines of communication to meet differing national systems.

Despite attempts by most of the countries visited to devise organisations and systems to protect the merit principle (Public Service Commission and/or Personnel Division reporting independently to government), the team was made aware on many occasions that political influence remains a dominant feature of training selection and staff promotion. Few countries have written criteria upon which to base objective decisions.

In summary, it would appear that personnel management systems have not kept pace with the development of fisheries and the organisations which have been established to manage them.

Recommendations

- 10. Heads of fisheries organisations should make minor adjustments to national performance evaluation forms for use in their organisations. Changes should include a section on work objectives for the next reporting period, and a section on training needs, to ensure that human resource development plans are kept up-to-date.
- 11. Heads of fisheries organisations should take every opportunity to promote changes to national personnel policies and systems, where such changes will promote more effective and equitable career development and advancement.
- 12. Heads of fisheries organisations should encourage appropriate central government agencies to communicate more effectively the way in which job classification standards are applied, so that staff at all levels have a better understanding of the qualifications necessary for career advancement.

13. While systems and policies with respect to official contact with donors and outside institutions differ and are the prerogative of each state, donors and regional organisations should review their current practices and protocols to ensure that those central government agencies responsible for human resource development are communicated with directly, where protocols permit, or indirectly by correspondence copies, to ensure more prompt action.

2.5 Lack of effective regional co-ordination

National governments must know what they want when it comes to regional co-ordination and assistance. They must feel free to express their opinions and give direction to organisations established to serve their national needs. All too often, in the opinion of this team, direction of this type is not being received by regional organisations, donors or educational institutions. This will be efficiently achieved only if those regional organisations whose mandate includes fishery management, research and training, work in close harmony with one another. While there has been good progress towards this goal in recent years, the team is of the opinion that a much greater effort should be made by FFA, SPC, SOPAC and SPREP to better co-ordinate their human resource development activities in the interest of the countries they serve.

In 1985, the SPC established the Regional Fisheries Training Project, which has so far focused primarily on the development and/or delivery of much needed courses (e.g. extension and technical training). Little time is presently available to provide services which would, for example:

- actively encourage the implementation of certain agreed recommendations of this and similar reports related to human resource development;
- provide a focus of communication between countries, donors and educational institutions;
- provide a channel for feedback and evaluation of those courses currently available (no evaluation presently exists);
- act as a 'middle man' to arrange attachments and individualised training programmes;
- encourage and assist in the development of educational and training programmes to be delivered in-country or within the region; and
- maintain a regional personnel database.

Even if each country chooses to develop its own long-term human resource development plan, without regional co-ordination educational institutions will lack sufficient lead time to plan the required educational programmes, because they must address the collective needs of the region if they are to be cost-effective.

Recommendations

- 14. A Regional Fisheries Education and Training Co-ordinator position should be established, preferably within an existing regional institution or programme. The duties of the Coordinator would be to:
- provide advice and assistance in national human resource development planning;
- provide educational and training programme information;
- undertake evaluations and follow-up on training activities;
- act as a liaison between national administrations, educational and donor communities;
 and
- maintain a regional personnel database.

15. The Regional Fisheries Education and Training Co-ordinator should convene and chair an annual meeting of donors, educational institutions and national government representatives to discuss human resource development issues. The meeting should be held in conjunction with a regular meeting of an appropriate regional organisation.

2.6 Colonial histories

There are many good and bad points associated with the colonial histories of Pacific Island countries. On the good side, expatriates are made available on a subsidised basis and citizens of formerly colonised states enjoy access to educational aid packages in preference to those from other countries. For some countries a constitutional right exists to employment and citizenship in metropolitan countries.

From the negative perspective, previous sections of this report have already referred to the 'brain drain' that is taking place, and the inherited school curricula and personnel systems that are still in place. In addition, many officials interviewed criticised the fact that most educational aid demanded that training take place only in the country providing the aid and that such education was not always relevant to Pacific Island needs. There remains a perception that in the short term, very little can be done to change this situation to allow more aid to flow to in-country and regional institutions.

