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NAMU ATOLL REVISITED: A FOLLOW-UP STUDY OF 25 YEARS OF RESOURCE USE

BY

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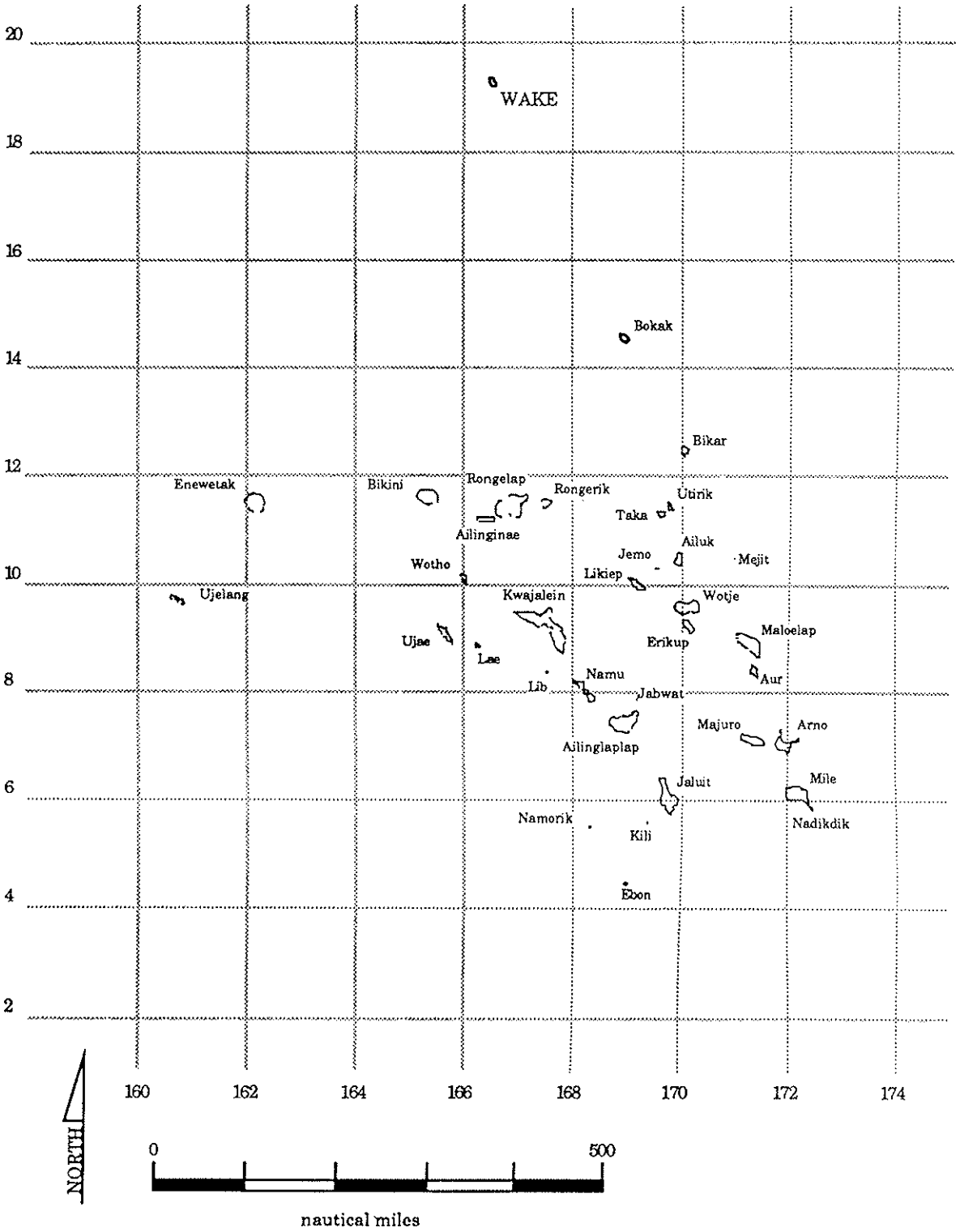

The Marshall Islands

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ABSTRACT

Reliance on local resources for food remains even though the population of Namu has doubled in size. Breadfruit, pandanus and fish are still the main subsistence foods on an atoll in the northern Marshalls. A restudy of household food uses 25 years after the original study revealed few changes in the supply, but dependency on those foods had doubled, thereby increasing the risks from both natural and market failures. Marshall Islands government support will be necessary to maintain such a population on their home atoll.

