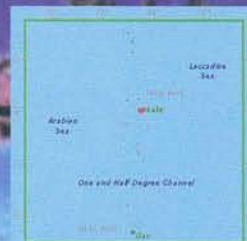




## FACT SHEET: THE MALDIVES

# Women in Agriculture, Environment and Rural Production



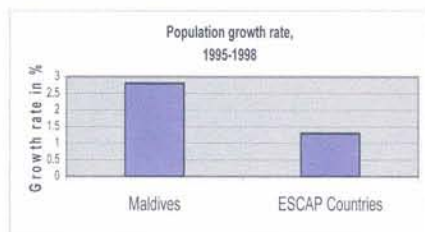
### KEY FACTS

- The Population of the Maldives is 48.8% female. At 2.8%, the population growth rate is one of the highest in the region.
- The literacy rate is 98% for both females and males.
- Women's rate of participation in the labour force is 27%.
- Manufacturing accounts for 50% of women's employment on the atolls.
- 5% of the labour force works in agriculture. Women participate in all aspects of agricultural production and cultivate commercial horticultural crops.
- Women combine collection of fuel and other forest materials with their farm and home production activities.
- Increased commercial fishing has reduced the quantity of fish available to women for drying, making fish soup and fish paste.
- Women operate small income-generating ventures and manage households, home gardens and small agricultural plots.
- Women dominate all activities related to home gardens.
- There are no substantial gender disparities in education or in basic human capacities, according to the latest ratings in the Human Development Index.

### GENERAL PROFILE

#### Population

The population of the Republic of Maldives was 282 000 persons in 1998 (FAO, SIDS 1999) of which 48.8 percent were women (ESCAP 1999). At 2.8 percent in 1995-1998, the Maldives has one of the highest population growth rates among developing countries in the Asia-Pacific region. The population is young: almost half of the population is under 15 years; 52.5 percent is in the working age group (15-64 years) and just 3.5 percent is 65 years or older. Life expectancy for both men and women is 70 years (ADB 2001). The sex ratio is 105 men per 100 women (Fifth National Development Plan, Government of the Maldives). Total population is projected to reach 373 000 by 2010 (ESCAP/WID 1999).



Source: ESCAP/WID 1999

Of the approximately 1200 islands in the Maldivian archipelago, only 198 are inhabited. Five islands are industrial and 72 have been developed as tourist resorts. Over 26 percent of the population lives in the capital, Malé (1995 Census). Outside the capital, the population distribution among the twenty administrative atolls is relatively uniform, varying from less than one percent to more than seven percent of the country's total population. There is concern that disparities in population distribution between Malé and the atolls, attributable to slower growth in agriculture and fishery as compared to other sectors, are increasing. This trend has been described as a 'backwash effect' whereby Malé and the resort and industrial islands act as centres of growth, while the remaining islands act as the hinterland (ILO/ARTEP 1993).

#### Education

The education system consists of seven years of basic education, three years of lower secondary (ordinary level) and two years of higher secondary education (advanced level). The Maldives increased enrolment by 263 percent between 1977 and 1995, from 24 203 to 87 878 students. The 1995 rate of enrolment was 100 percent, while the dropout rate was only seven percent. There are no gender disparities in education at any level (Haq and Haq 1998). On the atolls, students are 'forced out' of education owing to the complete lack of higher education opportunities. Although a few vocational training institutes exist at the post-secondary level, students seeking tertiary education must go abroad. The government provides overseas training for its employees. In 1992, the gross enrolment ratio for females was 132 compared to 136 for males (ESCAP 1999). As of 1998, the adult literacy rate was 98 percent for both females and males (ADB 2001).

#### Labour

In the 1995 census, the economically active population was 66 887 persons, an increase of 3.1 percent per year since 1990. In the same period, the number of foreign nationals grew at an annual rate of 16.5 percent to reach 18 510. Foreign nationals comprised 21.7 percent of the total workforce in 1995. In 1998, the total rate of participation among nationals in the workforce was 49.5 percent. The participation rate was 72 percent for men and women's rate of participation was just 27 percent.

Recent shifts in the economy, characterized by a move away from primary industry towards tertiary industry, have affected employment for both men and women. The drop in the primary sector's contribution to gross domestic product (GDP) has been reflected by a fall in the employment share of fishing, agriculture, forestry and quarrying, and a reduction in the share of agricultural and fishery workers in the employed labour force. In contrast, the increase in the tertiary

sector's share of GDP has been mirrored in increased employment in wholesaling and retailing, hotels and restaurants, as well as finance, insurance and business.