Recommendation

16. Donors should provide more support for in-country and regional education and training.

2.7 Lack of personnel data

As noted in the introduction to this report, very few data on fisheries staff exist in-country. For this reason the team was unsuccessful in obtaining all the necessary data for a regional personnel database to be used by donors, educational and regional institutions. With the information that was already computerised by the SPC Regional Fisheries Training Project, and the information collected by this survey, it is estimated that about one-third of the data required to plan effectively for courses and other development programmes is now available.

In any planning exercise there must be a commitment made by those who benefit to ensure processes are followed to provide up-to-date information, so that others may get on with their own planning e.g. donors and educational institutions. If senior fisheries staff do not see a regional database as beneficial, this commitment will not be there and the lack of personnel data, with training needs added at a later date, will continue to be a serious constraint to effective human resource development.

Recommendation

17. The completion and regular maintenance of an up-to-date fisheries personnel database should be a regional priority task assigned to the proposed Regional Fisheries Education and Training Co-ordinator.

2.8 Lack of flexibility to meet changing priorities

The long time-frames involved in managing sustainable fisheries are often in conflict with shorter national three- or five-year plans, and the even shorter planning time-frames associated with changing country priorities and donor-inspired programme shifts. Both national plans and donor-inspired projects are normally associated with the economic development of particular fisheries and little or no flexibility exists to shift attention rapidly to longer-range issues, e.g. the decline of an important subsistence fishery.

Most countries are also very vulnerable to staff shifts, sometimes resulting in a complete inability to address identified objectives. Because most departments do not have a depth of staff skills, even small shifts can be dramatic. For example, the team has witnessed the near collapse of aquaculture development in Western Samoa because of three key staff members going overseas on assignment or for higher education. A similar blow to the privatisation of fish processing in Tuvalu occurred when the only two local staff in the processing plant obtained, at the same time, overseas scholarships from the Australian Government.

Recommendations

- 18. Aid donors should focus more funding on the development of data collection and its analysis to meet long-term sustainable fisheries development objectives.
- 19. Regional organisations should lend their voices to those of several countries which wish to express their concern to the Australian Government about the serious negative impact that the awarding of scholarships directly to recipients, without government consultation, has on national programmes.

2.9 Low visibility of marine resources management

It was a surprise to the team to note that, in most countries, marine resource management does not enjoy high visibility with the general public and government central agencies. Despite the fact that the newly extended EEZs in the region present a potential (sometimes the only real potential) for economic growth, fishery organisations, by and large, remain relatively small and receive little priority from scholarship committees. This was particularly noticeable in the Federated States of Micronesia (FSM) and Solomon Islands, where the economic impact is large, yet national organisations are relatively small.

Until such time as the economic value of a fishery is clearly documented and presented to government, and the public gains awareness of this value and the need for effective conservation and management initiatives, little will change. It is encouraging to note the initiatives which have been taken in the Commonwealth of the Northern Mariana Islands, and those which are planned by the Ministry of Education in the Kingdom of Tonga, to promote fishery awareness in schools (models worth investigation by other interested countries). Also encouraging was the emphasis placed on this subject during the discussions of the Workshop on Education and Training of the Fifth Technical Sub-Committee meeting of the FFC held in Wellington, 22–26 April 1991.

Recommendations

- 20. Priority should be given to the establishment of long-term regional and national programmes aimed at an improvement in public awareness of marine resource issues. Targeted groups should include:
- schools,
- the general public,
- the media (newspapers, TV, radio),
- resource owners/custodians,
- resource managers and decision makers,
- private sector members engaged in resource utilisation and management,
- national, regional and local groups with an interest in marine resource issues (environmental groups, natural history clubs, service organisations, scouts and guides, women's groups, parent-teacher organisations, village councils, etc.)
- 21. If requested, assistance should be provided to fishery organisations attempting to describe the national economic impact and potential of the fisheries sector for presentation to central agencies.

2.10 Project orientation

It would appear to the team that much has been achieved in recent years in the development of educational levels and technical skills. Much credit must be given to national governments, regional organisations and donor agencies for the progress which has been made. Unfortunately, a great deal of effort has been aimed directly at economic development in the absence of sound sustainable development policy. Aid is often tied directly to specific economic development projects and cannot be easily shifted, as discussed above.

