

PLACE DE L'ORSTOM DANS LES RECHERCHES HALIEUTIQUES AU VANUATU, SITUATION ET PERSPECTIVES

G. DAVID
Mission ORSTOM
B.P. 76, Port-Vila, Vanuatu

Introduction générale

Depuis l'affectation de R. GRANDPERRIN au Vanuatu en 1981, une petite équipe de recherche animée par l'ORSTOM fonctionne au sein du Service des Pêches, qui lui fournit locaux et moyens navigants. Les figures 1, 2 et 3 présentent la composition de cette équipe en 1984, 1986 et 1988. Les recherches ont principalement porté sur quatre thèmes (DAVID et al., 1989a et 1989b):

- l'inventaire et la gestion des ressources profondes de la pente récifale externe,
- les dispositifs de concentration de poissons,
- la petite pêche villageoise,
- le marché et la consommation des produits de la pêche.

Les résultats de ces recherches sont régulièrement publiés dans la série "Notes et Documents d'Océanographie" de la Mission ORSTOM de Port-Vila (tirage de 50 à 100 exemplaires) qui est largement diffusée auprès des pouvoirs publics du Vanuatu et des organismes internationaux s'occupant de pêche dans la région (C.P.S., F.F.A., P.N.U.D., I.C.L.A.R.M.).

Un audit de l'équipe de recherche a été effectué en février 1989 par A. WRIGHT, coordonnateur des recherches halieutiques à l'Agence des Pêches du Forum du Pacifique Sud, qui a présenté son rapport final le 12 août en présence des responsables du Service des Pêches, d'un représentant du ministère de Tutelle (l'agriculture) et de R. GRANDPERRIN, responsable de l'UR 1J du département T.O.A.. Le résumé de ce rapport ainsi que les pages concernant l'ORSTOM figurent en annexe des présentes réflexions.

Evaluation des recherches

Les éloges

D'une manière générale, le rapport d'A. WRIGHT est extrêmement élogieux pour l'ORSTOM qui en quelques années a su réunir sur le Vanuatu une somme de connaissances tout à fait considérable n'ayant que peu d'équivalent dans les autres petits états insulaires du Pacifique Sud ; les "Notes et Documents d'Océanographie" de la Mission de Port-Vila sont qualifiées de "high standard" (p.15 et 16). C'est la première fois que le rôle de l'ORSTOM dans la région est souligné de manière aussi positive et ses éloges sont d'autant plus remarquables qu'ils sont émis par une organisation représentant l'ensemble des états insulaires du Pacifique sud.

Les critiques

Trois critiques ont été émises à l'encontre de l'ORSTOM dans ce rapport.

a) La première concerne l'absence de traduction systématique en anglais des "Notes et Documents d'Océanographie". Bien que des résumés en anglais, souvent étoffés, accompagnent chaque numéro, la diffusion de l'information auprès des pouvoirs publics Vanuatuans, en majorité anglophones, et des autres chercheurs halieutes de la région est jugée insuffisante. Cette critique n'est pas pleinement justifiée car plusieurs "Notes et Documents d'Océanographie" (n° 8, 11, 12, 13, 16) ont été traduits par le passé. Depuis le début de l'année 1989, la traduction est désormais systématique.

b) La seconde critique porte sur le caractère limité de la formation accordée par l'ORSTOM aux membres du Service des Pêches. En fait, cette formation s'est effectuée tant que R. GRANDPERRIN était en affectation à Port-Vila. Après son départ, il était illusoire de demander à des V.S.N.A. eux-mêmes peu expérimentés dans le domaine de la recherche qu'ils consacrent une part de leur temps de travail à cette tâche.

Depuis l'arrivée de deux chercheurs confirmés, représentant de surcroît des formations complémentaires (géographe socio-économiste et biologiste-chimiste), ces critiques n'ont plus de raison d'être. Dès la prochaine rentrée scolaire, une formation de base à la biologie et à la géographie, de niveau 1ère et terminale sera assurée dans le cadre de l'Université du Pacifique Sud à Port-Vila. En fonction de la demande, une spécialisation dans le domaine halieutique pourrait être organisée à l'échéance 1992.

Un effort conséquent de formation a également été entrepris auprès des pêcheurs avec le lancement au premier trimestre 1989 d'une "lettre d'information sur les pêches" rédigée en bichlamar et présentant de manière très simplifiée les principaux résultats de l'équipe de recherche.

c) La troisième critique concerne la diminution très sensible de la qualité du travail réalisé au Service des Pêches de 1986 à 1988 à la suite du départ de R. GRANDPERRIN pour Nouméa (p. 17, 44 et annexe IV du rapport A. WRIGHT). Les V.S.N.A. successifs qui étaient en charge des programmes de recherche manquaient d'expérience et étaient insuffisamment motivés du fait de l'absence de chercheur confirmé pour convenablement gérer l'autonomie qui leur était accordée.

