Biche-de-Mer

Karem Aot long Solwota Blong Yumi?

DENJA ! ! !

Oktoba 2006

Ripot i ko long ol man
Nguna mo Pele
mo Not Efate

Deskripsen blong problem:

Ol biche-de-mer we oli stap expotem, oli winim bigfala mani (samtaem i save kasem 3500vt./kilo). I kat 15 kaen biche-de-mer we ol man Asia oli stap kakae. Yumi long Vanuatu, yumi kat fulap kaen biche-de-mer. Laki se i no kat tumas man we oli save expotem i ko long china mo japan. Be naoia, i kat 4 o 5 man long Vila mo Santo we oli stap pem ol biche-de-mer. Bifo oli save expotem, oli mas kat inaf blong fulumap wan kontena blong sip. Amaont ia i save kasem 2 million bich-de-mer long wan shipmen.

> ***Ok…so wanem problem sapos yumi stap salem ol biche-de-mer blong yumi blong Not Efate?***

Ol biche-de-mer oli stap mekem wan veri impotent wok long rif blong yumi. Wok blong biche-de-mer hemi blong klinim rif mo solwota blong yumi. Oli stap kaikai ol doti we I foldoan long rif blong mekem se evri narafala animol I save laef long wan helti ples. Sapos yumi karem aot ol biche-de-mer, bambae yumi save mekem se solwota mo rif blong yumi hemi doti mo hemi no helti gud.

Niu Tingting: FARMING

Ol biche-de-mer oli isi tumas blong bridim olgeta. Taem we oli kat wan hatchery, oli save produsim kolosap thousands blong pikinini. Bae oli pikinini oli stap long hatchery kasem taem oli kat 1 manis (20mm saes), mo long taem ia bae yumi save putum olgeta long rif blong oli gro bigwan.

BE: Farming hemi wan niufala praktis nomo, mo oli no save iet se bae hemi save wok gud o no kat. I kat sam stadi we oli mekem long Australia mo oli faenem aot se taem oli putum ol smol smol biche-de-mer I ko long rif, bae plante oli mas ded nomo.

Niu Bisness long Biche-de-mer long Vanuatu

Ating yumi evriwan blong Nguna mo Pele yumi bin mitim wan representative long wan niufala bisness blong biche-de-mer we hemi kam raon blong promotem bisnes blong hem.

Sam toktok blong hem:	MPA I Akri wetem hem:
▪ I no gud blong tekem andasaes	YES
▪ Hemi wantem testem farming long ples ia	YES
▪ Hemi luk se yumi ovaharvest finis long Vanuatu	YES
▪ Bae yumi long aelen yumi save winim mani	YES
▪ Hemi bin farmem olbaot long Penama	NO
▪ Projek long Maskyleynes hemi sakses	NO
▪ Yumi mas havestem ol Biche-de-mer blong yumi fastaem bifo hemi kam mekem farming	NO
▪ Yumi no save putum ol smol Biche-de-mer antap long olgeta we oli stap naoia	NO
▪ Ol rifs blong yumi oli no kat enuf kaikai blong sapotem tumas biche-de-mer	NO

Projek long Malekula

Bisnes ia hemi niufala nomo. Oli bin mekem wan trial blong farming nomo long Vanuatu, long 2006, mo trial ia hemi bin stap long Maskylens nomo.

MPA I bin wantem faenem aot se trial ia long Maskylens hemi wokaot o nokat….Mifala I bin ring I ko long Malekula blong stori wetem sam lokal pipol long saed blong projek ia: Kolosap evri man we mifala I stori wetem oli bin talem aot se projek ia I bin krietem sam bigfala problems mo disputes long aelan. Oli talem se bisnes ia I bin promesem blong putum plante Biche-de-mer long Maskylens, be long yia ia hemi karem 1000 nomo mo hemi putum long rif blong wan famele nomo.

Sem taem tu, hemi bin havestem biche-de-mer olbaot long Maskylens be oli neva putum bak eni biche-de-mer I ko bakagen olsem we oli bin promesem.

Ol man maskelyns oli harem no gud, fromse naoia oli luk se I no moa kat eni biche-de-mer nating afta we oli wok wetem bisnes ia.

Projek long Nguna mo Pele

Yumi save finis se ol Biche-de-mer blong yumi oli ko daon tumas folem plante harvesting long 2000-2003 long Pele mo 2004-2006 long Nguna.

I bin kat wan man (Neil Kalontas Cook) we hemi kam mekem stadi long ol Biche-de-mer blong yumi long yia ia 2006. Hemi faenemaot se ol rif long Pele oli no kasem wan helti namba blong Biche-de-mer, oli low tumas. Mo hemi faenem se long Nguna, yumi kat smol Biche-de-mer, be I no olsem we yumi sud kat sapos rif hemi helti gud. Ol rif blong yumi oli kat plante kaikai we yumi save fidim plante moa Biche-de-mer. I minim se, ol rif blong yumi long Nguna mo Pele oli no kat enuf Biche-de-mer naoia we I stap, mo sapos yumi karem aot eni moa, bae oli rif mo solwota blong yumi I save sik mo I ded moa.

