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52056

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

DATE: 6/9/87

MEMORANDUM

TO: AID/PPC/CDIE/DI, room 209 SA-18
FROM: AID/SCI, Victoria Ose
SUBJECT: Transmittal of AID/SCI Progress Report(s)

Attached for permanent retention/proper disposition is the following:

AID/SCI Progress Report No. C5-222
2 cys
Interim Report #2

Attachment

Ben-Gurion University of the Negev
Jacob Blaustein Institute for Desert Research
Sede Boqer Campus, Israel 84 990



מכון לחקר המדבר ע"ש יעקב בלאושטיין
בני ברק 84 990

CDR Project No. C5-222

AID-CDR Grant No. 936-5544-G-00-6033-00

Strain Selection of Spirulina Alga Suitable for Mass Production

Interim Report No. 2

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Rec'd in SCI: JUN 9 1987



The first field trip and PI's coordinating meeting was held according to the working plan from 10 to 21 of January, 1987. The field trip was aimed to 1) Collect local Spirulina strains in the North-East of Thailand; 2) Become acquainted with the area, the people and the level of organization in the villages; 3) Become familiar with the Fisheries research stations in the region and their facilities so that a decision as to the location of the demonstration plant could be made.

The trip which was held during three days was very well organized by the Thai P.I. and started at Kho Kaen up to Loi and Udon Thani (see attached map). More than 30 samples of water were collected and analyzed (see Table 1). Work on isolation is still in progress in both the Thai and Israeli laboratories. Four different strains of Spirulina were isolated so far and are in final stages of isolation to become monoalgal cultures (see Fig. 1). Three of the strains marked Th-11, Th-21 and Th-30 seem unique as preliminary results indicate they do not grow on the typical Spirulina medium which contains high bicarbonate, being able to grow on a relatively poor medium.

As to the location of the demonstration plant, preliminary recommendations have been made and further discussions are needed before final decision can be taken. Visits of the Thai P.I. and co-workers are expected during June and July in Israel for a period of 4 weeks for training and introduction into several research topics.