Le futur de l'équipe de recherche

Concernant le futur, A. WRIGHT souligne fortement l'intérêt que le gouvernement du Vanuatu a à poursuivre ses relations privilégiées avec l'ORSTOM dans le domaine des pêches (p. 45). Toutefois la constitution d'une unité de recherche Ni-Vanuatu autonome de l'ORSTOM est vivement souhaitable pour prendre en charge l'intégralité des recherches halieutiques au Vanuatu à une échéance de 10-15

ans. A cette fin, le recrutement au sein du Service des pêches d'un conseiller technique expatrié, chargé de la recherche pour une durée de trois à cinq ans est prévu à brève échéance (p.37, annexe IV) en attendant qu'un chercheur Ni-Vanuatu soit en mesure de diriger l'ensemble de l'équipe de recherche. Le recrutement d'un Ni-Vanuatu diplômé de l'Université de Papouasie Nouvelle-Guinée et d'un technicien diplômé de l'Université du Pacifique Sud est prévu à court terme. Cette unité de recherche aura pour principal objectif de répondre aux demandes ponctuelles formulées par le Directeur du Service des Pêches.

Dans ce dispositif, l'ORSTOM occupe une situation particulière, comme le montre la figure 4. Les programmes à long terme seront de son ressort, il devra également assurer une double fonction de formation auprès des collègues Ni-Vanuatu et d'assistance scientifique sur des projets ponctuels d'inventaires des ressources (trocas, bûches de mer, etc...). Il convient de noter que le V.S.N.A. financé par l'Ambassade de France, qui théoriquement ne relève actuellement que de l'autorité du directeur des pêches, devrait être totalement intégré à cette composante ORSTOM de l'équipe de recherche (figure 4).

Bilan et perspectives

Le rôle positif de l'ORSTOM ayant été abondamment souligné dans le rapport d'A. RIGHT, il est probable que dans le futur le Service des Pêches du Vanuatu continuera à être demandeur d'une collaboration avec l'ORSTOM. Cette demande suscite deux interrogations majeures :

- quels seront les programmes suivis par l'ORSTOM ?
- quels seront les moyens humains mis en oeuvre sur ces programmes ?

Les programmes

Dans ce domaine, deux directions doivent orienter la réflexion : continuité, ouverture. Il est ensuite souhaitable qu'une fois définies, les propositions de programmes soient entérinées auprès des pouvoirs publics Ni-Vanuatus par la signature d'un accord cadre.

a) La force actuelle de l'ORSTOM dans le domaine halieutique au Vanuatu réside dans la continuité. Près de dix ans de collecte de données concernant l'exploitation de stocks de poissons profonds de la pente récifale externe sont en cours d'analyse. Compte tenu de la virginité des stocks au début de la collecte et de la grande précision des données obtenues, ce programme dépasse largement l'intérêt du seul Vanuatu. Il convient de poursuivre cet effort et, si possible, de l'étoffer, d'une part en diversifiant la collecte des données vers des paramètres de natures écologique et éthologique, et d'autre part en élargissant la collecte des données aux monts sous-marins, la mise en oeuvre de palangres et de sondeurs sophistiqués offrant de nouvelles perspectives en ces deux domaines.

La poursuite de l'étude des populations agrégées autour des

D.C.P. est également souhaitable. Trois directions sont envisageables :

- l'étude de l'agrégation, l'usage d'échosondeurs devant apporter de nouveaux développements ;
- les expérimentations de divers types de D.C.P. conduisant à l'identification du modèle le plus approprié aux eaux du Vanuatu ;
- le suivi économique de l'exploitation, les D.C.P. devant vraisemblablement jouer un rôle grandissant dans le développement de la pêche artisanale au Vanuatu.

La poursuite des études socio-économiques est également indispensable. L'accent doit être mis sur l'impact économique de la pêche en zone littorale et l'étude de la motivation des pêcheurs et des raisons de l'échec ou de la réussite des projets de développement de la pêche artisanale. Dans ce contexte, il semble impératif ne pas étudier la pêche comme un isolat mais de situer l'activité halieutique dans son environnement socio-économique, dominé par l'agriculture. A des recherches de type vertical comme l'analyse de filière doivent donc être associées des recherches à caractère horizontal. Dans ce domaine, les possibilités qu'offre la mise en place d'un système d'information géographique s'avèrent très prometteuses.

L'ouverture signifie avant tout la collaboration avec des organismes internationaux (F.A.O., P.N.U.D., C.P.S, F.F.A notamment) et les puissances régionales (en premier lieu l'Australie puis les Etats Unis et la Nouvelle Zélande) et l'emploi de technologies de pointe pour les inventaires de ressources, au premier rang desquelles figure la télédétection satellitaire.

Les hommes

Jusqu'en novembre 1990, la présence de chercheurs ORSTOM au Service des Pêches est assuré. Le géographe, G. DAVID, bénéficie d'un contrat M.A.E. tandis qu'E. CILLAURREN, biologiste et chimiste, est employé local de l'ORSTOM. A l'échéance fin 1990, s'il est probable que G. DAVID bénéficie d'une prolongation de contrat, il n'en est pas de même d'E. CILLAURREN. Aucun poste n'étant pour le moment ouvert au recrutement par le département T.O.A. sur le Vanuatu, G. DAVID devrait assurer à lui seul l'ensemble des programmes ORSTOM et ses cours à l'université. Une telle éventualité est à exclure d'une part par manque de temps et d'autre part par manque de compétences ; des programmes de biologie ne peuvent pas être pris en charge par un géographe. Trois scénari peuvent donc être proposés :

a) Poursuite de la collecte des données concernant la pêche de fond et abandon de tous les autres programmes, la présence de l'ORSTOM dans ce domaine étant uniquement assuré par le technicien ORSTOM, F. N'GUYEN. Une telle solution n'est viable que si les données sont analysées par les collègues des centres de Nouméa ou de Tahiti ; ce qui semble difficilement envisageable compte tenu des sous effectifs dont souffrent ces centres dans le domaine de la recherche halieutique.

b) Abandon de l'ensemble des programmes biologie et licenciement de F. N'GUYEN, son maintien en activité ne se justifiant plus s'il ne peut bénéficier de l'encadrement d'un chercheur expérimenté et si les données qu'il collecte ne peuvent être traitées ailleurs.