Unless there is some shift in emphasis on the part of donors, inshore fisheries policy initiatives will not be addressed. The team was advised that it is currently much easier to get funding for gear, engines, vessels, fishing tutors, etc., than for assistance with conservation education, planning, policy and regulatory development, data collection, stock assessment, etc. Donors do not always support what is vital, but what is expeditious. Some country officials have earnestly stated that more attention needs to be paid to areas of assistance and development which relate directly to ensuring sustainable use of inshore resources for the future.

Recommendations

- 22. Human resource development plans should reflect the need to give more support to fisheries policy and regulatory development.
- 23. Wherever possible and appropriate, donors should shift funding from economic development projects to the vital need to develop long-range fishery policy.

2.11 Power of the donors

Some comments have already been made about this constraint in earlier sections of this report. There is, indeed, a perception in Pacific Island countries that the donor is in control and must not be offended. It is perceived that the donors establish the terms of development, demand training in metropolitan countries, and are not very flexible when negative feedback is given. In one country the team witnessed a staff member being sent on a course already completed in the past because he was the only person available to go and the fisheries manager feared that he would offend the donor if no-one was sent.

The team's interviews with donor agencies nevertheless revealed an openness to providing more assistance to in-country training, a wish for more national input into course design and more feedback, some flexibility in providing more support for regional educational institutions, and a desire to discuss distortions in the training process caused by widely varying allowances and access opportunities.

Recommendation

24. An appointed Fisheries Education and Training Co-ordinator should encourage consideration by all concerned parties of the perception that donor policies may be distorting the training process.

2.12 Social/cultural differences

Social and cultural imperatives vary widely in Pacific Island countries, resulting in different human resource development needs. Each country's development plan must recognise demographic patterns. In the Marshall Islands the annual population growth rate is four per cent, with an average age of 15 years; the situation is much different in Western Samoa and the Cook Islands, where populations are actively decreasing through emigration to New Zealand and elsewhere.

A majority of countries remain highly dependent on subsistence fisheries (Tuvalu, Kiribati), while others depend almost totally on the cash economy (Guam, American Samoa, Marshall Islands). In most countries, however, the population depends on fish, whether caught or imported, as a major component of its diet.

Culture can be viewed as a constraint on human resource development. The division of power between villages, provinces or states, and national governments, is sometimes quite complicated. An extreme example would be Papua New Guinea with its 781 languages and 19 provinces. The village-level government in most countries forms a powerful voice in the development of a fishery and how it will be regulated. Add to this the continuing systems in some societies of the titled chiefly class, who may come to be employed as subordinate employees, and one can quickly appreciate the complexities of human resource management.

2.13 Lack of planning capability

Fishery organisations in Pacific Island countries do not, as a rule, have any staff with experience or training in the fundamentals of planning. Most rely on the usually very small staff of central government agencies or regional organisations to develop the input for national development plans. This lack of planning capability, which must in part address the complicated jurisdictional and cultural issues noted above, is a major constraint to the development of human resource plans.

Recommendations

- 25. In the preparation of fisheries human resource development plans, departments should, where appropriate, seek the assistance of outside agencies and donors for the provision of the necessary expertise and funding.
- 26. In larger fisheries organisations, human resource development plans should include the acquisition of necessary planning skills.

2.14 Lack of human resource development plans

Over the last five to ten years, most fisheries departments in the Pacific have experienced a period of rapid staff growth. This period of expansion has been accompanied by a great amount of staff training and development, in response to the need for departments to undertake increasing work and responsibilities.

The stage has now been reached where many departments are close to the required staff numbers, and the period of rapid growth and the need for large amounts of training has passed. An analysis of past training and present development needs indicates that the development of staff has generally been on an *ad hoc* basis to meet short-term objectives. There has been a substantial amount of inappropriate training and a lack of longer-term planning which would co-ordinate staff development with overall government and/or fisheries strategic plans. This has resulted in departments not having staff with the spread of abilities to meet objectives. If care is not taken, the simplistic solution to this becomes 'more training' or 'more staff'. While more training can usually be obtained, staff numbers are regulated by budgetary constraints decided outside the fisheries department. Without adequate long-range planning, donors, educational institutions and regional organisations will be hindered in their ability to design specific programmes to meet national needs.

