

## Ngaahi ngaue 'oku fakahoko 'e he Potungaue Toutai ke malu'i mo palani 'aki 'a e koloa mahu'inga ni :

- Ke fakapapau'i 'oku 'ikai uesia 'a e mo'ui 'a e ngaahi limu kehe 'i hono toutai'i 'o e limu tanga'u. Ke a'usia 'a e taumu'a ko 'eni kuo pau ai ke toutai'i 'a e limu 'aki e nima pe ko hono tanaki 'aki 'a e helu limu, ke 'oua 'e to e kau mai ai mo e ngaahi limu kehe, ka e pehe ki he veve kehe. Ko hono ngaue'aki 'o e leiki mo e ngaahi naunau toutai kehe 'oku tapui ia ' e he lao.
- Na'e fakahoko 'e he Potungaue Toutai ha ngaahi ako ki he kakai kotoa 'oku nau toutai limu tanga'u 'a e fiema'u ke fakatolonga 'a e limu, ka e pehe ki he ngaahi founga ke malu'i 'aki 'a e limu tanga'u ka e lava ke tu'uloa.
- 'E fakahoko 'e he Potungaue Toutai hano vakai'i fakata'u 'a e tu'unga 'oku 'i ai 'a e mafola 'a e limu he ngaahi feitu'u toutai'anga, 'i hano ngaue'aki ha ngaahi 'ata faka satelaite.



Ko e founga ta'e fakalao 'oku ngaue'aki ki hono toutai'i 'oe limu tanga'u.  
It is illegal to use a rake to harvest limu tanga'u.

## Actions by the Ministry of Fisheries to protect and manage this valuable resource:

The Ministry of Fisheries has undertaken several actions to ensure the seagrass habitat is not harmed by limu harvesting:

- Limu tanga'u must be harvested by hand, or by collectors using hand-held combs that lift the limu tanga'u from the seagrass or other substrate. Collection using rakes or any other implement that could damage the seagrass or substrate is forbidden by law.
- People who collect limu tanga'u are being educated about the need to conserve seagrass and shown how to conserve it to ensure that the harvest is sustainable.
- The distribution of seagrass in harvest areas will be monitored annually using satellite imagery.

## Ministry of Fisheries



Malu'i 'a e Limu  
Tanga'u 'i Tonga

Conserve Seaweed  
in Tonga



### Ministry of Fisheries

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**Conserving seaweed in Tonga**

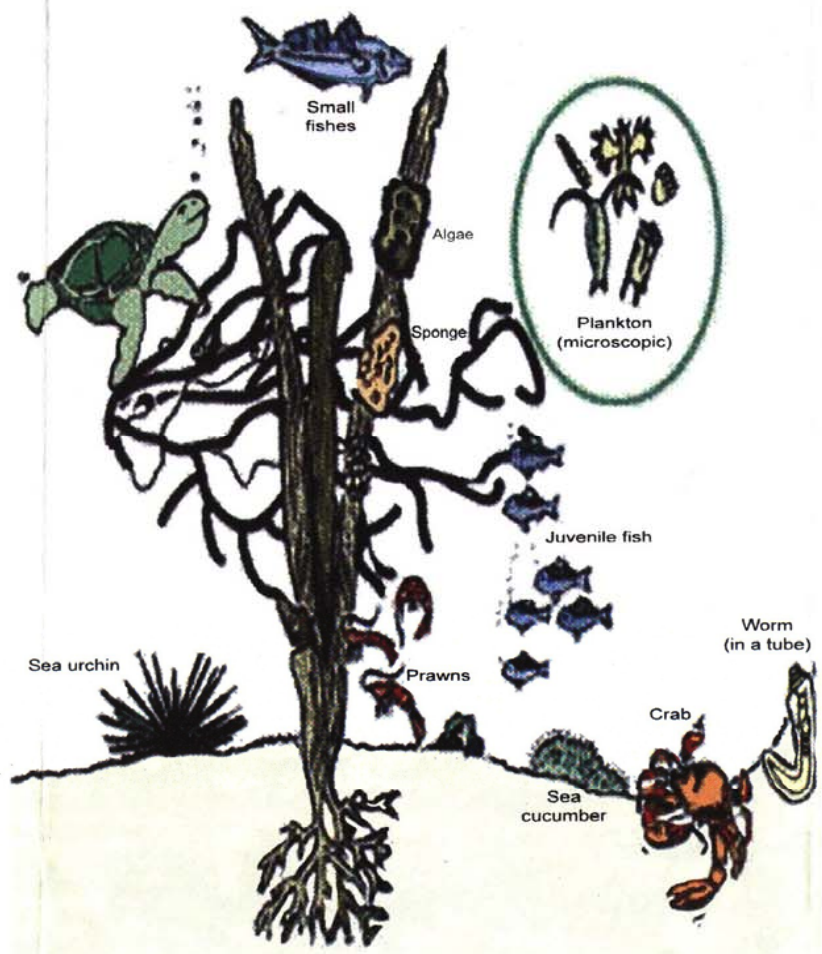
Limu tanga'u is a type of algae that grows on seagrass around Tonga. From August to December it is harvested for export to Japan and America for use in producing foods and medicines. This has provided an excellent cash crop for many Tongans. If developed correctly, limu tanga'u will continue to produce income for many years without having major impacts on the environment.