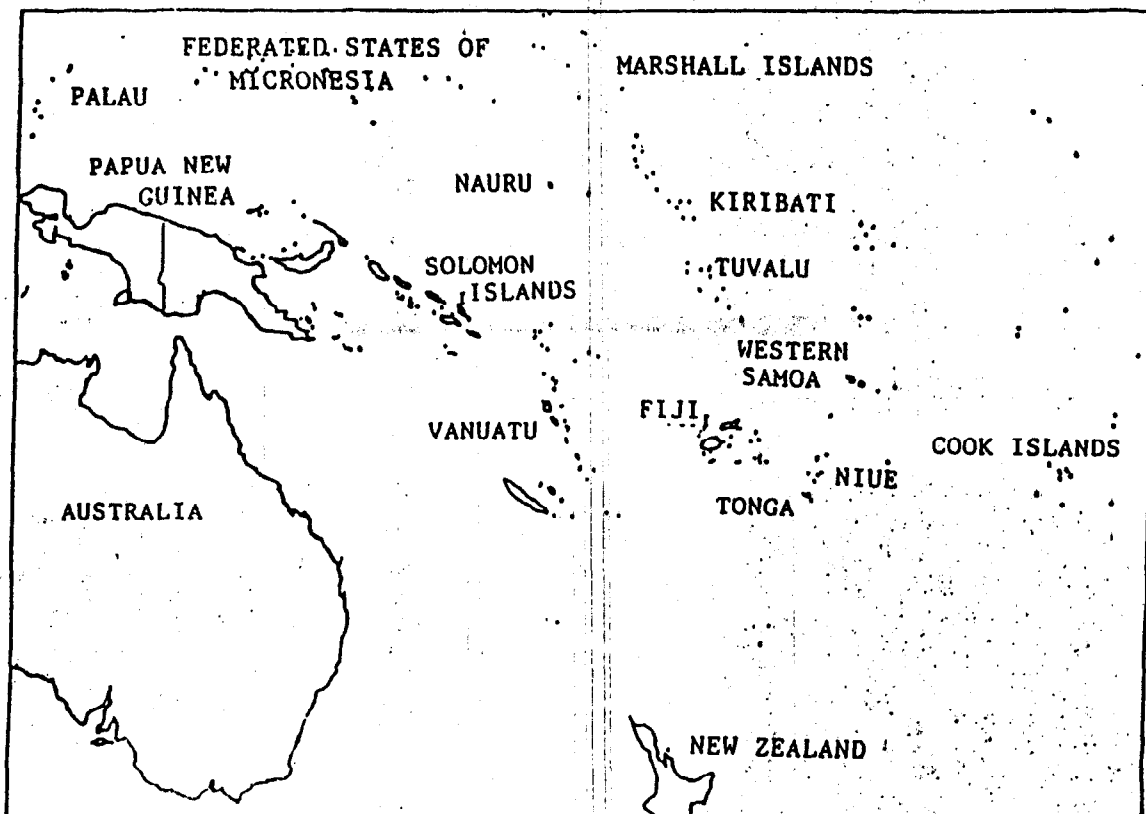
c) Ouverture d'un poste ORSTOM ou M.A.E. supplémentaire sur le Vanuatu. T.O.A. n'étant pas demandeur de poste, l'unique solution privilégiant un recrutement ORSTOM consisterait dans l'ouverture d'un poste de géographe attaché au département S.D.U. sur un profil mixte pêche-télédétection en milieu côtier. Cette création de poste ORSTOM aurait l'avantage de libérer le poste M.A.E. qui pourrait alors être occupé par E. CILLAURREN. Ainsi serait assurée à long terme la présence (souhaitée par les pouvoirs publics Ni-Vanuatous) de l'ORSTOM auprès du Service des pêches. Cette présence peut se révéler profitable dans l'optique de la mise en place de programmes d'étude d'intérêt régional.

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Port-Vila, octobre 1989



A REVIEW OF FISHERIES RESEARCH IN VANUATU AND SUGGESTIONS FOR THE FUTURE

A report prepared for the Vanuatu Government's
Ministry of Agriculture, Forestry and Fisheries
Department of Fisheries

by the

Research Co-ordinator
South Pacific Research Co-ordination Unit

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SOUTH PACIFIC FORUM FISHERIES AGENCY
P.O. BOX 629 HONIARA SOLOMON ISLANDS
TELEPHONE: (677)21-124 (10 Lines) TELEX: 66336 FORFISH
FAX: (677) 23-995 CABLE: FORFISH