Recommendation

27. The preparation of fisheries human resource development plans should be a priority of national governments.

3. EDUCATION AND TRAINING ISSUES

3.1 Technician-level training

The Diploma in Tropical Fisheries offered by the Institute of Marine Resources (IMR) at the University of the South Pacific (USP) since 1975 underwent a major review in 1989 (Clift Report). This review was undertaken to ensure that the curriculum reflected the needs of the student and his department, and that the subjects and standards reflected work to be performed. The study examined the work being undertaken by diplomates, and the intended work which current students would undertake on their return home.

All diplomates who were working in fisheries were interviewed, or sent questionnaires; senior fisheries personnel were interviewed or sent questionnaires; and staff at the IMR were interviewed, as were students attending the course. The conclusions of the Clift Report were that the Diploma, as it stood, no longer reflected the needs of the region; two significant recommendations emerged:

- 1. That the Diploma be upgraded to a higher academic standard and that it be structured so that attendance can be credited towards a degree course.

 (Note: This survey noted that in several cases persons who attended the Diploma course started a B.Sc. programme immediately afterwards, indicating the need for such a correction);
- 2. That the needs of a majority of students currently attending the Diploma programme were for a course of study at a lower academic, more practical, and work-related level.

USP has developed a five-year plan (South, 1991) which will satisfy the first recommendation. There is also a proposal in the five-year plan to introduce a Certificate in Fisheries Studies which will address the second recommendation. It has been proposed that the existing SPC/Nelson Polytechnic Pacific Island Fisheries Officers Course might be redesigned and redesignated to meet this need. In reviewing this proposal (RTMF 22/WP.18), SPC's Twenty-second Regional Technical Meeting on Fisheries agreed that consideration of this issue should be deferred until the completion of the present study.

Our survey has identified this as an area of significant need. It is the belief of the team that such a qualification would complement the diploma courses which USP proposes to implement, and allow persons with less academic ability to gain relevant education and skills training. While this may lead on to a diploma course, it is not considered that the two courses of study need be inter-related through credits.

This Certificate of Fisheries Studies could be completed in about one year and, as well as including skills necessary for the technician level, would also include basic writing, science, and mathematical skills to an appropriate level. It should also include extension and administration skills, as well as awareness of departmental procedures.

It is considered that such a preparatory year, rather than a diploma course, could equip a person with the necessary 'tools' to effectively start a career in fisheries in some countries. In addition, it would offer an opportunity for valued employees in an organisation (e.g. unestablished staff or trainees) to enter normal career paths within the department. The higher preparatory year could also be used as a 'stepping-stone' to higher qualifications, e.g. technical, diploma, or degree. The emerging private sector might also welcome the opportunity to utilise that course to train existing and potential staff. Ideally, such a programme of study would be recognised and accorded some accreditation by regional tertiary institutions and organisations.

Recommendation

28. The South Pacific Commission, the University of the South Pacific, and the Nelson Polytechnic should commence planning as soon as possible for the introduction of the proposed Certificate in Fisheries Studies.

3.2 Experiential education

The development of personnel is an ongoing and integrated process of which formal education and training courses are but one part. In every circumstance, a variety of educational and staff development avenues are available and these should be examined to ascertain which is the most appropriate to the particular situation. Possibly because of the job classification standards which exist in all countries, the emphasis within Pacific Island fisheries departments has been placed on institutionalised training and education, leading to a recognised qualification. While such education has a role, recurring comments in most countries were that some people were well trained but lacked experience and, to a lesser extent, that the particular training had not resulted in improved performance.

The team believes that countries and donors should place more emphasis on the development of staff through individually designed programmes which integrate work experience through attachments coupled with short training courses, rather than sending staff to a longer academic course. An example could be a person who will run an in-country fish plant, who might be better trained by a programme which integrates fish plant experience in other countries, short training courses, and in-country work experience, rather than being sent overseas for a general educational programme such as a diploma or degree.

