

**The BRAIS Project
Current Status, Activities and Assessment**

Introduction

The Brackishwater Aquaculture Information System is a project implemented by the Aquaculture Department of the Southeast Asian Fisheries Development Center (SEAFDEC AQD) in Tigbauan, Iloilo, Philippines. The Project is supported by the International Development Research Centre (IDRC) of Canada since March, 1984 upon the signing of Memorandum of Agreement. The first phase of the project ran from March 16, 1984 through April 2, 1987, and the extension phase covers the period from April 3, 1987 to April 2, 1989.

Objectives

The over-all objectives of the BRAIS project (phase I) may be summarized as follows:

to provide for the training and organization of SEAFDEC Aquaculture Department to act as a specialized information analysis center for brackishwater aquaculture.

The specific objectives include:

1. to collect significant documents on brackishwater aquaculture,
2. to set-up an appropriate document storage and retrieval system,
3. to issue special bibliographies:
 - a) brackishwater bibliography
 - b) species bibliography
4. to provide bibliographic searches.
5. to provide a question and answer service
6. to provide a document delivery service
7. to publish a current awareness newsletter (quarterly)

8. to maintain an up-to-date directory of researchers and research centers (2)
9. to publish state-of-the-art reviews (3)
10. to cooperate, through the SEAFDEC Secretariat with international systems, such as, the Aquatic Sciences and Fisheries Information System (ASFIS)
11. to establish and consolidate a cooperative regional network of information on all brackishwater species.

For the extension phase of the project, the above-mentioned objectives were retained and all the activities initiated in the first phase were continued.

Organization and Activities

The BRAIS activities are grouped into the following areas:

A. Documents Acquisition and Survey

B. Organization and Documentation

1. Abstracting/indexing; Data-entry into the data bases; Computer generation of bibliographies; and
2. Data base design and management.

C. Reprography and Publications

1. Bibliographies and abstracts
2. State of the Art Reviews
3. Directories
4. Newsletter
5. Printing/lay-out
6. Reprography: Microfiching and Photocopy

D. Clearing House

1. Question/Answer
2. Mailing Lists
3. Document Delivery

E. Networking, including BRAIS national centers—IndoBRAIS, MalayBRAIS, ThaiBRAIS and PhilBRAIS.

Acquisition of documents on brackishwater aquaculture is done mostly by survey and acquisition activities undertaken thru in country travels by the BRAIS national centers, including PhilBRAIS which is based in SEAFDEC AQD where Library's specialized collection on aquaculture contains a considerable number of documents related to the brackishwater aquaculture environment. In-country travels revealed that about 80% of the country's collection on aquaculture may be found in SEAFDEC AQD Library. The other methods of acquisition include purchase/subscription using BRAIS Reference Collection fund and gift/exchange agreements.

Computer based processing of acquired documents including those which are scanned from SEAFDEC AQD Library collection is employed using MINISIS software (until mid 1988) and Micro CDS/ISIS (from late November 1988 to present). Abstracts are prepared by the project staff. Bibliographic information are recorded in input sheets and entered into the data base. The BRAIS data base contains about 5000 entries.

Responses to written-in queries are provided by way of bibliographic searches, referrals to appropriate specialist or institution, and document delivery. A mailing list of regular recipients of BRAIS publications is maintained. Through the mailing list, a continuous stream of documents arrive either as gifts or exchange materials.

The Project networks were established with Indonesia (September 1985), Malaysia (May 1985) and Thailand (February 1985). Memoranda of agreement were signed between SEAFDEC and the Brackishwater Aquaculture Development Center, Jepara, Indonesia for IndoBRAIS, the Fisheries Research Institute, Fisheries Division, Ministry of Agriculture, Malaysia for MalayBRAIS and the

Brackishwater Fisheries Division, Department of Fisheries at Kasetsart University Campus, Bangkok (until June 1988) and Fisheries Science Society of Thailand (FSST) (starting July 1988) for ThaiBRAIS. As mentioned, PhilBRAIS, the national center for the Philippines, is also located at SEAFDEC AQD.

These institutions serve as national centers which undertake to:

1. Arrange in country travel to relevant research organizations for acquisition of information,
2. send originals of acquired materials to SEAFDEC AQD,
3. send input sheets with English translations and abstract of documents in local languages,
4. organize and integrate materials acquired with the national center collection, and
5. provide photocopies of documents to requestors at cost.