SUMMARY

1. During two weeks in late January, 1989 the Research Co-ordinator of the Forum Fisheries Agency spent two weeks in Vanuatu reviewing the past activities of the Fisheries Research and Statistics Unit (FRSU) of the Department of Fisheries in the Ministry of Agriculture, Forestry and Fisheries.
2. This was used as a basis for suggestions for possible activities and reorganisation of the Unit during the next 5 years. This summary presents the main points raised during the review, a full report of which is also available.
3. The report is organised into a number of sections. After a brief introduction to the social and economic organisation of the country, there is a short summary of fishing at the subsistence, artisanal and commercial levels in Vanuatu.
4. These sections lead to some discussion of the establishment of a Fisheries Department in 1978 with the objectives of assisting the development and management of the exploitation of the marine resources of the country. As part of this establishment, the role of a research component in the Department and its subsequent creation is presented.
5. The initial establishment of the research component, the FRSU was substantially supported by overseas financial assistance. A summary of this assistance with particular emphasis on the support by ORSTOM follows and concludes that without the presence of ORSTOM in the Department, Vanuatu would not be in the position that it now finds itself as far as the knowledge of its marine resources are concerned.
6. In order to assess the activities of the FRSU during the 7 years that it has been functional, a review of research on marine resources in Vanuatu by the Fisheries Department alone or in collaboration with others is presented.
7. The research work that has been conducted is generally of a high standard. However, the results of the work are not readily accessible to all. Much of the work is only detailed in French with short English summaries while other work is rarely circulated beyond the Fisheries Department.
8. Following a review of the past research work of the FRSU, a discussion of the structural organisation of the Fisheries Department with respect to the FRSU is presented. This is followed by a section that suggests areas and projects where the activities of the Unit could be concentrated in the near future.
9. The review generally found that communications between the research section and the remainder of the Department have deteriorated in recent years. It is strongly suggested that effort be made to improve this situation and that regular dialogue be established throughout the Department.
10. It is also evident that the FRSU received more direction for its activities prior to the departure of the first Marine Biologist appointed by ORSTOM to the Department.
11. This situation is likely to improve under the current support offered to the Department by ORSTOM. It is suggested that, at least until a Fisheries Adviser is

recruited, the ORSTOM marine biologist play a more active role in the Department as far as policy formulation is concerned and the identification of priority areas that the Department should attend to.

12. He or she should also play a more active role in the training of ni-Vanuatu staff in methods necessary for tropical marine resource investigations.

13. He or she should generally improve the information available to these staff and the Department as a whole by approaching outside sources for assistance to upgrade the library facilities.

14. The present structure of the Department requires review.

15. With respect to the research component, it is recommended that the Senior Fisheries Research Officer be re-designated Senior Fisheries Biologist and that the position be upgraded to P.15. This position should remain vacant for the foreseeable future.

16. The Fisheries Research Officer position is recommended for re-grading to level P.11 and to be re-designated, Fisheries Biologist. It is recommended that the student currently attending the University of Papua New Guinea be appointed to that position upon graduation.

17. The Fisheries Technician position should be upgraded to P.8. The current occupant should return to the duties of a salaried fisherman and the position recruited to from outside the Department.

18. It is recommended that the Fisheries Research and Statistics Unit be re-titled the Resource Assessment and Surveys Section (RASS).

19. The Department should create a Unit responsible to the Director that handles the Department's computing requirements and the acquisition and dissemination of information. This Unit should be titled the Computer Information and Services Unit (CISU) which would work closely with the RASS.

20. It should be staffed by a Computer Services and Information Officer (CSIO) at a level range between P.11 and P.13, with an assistant at level P.8.

21. It is recommended that the current occupant of the Fisheries Research Officer position be transferred to the CSIO.

22. To facilitate the development of the capabilities of both the CSIU and RASS, it is recommended that a Fisheries Biologist (Adviser) be recruited from overseas.

23. In the first instance this should be for a period of three years but with the possibility of longer term support for this position.

24. The roles of this position will include close liaison with the Director and the ORSTOM component to identify, design, execute and document programmes to be carried out by the RASS as the Unit's contribution to the Department's attempts to satisfy the objectives of the National Development Plans.

25. The Adviser will be responsible for identifying funding or other means of support of the programmes suggested for execution of the RASS, including close liaison with regional organisations.

26. A large component of the Advisers time should be spent working with the ORSTOM team to initiate training opportunities for ni-Vanuatu staff attached to the RAS Unit within the Department. This could be facilitated by implementing practical training programmes within the Department and identifying training opportunities for these staff within Vanuatu or overseas.

27. A number of projects with suggestions for their objectives and execution are suggested as priority areas for the RASS.

28. Of priority is a need to conduct programmes that refine estimates for the current exploitation of deepwater fin fish, tuna, shell, shark, lobster and beche-de-mer resources, to gain a better understanding of the marine environment and to understand and describe social and economic factors governing activities in the fisheries sector in Vanuatu. Suggestions for implementing programmes that address these needs are contained in the report.

29. It is suggested that the Department, in collaboration with other Departments, implement a second survey of rural fishing activities to identify trends in gear use and catch for coastal, small-scale fisheries. The survey should also examine the importance of imported sea food substitutes in the diets of the rural, coastal community.

30. There is also an urgent need to improve the Department's ability to monitor exports of marine produce from the country.

31. In order to improve capabilities in this area it is recommended that provision in the fisheries regulations be made so traders in marine products are obligated to report their transactions to the Department through a logsheet reporting system. The submission of this data be made a condition of their trading licence.

32. It is strongly recommended that the RASS improve its exposure to the public and make widely known the results of its research. Closer liaison with regional fisheries organisations is also encouraged.