For this approach to work, donors must make funding commitments, and countries must be prepared to give experience the same recognition as the equivalent certificate or diploma.

Recommendations

- 29. Regional agencies should develop short courses coupled with individualised experience opportunities to meet short-term skill shortages in such areas as post-harvest fish handling, enforcement, licensing, catch monitoring, and proposal writing.
- 30. Short courses and periods of attachment to gain valuable related experience should be formally recognised as qualifications for career advancement.
- 31. Aid donors should lend as much assistance to work attachments as they do to training and education where such needs have been identified.

3.3 Staff Development Officer

In the smaller fisheries departments, the chief executive officer would most likely have a personal knowledge of the abilities, training background and likely future duties of individual staff members. As long as the chief executive officer takes the time to properly examine the avenues for the development of his staff, undertake open assessment and evaluate the training which is undertaken, there is little need for a dedicated Staff Development Officer position.

Within larger departments, with more complex structures (e.g. Papua New Guinea, Fiji, Kiribati, Solomon Islands), it is perhaps important that there be one staff member responsible for staff development and training. Currently, the person designated as Training Officer in a few larger government departments in the Pacific has the fairly basic responsibility of running low-technology training courses for fishermen or junior staff. He or she may also perform clerical work associated with sending someone to overseas courses, such as ticketing and completing the required government procedures. The position is generally low-graded, with the incumbent having a minor technical qualification. Presently, the Training Officer may take no part in larger staff development issues and policy decisions.

Recommendations

32. Larger fisheries departments should have a designated position for a Staff Development Officer. Smaller departments should have the responsibility for staff development included as part of the duties of an existing senior-level position.

- 33. The Staff Development Officer should have qualifications appropriate to develop human resource development plans, liaise with senior officials in central government agencies and regional organisations, draft proposals, evaluate training received, and counsel staff.
- 34. The Staff Development Officer should occupy a relatively senior position in the fisheries organisation, enabling input to personnel policy decisions made by the senior executive officer.

3.4 Management training

A recurring theme during the team's country visits was the identification of the need for management training for more senior departmental staff. Specific subject areas identified for inclusion in management training were personnel, finance, organisational development, administrative procedures, delegation, and accountability methodologies. Perhaps such training could be designed in a modular format to ensure that specific skills and knowledge deficiencies were adequately addressed in a cost-efficient manner. In designing a modular programme care should be taken to ensure that it meets regional needs, is integrated with similar types of training (i.e. extension), and is progressive in the long term.

It is interesting to note that several key research staff members have been promoted to more senior management positions, or have been assigned programme management duties, to which their academic qualifications are not directly relevant. Some of these senior staff members have voiced their frustration at being unable to carry out research-related data collection and analysis work, while at the same time recognising their skill shortages in the general management fields.

Recommendations

- 35. Appropriate existing short courses in areas such as personnel management, financial management, report writing, administrative procedures, and organisational dynamics should be identified or, if none exist within the region, designed by regional organisations or educational institutions.
- 36. Management courses should, at least initially, be aimed at the most senior staff of fishery organisations.
- 37. Donors should support the widely-expressed need for general management training by providing funding for the development and implementation of such courses, preferably incountry.

3.5 Extension training

Over the last three years, the South Pacific Commission has conducted an extension training project which has been helpful in increasing the extension skills of fisheries staff. Through this project there now exists, in most countries or sub-regions, the ability to conduct extension and communication skills training in-country, perhaps with the help of other country trainers or, in some cases, with overseas trainers. It should be pointed out that those attending the technical workshop associated with the 20th meeting of the FFC gave their support to these courses. In particular, mention was made of the important principle of 'training the trainers'.

Recommendations

38. The 'training the trainers' model used by SPC for its extension courses has great merit and should be followed as an appropriate model in the design and delivery of future courses in other work areas.

- 39. Communication and extension skills should continue to be developed through the current extension training programme until all staff who must deal directly with community leaders and fishermen have taken such a course.
- 40. An upgraded 'refresher' extension course should be developed and subsequently presented to those who have taken the current course.