Employment lost by men on the atolls in one sector has usually been gained in another. In contrast, the number of employed women on the atolls declined from 9 010 in 1985 to 7 851 in 1990. The marked decline in female employment in manufacturing is primarily due to a decline in local demand for handicraft products resulting from changes in consumer tastes and the use of substitute synthetic materials. With the progressive mechanization of the fishing industry and a shift in the external demand for dried and salted fish, women's employment in fish-processing industries has declined sharply. On the atolls, women's share of the economically active population fell in 1990, before increasing again in 1995. In 1995, two sectors dominated employment on the atolls:

- manufacturing, which accounted for up to 50 percent of female employment; and
- fishing, which represented 34 percent of male employment.

The 1999 **Human Development Index (HDI)** rank for the Maldives was 84 out of 173 countries, indicating medium human development, defined by medium life expectancy at birth, high educational attainment and medium levels of income. The **Gender-Related Development Index (GDI)** rank was 68 out of 173 countries, indicating that the Maldives has built basic human capacities for both women and men without substantial gender disparities (UNDP 2002).

### AGRICULTURE

Land-use patterns on the inhabited islands are mapped by the respective island committees. Some areas are designated for agricultural production, others for the production of timber or fuelwood. Land use can be divided into three categories: house plots used by individuals, community land and government land.

Maldivian law prohibits ownership of agricultural land. Thus, land designated by the island committee for agricultural purposes can be used by all the residents of the island. Since agriculture is practised for subsistence, plots are small in size, ranging from 100 m<sup>2</sup> to 500 m<sup>2</sup>. Land is sufficient on the atolls so that inhabitants can abandon plots after two to four years and select new ones. Given that agricultural

land is not individually owned, communities are not normally interested in enhancing or conserving land productivity.

Traditional farming systems are based on shifting agriculture, poly-cultural home gardens, agroforestry and taro pits. A large range of crops are cultivated, including cereals, vegetables, fruit, tubers and plantation crops. Coconut is an important commercial crop. Coconut products are integral to the diet and coconut timber is used widely for boat-building and construction purposes. Coconut palms are grown in home gardens, on community and government land and on uninhabited islands.

### Crop production

Women participate in all aspects of agricultural production, from selection of land and crop to harvesting. In general practise, chillies were planted for commercial sale and other crops were grown for home consumption. Women also practise horticulture for commercial purposes.

### Forestry

Most timber species preferred by Maldivians are becoming increasingly scarce. The bulk of timber required for *dhoni* (boats) and house construction is now imported. Under the government's "Million Tree Programme", the Ministry of Fisheries and Agriculture is engaged in a national plantation effort and in the distribution of various tree species with food and timber value. The ministry also encourages the planting of casuarinas as windbreaks or shelter-belts to protect plants from the damaging effects of sea spray and to provide firewood. The ministry also promotes the planting of bamboo seedlings to provide poles for pole-and-line fishing.

Since spheres of work are gender specific, knowledge and skills related to particular activities can also be defined along gender lines. Both men and women possess knowledge about the land-based natural resources, though their ability or skill to extract these resources varies (for example, only men harvest coconuts).

Women use the interwoven ecosystems of forests, farms, home gardens and livestock production in a balanced manner. Women's collection of fuel and other forest materials, coupled with their farm and home production activities, play an essential part in helping to balance resource flows and maintain local economic systems in a sustainable fashion.

### Fishery

Fishing activities and harvesting marine life in the oceans, lagoons or reef flats are performed exclusively by men. Post-harvesting activities aimed at adding value, such as salting and drying fish, are the domain of women. Forty-five species of reef fish are commercially important; the salted and sun-dried reef fish are exported.

In 1974, the government initiated a major mechanization programme of the country's pole-and-line fishing vessels. Engines were installed in *dhonis* under a government-sponsored credit scheme. Mechanized vessels are better suited to supply fresh fish to the mobile collector vessels. Since most of the catch is sold to collector vessels, there are usually fewer fishes to take home. The share of the catch allocated to the crew has decreased as a result of mechanization. Due to this process, women believe that less fish is available to them to make dried fish, fish soup and fish paste (a concentrated form of fish soup), the staples of the Maldivian diet. Concern exists about the consequent nutritional wellbeing of children.



### Livestock

In the homestead the animals reared are goats and chickens. Given that poultry rearing practised by communities is based on an 'open' system whereby hens and chickens forage in the bush, poultry are endangered by harmful waste. Manure is not applied to crops; farmers believe that the remaining ash is sufficient for the growth of new crops.

## ENVIRONMENT

Compared to the rest of the Indo-Malayan region, the islands exhibit a relatively small proportion of representative fauna species, and the archipelago is not associated with an abundant terrestrial wildlife (Webb 1988). The Maldives Islands are relatively poor in terms of terrestrial floral diversity. The 1994 State of the Environment Report records 583 plant species in the Maldives, of which 55 percent are cultivated species. Over 30 plant species are recognized for their medicinal value and are utilized for traditional medicine practices. Timber and fuelwood needs are met by individual islands, except in special cases of boat-building for which uninhabited islands are visited to harvest appropriate timber. Each island has a plot reserved for the cultivation of fuelwood and timber species.