6.0 THE HISTORY OF FISHERIES RESEARCH IN VANUATU

The recent history of the survey of marine and freshwater resources, the assessment of the status of their exploitation and the biology of some of these resources in Vanuatu is summarised in Table 4. This covers the period between 1978 and the present.

The Fisheries Adviser's first tasks involved the survey of deepwater, demersal fish resources with the assistance of the SPC Deep Sea Fisheries Development Project and the establishment of a unit within the Fisheries Department that could co-ordinate future survey and resource assessment-related activities in the country. Such work was to be accomplished through the Department's own programmes or in collaboration with foreign institutions and aid organisations. In order to assist in achieving this later objective, the Government signed an agreement with ORSTOM in 1979.

7.0 FOREIGN AID ASSISTANCE TO FISHERIES RESEARCH

With UNDP funding support under the First Country programme in 1978, the establishment of the Fisheries Department, the drafting of legislation relating to fisheries in Vanuatu's Declared Fisheries Zone and the enactment of a National Fisheries Act were completed. This provided good foundations in the Department for submissions to other sources of external funding for project support in the fisheries sector.

Since 1978 the Department has submitted in excess of 85 individual project proposals valued at VT759.3 million to foreign aid donors. Nineteen additional projects valued at VT28.8 million have been submitted to the Vanuatu Government for funding support from the recurrent budget. The records maintained at the National Planning and Statistics Office (NPSO) show that to the end of 1988, 47 projects valued at VT128 million have received funding from overseas sources. Approximately 21 percent of this funding (VT27.5 million), has been channeled into projects implemented by the FRSU.

7.1 ORSTOM (1978-)

The agreement with ORSTOM included the assignment of an ORSTOM marine biologist to the Fisheries Department in Port Vila. The agreement specified that the biologist was to be responsible for co-ordinating;

- i) the survey of tuna stocks exploited by the South Pacific Fishing Company (SPFC) based in Santo,
- ii) a radiometric survey of the Exclusive Economic Zone,
- iii) studies associated with the development of an artisanal tuna fishery including work associated with fish aggregation devices (FAD's),
- iv) exploratory surveys of seamounts and reef slopes,
- v) surveys of trochus and green snail and the fisheries they sustain, and
- vi) the creation of a coastal station for the study of the marine environment.

As part of the agreement the Fisheries Department was to provide office accommodation, land and sea transport and some support staff (ORG/3/1)¹.

The ORSTOM Marine Biologist commenced duties in Port Vila in November, 1981 and initiated a programme including seamount mapping, surveys for demersal, deepwater bottomfish and prawns, a trochus reseedling programme, studies associated with fish aggregation devices (FAD's) and a monitoring programme of the tuna landings at SPFC. The survey of bottomfish was given highest priority and in the opinion of the ORSTOM biologist justified the assignment of a biologist on a fulltime basis to that programme (ORG/3/1).

In addition, a survey of baitfish for pole-and-line tuna fishing operations and an assessment of the feasibility of purse seining around FAD's in Vanuatu waters was arranged with the assistance of the Japanese Overseas Fishery Cooperative Foundation (OFCF).

To assist with this programme of work, approval was received from the French Embassy in 1982 to recruit a Volontaire Service Nationale Actif (VSNA) to assist the ORSTOM biologist. In addition, in 1982 a ni-Vanuatu technician was recruited by ORSTOM to work with the programme.

The VSNA programme, which commenced in early 1983, has continued to the present with recruits spending 14 months on attachment to the ORSTOM component of the Fisheries Department. This service is conditional upon there being an ORSTOM Marine Biologist resident at the Department.

It was not until 1985, after a number of requests from ORSTOM, that the Fisheries Department provided a ni-Vanuatu counterpart for the research being carried out on the bottomfish fishery. Since then, three ni-Vanuatu staff have been associated with various research programmes directed by ORSTOM although only one could be considered to be attached on a fulltime basis at the present time.

In 1985, the ORSTOM Marine Biologist that had initiated much of the research work in Vanuatu transferred to Noumea. Although based in Noumea he was still responsible for the work programme in Vanuatu. He continued to have a significant input into the content of Vanuatu based programmes. The results of most of these programmes were published at a high standard in French, with English summaries, under the series Notes et Documents d'Océanographie produced by the ORSTOM office in Port Vila. There are now eighteen reports in this series. These together with other reports produced in English, are listed in the annotated bibliography of this report.

Between 1985 and the end of 1988, the ORSTOM component of the FRSU was supervised by a VSNA who had experience in the country for more than one year. He worked in close liaison with the previous Marine Biologist in Noumea. At that stage in the development of the Fisheries Department and the fisheries sector in the country, this arrangement appears to have not affected the development of fisheries in Vanuatu adversely.

¹ ORG and TECH refer to Fisheries Department files.

of formal training programmes as an integral component of the counterpart system, this does not appear to be working effectively.

A common complaint encountered during the review was that information dissemination from Fisheries Department concerning the results of Departmental work is poorly developed. This has in part recently been addressed by the Department with the production of the first 'Fisheries Nius Leta'.

12.0 SUGGESTIONS FOR THE FUTURE

12.1 Title of the Section

A proposed structure for the RASS, the CISS and the relationship of these sections to other sections in the Department is presented in Fig 3.

