

Pacific Islands

A sea of options

Sea plants offer a promising option for women in coastal communities to develop small businesses

By Irene Novaczek, a Canadian marine biologist and community development facilitator who has been working in the South Pacific since 1999.

Marine plants have been used as medicine, especially in Asian countries, for centuries. The high degree to which sea plants are used as food by Japanese people is believed to contribute to the relatively low incidence of heart disease and some cancers in that country. In 1999, while travelling around the Pacific Islands, I noted that in that region, sea plants are not used as medicine by the herbalists who provide many rural health care services. Outside of Fiji, where half a dozen species are eaten and sold in the market, there is also relatively little use of sea plants as food. Although in other parts of the world seaweeds are prized as valuable organic fertilizers for home gardens, this use is also not evident in the Pacific.

As a marine scientist with a doctorate in marine botany, I have become convinced that to ignore the value of marine plants is to miss out on many opportunities for sustainable community development. According to recent scientific findings, many diseases and conditions may be prevented or alleviated through the use of these plants. One can expect different sea plant preparations to be useful for basic home first-aid (constipation, diarrhoea, cuts and burns). There are also published studies that show that sea-plant extracts can be used as preventive medicine for heart disease, cancer, high blood pressure, obesity, diabetes and viral infections, and can strengthen the immune system generally. There is folkloric information on use of sea plant extracts for lung conditions, colds and flu, and sexual dysfunction. Some sea plant extracts have potential for prevention and/or treatment of some viral infections (dengue, HIV, herpes) and parasites (malaria). Others have been clinically proven as effective ingredients in skincare products. Finally, sea plants are a source of vitamins and minerals, especially micronutrients.

Marine plants would, therefore, appear to be a valuable resource, especially for food on atolls, where agriculture is difficult, and for preventive health care on small

islands, where access to Western medicine is limited. Small businesses based on the careful harvesting and value-added processing of marine plants is a development option that has received scant attention, yet has great potential both for domestic and export markets. There is a vibrant and expanding international market for marine plants as health food and also as ingredients in fine cosmetics and health spa treatments. Although exporting sea plant products may be uneconomic for many small Pacific Island businesses, there are clearly opportunities to provide products and services to tourists, thus “exporting” the products without having to worry about transportation costs and trade restrictions.

In 2001-2003, I worked in the Pacific region developing and delivering training workshops on the use of sea plants for food, agriculture enhancement, medicine and income generation. Village people, NGO staff and government staff were introduced to the various uses of sea plants in the course of two workshops in 2001. In 2002, three booklets were published. *Sea Plants* is an overview of how to find, harvest and use marine plants. *A Guide to the Common Edible and Medicinal Sea Plants of the Pacific Islands* provides pictures, descriptions and other information on 34 genera of tropical seaweeds. *Sea Vegetable Recipes for the Pacific Islands* includes recipes for a wide array of sweet and savoury dishes that can be used for family food or market products.

Next, a workshop was developed with the explicit aim of providing information, skills and support to selected women who might develop small businesses. Seven trainees flew in from PNG, Solomon Islands, Vanuatu, Samoa and Kiribati to work with several Fijian trainees and me at USP. Most of the trainees were traditional healers. One was a seaweed farmer and one already had a small business in herbal cosmetics. The response of these women to information on sea plants was strong and positive.

Alice Athy in Vanuatu now has a vibrant business, with natural therapy clinics in Port Vila and Santo, employing more than 10 people. Liviana Madanavatui now has a successful small business in Suva, Fiji, selling sea-plant based cosmetics, tonics and other preparations. Minnie

Bate in PNG has developed a sea-plant product line to add to her existing herbal business. Some of my trainees are still in the early stages of business development; most require follow-up assistance.

These preliminary efforts have proven that women who have the entrepreneurial spark can be effectively trained to develop or diversify small businesses using underutilized sea plant resources. The start-up capital requirements are minimal and the women report positive satisfaction with being able to produce and sell products that are beneficial to people's health. Because women are the primary fishers in shallow waters where sea plants grow, expansion of these businesses will also benefit women in rural communities who can harvest, clean and dry a range of local sea-plant resources and gain income by supplying herbalists and other female entrepreneurs.



I have found that workshops targeting women in villages, fisheries officers and NGO staff have borne fewer tangible results in terms of stimulating local economic development or improved healthcare. NGO and government field workers will not pass on information unless they have a budgeted programme that allows them to develop training programmes. Also, most people do not have the energy and ambition required to be an entrepreneur, or the gift to be a healer. However, with follow-up assistance from NGO's and government extension officers, coastal villagers could benefit from diversification of their food sources, home remedies for simple ailments, and from the use of sea plants to improve the yields from gardens.

Communities engaged in seaweed cultivation for export should also look at their options for capitalizing on this resource through local processing and use, for example, the manufacture of cosmetics, health products and agricultural aids.

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