INTRODUCTION

Atolls are ever-changing environments. Nature changes them with all her complex interactions. Human activity also brings many additional changes. This paper documents the impact of human lifestyle over 25 years on one islet of an atoll in the Northern Marshal Islands. It aims to add to the work of a number of scientists who have studied the Northern Marshal Islands over a forty year period. The paper is a vote of thanks to Dr. Ray Fosberg whose work contributed greatly to my attempts to understand the interaction between people and their island environment, particularly their food resources.

Data on food resources were gathered over a period of fifteen months spent on Namu Atoll in 1968 and 1969 with the aim of understanding the interrelationships between food use and social organization (Pollock 1970; 1992). Similar data have been the subject of a year long study during 1992-3 in the Marshal Islands, that enabled me to pay two return trips to Namu for a week each, one in November 1992 and another in August 1993. Most of my work has concentrated on one islet, Majkin on the eastern side of the atoll.

Namu lies in Ralik or the western chain of the Marshal Islands, some 25 miles southwest of the large atoll of Kwajalein. The lights of Kwajalein can be seen from the northern shores of Namu Namu islet, the northernmost piece of land in Namu Atoll. There are some 56 islets in Namu Atoll, only three of which are regularly inhabited. Namu Namu was the first settled, according to local legend then Majkin to the eastern side, and finally Mae-Leuen in the south. The latter is two islets joined together by a sand bar that formed after a Japanese ship wrecked on the reef during World War II. The whole of Namu Atoll stretches over some 25 miles from north to south, and is 15 miles at its widest point.

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Rainfall amounts to some 80" - 120" p.a., so that Namu lies near the northern limit of adequate moisture for breadfruit trees to flourish. Today they dominate the upper canopy, as seen from the air, with a few old Lukwej (*Calophyllum inophyllum*) trees reaching similar heights. The coconut trees are tall too, but are becoming spindly, as many are now 50 and 60 years old. The atoll has been hit by several cyclones in recent years, the latest in December 1992 caused considerable damage to the vegetation; FEMA aid was provided to the people of Namu.

Each islet is divided by the Marshallese into three use zones, lik or oceanside, eolap or middle of the island, and iar, or lagoonside. These three zones refer to particular kinds of vegetational zones as determined by human activity. These activities have resulted in differential soil fertility. The usage of these zones is determined in part by the orientation of the piece of land to wind and waves. In addition each islet is divided into two parts, jittoen and jittoken, terms that originally referred to the ways a canoe could head.

The lik side of Majkin is exposed to the prevailing northeast wind and thus is battered by salt spray, even though there is a wide protecting reef. Hence only salt tolerant strand vegetation such as *Scaevola* or *Morinda citrifolia* (nin) grow here. This side of the islet is mainly used by adults for defecation on the reef; that usage places taboos on visiting the area for other reasons. Eolap, or the middle of the island is quite a small area at either extremity of Majkin, but in the centre of the atoll this area can cover a quarter of a mile. Here the greatest proportion of the coconut trees have been planted, and pits excavated to grow the form of taro best suited to atolls, namely iarej, *Cyrtosperma chamissonis*. Pandanus trees in a number of varieties, have also been planted on the lagoon side of this area mainly for use of the leaves in making handicrafts.

Lar, or the lagoon side of the island, is the most heavily used part of the atoll. Residences, the road and useful trees are concentrated here. The main reason is that this area gives best access to the fresh water lens accessed by means of wells. This fresh water supply is also tapped by the breadfruit trees which have been planted around the residence areas both to give shade and to provide fruit and leaves. Residential areas are readily distinguishable by the white coral which is gathered from the lagoon shore to spread around the house sites to keep them clean and improve drainage. The lagoon shore is also the landing site for any visiting ships, whether sailing canoes, one man dug-out canoes, faster launches with outboard engines, or occasional deep water field trip ships.

Landholdings reflect the tripartite use of the land. Each landholding or weto, extends from oceanside to lagoonside in more or less straight lines. This means that the landholders can make best use of the various parts of the land. Each weto is named and is controlled by a particular matrilineage. Members of that matrilineage have the rights to live there and to make copra on that land and to plant new vegetation. There are fourteen named weto on Majkin, each running across the island; they vary in width, some being very wide. The two weto at either end of the islet are not as productive as those in the middle of the islet because of limited access to fresh water.