It is suggested that in order to reflect the needs of the country and the role that the Unit can play in the development of the fisheries sector in an efficient manner, the Fisheries Research and Statistics Unit be renamed the Resource Assessment and Surveys Section (RASS).

12.2 Structure

12.2.1 The Resource Assessment and Surveys Section (RASS)

In order to deal with the Government's requirements of the Department, the RASS requires some re-organisation. A proposed structure for RASS and CSIU, and the relationship that these sections have with other sections in the Department is presented in Fig. 2.

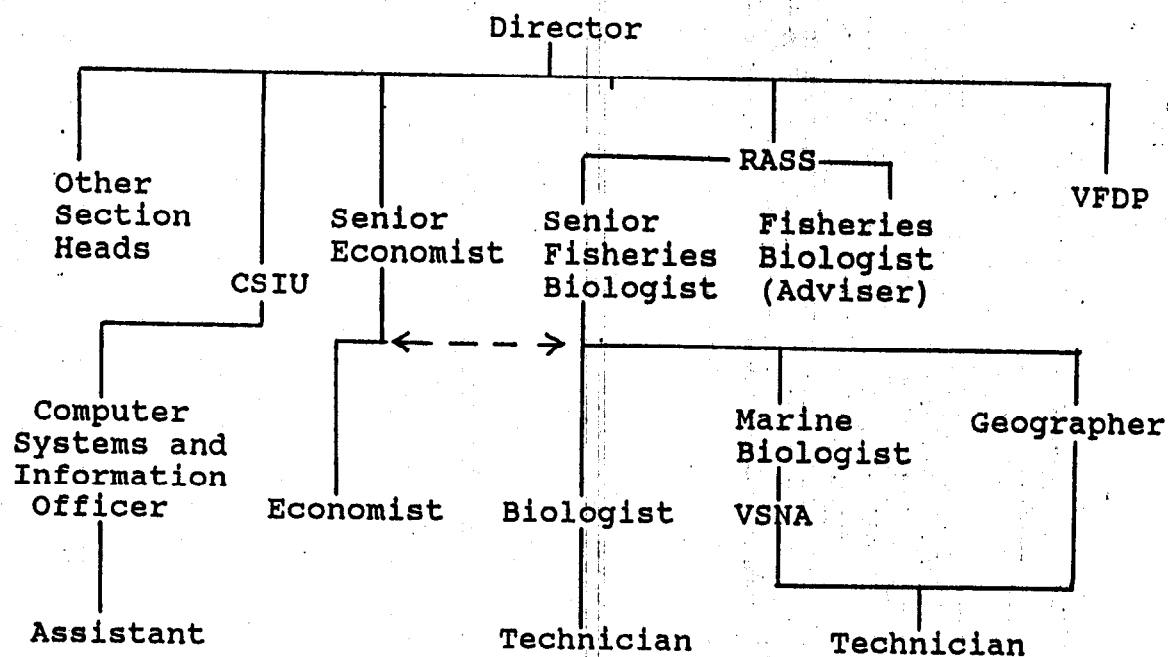
It is recommended that the current position of SFRO remain vacant for the time being but be upgraded to Public Service Level P.15 and that it be re-titled as Senior Fisheries Biologist (SFB). This would have significant repercussions for other senior staff positions in the remainder of the Department. This should be addressed in a review which FFA has been asked to complete for the Government late in 1989.

At present, there is a large discrepancy between the position of Director (P.19) and that of other senior staff (P.11's and P.12's). The responsibility associated with the management and planning of the operations of the RAS Section, the liaison that is required with a range of government and external organisations for its effective operation, and information that it is expected to supply on the status of fishing and marine resources in the country, justify a larger disbursement to the head of the Section, the SFB.

It follows that subordinate positions should also be upgraded. The FRO position should be upgraded to a range between P.11 and P.13 and be re-titled, Fisheries Biologist (FB) and the RT should be graded as P.8 and be titled Technician (T).

Currently there is one ni-Vanuatu student at the University of Papua New Guinea studying for a Degree in Fisheries. He is due to graduate in 1990. It is recommended that on graduation, this person be recruited to the FB position.

Fig. 2. Proposed structure of the Resource Assessment and Surveys Section and the Computer Services and Information Unit in the Vanuatu Department of Fisheries, 1989-90.



The position of Technician, should be advertised and recruited once the current occupant is transferred back to his duties as a salaried fisherman. A Diploma of Tropical Fisheries should be a prerequisite for appointment to this position.

To assist with the development of sound foundations for the formation of a robust and effective RAS Section during the next 5 to 10 years, it is recommended that a Fisheries Biologist (Adviser) from overseas be recruited. It is suggested that external assistance be sought to support this position for 3 years in the first instance, but recognition be given to the possibility that the Section will still require significant external assistance after that period.

The Adviser would initially be responsible for planning the work of the Section so that it addresses the objectives and requirements of the Government and to train staff in project design, implementation, data analysis and documentation. Emphasis should be placed on the requirement for training ni-Vanuatu staff attached to this Section.

The Adviser would liaise with the Director of Fisheries and the ORSTOM team. It would be necessary for him to develop a close working relationship with ORSTOM, in particular in the area of training. A draft proposal for the recruitment of an adviser is presented in Appendix V.