The international market requires a very high quality product, which starts with the harvesting process. If Tonga exports poor quality product it will lose this valuable market, which will mean loss of export dollars and loss of income for collectors. **A good reputation takes a long time to build up; a bad reputation lasts a long time and is hard to get rid of.** To keep this market we must produce a high quality product free of mud, sand and other weeds. When people see limu from Tonga they should think, "This will be good quality because it's from Tonga".

Seagrass beds provide an important habitat for limu (no seagrass = no limu) and other valuable sea life. Many species of fish that we like to eat lay their eggs in seagrass and spend their first years there, so it is important to protect our seagrass beds.

**How is limu collected?**

- Limu is collected by divers by hand or using a seaweed comb. This produces the best quality product because the limu can be collected without taking sand, mud or the wrong sort of weeds.
- The worst way to collect limu is to walk through the seagrass because repeatedly walking over seagrass beds destroys them.
- Using garden rakes to collect limu results in collecting a lot of unwanted material, which lowers the quality. This method also damages the seagrass.



Ko e Limu Tanga'u 'oku nau tupu 'i he limu he ngaahi feitu'u 'i Tonga ni. 'Oku toutai'i 'a e limu mei 'Akosi ki Tisema 'o hu atu ki Siapani mo 'Amelika, 'o ngaahi 'aki e me'akai mo e faito'o. Ko e ma'u 'anga pa'anga lelei ia ki he kakai, 'o kapau te tau ngaue fakapotopoto 'aki, pea te ne 'omai e pa'anga humai 'i he ngaahi ta'u lahi ka he 'ikai te ne uesia hotau 'ataakai.

'Oku fiema'u 'e he Maketi 'i Tu'apule'anga 'a e lelei taha, 'o kamata pe mei hono toutai'i mai. Ka 'ikai sai hono ngaahi 'o e limu 'e malava ke mole mei Tonga ni 'a e ngaahi Maketi mahu'inga, mole mo e pa'anga humai mei tu'apule'anga, pea pehe ki he pa'anga humai ki he kau toutai. **Ko e ongoongo lelei 'oku ngaue'i ia he taimi lahi, ka koe ongoongo kovi teke fe'ao mo ia pea 'e faingata'a ke to e fakalelei'i.** Ke tauhi ma'u 'a e maketi, kuo pau ke tauhi e tu'unga lelei 'o e limu 'o 'ikai uesia 'e he 'uli mo e ngaahi limu kehe. Ko e sio pe 'a e kakai ki he limu mei Tonga 'oku nau fakakaukau leva ki he tu'unga lelei 'oe limu 'oku 'omai mei Tonga.

Ko e feitu'u 'oku mo'ui ai 'a e ngaahi limu kehe, 'oku mahu'inga 'aupito 'ia ke tupu ai 'a e limu tanga'u. ('ikai ha limu kehe = 'ikai ha limu tanga'u) mo e ngaahi me'a mo'ui kehe 'o 'oseni. Ko e kalasi kehekehe 'o e ika 'oku tau manako ke kai 'oku nau fakato fua 'i he limu, pea 'oku nau mo'ui mei ai 'i he'enua kei iiki..Ko ia 'oku mahu'inga ke tau malu'i 'a e feitu'u 'oku mo'ui ai 'a e limu tanga'u.

**Founga hono tanaki 'oe Limu Tanga'u**

- 'Oku tanaki 'e he kau uku 'a e limu 'aki honau nima, pe ko e helu tanaki limu . 'Oku ma'u heni 'a e limu lelei taha, he 'oku 'si'isi'i ai 'a e 'one'one, kele moe fanga ki'i limu kehe.
- Ko e founga kovi taha hono toutai'i 'o e limu tanga'u ko hono toutou tamoloki 'o uesia ai honau tu'u'anga.
- Ko hono ngaue 'aki 'o e leiki ngoue 'oku ne 'omai mo e ngaahi me'a kehe 'oku 'ikai fiema'u, pea te ne ma'umau'i 'a e ngaahi mohenga limu.