The core social group that shares a residence weto on Namu is two or more sisters and their descendants, together with their nuclear families. That group forms one household. They may have several sleeping houses, but they share a common cookhouse where two or three women

of the group cook for everyone. Households on Majkin vary in size from 12 to 75 people, even getting as large as 110 when special events, such as a church conference, are held on this islet.

Chief decision maker for a weto , known throughout the Marshal Islands as the alab, is usually the oldest brother of the lineage. He may not be resident in the particular household he controls but is usually resident on the islet at another weto. He manages all affairs connected with the plot of land, including planting new crops and digging wells and erecting new structures. He thus is an important influence on the productivity of a weto. In 1968 when the whole islet was short of food and one weto group had none at all, a comment was made that their alab in times past had not planted well for their lineage, and thus he was to blame for their plight.

The main starch food sources on Namu are breadfruit and pandanus, with some arrowroot. These are eaten with some fish or shellfish or coconut as an accompaniment (jalele). Rice is heavily used, being purchased from field-trip ships with money earned from the sale of copra. Some flour is also purchased to make a type of loaf, or dumplings. The pattern of food use has not changed drastically over the twenty five year period as discussed below, even though the population of the atoll has doubled. It has just become more dependent on rice to balance the supply when there is little or no breadfruit or pandanus.

Breadfruit

Breadfruit trees dominate the house sites. These are mainly the seedless variety *(Artocarpus altilis)* of the Bitaakdak, Bukdol/Bukarel varieties, though seeded varieties (*Artocarpus mariennensis*) such as Mejwaan are also planted. A house by house assessment of breadfruit trees on Majkin in July 1993 revealed an average of 6 trees per house, with one house having 27 trees and another only 4. Most of the breadfruit trees were 60 to 70 feet tall and had a base trunk circumference of between 8 and 12 feet. They grow around the residence site with at least one being fairly central to provide shade. A few smaller trees have been planted more recently by taking a cutting from the root of an old tree. These young plants are carefully nurtured until they can stand alone.

People on Majkin cannot remember when particular trees were planted, but judging by the similarity in size of the largest trees, there must have been a concerted effort to propagate new trees in the 1930s to 1950s, but after that few new trees were planted until the late 1980s. As result food resources will be severely curtailed when those older trees pass the peak of their bearing lifespan. In 1993 most of them were bearing heavily.

Breadfruit trees are so valuable as a food source for the whole residence group on one weto that one is cut down only out of extreme necessity. Indeed the Marshallese term for breadfruit, ma, is also the generic Marshallese name for a plant, indicating that breadfruit has prime status in their categorization of plants. In former times a tree might be cut down if a canoe was sought by the paramount chief for a particular reason.

The green, globular fruit of the seedless variety is round like a boy's head, as Dampier (1616) described it, and weighs on average 3 to 5 lbs. On Namu, a breadfruit tree will produce fruit three times a year in a good season, that is, one without drought or cyclones. The main season is May through August when the greatest number and largest fruit are produced. Two secondary

seasons of fewer and smaller fruit do occur in October/November and January/February. The ten or so different varieties mature at slightly different times, thereby lengthening the breadfruit season.

The fruit of the seeded variety, Mejwaan, is very different from the seedless variety. It is of irregular shape and weighs about 2 or 3 pounds. One crop matures in late April and May, and may have a small second season. Both the pulp and the seeds are eaten. The flesh has a slightly more tangy flavour than that of the seedless breadfruit (NJP Namu fieldnotes 1968) (For a full discussion of breadfruit varieties throughout the Pacific, see Ragone 1987).

Namu people cook the seedless variety in a number of ways. The most common way is to roast the whole fruit in the coals and then scrape off all the charcoal before serving (kwonjen). Breadfruit may also be boiled and coconut cream added at the end to make a dish called bwilitudek, or baked in the earth oven as a whole fruit to which coconut cream has been added in the centre(beljij). Another five ways of cooking breadfruit were recorded during the 1993 season.