Although ORSTOM support for its current involvement in the Fisheries Department will continue for two years, it is likely this could be extended to four. The current ORSTOM marine biologist and geographer are teaching at the University of the South Pacific for slightly less than 50 percent of their time. The Department could benefit from their teaching expertise by requesting that some of their commitment to the Fisheries Department be spent running informal courses in fisheries biology or elementary data analysis for the ORSTOM-funded technician, FB and the Technician once they are recruited.

It is suggested that the current relationship whereby the VSNA attachment at the Department reports directly to the Director of Fisheries, and the Director of the ORSTOM Office, change. It is suggested that the VSNA report to the Director of Fisheries through the senior ORSTOM staff who in turn report to the SFB. In the short term, the Fisheries Adviser will fill the role of the SFB. This is not a line position and eventually it is hoped that a ni-Vanuatu will be recruited to the post of SFB to run the RASS.

ORSTOM continues to contribute heavily to the operation of the RASS and this assistance should not be jeopardised. However, a departmental structure that provides the means whereby ni-Vanuatu eventually are in a position to replace the services currently undertaken by the ORSTOM, must be permitted to develop.

Because of this, the ORSTOM component of the RASS can only be seen as a supportive module of the resource survey and assessment section of the RASS. Ideally it should be under the direction of in-line fisheries department staff, it should be a collaborative unit operating within the RASS structure.

To some extent, the proposed staff structure caters for the particular qualifications and expertise of staff currently affiliated with the Department. The qualifications of staff currently associated with the RASS are listed in Appendix IV. The range of expertise is bound to change as expatriate staff complete their contracts. Thus, as the Department loses the current expertise, every effort should be made to

replace them with expertise that can continue to promote the effective development and management of Vanuatu's fisheries.

12.2.2 The Computing and Information Services Unit (CISU).

The Department is experiencing increasing demand on the available computing facilities. In order to meet those needs an additional two HP Vectras were installed in the Department in early 1989. This will bring the number of computers in the Department to seven. In order to manage these facilities, it is recommended that a Unit responsible to the Director be created to handle the computing and information requirements of the Department. It should be known as the Computing and Information Services Unit (CISU).

This Unit would be responsible for all the computing needs of the Department. This would include data management and provision of support for report generation. It would be responsible for the acquisition of consumables required for the computers and peripherals, the maintenance of Departmental records, the acquisition of new hardware and software and the maintenance of the machines.

The CISU would assist with design and support of the Department's database needs and information retrieval in summary or other forms. It would also be responsible for co-ordinating the management of computers throughout the Department and organising the training of staff to use software packages. The Section would liaise with regional organisations regarding developments in the use of computers in fisheries in the region and be responsible for advising the Department of new developments in computing which could be of benefit.

This Unit would be staffed by a Computer Systems and Information Officer (CSIO P.11-P.13) and an assistant CSIO (P.8). To avoid the Department experiencing severe hardship on the departure of the CSIO for short or extended periods, for example to attend overseas meetings, or in the event of resignation, the assistant should be trained to be able to assume the responsibilities of the CSIO post.

The incumbent FRO currently spends almost all his time dealing with the computing requirements of the Department as a whole, not the RAS Section alone. Very little of his time is spent working on research-related activities. He has shown considerable skill with dealing with these new tools and it would be extremely difficult to attract another ni-Vanuatu of equal ability to the Department to replace him. Considering the training that has been invested in him, it would be in the Department's best interests to confirm his responsibility for the computing services and appoint him to the position of CSIO. It would probably be necessary to recruit to the assistant's position from outside the Department.

13.8 Exports and Imports

It is imperative that the Department develop its capabilities to accurately monitor the exports of fisheries products from the country. The RAS Section should immediately liaise with the Department of Customs on this matter so that volumes, values and country of destination are effectively recorded together with a system designed to ensure that restrictions regarding exports, as defined in the fisheries regulations, are observed. In conjunction with this, the Department should establish regular contacts with the regional fisheries organisations to ensure that the true value of products are declared prior to export.

13.9 Socio-economic Studies

Considering the size of the subsistence and artisanal fisheries in the country as determined by David (1985), the Department should consider a follow up survey to identify trends that may be occurring in this sector. Of particular interest are apparent changes in the nature of the fisheries with respect to gears and methods used and the importance of imported sea food substitutes in the diets of the rural community.

Vanuatu has commenced to investigate the socio-economic status of small-scale fisheries where many other countries in the region are yet to make a start. This is a commendable development in this area as fisheries in the Pacific are often poorly understood from an economic and social perspective. Every effort should be made to co-ordinate work in the Department to ensure the expertise currently available in the RAS and the economics sections work collaboratively to gain a better understanding of the motivation of fishermen in Vanuatu. The socio-economics is thus a discipline which should not be by the Fisheries Department in its attempts to assist the development of fisheries in the country.

14.0 SOURCES OF POSSIBLE ASSISTANCE

Although in the long term, the Department should be encouraged to become self-supporting in terms of the financial allocation to research projects that are necessary for the effective management and development of the marine resources of the country, in the short to medium term the RAS Section is encouraged to seek assistance from external organisations and agencies on a more regular basis. If this activity is pursued, a substantial amount of the work the the Government expects of the RAS Section in the Fisheries Department can be carried out usually at a high standard and with little cost to the Department.

14.1 ORSTOM

Due to the high standard of work undertaken by ORSTOM while it has been affiliated with the Fisheries Department since 1982, the Department is encouraged to maintain this relationship. There are however a few areas that require attention to ensure that maximum benefit accrues to the country through this agreement.

