



**REBYC**

Reduction of Environmental Impact from Tropical Shrimp Trawling, through the introduction of By-catch  
Reduction Technologies and Change of Management  
(EP/GLO/201/GEF)

# Mexico

## Progress report to the project coordinator

**EP/GLO/201/GEF**

**July-December 2005**





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### **Progress Report to the Project Coordinator EP/GLO/201/GEF**

**Country:** MEXICO

Reporting period (6-months from...JULY to DECEMBER 2006).

Reporting Officer = National Coordinator (name /title): DR. GUILLERMO A. COMPEAN JIMENEZ/DIRECTOR EN JEFE DEL INSTITUTO NACIONAL DE LA PESCA

#### **1. List the meetings of the National Steering Committee held: (gives dates, places):**

a) The Comité Consultivo Nacional de Normalización de Pesca Responsable (National Steering Committee of Mexican Project), have met at Mazatlán and Mexico City during the period to inform stockholders of results of monitoring of shrimp ban and to decide the starting dates of fishing season for both artisanal and industrial shrimp fisheries. Also the stockholders were informed that during the fishing season will be carried out assessment of three projects (Sonora, Sinaloa and Oaxaca) to substitute traditional shrimp trawls and introduction RS-INP-MEX dyneema designs with Fish Eyes.

b) The Committee submitted a draft project to COFEMER (from Economy Ministry) to implement Official Technical Standard PROY-NOM-061-PESC-2005, which contains modification of technical specifications for the use of Turtle Excluder Devices on shrimp trawl fishing.

summarize the main points from these meeting, and please provide separately a copy of the minutes, **including names/titles of the participants:**

a) **Described above**

b)

etc

#### **2. Describe the progress of each national project activity**

(as listed in the project document, section 4.5 General Workplan and Timetable)

a) Installation of electronic equipment had not been done according to schedule, research vessels were on dry-dock facilities and blister transducers were constructed and installed by INP on time. This delay had caused postponement of training basic course and starting of experimental cruises.

b) Since October 2005, INP started a program to transfer to 5 Stockholders of Oaxaca State the prototype RS-INP-MEX for the Gulf of Tehuantepec, the complete set includes construction/training of three trawls with single fish eyes of 230 x 475 mm, training, calibration/testing at sea and technical assistance.

#### **3. Describe briefly any workshops, training, or demonstration activities undertaken. Indicate location, and number of participants and days.**

a) On July took place the 2<sup>nd</sup> World Meeting of National Coordinators in Manzanillo, Colima, Mexico; during which participated countries from all regions involved in EP/GLO/201/GEF project. Agreements were made between countries for joint research, training and technical assistance, particularly for Latin American region.

- b) From 16<sup>th</sup> of August to September 5<sup>th</sup> a joint program Costa Rica-Mexico was carried out in order to observe traditional fishing trawl operation at Punta Arenas, Costa Rica and to recommend technical improvement of fishing system to reduce by-catches; during that period was observed that shrimp trawls used had some technical design problems and was decided to design and construct a new net. Preliminary results observed during operation of new trawl show increase of shrimp catches and commercial by-catch, as well as fuel consumption; since time was not enough to continue with more testing days at sea it was not possible to assess properly the improvement of by-catch reduction with the introduction of fish eyes.
- c) From 27<sup>th</sup> to 31<sup>st</sup> of October a group (3) of Stockholders from Costa Rica were attended at Mexico to show them the way Mexico's management of shrimp fisheries; during the visit they also participated in a short fishing trip onboard a commercial trawler to observe fishing operations with the use of new prototypes being used at the North-Western Mexican Pacific, they also were taken to 3 trawl construction workshops and other related fishing industries.
- d) On November (13 to 29<sup>th</sup>), derived from agreements made during 2<sup>nd</sup> World Meeting, two Mexican fishing gear technologist participated on joint research works in the framework of Cuba's National Project, during which double footrope and fish eye were tested. Preliminary results show that reduction of by-catch reach slightly more than 50%, but there were also some shrimp loss, especially of juvenile shrimp. On general it was observed that the addition of a second footrope can be a good technical solution to reduce by-catch of small fishes, as well as the use of fish eye for reduction of viajaiba (*Lutjanus spp*) main indicator specie.
- e) From the 14<sup>th</sup> to 29<sup>th</sup> of December the first set was transferred to a trawler by means of an initial cruise for calibration, training y commercial fishing with a RS-INP-MEX shrimp trawl of 27 m headrope and 2.0 m<sup>2</sup> High-Lift trawl doors. Preliminary results show a by-catch reduction of 40%, 53% reduction of fuel consumption and increase of 20% of shrimp catch.
- f) Late December started the construction of next set to be transferred, with participation of beneficiary trawler's crew; it is expected to be completed during January 2006 including initial fishing cruise.