At the end of the season, particularly the main season, the ripe fruit are picked just before they are ready to fall in order to make them into fermented breadfruit paste (bwiro). The process involves all the families associated with a household, even those living elsewhere but strongly attached such as a brother or sister; even 8 or 9 year olds and those in their 70s help in the peeling stage. The fruit is first peeled, then quartered, and placed in sacks to be soaked in the lagoon for several hours. Then it is left for two nights resting in a tree to drain and begin the fermentation process. Once fermentation has commenced and the fruit has become mushy, four or five sacksful are tipped into one pit. These pits are made by excavating a hollow in the sand and lining it with old breadfruit leaves; each pit is then covered with old breadfruit leaves and weighted down with several coral slabs. These storage pits are usually placed near the cookhouse. The paste stays there fermenting for a month or more before it is ready to be processed for eating.

Each household on Majkin was very active making bwiro in early August 1993. Some families had filled five or six pits already and expected to add still more. The people were rejoicing because the season had been so good. By October and November they will begin to use the fermented paste for their daily food supply, and also send some of the loaves baked from the paste away to their relatives in Kwajalein.

On other atolls in the Marshal Islands, however, breadfruit is being allowed to fall and rot and is not being made into bwiro. Laura, at the western end of Majuro Atoll, is one such islet that has a multitude of breadfruit trees and yet the fruit are being wasted. There are two possible reasons; firstly the people prefer store food because it is quicker to prepare, and secondly money is more readily available as many households have one or two persons working for wages at the other end of the atoll. The Ministry of Resources and Development has therefore accepted external aid money to build a factory in Laura to make breadfruit chips. These will be made from the fruit at the height of the season, those people owning several trees selling the fruit to the factory. The chips will be marketed like potato chips in small packets as a snack food. Such projects have been successful in Western Samoa and other parts of the Pacific. The project will

thus utilize a resource that is being wasted at the moment, and also produce something locally as a substitute for an imported product. The managers of the project aim to extend utilization of the plant for the same chipping process with other crops such as iarej and bananas; these snack foods will be sold locally and exported.

Besides its fruit, the breadfruit tree has several other uses. Its leaves, both green and brown are used extensively for wrapping food to be placed in the earth oven, and to cover the earth oven before earth is piled on top. The leaves can be used as an instant plate, and to cover food left in a container. The sap of the breadfruit tree is a well known form of glue used in calking canoes and in handicrafts. The trunk was formerly the most favoured wood from which to make a dugout paddling canoe (korkor) or to make planks for the larger sailing canoe (tibnil). Few trees have been cut down recently, however, fishermen preferring to cannibalize old canoes to patch up one that is broken. Dead wood from breadfruit and other trees contributes to the fuel supply. The detritus including leaves forms valuable mulch on land that has very little humus.

Pandanus

The pandanus tree (bob) is much smaller than the breadfruit, standing only some ten or fifteen feet high at the most. Its distinctive feature is its prop roots which in an old tree may be three or four feet long. Two distinct varietal groups have been propagated over time to meet local needs on an atoll such as Namu, one for the production of fruit, and one that produces the best leaves for making handicrafts. The two uses mean that new varieties are selected on the basis of their appropriate qualities. Many varieties are named by local people, and their attributes clearly distinguished. In 1968 I recorded 24 different varieties growing on Majkin; in 1993 I was told that double that number now exist, though I did not record the names.

Pandanus fruit are large and globular. They weigh some 20 to 35 lbs. Each fruit consists of some 50 or 60 drupes that are attached to a central stem. Each drupe has a hard generally green exterior and a fibrous `brush' interior surrounded by an orange pulp when ripe. The fruit bearing qualities of the pandanus have been carefully selected for by atoll populations across the Pacific; for other Pacific societies the pandanus is considered rubbish food. The plant is grown by vegetative propagation using a slip from one of the prop roots. The fruits seldom contain seeds, and if they do, the resulting plant will not be fruit-bearing.

The pandanus season on Namu begins in August or September and lasts through to December. The fruits are eaten when ripe by breaking off a drupe from the central stem and rubbing the fibres between the teeth. Other varieties may be cooked to soften the fibres. The process of eating pandanus resembles sucking on a shaving brush. Since the edible part is so fibrous, the eater ends up with many strings between the teeth. The paste is high in vitamin A and thus is a valuable addition to the diet.