Although ORSTOM has recently appointed a marine biologist to the Fisheries Department, there appears to have been a period between 1986 and 1988 when the work of ORSTOM in the Department was not as well directed as it had been prior to 1986. This may have been the result of a general lack of direction from the Department or it may have been due to lack of direction from within ORSTOM

which may have occurred with the transfer of the first marine biologist to Noumea.

For the period 1986 to late 1989, ORSTOM supplied the Department with one VSNA. Until late 1988 when the geographer and marine biologist arrived, ORSTOM was also represented in the department by a technician. It appears that the best use of these staff in the Department was not made with the result that some projects, for example work concerning the bottom fish resource, lapsed in quality. If work had been better directed during this period, the trap fishing experiment would not have commenced on the scale that it did, and a better understanding of the dynamics of the deep water bottom fish resource would have been available through the thorough analysis of VFDP data.

In addition, although the shell fishery has been studied from a biological view point it has neglected as far as fishery assessment is concerned. Considering the apparent value of this fishery to the country and the ease with which it could be analysed due to market domination by one company, it is disappointing that apart from some preliminary analysis in the early 1980's, virtually nothing is known about this fishery at the village level. Perhaps the Department could have requested ORSTOM to apply more effort to this.

In the past ORSTOM has been responsive to requests from the Fisheries Department. It cannot respond if requests are not forthcoming and as such, the Department should take a more active role in discussions concerning Vanuatu's marine research needs and the role that ORSTOM may play in satisfying them.

If the Fisheries Biologist (Adviser) is recruited, he should be encouraged to promote a greater involvement of ORSTOM and the CSIU in the general activities of the Department as a whole. At present, with the RAS Section office a separate part of the Department, there does not appear to be close liaison between the staff of the RAS Section, particularly the ORSTOM staff, and the remainder of the Department. This was being addressed in early 1989 and the Department is encouraged to involve the RAS Section more in discussion concerning the fisheries of the country.

Considering the expertise currently provided to the Department by ORSTOM, the Department should encourage a greater commitment to training as part of the agreement. Although this would lessen the time available for the ORSTOM staff to work on practical fisheries matters, Vanuatu must develop a cadre of national expertise that can eventually assume responsibility for the management of the country's marine resource exploitation. This can only be assisted through training and the ORSTOM attachments are as qualified as any to help in this area.

It is obvious that ORSTOM is the reason that Vanuatu's marine resources are as well documented as they are at present and also that the future development of the fisheries sector will benefit from the continued presence of ORSTOM in the Department. The Department should recognise the value of this relationship and provide all necessary assistance to ensure that the country accrues as much practical benefit as possible during the period that ORSTOM maintains a presence in the Department.

DRAFT PROJECT PROPOSAL

FISHERIES BIOLOGIST (ADVISER)

Fisheries Department,
Ministry of Lands, Minerals and Fisheries
Republic of Vanuatu

Introduction

The Fisheries Division in Vanuatu was officially established in 1978. In 1982, after an informal agreement was signed between the Department and the Office de la Recherche Scientifique et Technique Outre-Mer (ORSTOM), fisheries research and assessment work commenced in the country.

The Fisheries Research and Statistics Unit (FRSU) was initially staffed by one ORSTOM marine biologist based in Port Vila. After one year, the French Government supported the attachment of Voltaire Service Nationale personnel to the Unit for periods of 14 months to assist the biologist. In 1986, the first ni-Vanuatu was attached to the Unit and this remains the case today. In addition, the Fisheries Department itself has three positions allocated for staff to work on research-related data. The senior position has been vacant since its establishment and the Fisheries Research Officer is fully committed to the operation of the Department's computing facilities. The Technical position is currently filled by a salaried fisherman employed by the Department.

ORSTOM's marine biologist transferred to Noumea in 1986 and since the FRSU has lacked the direction that was evident during the first few years it functioned. Training has not been promoted and the initial research effort has lost momentum. The current ORSTOM attachment is shared with the USP Centre in Port Vila and thus a dedicated commitment to the training and development of ni-Vanuatu expertise in research-related activities is not apparent.

Objective

It is proposed to supply the Fisheries Department in Vanuatu with a qualified and experienced Fisheries Biologist (Adviser) for a period of three years to:

- i) direct the activities of the Section for that period so that the Section serves the needs of the Department and addresses objectives for the rational development of the fisheries sector as they are described in National Development Plans;
- ii) ensure that the results of the work of the Section are widely circulated through the Department, to other Government Departments and to the local and international community interested in developments in the fisheries sector in

Vanuatu;

- iii) design a practical work programme that staff in the Section can work to;
- iv) implement a comprehensive training programme for ni-Vanuatu staff within the Section. Research and promote all educational training opportunities within Vanuatu or overseas for these staff,
- v) promote the interaction of the Section with regional organisations that could assist the work of the Section in Vanuatu, and
- vi) actively seek to improve the functional role of the Section without relying on the recurrent allocation of the Government to the Fisheries Department to financially support projects.

Implementation

The project will be implemented by the Director of Fisheries. It is anticipated that the post will be occupied by mid to late 1989.

Budget

| 1989/90 | 1990/91 | 1991/92 |
|---------|---------|---------|
| | USDS | |

| | |
|----------|------------------|
| Staffing | to be determined |
|----------|------------------|

Office Costs

Activities