SOCIALIST REPUBLIC OF
THE UNION OF BURMA

DEMOCRATIC PEOPLE'S REPUBLIC OF LAOS

GULF OF TONKIN

SOCIALIST REPUBLIC OF THE VIETNAM

DEMOCRATIC KAMPUCHEA

GULF OF THAILAND

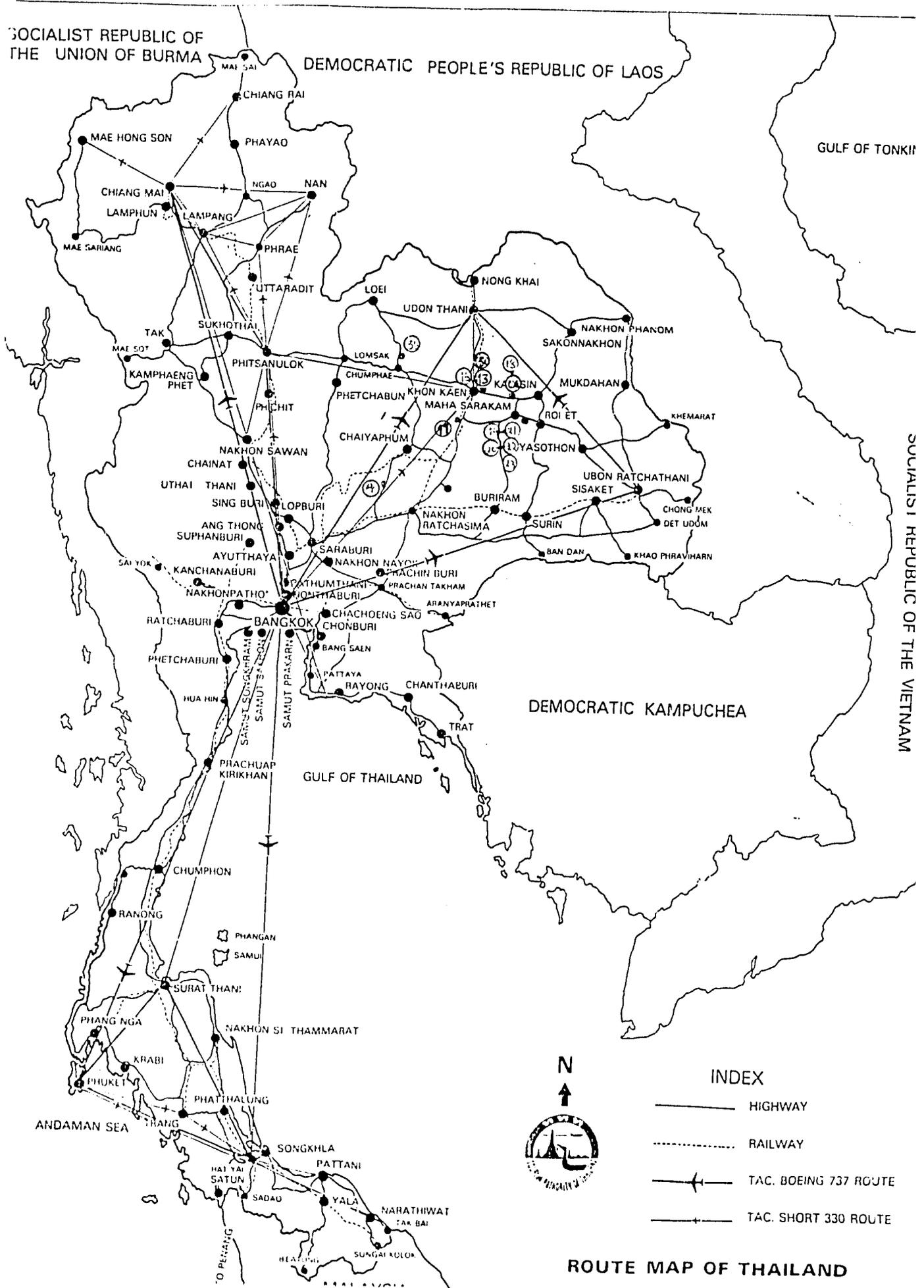
ANDAMAN SEA



INDEX

- HIGHWAY
- - - RAILWAY
- ✈— TAC. BOEING 737 ROUTE
- ✈— TAC. SHORT 330 ROUTE

ROUTE MAP OF THAILAND



Water Quality of the "found Spirulina" samples, during trip Jan. 14-18, 1987 To NE. Thailand.

Sample NO.	Place	pH	Alkalinity	Total Hardness	Chlorinity	Note	
4	Dan Kuntot District, Nakhon Ratchasima	7.8	320	224	6.18	Thai	Israel
11	Ban Kumdin village, Khonkan	8.9	600	285	4.04	✓	
13	Muang District, Khonkan	8.5	420	408	0.79	✓	
15	Ban Non-Sung School, Khonkan	8.2	240	143	1.21	-	
17	Kosumpisai District, Mahasarakham	9.0	600	224	0.79	-	
18	Kosumpisai District, Mahasarakham	9.5	200	428	0.42	-	
19	Muang District, Mahasarakham	9.2	660	163	1.02	-	
20	Muang District, Mahasarakham	9.6	200	326	0.46	-	
21	Muang District, Mahasarakham	8.4	300	302	0.70	-	
22	Fisheries Station, Mahasarakham	9.4	130	458	0.73	-	
23	Fisheries Station, Mahasarakham	10.25	140	469	0.33	-	
30	Muang District, Khonkan	9.0	310	408	0.79	-	
35	Chum Pae Disteict, Khonkan	7.6	300	346	0.56	-	

Alkalinity (mg/l as CaCO₃)

Total Hardness (mg/l as CaCO₃)

Chlorinity (mg/l)

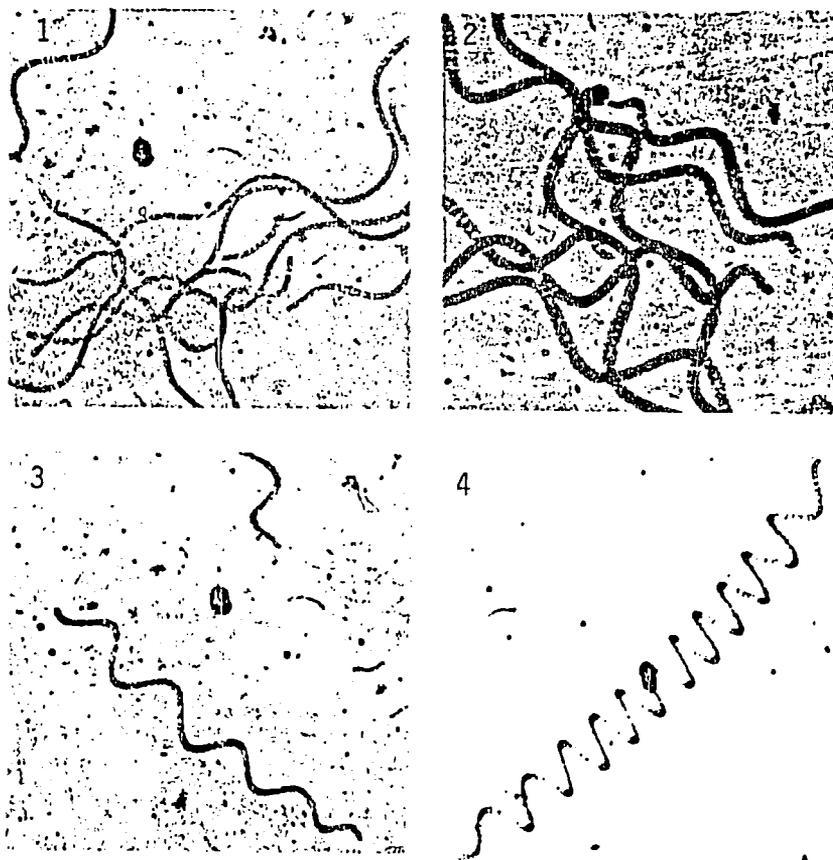


Fig. 1: Photomicrographs of four different Spirulina strains
1) Th-11, 2) Th-13, 3) Th-21, 4) Th-30