#### **4. Give other general comments on the current status of the shrimp-trawling industry.**

As stated on previous report (January-June), since 2004 until present time, Mexican Federal Government jointly with some States have invested over \$1'000,000.00 USD to introduce RS-INP-MEX prototype (including the mandatory use Fish Eye) in commercial shrimp trawlers. Assessment of program will be completed at the end of fishing season 2006-2007. Although there have been some problems to get enough Observers Onboard, preliminary operation results show a overall by-catch reduction of 30 to 60% onboard commercial vessels.

Also, due to improvement of shrimp quality and catches, durability of nets, as well as fuel consumption reduction, Stockholders are very keen to use the new prototypes and the number of vessels that use trawls of new design, materials and fish eye are increasing (without complaining for the increment of initial cost of trawls).

At present report only preliminary landings of January-March 2005 were available, which were already stated in previous report (January-June). As soon as the information is updated it will be send to FAO Project Coordinator.

**5. List the financial inputs (in-kind, in US\$)****a) by government, for this reporting period:**

professional staff:	<u>\$33,000.00</u>
support staff:	<u>\$ 500.00</u>
travel expenses:	<u>\$ 5,600.00</u>
operating expenses:	<u>\$ 3,800.00</u>
equipment:	
other	

**b) by government, from the beginning of the project:**

professional staff:	<u>\$ 93,000.00</u>
support staff:	<u>\$ 3,300.00</u>
travel expenses:	<u>\$ 16,800.00</u>
operating expenses:	<u>\$ 12,700.00</u>
equipment:	<u>\$ 1,000.00</u>
other:	<u>\$1'067,000.00<sup>1</sup></u>

**c) by the industry, for this reporting period:**

professional staff:	<u>\$1,200.00</u>
support staff:	<u>\$ 500.00</u>
travel expenses:	
operating expenses:	<u>\$4,000.00</u>
equipment:	
other:	

**d) by the industry, from the beginning of the project:**

professional staff:	<u>\$ 22,200.00</u>
support staff:	<u>\$ 9,000.00</u>
travel expenses:	
operating expenses:	<u>\$103,000.00</u>
equipment:	
other	

**Items b) and d) only consider expenses since January 2004.****6. Estimation of by-catch reduction:****a) Total Number of shrimp trawlers:**

Total number of trawlers is in process of actualization since the program to reduce fishing effort by means of buying-out commercial shrimp trawlers is still going on.

**b) Number of shrimp-trawlers that used BRDs when the project started: 2 (only research vessels of INP)****c) Number of shrimp-trawlers currently using BRDs: (expand by major-type of shrimp-trawler, if possible):**

shrimp trawlers:	<u>Approximately 140, mainly in the Pacific coast.</u>
fish trawlers:	<u>None</u>
pair trawlers:	<u>There are not pair trawlers</u>


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<sup>1</sup> Amount invested by Mexican Government for transfer of prototype RS-INP-MEX to Stockholders from Sonora, Sinaloa and Oaxaca.

7. List all equipment purchased, indicating date of purchase, serial number, quantity, cost in US\$, and any remarks (for vehicles, give mileage report).