3.6 Inshore data collection and analysis

The continued exploration and expansion of effort in inshore fisheries is of concern to senior fisheries staff in most countries. If the fisheries are to operate on a sustainable basis, some basic stock assessment – which underlies all successful resource management – must be undertaken. Increasing effort is being directed towards the collection of inshore data which, when analysed, will lead eventually to appropriate management measures.

It would appear to the team that most of the inshore data collected in the past, or currently being collected, are not being used effectively. Those who possess the academic background are not always being employed in the stock assessment area because other priorities and workload preclude the possibility of doing the work needed for data analysis. In addition, some expressed the opinion that training programmes in the past were set at higher standards than were presently necessary for Pacific Island countries.

Recommendations

- 41. Governments must place higher priority on data collection and analysis to support management efforts for vitally important and often overfished inshore stocks.
- 42. Regional scientists should continue to prioritise assistance to Pacific Island fisheries scientists in identifying vulnerable inshore stocks, and establishing appropriate management strategies.
- 43. The curricula previously developed for training in resource assessment should be examined to ensure that basic data manipulation is emphasised.

3.7 Aquaculture training

In most countries visited, aquaculture has been identified as a development area for government and the private sector. Team members visited several facilities and learned of future aquaculture initiatives within the region through the study of development plans.

At the moment, many national aquaculture programmes are in a period of change. A new facility is in the start-up phase in Kosrae, FSM, focusing on finfish, invertebrates and sponges. The giant clam activity in Palau will shortly undergo a transition to the private sector, and its future as a training ground for giant clam aquaculturists is not yet determined. The Guam facility plans to diversify its production and provide regional training to potential government employees and fish farmers. The ICLARM Coastal Aquaculture Centre, Honiara, which currently concentrates on cultivation of giant clams, is diversifying into other areas. The Government of the Cook Islands has put much effort into the commercial pearl production and, with USAID funding, a pearl extension and research facility will shortly be constructed. In both Western Samoa and American Samoa experimental work with giant clams, mussels, oysters and seaweed may lead to commercial production. Several other facilities exist outside the countries visited by the team.

All of these developments will require increased research and development effort and the development of the necessary training in technical, extension and marketing skills, together with the research infrastructure necessary to support the industry over the next five to ten years. Cost-effective training and technology transfer will be best assured through the attachment of staff to

regional centres of excellence specialising in specific species. Aquaculture development requires close co-operation and planning between all relevant institutions in the region.

Recommendations

- 44. Effective communications must be established between Micronesian, Melanesian and Polynesian aquaculture interests to ensure effective exchange of scientific knowledge and technology, and to minimise duplication of effort.
- 45. Recognised centres of excellence specialising in specific species should be identified and utilised as attachment training centres in the region.
- 46. Aid donors should fund extended attachments to the centres of excellence for staff development purposes.

3.8 Privatisation

In many of the countries visited, national governments have the intention, in current or future development plans, to shift certain fisheries-related activities from the public to the private sector. It is realised that such a move is necessary to meet various economic priorities (employment, wealth, localisation) and gain the efficiencies needed in order to compete internationally. Current transitional initiatives take several forms, including joint ventures with international groups, government-owned but fishermen-operated vessels, and fishermen's co-operatives. Ongoing extension work is attempting to expand this shift to the private sector in rural areas.

Most countries are limited in the human resources available to cope with this shift to privatisation. Personnel requirements for private enterprise must, in almost all cases, be drawn from government institutions.

Recommendation

47. Educational institutions and donors should focus on the need to assist with the privatisation of the fishery sector through the development of training and funding in such areas as post-harvest fish handling, processing, marketing and small business management.

HUMAN RESOURCE PLANNING PROCESS

The following table sets out some examples of goals and objectives which may be identified for any country.

Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	
Develop sustainable subsistence fisheries	Develop artisanal fisheries	Maximise returns from offshore fisheries	Privatise	Develop aquaculture	
Objectives	Objectives	Objectives	Objectives	Objectives	
1. Identification of stocks	Communications with resource owners	Measurement of potential	Develop appropriate mechanisms	4.	
2. Data collection	2. Public awareness	2. Effective negotiations	2. Legislation	2. Communication with potential farmers	
3. Public awareness	3. Improved technology	3. Surveillance and	3. Development of organisation	3. Development of	
4. Communications with resource owners	4. Data collection and catch monitoring	enforcement 4. Licensing and fee	4. Market development	infrastructure 4. Economic planning	
5. Stock assessment	5. Stock assessment	collection 5. Data collection and	5. Quality control	5. Development of technology	
6. Development of regulations	Development of infrastructure	analysis	6. Development of infrastructure	6. Technology transfer	
7. Surveillance and enforcement	7. Development of regulations	6. Localisation of fishery	7. Development of fish supplies	7. Operational research	
	8. Quality control	7. Financial management	8. Data collection	8. Hatchery management	
	9. Market development		9. Monitoring	9. Development of markets	
	10. Surveillance and enforcement		10. Economic planning	10. Data collection	
	11. Increase number of fishermen (extension)			<i>V</i> 40	

COMMENTS

Step 1: Goals

Goals can normally be found in national or sectoral plans and reflect a country's overall vision or direction for fisheries over the longer term. The team has noted that, in a good number of these plans, the goals are often set to meet short-term economic development objectives rather than perhaps more vital policy goals such as conservation.

Step 2: Objectives

The objectives listed in the table are only examples and are presented in a few words to illustrate the work associated with a particular goal. The objectives should be clearly stated (not just a few words as in the table) so that they can be understood by staff and other government departments.

These objectives, where appropriate, should be subdivided and have deadlines and/or stated specific commitments. To illustrate, the objective could be to 'increase the public's awareness of the need to conserve stocks'. Subdivisions of these objectives could be as follows:

- Develop teaching materials for primary schools,
- Hold village council meetings in 20 of the 100 villages in the next year,
- Develop a paper on the state of the fisheries for presentation to appropriate government authorities by 1 January 1993.

Step 3: Priorities

It will become obvious that there will be more objectives than can be met immediately, given the human and fiscal resources available to the fisheries organisations. Sophisticated methodologies have been developed by management experts and behavioural scientists to assist in making decisions and selecting priorities. The team does not believe that such tools are necessary at this stage of development in Pacific Island countries. Heads of fisheries organisations, by and large, have the knowledge and, if necessary, the access to government central agencies and regional officials to assist in setting appropriate priorities. A simple method which could be used is 'brainstorming' between the department officials and staff from other departments, e.g. Planning, Prime Minister's Office. Also when the objectives are set out as has been done in the table, it may become apparent that several objectives are common to most goals. In the examples given, public awareness, communications, data collection, stock assessment and extension appear to be most common.

Step 4: Use of staff skills

After setting goals and prioritised objectives it may become obvious that the educational and other skills already possessed by staff are not being utilised effectively. Where necessary, the organisation should be reorganised and skilled staff should be assigned to meet the highest priorities.

Step 5: Identify skills shortages

Once the preceding steps have been followed, this step should be a relatively simple exercise. Care must be taken however to address *specific* needs to meet the objectives while at the same time being aware of the overall academic qualifications required for reasonable career progression within the Public Service.

Step 6: Set priorities

As in Step 3, resources and the demands of the present workload in all probability will not permit the development of all of the skills required in the near term. A similar process must be followed in listing staff skills deficiencies in order of priority.

Step 7: Strategy

Many things have to be considered in developing strategy to meet the organisation's human resource development needs, including:

- the continuity of the existing workload;
- the need for replacements for those on education and training;
- the funds available from aid-donors;
- current educational and training programmes within and outside of the region;
- the need for 'backup' positions;
- the scholarship process for educational development;

- the selection process for training, and
- in-country or overseas training.

Step 8: The plan

Once a good long-term strategy has been worked out it is then necessary to write a plan likely to receive support from government and be addressed by regional, donor and educational institutions.

Step 9: Evaluation

The plan cannot be inflexible, as priorities and circumstances change. As has been witnessed by the team, a small staff shift may have a major impact on the ability of the fisheries organisation concerned to maintain its current priorities. There will be setbacks, unforeseen opportunities, and emerging educational and training programmes which will have to be factored into the plan. An annual review should take place to update the plan to meet all of these changing circumstances.

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