BRAIS has established/arranged linkages with other regional and international information system like SFIS (Selective Fisheries Information Service, ICLARM, 1985), SEAFIS (1986), and REMIN-REMIC (Regional Mangrove Information Network-Regional Mangrove Information Center, National Management Resource Center, Philippines, 1986).

Personnel

The activities, preparation and production of information products of BRAIS are carried out cooperatively by staff members of the Library, Computer and Publication Units of SEAFDEC AQD. The preparation of special bibliographies and literature reviews is contributed to and reviewed at different stages by AQD subject specialists and publication committee to ensure the quality of the products.

Abstracting and indexing work is usually handled by persons with background/basic qualifications in fisheries and training in such work as well as in computer applications, data base management and related work. Staff members have had professional training in library/documentation work and others have gained on the job experience.

The personnel development/training programs have been mostly carried out with international assistance but not directly under the BRAIS Project. For example:

1983 November: A 2-week training program on MINISIS application provided to selected AQD staff by an expert supported by IDRC.

1985 December: A staff member from SEARCA/AIBA, Los Banos, provided a further one week course on MINISIS.

1986 April: The BRAIS Project Coordinator and a staff attended a workshop on SEAFIS methodologies in Bangkok.

1987 April: The BRAIS Project Coordinator and Data Base Manager attended the month-long course on Regional Training in Library Automation at Universiti Sains Malaysia, Penang.

1987 October: Two BRAIS staff attended a 2-week training course on Desk Top Publishing software in Iloilo City.

In 1988, under BRAIS sponsorship, six members of the staff had training in technical writing, communication and media relations, at the Development Academy of the Philippines, Tagaytay and Manila. Training in computer applications was also conducted in SEAFDEC AQD for MalayBRAIS and IndoBRAIS Project Coordinators. A workshop on Micro CDS/ISIS application was conducted with the assistance of Prof. Neelameghan, BRAIS Consultant, for the benefit of the BRAIS staff, from November 21-25, 1988.

Performance

The following is a summary of the work done under the BRAIS project during its two phases (up to December 1988).

Particulars	Phase I (16 Mar 1984/ 02 Apr 1987)	Extension (3 Apr 1987/ 31 Dec 1988)
A. a) Documents acquisition:		
Through PhilBRAIS	1480	3047
Other nodes	337	421
b) Reference collection		
fund (IDRC)		
New journals	6	10
Monographs	49	73
c) SEAFDEC Library		
collection		
B. Data Base Development	3322	5000+
C. Brackishwater	V.1. No. 1-12	V.3. No. 1-6
Aquaculture	(Jul 84-Jun 85)	(Jul 86-Jun 87)
Abstracts	V.2, No. 1-6	V.4, No. 1-3
	(Jul 85-Jun 86)	
D. Special Bibliographies		
& Abstracts		
a) Sugpo (abstr.)	704 abstr.	
b) Mud crab .. (bibl.)	211 entr.	
c) Seábass ... (abstr.)	311 abstr.	
d) Mussel (abstr.)	181 abtr.	
e) Grouper ... (abstr.)		179 abstr.
f) Milkfish .. (bibl.)		217 entr.
E. Bibliographic Searches and		
Question & Answer Service	239	376
- Bibliographic search		
- Request for materials		
- Referrals		
- Short reference quest.		
Photocopies		
- Titles	680	1327
- Pages copied	12758	32031
F. Mailing list (69 countries)		
- Institutions	382	398
- Individuals	35	100
G. BRAIS Newsletter	V.1. No.1	V.1, No. 2/3, 4
	(Apr-Jun 86)	(Jul-Dec 86)
		V.2, No. 1-4
		(Jan-Dec 1987)
		V.3, No. 1-4

		(Jan-Dec 1988)
H. Directories		
- Directory of specialists		c.200 entr.
- Directory of institutions		c.50 entr.
I. State-of-the-Art Report		
- Siganid		Published
- Sugpo		Under preparation
- Grouper		Under preparation
J. Cooperation with ASFIS		initiated
K. Regional Network Nodes	IndoBRAIS MalayBRAIS ThaiBRAIS PhilBRAIS	

BRAIS Utilization Assessment

This section summarizes the survey and studies, together with the findings, undertaken for BRAIS Utilization Assessment. Advice and assistance to the Assessment Survey were provided by the BRAIS Consultant, Prof. A. Neelameghan.