See invoices attached

a) Netting and other materials (It has been partially distributed in INP facilities at Mazatlan, Guaymas and Salina Cruz; most of it has been used for construction of prototypes for different fishing zones)



**COMMERCIAL INVOICE**

**DATE:** OCT 11, 2004

**INVOICE NO.:** 0410005

**Sold To:** Food and Agriculture Organization (FAO)  
of the United Nations  
Accounts Payable Group AFFR  
Viale delle Terme di Caracalla  
00100, Rome Italy

**Ship To:** Centro Regional de Investigacion Pesquera  
de Salina Cruz, Oaxaca  
Prolongacion Playa Abierta S/N  
Colonia Miramar  
C.P. 70680 Salina Cruz Oaxaca  
Mexico

**CTC:** Ms. ANGELUCCI-SABA  
PROCUREMENT SERVICE (FAO ITALY)  
**PH:** 0039-06-57053429  
**FAX:** 0039-06-57054959

**CTC:** LIC. ADRIAN GARCIA (FAO MEXICO)  
**PH:** 5652-8640

**REFERENCES:** P.O # 156566 / FAO PROJECT EPI/GLO/201/GEF  
**TERMS:** 30 DAYS AFTER RECEIPT

**FISHING VESSEL SUPPLIES**

QUANTITY	COMMODITY DESCRIPTION	UNIT PRICE COUNTRY OF ORIGIN	BASIS	EXTENSION
4	WUCS90-4 UC SILVER NETTING 90mm 4 PLY 100md X 1620 ml	3036.00 U.S.A.	BL	\$ 12,144.00
1	WUCS90-12 UC SILVER NETTING 90mm 12 PLY 100md X 616 ml	2980.74 U.S.A.	BL	\$ 2,980.74
2	WUCS75B-4 UC SILVER NETTING 75mmBK 4 PLY 100md X 2043 ml	3168.00 U.S.A.	BL	\$ 6,336.00
3	WUCS60-4 UC SILVER NETTING 60mm 4 PLY 100md X 2519 ml	3097.60 U.S.A.	BL	\$ 9,292.80
1	WUCS57-4 UC SILVER NETTING 57mm 4 PLY 100md X 3095 ml	3590.40 U.S.A.	BL	\$ 3,590.40
1	WUCS45-4 UC SILVER NETTING 45mm 4 PLY 100md X 3068 ml	2745.60 U.S.A.	BL	\$ 2,745.60
1	WUC44 5B-40 UCPE NETTING 44 5mmBK 40 PLY 100md X 1340 ml	1362.24 U.S.A.	BL	\$ 1,362.24
4922	LSP38 AMSTEEL LINE 3/8in	1.10 NETHERLANDS	FT	\$ 5,412.00
021	LSP14 AMSTEEL LINE 1/4in	0.47 NETHERLANDS	FT	\$ 38.85

**COMMERCIAL INVOICE****(2)****DATE: OCT. 11, 2004****INVOICE NO.: 0410006**

1640.5

LCR916P

COMB. ROPE 9/16in 55 POLYCORE

0.75  
DENMARK

FT

\$ 1,235.50

**SUBTOTAL****FREIGHT & HANDLING****TOTAL C / F SALINA CRUZ, MEXICO**

USD

\$ 45,488.13

USD

\$ 3,500.00

USD \$ 48,988.13

THESE COMMODITIES, TECHNOLOGY, OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES  
IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO  
U.S. LAW PROHIBITED

**NET SYSTEMS INC**

AUTHORIZED SIGNATURE  
JOHN J BRAY

b) Electronic Equipment (all equipment is in Guaymas waiting to be installed on INP research vessels by Simrad).

<h1>SIMRAD</h1> <p>A KONGSBERG Company          19210 33RD AVENUE WEST, SUITE A          LYNNWOOD, WA 98036          PHONE: (425) 778-8821          FAX: (425) 771-7211          (425) 778-8821</p>		COMMERCIAL INVOICE	
		Page 1 of 3	
SHIP TO:		INVOICE NUMBER: 148167A	
JOFFRROY WAREHOUS 1251 NORTH INDUSTRIAL PARK PH# 520-281-2472 ATTN: ADRIAN RAMOS Nogales, AZ 85621		ORDER DATE: 7/1/2005	
		SALESPERSON: 0001	
		CUSTOMER NO: 08-98FAO	