Pandanus is not considered a main source of food by the Marshallese, though it is eaten extensively in season. Rather it is used as a snack by both adults and children alike. Formerly the pulp was extracted from the fibres by pressing them against a v-shaped object made of shell, wood or (today) metal. This juice was then boiled until it thickened, and the paste set out on mats to dry in the sun for three or four days. This dried product was rolled and tied to form a

product known as mokwan; it was carried by sailors as it did not deteriorate in its leathery form. Such preservation is seldom carried out today as it is time consuming and there are more convenient imported foods.

An alternative recipe was to add arrowroot starch to the boiled pandanus paste, plus some coconut cream to yield a food known as peru. This was considered a delicacy and so was only made on special occasions, or as a gift for the paramount chief. It required a lot of time to prepare. It did not keep, so was not a form of preservation. Today it is made only very occasionally.

A second major use of the pandanus tree is in the manufacture of handicrafts (amimono). The green leaves are cut, dried and processed into strips which can be woven into sleeping mats, or smaller objects, or are boiled to produce a very fine white fibre for special basketry. Alternatively the dried leaves, once the spine is removed, may be processed into coarser mats, or into thatch.

Handicrafts have become such a mainstay of the economy that considerable effort has gone into finding the right plant for the particular product desired. This trade has led to a diversification in the species of pandanus grown.

Fishing

Fish are the third major resource which is heavily utilized on Namu. Fish are considered a highly desirable complement to the starch portion of the daily meal, but on Majkin they are are a luxury. They are not easily caught, and with a large population to be fed there are never enough to satisfy everyone. In part this shortage is due to difficult access across the reef on the oceanside of the islet, and in part to the shortage of fish on the lagoon side. Whether the latter is due to over-fishing, or some ecological anomaly is not clear.

Every household aims to have some fish for the Saturday evening meal. So those men who have access to some form of boat, whether one-man dug-out or a launch with an outboard motor, spend the day fishing in the hopes of providing a decent supply for everyone in the household to have a small portion on Saturday night, and hopefully some left over for Sunday. But they are not always successful, so that fish is available for only about half the weekends of the year (Pollock fieldnotes 1968.).

The greatest amounts are caught by those who use the launch to go farther out into the lagoon, or even out the pass on the other side. But that requires gas, and gas is a scarce commodity. It can only be purchased from fieldtrip ships, and then only five or six drums at a time. So frequent trips across the lagoon are not possible and men tend to fish close to the lagoon shore. Even the good fishermen will tell you they can sit there for hours and catch only four or five fish. But when the launch goes out they will catch some 30 or 40 lbs of fish. The people of Majkin would like to have a more regular supply of fish.

A new fisheries facility (built by MlMRA) has just been completed in the centre of Majkin islet right on the lagoon shore. It consists of storage facilities, a fresh water tank, two large launches, and a tractor for launching them. This is one of three such facilities already built in the MarshalIs with aid money to assist the people to become more self sufficient in fish. The aim

is to provide the facilities for catching fish for their own needs, and also to catch fish to sell to Ebeye, the urban concentration on Kwajalein. In August 1993 the project was awaiting the appointment of a director to begin operations.

It will be interesting to see how successful this operation is, given the ongoing difficulties of catching fish on Majkin. In contrast, Namu Namu islet to the north of the atoll has a plentiful supply of fish as they can use both the ocean side as well as the lagoon side of their islet. On the ocean-side they catch flying fish (jojo) in season. Thus it is surprising that MIMRA (Marshall Islands Marine Resources Association) did not see fit to build the new fisheries project plant at Namu Namu. Time will tell.

Continuities and Changes

These basic resources have remained unchanged. What has changed is the demands upon these resources. The population of Majkin islet has doubled to about 440 people from 200 in 1968. People move constantly between the three islets of the atoll, and also out beyond the atoll, so it is difficult to give an exact figure at any one time. The household survey we conducted in late October 1992 yielded a total of 517 people, but a similar survey in August 1993 yielded a total of only 347. The reason for the large number in 1992 was that many people had travelled from Namu Namu and Mae-Leuen, and some from Ebeye to take part in a church conference on Majkin. In addition, the numbers in August 1993 were down by about 50 people who were away at another church conference in Majuro during July 1993. So the demands of the population on the resources do fluctuate quite considerably. Tree crops and fish are admirably suited to such irregular demands.