The objective of the assessment was to examine the extent of utilization of the products and services by BRAIS since the start of the Project in March 1984.

Three interrelated approaches were used:

- 1) survey through questionnaire
- 2) analytical studies
- 3) study of relevant reports and discussions with BRAIS staff and some of the local users of the service.

The users of BRAIS products and services are spread out in 400 centers in 70 countries. In addition, there are individuals who use/have requested for and received directly BRAIS products and services. This group includes persons who become associated with SEAFDEC AQD by their involvement in scientist exchange program, joint projects, seminars, workshops and training courses or other meetings or had come to know about SEAFDEC AQD/BRAIS services through colleagues, materials received in the library of their respective institutions, etc. We needed to know how the products/services were being used by the library/information center

receiving them to get comments/opinions about the service from individual users. Therefore two questionnaires were prepared—Questionnaire A for institutions and Questionnaire B for individuals. Several questions are common to both questionnaires. The questions focussed on:

- 1) the environment in which BRAIS products were used:
country, institution type, fields of specialization, etc.
- 2) for what purposes?
- 3) how did they come to know about the BRAIS services?
- 4) what do they do with the products?
- 5) did they disseminate the products, if so, how?
- 6) views and comments on quality of the products/services,
- 7) suggestions for improvement.

Questionnaire A was mailed to 429 institutions (Foreign 323; Philippines:106) and Questionnaire B to 100 individuals. Following are the findings of the survey:

1. Over 41% of 429 institutions responded
2. 90-98% are government institutions
3. A majority (55% in Asia-Pacific Region and over 86% in Europe-North America) of the institutions are involved in research. Academic/teaching activities, information service and data base preparation, and extension work are the next most important areas of activity which need good information support such as those produced by BRAIS especially covering the Asian region.
4. A majority of the institutions receiving BRAIS products have indicated specialization in Aquaculture: (57% in Africa-Middle East region, 75% Asia Pacific, 90% in Europe-N American region).

5. Training courses and joint meetings form the predominant channels of contact for other institutions especially in Asia with SEAFDEC/BRAIS.
6. BRAIS announcement brochures and information provided by colleagues account for the highest percentage among the sources of information about BRAIS. In the Asia-Pacific region, "Saw it in another library" and "cited in another document" also constitute important sources of information.
7. Most of the institutions receiving BRAIS services and products are government institutions and carry on research or academic activities. In terms of percentage of the number of institutions from which materials are received by SEAFDEC AQD in exchange, those outside the Asia-Pacific region (i.e. Europe, North America and Africa) have more to offer than those within the Asia-Pacific region. The SEAFDEC AQD library has been receiving either free of cost or through publications exchange arrangements some 345 foreign and 100 national periodical titles. Of these, 124 foreign titles (worth about US\$ 2,000 in annual subscriptions) and 75 Philippine serials (worth about US\$ 200 in annual subscriptions) are being received since BRAIS publications and services became available. This is an important impact of the BRAIS Project considering the limited financial resources available to SEAFDEC for acquisition of serials, especially those to be paid in foreign exchange (hard currency).
8. A majority of the responding institutions apparently consider Brackishwater Aquaculture Abstract (BAA) as a useful source of information in brackishwater aquaculture, particularly about the Asian region. This is further confirmed by the pattern of responses from the institutions to the question on the purpose of their using BAA. The number of users to whom BAA current issues are circulated in the respective institutions is about ten, that is, specialists/researchers in brackishwater aquaculture.

9. A majority of the responding institutions apparently consider Brackishwater Newsletter (BN) as a useful source of information in brackishwater aquaculture, particularly about the Asian region. The number of users to whom BN current issues are circulated in the respective institutions is over 10 in the Asian region and less than 10 in other regions.
10. The distribution pattern of the Special Bibliographies (SBs) indirectly indicates areas of interest in the different regions (Table 1). In relation to the number of institutions receiving BRAIS services/products in the different regions, the distribution of the SBs in the respective regions is more or less even. The SB on Grouper has the lowest distribution, but it is the most recent and the demand for it will grow in the coming years as more and more institutions come to know about it.