ORIGINAL

CONFIRM TO: KL/JC/PB/MH

CUSTOMER P.O. 159998	TERMS Net 30 days
SHIP VIA OTHER	F.O.B. LYNNWOOD

SHIPPED	UNIT	ITEM NO	DESC	PRICE	AMOUNT
1	EA	/07	ITI SYSTEM COMP.,INCLUDING..	17,290.00	17,290.00
1	EA	ITI-113459	TRANSCEIVER, ITI, STD.VGA OUTP	0.00	0.00
1	EA	ITI-109435	KEYPAD, ES500/EQ55-SA	0.00	0.00
2	EA	KSV-109486	TRANSDUCER, SPLIT BEAM, SINGLE	0.00	0.00
2	EA	ITI-109510	Transducer adapter	0.00	0.00
1	EA	/07	15" COLOR SVGA MONITOR	0.00	0.00
1	EA	ITI-112475	SENSOR, GRID I, ITI	0.00	0.00
1	EA	LAD-109376	SENSOR FAST CHARGER (230 VAC)	0.00	0.00
1	EA	/07	ADAPTIVE SENSORS AND CHARGERS	24,850.00	24,850.00
1	EA	ITI-110116	SENSOR, SPREAD 1 COMM, ITI	0.00	0.00
1	EA	ITI-110117	SENSOR, SPREAD 1 REMOTE, ITI	0.00	0.00
1	EA	ITI-110118	SENSOR, SPREAD 2 COMMUNICATION	0.00	0.00
1	EA	ITI-110119	SENSOR, SPREAD 2 REMOTE	0.00	0.00
4	EA	LAD-109377	SENSOR FAST CHARGER (115 VAC)	0.00	0.00
1	EA	ITI-110113	SENSOR DEPTH MKIIC, F-CHARGE	0.00	0.00
1	EA	/07	ES60 ECHOSOUNDER, INCLUDING..	23,900.00	23,900.00
1	EA	/07	15" COLOR LCD MONITOR	0.00	0.00
1	EA	ES6-205546-INC	ES60 PROCESSOR	0.00	0.00
1	EA	ES6-201389	ES60 GPT XCVR, 120kHz 1kW Spli	0.00	0.00
1	EA	KSV-204580	TRANSDUCER, ES120-7C SPLT BEAM	0.00	0.00
1	EA	ES6-201373	ES60 GPT XCVR, 38+200kHz 1kW S	0.00	0.00
1	EA	KSV-203004	Combi-D Xdcr, 38/200 kHz, 15m	0.00	0.00
1	EA	/07	ES60 MULTI FREQ. ECHOSOUNDER	23,900.00	23,900.00
1	EA	/07	15" COLOR LCD MONITOR	0.00	0.00
1	EA	ES6-205546-INC	ES60 PROCESSOR	0.00	0.00
1	EA	KSV-204580	TRANSDUCER, ES120-7C SPLT BEAM	0.00	0.00
1	EA	ES6-201389	ES60 GPT XCVR, 120kHz 1kW Spli	0.00	0.00
1	EA	ES6-201373	ES60 GPT XCVR, 38+200kHz 1kW S	0.00	0.00
1	EA	KSV-203004	Combi-D Xdcr, 38/200 kHz, 15m	0.00	0.00
6	EA	/07	ES6-DEMO CD ROM V 74	0.00	0.00
2	EA	/07	ITI LOG VER 1.1 LOGGING PROGR	0.00	0.00
2	EA	/07	PI32 CONFIG. SOFTWARE	0.00	0.00



# SIMRAD

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19210 33RD AVENUE WEST, SUITE A  
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## COMMERCIAL INVOICE

Page 2 of 3

INVOICE NUMBER: 148167A

ORDER DATE: 7/1/2005

SALESPERSON: 0001

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PH# 520-281-2472  
ATTN: ADRIAN RAMOS  
Nogales, AZ 85621