Copra is still the main source of cash as it was in 1968. The price of copra as paid to the producer has fluctuated considerably over the years; it was so abysmally low in 1968 at 2 cents per pound that Namu people (along with other Marshallese) were seriously questioning whether it was worth the effort. But without copra money they could not buy rice, flour, tea and sugar, so it was better than nothing. In 1990 the Marshallese government agreed to support the price of copra at 15 cents per pound in an effort to draw people away from the urban areas where there was little likelihood of their finding jobs, and back to their home atolls where they could participate in a more subsistence oriented economy. Namu people living in Majuro in July 1993 agreed that life on their home atoll was better than living in Majuro "because you don't have to buy food there". For younger people that is not so much a concern as it is for older people with families.

Another concern is that many of the copra trees on Majkin are old and approaching the end of their productivity. Unless they are replaced soon there will be a severe shortage of cash for families to buy the necessary foodstuffs to balance out the times when little or no local foods are available. Even the Copra Support scheme will be of little use in keeping people on their home atolls unless the coconut trees are producing enough nuts to be sold to bring in sufficient cash to feed the increasing population.

Breadfruit trees produce enough fresh fruit to feed the population of Majkin through three or four months of the year, if eaten at only one meal a day, and supplemented by rice. The

fermented paste, bwiro, extends the subsistence base by approximately one month to six weeks, if eaten only once a day, and if only moderate amounts are given away or sold on Ebeye. As the number of mouths to be fed increases so these time frames are correspondingly reduced. If breadfruit is severely hit by cyclone, drought or disease, then this subsistence base is hard pressed. During 1993 the trees appeared to provide a strong subsistence base. But in another year the picture may be less rosy. Coconuts are thus crucial as the intermediary between subsistence and cash food sources. They must be renewed if the population is to continue to maintain at least a measure of subsistence.

New foods have been added to the inventory since 1968. Pumpkins now are grown successfully by almost every household and used as an additive to rice, thereby enhancing its nutritive value. Bananas too have been planted on the borderline between the eolap and iar areas of each weto. They are eaten as a nutritious snack, in their ripe form. The green banana, widely used elsewhere in the Pacific is not a familiar source of starch to Marshallese and thus may not be acceptable, whereas the yellow bananas are. They bring in much desired cash when sold by the stem on Ebeye.

The planting of taro (iarej) has been encouraged by the Ministry of Resources and Development in Majuro as an additional starch source. But even though it was growing well on several weto on Namu, it was not included in the daily diet during 1993. This was partly because the taste was not wholly acceptable, and partly because it was used formerly as a feast food only, and not for everyday use. Another drawback was that it takes time, and considerable fuel to cook. So plants regenerate but are seldom used. However its use may increase with time.

Fuelwood is an increasing problem. At times throughout 1968 fuel for the cooking fires was in short supply. The people rely mainly on coconut husks for cooking the large pots of rice, or for roasting the kwonjen form of breadfruit. Such fires are lit at least once a day. As the coconut trees get older and the number of nuts produced diminishes, so too will the amount of fuel for cooking fires diminish. Renewal of the coconut trees, plus some attempts to identify suitable fuelwood trees are two urgent aspects of the subsistence support plan.

The alternative cooking fuel is a kerosene stove. Eleven of the fourteen households had these in 1993, whereas only four households had them in 1968. This indicates a greater reliance on kerosene, and thus on cash, for small cooking jobs such as boiling water in a kettle or frying pancakes. Otherwise the open fire, or the earth oven are used. The kerosene stove is a measure of a modern lifestyle, as relatives living in Majuro or Ebeye tend to cook on these.

Communication systems have also proliferated. Today every household has one or more transistor radio, whereas in 1968 only one or two were operating at any one time on the whole islet, due to shortage of batteries, and/or the radio being broken. As the radio was the only source of information about field trip ships, it had a major impact on the economy. People relied on field trip ship itineraries to know when one was coming to Namu so they could make copra. If they made it too long before the ship arrived, the copra dried out too much and so they lost money. If they did not have enough time to make copra before the ship arrived they also lost money.

In addition to the transistor radio, four c.b. aerials are conspicuous additions to the household

sites. These are used mainly to talk to friends and relatives in Ebeye and to arrange visits of people and goods. One of them belongs to Air Marshalls and is used for receiving and sending information about air traffic.