Table 1. Distribution of Special Bibliographies

Subject of SB	Asia	Pacif	Mid-East	Africa	Eur	N.Amer	LAC
Sugpo	51	6	2	2	8	15	3
Mud Crab	50	7	..	4	5	17	3
Sea Bass	45	9	2	3	8	18	3
Mussel	47	7	1	3	8	17	3
Grouper	38	7	1	3	6	12	2

It may be worth noting that the SBs on Sugpo and on Sea bass received relatively higher rating in the Asia-Pacific region while the SB on Grouper gets highest rating in the Europe-N.America region. Most of the institutions excepting those in Europe indicated that they either circulate, notify in their current awareness service or in their publications when an SB is received.

11. Almost all the responding institutions receive other secondary periodicals abstracting and indexing periodicals covering aquaculture, etc., such as ASFA. The institutions were requested to rate the usefulness of BRAIS products and services in relation to those secondary periodicals. Although some of the institutions did not respond to this query, those who did considered the BRAIS products either "useful" or "very useful".
12. The institutions mainly in Asia, particularly those in the Philippines, used the Referral, Document Delivery services and Query-Answer services of BRAIS. Those that have availed of such services generally felt that their requests were responded to adequately. Some have indicated that the answers from BRAIS did not reach them in time.
13. Table 2 presents data on the different purposes for which the institutions are using BRAIS services and products. The preferred use pattern is similar in the different regions: Firstly, for supplementing other information sources; secondly, for identifying other researchers/research centers; and thirdly, for collection development. In this context, BRAIS fulfills the major functions of a specialized information service in brackishwater aquaculture with particular reference to research in Asia. Use of BRAIS products in the preparation of bibliographies and data bases is also an activity associated with the primary functions just mentioned.
14. With a view to ascertaining that BRAIS does cover information materials not covered by other international abstracting services so that it does in fact constitute a useful supplementary source of information in aquaculture as mentioned by significant number of the respondents, the serials monitored by ASFA and BRAIS were analyzed and compared. It was found that during the period under review BRAIS indexed 90 serial titles not included in the list of serials indexed by ASFA.

Table 2. Purpose of Use of BRAIS Services and Products

Purpose	Asia	Pacif	Mid-East	Africa	Eur	N.Amer	LAC
Supplement other info sources	57	9	2	3	6	18	3
Prepare bibliog.	21	3	..	2	1	6	3
Collection dev.	32	7	..	4	1	13	2
Database dev.	25	..	..	..	..	2	..
Identify other researchers	35	8	..	4	3	6	3
Research planning	4	2	..	..	..	1	..
No indication	..	..	..	..	4	1	..

Table 3 presents data on the country of origin/publication of these serials. Out of the 90 serials, 77 (85.6%) are from the Asia-Pacific region, of which 77 serials, 32 (35%) are from the Philippines; and 12 (13.3%) are from Europe-N. America region; and 1 from Africa.

Table 3. Country of Origin/Publication of the Additional Serials

Region/Country	No. Serial Titles
Asia	72
China ...	3
India ...	9
Indonesia ...	6
Japan ...	7
Korea' ...	1
Malaysia ...	4
Pakistan ...	1
Philippines...	32
Taiwan ...	3
Thailand ...	5
Vietnam ...	1
Pacific	5
Australia ...	2
New Zealand .	3

Europe	9
Belgium ...	2
Germany (FR)	3
Italy ...	1
Poland ...	1
United Kingdom	2
North America	3
Canada ...	1
United States .	2
Africa	1
South Africa..	1

15. Another analysis was done on the coverage of non-serial materials in BAA Vol. 4 No. 1, July-August 1987 and Vol. 4 No. 2, September-October 1987. Table 4 presents data on the items included in BAA also indexed in ASFA. BAA abstracted 63 additional non-serial items not included in ASFA during the period under review. These items, published mainly in Asia, were not included in any of the earlier issues of ASFA.

Table 4. Additional Non-Serial Items Indexed in BAA

Type of Materials	BAA	ASFA
Conference papers	57	6
Theses	2	..
Reports/separates	5	..
Monographic analytics	6	1
	<hr/> 70	<hr/> 7

16. On the views of the library/information specialists of the responding institutions regarding the quality of abstracts and indexes in BAA & Special Bibliographies produced by BRAIS, a majority of the responding institutions consider the abstracts to be of good/very good quality; the arrangement of the entries quite satisfactory and helpful; the indexing and the data elements included in the entry adequate. There were few suggestions: the

one mentioned by several of the respondents being that the affiliation of the author should be given in the entry. BRAIS has accepted this suggestion and will implement it as far as practicable.

Analysis of individual responses showed very similar findings as with institutions. The final report is being readied for submission and dissemination.

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