CONFIRM TO: KL/JC/PB/MH

CUSTOMER P.O. 159998

TERMS Net 30 days

SHIP VIA OTHER

F.O.B. LYNNWOOD

SHIPPED	UNIT	ITEM NO	DESC	PRICE	AMOUNT
	1 EA	/07	CM60 BOTTOM MAPPING SFTWR	0.00	0.00
	2 EA	/07	USB DATA LOGGER STORAGE	0.00	0.00
	1 EA	/07	TOW BODY	2,000.00	2,000.00
	1 EA	CM6-205513-INC	CM60BB w/Btm Hrdness & ITI S/W	4,100.00	4,100.00
	1 EA	/07	15" LCD MONITOR	0.00	0.00
	1 EACH	HS50 SYSTEM	HS50 System w/30m Cable	5,800.00	5,800.00
	1 EACH	20212759	HS50 Display Unit w/Access.	0.00	0.00
	1 EACH	20212858	HS50 Sensor Unit	0.00	0.00
	1 EACH	20212940	HS50 Sensor Cable, 30m	0.00	0.00
	1 EACH	20213054	HS50 Manual & Quick Ref.	0.00	0.00
	1 EACH	22084289	HS50 Processor Unit	0.00	0.00
	1 EACH	AP35-2	AP35 SYSTEM W/ J300X, NO DRIVE	2,000.00	2,000.00
	1 EACH	22011415	RF45X Rud. FB w/Link**ALT2 22	0.00	0.00
	1 EACH	22085104	AP35 C.U, ACC, 15M CBL**ALT2	0.00	0.00
	1 EACH	22085120	J300X J. Unit w/Accy**ALT2 22	0.00	0.00
	1 EA	/07	SIMRAD PI SYSTEM INCLUDING..	24,750.00	24,750.00
	1 EA	PI3-205776	PI32 BRIDGE UNIT	0.00	0.00
	1 EA	HYD-205254	Hydrophone w/DNV Approved Stuf	0.00	0.00
	1 EA	PS3-205264	PS30-B BOTTOM CONTACT SENSOR**	0.00	0.00
	1 EA	PS3-204190	PS30 Temperature Sensor**SEE M	0.00	0.00
	1 EA	PI3-206869	PI32 Spread Sensor *SEE MEMO*	0.00	0.00
	1 EA	PI3-206870	PI32 Remote Sensor**SEE MEMO**	0.00	0.00
	2 EA	LAD-207624	Sensor Quick Charger, PI32	0.00	0.00
	1 EA	B744V-D/S/T	B744V-D/S/T Xdcr, Bronze Thru-	0.00	0.00
	1 EA	/07	PI SYSTEM ACCY'S BELOW	750.00	750.00
	1 EA	HYD-202711	PI30 Hydrophone	0.00	0.00
	1 EA	/07	PARA VANE & CASE	0.00	0.00
/08			INSTALLATION AND TRAINING		3,590.00

ULTIMATE DESTINATION BELOW:

CENTO REGIONAL DE INVESTIGACION  
PESQUERA EN GUAYMAS, SONORA  
CALLE 20 SUR, NO 605



# SIMRAD

A KONGSBERG Company

19210 33RD AVENUE WEST, SUITE A  
LYNNWOOD, WA 98036  
PHONE: (425) 778-8821  
FAX: (425) 771-7211  
(425) 778-8821

## COMMERCIAL INVOICE

Page 3 of 3

INVOICE NUMBER: 148167A

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SALESPERSON: 0001

CUSTOMER NO: 08-98FAO

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CONFIRM TO: KL/JC/PB/MH

CUSTOMER P.O. 159998

TERMS Net 30 days

SHIP VIA OTHER

F.O.B. LYNNWOOD

SHIPPED	UNIT	ITEM NO	DESC	PRICE	AMOUNT
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C.P. 85400

GUAYMAS, SONORA MEXICO

COUNTRY OF ORIGIN: NORWAY, UNITED STATES, CHINA

HS CLASSIFICATION: 9014.20.4000, 9014.80.2000,

9014.90.6000 & 8526.91.0030

1 BOX(ES) @ 500 LBS. X X

CERTIFIED TRUE AND CORRECT. DEVIATION FROM U.S.  
LAW IS PROHIBITED.

SIMRAD, INC.

### c) Computers<sup>2</sup>

c.1).- Desktop DELL, Model DHM, Serial Number: JB8PY41 (At present in Salina Cruz).

c.2).- Notebook DELL, Model PP02X, Serial Number: H8Y8Y41 (At present in Salina Cruz).

c.3).- Notebook DELL, Model PP02X, Serial Number: 29Y8Y41 (At present in Guaymas).

<sup>2</sup> Final cost of each computer is unknown since INP did not received copy of invoices when they were delivered.