Farming hemi wan gudfala tingting, moa ating yumi long Nguna mo Pele yumi kat wan best place long Vanuatu blong testem aot tingting ia.

BE I no nid blong yumi karem aot eni Biche-de-mer fastaem bifo yumi traem mekem farming. Sapos bisnes I wantem traem farming, yumi letem olgeta, fromse yumi bae yumi save benefit sapos yumi kat moa biche-de-mer long ol rif blong yumi.

BE yumi limitem projek ia long **farming nomo**. Bae yumi no stap karem aot ol few biche-de-mer we oli stap iet long ol rif blong yumi. Leggo oli gud I stap festaem, taem we I kat plante tumas, ale bae yumi save lukuk bakagen long harvesting.

Bisness I wantem se evri velej blong yumi i karem aot 5-10kg I salem I ko long olgeta festaem bifo oli mekem eni farming long ples ia. 5-10kg biche-de-mer hemi 1600-3200 animals we hemi wantem se yumi karem aot fastaem.

Be sapos bisnes hemi brok daon, o sapos ol smol smol wan oli ded, o sapos hemi stap kiaman long yumi. Bifo hemi kam mekem farming, bae yumi save lusum 3,200 biche-de-mer long evri velej o raonabaot 51,000 animol long Nguna mo Pele. MPA I luk se hemi no wan stret tingting blong yumi folem.

Yumi sud mekem wan negotiation wetem bisnes ia:

- Bae yumi no karem aot eni BDM we oli stap naoia long rif
- Bisnes hemi welkam blong putum ol smol smol BDM long rif blong yumi
- Bae yumi lukaotem olgeta mo bae yumi no harvest bifo oli redi
- Bae yumi mekem survey afta long wan yia blong jekem ol BDM we oli putum
- Sapos oli plante bae yumi mekem harvest mo yumi salem long hem
- Bae yumi no karem eni andasaes

Sapos yumi folem agrimen ia, bambae evriwan I save kat benefit long projek. Bae yumi save kat sam moa BDM long rif blong yumi, mo bae yumi save winim mani long wan wei we bae I save last I ko long fiuja. Mo bisnes tu bae I benefit fromse bae oli save fidim ol biche-de-mer blong olgeta long of rif blong yumi mo tubae oli save kat wan gudfala product blong exportem.

Last TOK TOK

Yumi ol man blong Vanuatu, yumi mas lukaot gud ol risos blong yumi. Mo yumi mas rimemba se bisness hemi bisness. Goal blong bisnes hemi blong winim mani. Yumi mas tingting hevi long ol projek we bae oli save winim mani bae bae oli save kat bigfala efek long solwota.

Sapos yu wantem faenem aot moa long saed long Projek ia, I gud yu pikemap telefon mo yu ringim sam man we oli kat experience wetem projek ia finis:

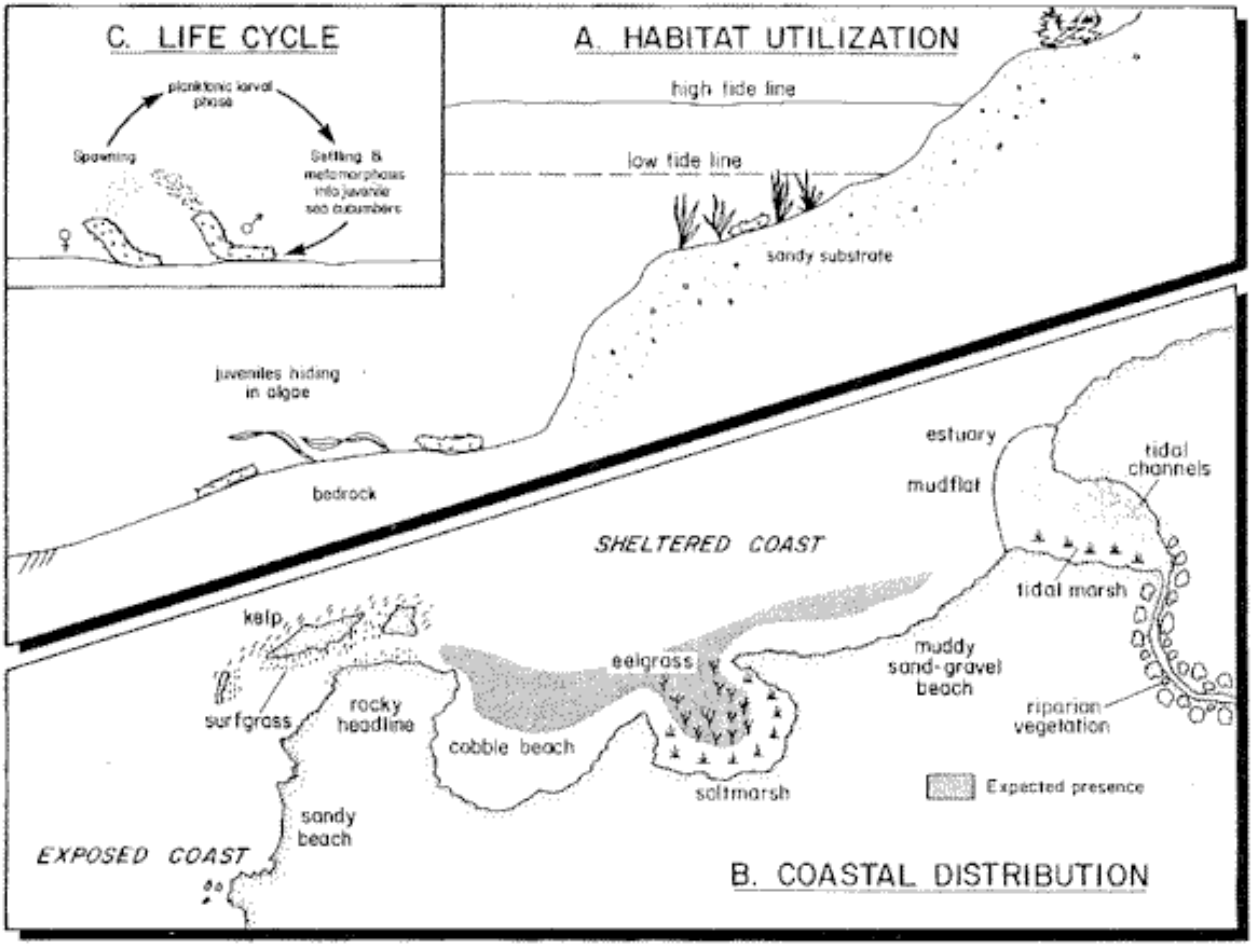
Maskylens Islands Telephone: 48908 mo 48458 (John Laket- totel monitor)
Fisheries Dipatment: 23119 (Andrew Firiam -Shefa, Robert Jimmy – research)
Environment Unit: 25302 (Ernest Bani – director)
Nguna-Pele MPA: 27976 (Kalpat Tarip – manager)

Responsibiliti

God i givim raet long evri man (Tusi tapu) blong lukaotem gus ol risos blong hem. Sapos yu tinktink strong long famili blong yu, long komuniti blong yu, long kaontri blong yu, mbae yu tingting strong long samting ia. Talem long ol lidas. Talem long ol bigfala man long komuniti. Talem aot long farea. Responsibiliti hemi blong evriwan.

Generalized life cycle of the sea cucumber: Males and females spawn in shallow water (less than 16 m) during June to August, and assume a "cobra-like" posture while releasing gametes. Fertilization occurs in water column. Larvae drift as plankton for about 7-13 weeks, then settle and develop into juvenile sea cucumbers. Juveniles are secretive, usually hiding in macroalgae holdfasts, dense mats of filamentous red algae, under rocks or in rock crevices. Adults may reach 500 mm and may live to over 8 years.

Laef Cycle



Culture of tropical sea cucumbers for the purposes of stock restoration & enhancement

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Severe over-fishing of sea cucumbers has occurred in most countries of the tropical Indo-Pacific. The release of cultured juveniles is being examined at the ICLARM Coastal Aquaculture Centre in Solomon Islands as a means of restoring and, eventually, enhancing tropical sea cucumber stocks. Sandfish (*Holothuria scabra*) are the tropical species with the most potential for stock enhancement. Sandfish are of high value, widely distributed and relatively easy to culture in simple systems at low cost. This paper summarises what is known about the culture of *H. scabra* and compares it to that of the temperate species *Stichopus japonicus.* Sandfish live in high-nutrient environments at densities of hundreds per hectare. They have reproductive peaks in September and October, but can be induced to spawn year-round. Increases in water temperature and addition of powdered algae are effective ways of inducing spawning. *Chaetoceros muelleri* and *Rhodomonas salina* are two of the better micro-algae for feeding the larvae. Sandfish larvae are more robust and easier to rear than those of other tropical species. Larvae metamorphose into juveniles after 2 weeks at 28 °C and settle on "diatom-conditioned" plates. ICLARM has produced over 200,000 juveniles from six separate spawnings. Sandfish can be reared on hard substrates until they reach 20 mm in length and are then best transferred to sand substrates. Absolute daily growth rates for juvenile sandfish averaged 0.5mm day^{-1} (± 0.03 s.e.) and ranged from 0.2 to 0.8mm day^{-1}, depending on stocking density, light intensity and addition of powdered algae. Overall, there are good reasons to believe that sandfish can be produced cost-effectively for the purposes of restocking and stock enhancement. The potential for using cultured juveniles to manage fisheries for sea cucumbers now depends on the development of strategies to optimise the survival of juveniles released into the wild, and to evaluate commercial-scale releases.