A weekly air service linking Majkin, Namu to Majuro and Kwajalein, the two urban centres of the Marshalls, is another major innovation in the communication system. Land on the ocean side of three weto in the northern part of the islet has been cleared to create a coral runway as a landing strip. The Air Marshalls 18 seater Dornier lands twice in the same day, once on its way from Majuro to Namu and then to Ebeye, and once on its return from Ebeye to Majuro via Namu. Passengers and freight travel regularly, the most heavy traffic being that between Namu and Ebeye. An additional airstrip exists on Mae-Leuen at the southernmost tip of Namu Atoll.

Majkin people are using the air service as a means of supplying the market for island produce in the urban centre of Ebeye on Kwajalein Atoll. Boxes of kwonjen, whole pandanus fruits, and boxes of bwiro, and fish if available, were sent on the plane to Ebeye, either to relatives, or to be sold. This use of the plane as a means of marketing subsistence produce provides small but welcome returns to families who have few other alternative sources of cash.

Conclusions

The plant and fish resources of Majkin islet, Namu atoll have continued to be heavily used over the past twenty five years. The diversity of species, particularly of pandanus, has been increased to meet specific needs of the handicraft industry, and attempts are being made to increase the amount of local fish available.

Local resources thus directly provide about 40 per cent of the total local needs today. Copra, and the cash earned from it indirectly provide another 40 per cent, the cash being spent to buy the same four basic items as in 1968, rice, flour, tea and sugar. Thus local resources are under greater pressure today as demands increase. And there are high risks of failure. The balance of the needs are met by other means, such as support by relatives working in urban centres, wage labour jobs (though these are still extremely limited) and community support.

The proportion of foodstuffs used locally has remained about the same as that in 1968. But the possibilities for selling local produce are entirely new, due to new communication systems, such as c.b. and the airstrip. The pressure on locally produced goods is thus much greater. Two major differences influence this pattern. Firstly the population of the islet has doubled. It still maintains its movement patterns from islet to islet and beyond the atoll, so numbers are not constant; however there are at least twice as many mouths to be fed as in 1968. Secondly the increased demand for cash has impacted on species other than the coconut for copra. Today breadfruit, both uncooked and cooked, and its cooked fermented paste as well as pandanus fruits are highly marketable items among the urban populations. Namu people tend to sell more to Ebeye because Kwajalein atoll is much closer and communications are better. Some of the goods are sent by air freight, while other goods are sent in a launch with outboard motor. The cash realized enables them to buy more rice.

Copra remains as the main source of cash income, but as the trees decline in productivity, and alternative sources of cash become available, its overall contribution to the economy is

declining. There is an urgent need to replace the vast number of older coconut trees, if local subsistence levels are to be maintained. The population of Majkin "manages" to get by with their current lifestyle, but would like to have more. Unless rapid and severe measures of population control are introduced, that lifestyle will not be maintained as there are more mouths to be fed and educated. More young breadfruit trees also need to be planted as they are slow growing and will be needed in the future.

The plant resources of Majkin are currently at the interface between subsistence and a cash economy. More varieties of the same tree crops could be planted, and the coconut trees should be renewed. These actions would enable the current pattern of about 35 per cent of the food needs to be met directly from local resources. The other 65 per cent will continue to come from cash, earned partly from copra, and partly from handicrafts and food sales. By extending plantings of pandanus and breadfruit further into the middle zone of each weto yields could be increased. By renewing coconut trees more cash would be available. But so would the risks of both natural and market disasters.

So whereas local produce in the l960s was used only for local needs, today that produce is committed both to local needs and to sales outside the atoll. And with such a rapid increase in the number of mouths to feed, the atoll is running out of options based on local resources. The people of Majkin are becoming more and more dependent on outside sources of food, but with a diminishing supply of cash as copra returns decrease. Highly polished rice is not as nutritious as breadfruit and pandanus, and it costs money, though it is very popular with the Majkin people.

The people of Majkin face a bleak future. The Marshall Islands government wants to encourage people to stay on their home islands, and thus reduce the urban pressure. But the resources on an outer island such as Namu cannot support any further population increase. The limit has been reached between supply and demand for food. Urgent attention is needed by the central government to replace coconut trees, increase the increase the number of breadfruit trees, and to introduce an acceptable means of restricting population size. Otherwise outer island living will no longer be the idyllic option.

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