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## **“Go Local” Efforts in the Federated States of Micronesia to Conserve Biodiversity and Improve Health**

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The Federated States of Micronesia, comprised of four states, Pohnpei, Chuuk, Yap, and Kosrae, has experienced drastic lifestyle changes since the 1970s. A neglect of traditional local foods and the shift to rice and imported processed foods has led to an epidemic of health problems, including micronutrient deficiencies and non-communicable diseases (e. g. diabetes, heart disease, and cancer) and increasing concern over loss of traditional varieties and biodiversity. In 1998 efforts were initiated to analyze varieties of the traditional crops of Pohnpei in order to identify foods that might help alleviate the serious vitamin A deficiency problem. This led to the surprising discovery of a yellow/orange-fleshed carotenoid-rich banana variety, *Karat* containing 2230 µg/100 g of the provitamin A carotenoid beta-carotene, over 100 times more than in common white-fleshed banana varieties. There is a striking diversity of plants and food crops in Micronesia; in Pohnpei alone there are over 130 breadfruit and 50 banana varieties. Following the work on *Karat*, a systematic study was initiated of crop varieties throughout Micronesia, focusing on yellow- and orange-fleshed varieties of banana, giant swamp taro, breadfruit and pandanus, and many carotenoid-rich varieties of these were identified. Up to 8508 µg/100 g beta-carotene was found in one orange-fleshed banana variety and 4486 µg/100 g of beta-carotene in one giant swamp taro variety. Rich content of vitamins and minerals were also found. As part of a global health study led by the Centre for Indigenous Peoples' Nutrition and Environment, Pohnpei's traditional food system was documented. A community, inter-agency, participatory project was implemented focused on raising awareness on island food production and consumption. Messages were shared on horticulture, cooking, food processing and conservation through mass media, posters, print materials, photography, postal stamps, workshops, youth clubs, farmers' fairs, competitions, email and slogans: “Go Yellow” and “Let's Go Local”. At the close of this two-year intervention, banana and taro consumption increased as did the number of the varieties consumed. Carotenoid-rich banana varieties not previously marketed such as *Karat*, *Utin lap* and *Daiwang*, became popular. Foods ready for consumption using local banana and taro appeared in the markets where these had not been sold previously. The awareness campaign stimulated great interest in Pohnpei and throughout the region. It was proclaimed as an awareness success, stimulating interest as well to applying this approach to other Pacific Islands.

Key words: local food, provitamin A carotenoid, vitamin, mineral, food composition, inter-agency, participatory, community