Marine biological diversity exhibits outstanding richness. The marine biodiversity of the archipelago is among the richest in the entire region, and the Maldives has been recognized as having one of the world's most diverse marine ecosystems. Tuna fishing is particularly important to the country's economy. Twenty fish species are regularly caught and used as bait fish.

Environmental management, including biodiversity conservation and the sustainable and equitable use of land, water and other natural resources, is relatively new to the Maldives. Problems stemming from both human and natural causes include the effects of coral and sand mining, waste disposal, human pollution, coastal erosion, rising sea level, unrestrained land development, and degradation of fresh water and land resources. Despite the importance of waste disposal and management, a system aimed at waste collection and its proper disposal is lacking.

## RURAL PRODUCTION

Women tend to operate small income-generating ventures, such as eating houses, shops and tailoring units, and are responsible for managing the household, home gardens and small agricultural plots. A few uninhabited islands have been leased by the government for large-scale commercial agriculture. While demand exists for women to work on these farms as paid labour, women usually do not seek long-term work on other islands. In general, they only clear wilderness and collect fuelwood on the commercial agriculture islands.

Coconut is an important commercial crop, but women play no role in coconut harvesting, mainly because of the need to climb palms and undertake long journeys in *dhonis* (boats). Women engage in coconut processing activities, including dehusking, grating, drying and milling for oil, although demand for coconut oil is decreasing. Manufacturing coir rope is undertaken jointly by women and men. Women also make brooms from the fibrous husk of coconuts.

Fishing activities and the harvesting of marine life in the oceans, lagoons or reef flats are performed exclusively by men. Women perform post-harvest activities and must gather fuelwood three times a week, compared to once a week for normal household needs. Marketing the catch is the responsibility of both women and men.

## FOOD SECURITY

Home gardening is important, not least for its contribution to enhanced household nutrition. In general, family plots are divided into two evenly sized areas; one is used for housing and the other is converted into a garden. Home gardens typically vary in size from 100 m<sup>2</sup> to 500 m<sup>2</sup>. Crops cultivated include chillies, eggplant, tapioca, beans, spices and a few fruit trees. Different varieties of the same crop are grown in home gardens in an attempt to control pests. This also contributes to the maintenance of biodiversity.

Most home gardens can be regarded as mini plant genetic resource centres. A home garden may contain up to ten different crop types and a total of 25 to 30 plant varieties. Given that new plant varieties have been introduced to the Maldives ever since trade links were initiated with Sri Lanka and India, original and foreign varieties have merged and locals are no longer able to distinguish original plant stock.

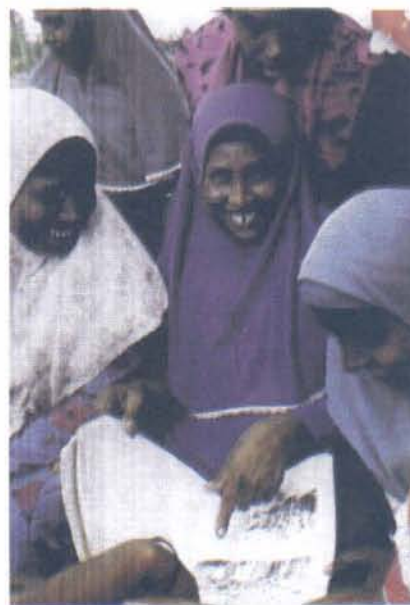
Women play a dominant role in all activities related to home gardens. Men play an important role in harvesting fruit, especially papaya, banana, coconut, areca nut and breadfruit. Families tend to grow a variety of crops in their home gardens. Women and men have knowledge about plant varieties and their nutritional content. For instance, drumstick leaves are eaten for their high iron content and form an important part of the diet of pregnant women; bilimbi is eaten to protect against the common cold, given its high Vitamin C content. Banana varieties containing most nutrients are given to children.

## POLICY AND PLANNING FOCUS

The International Labour Organisation reported in 1993 that the most plausible explanation for the decline in agricultural employment is under-enumeration of women engaged in agriculture (ILO/ARTEP 1993). Since the census count enumerated primary occupations, women normally engaged in multiple activities may have been unable to identify any single activity as their primary occupation. Although a significant proportion of women in the atolls work in agriculture, their involvement in a range of economic activities may make it more difficult to identify a main occupation, causing the 'not stated' category to be disproportionately large. In the Maldives, as in other countries within the South Asian Association for Regional Cooperation, women's economic work is often considered as unpaid family labour.

In order to recognize gender differences within households in the context of agricultural and rural production, policy-makers and planners need to:

- ✓ incorporate and differentiate between women's and men's activities in national statistics produced for the manufacturing and agricultural sectors;
- ✓ identify and highlight gender roles in natural resource use and management; and
- ✓ identify strategies to expand women's participation in economic activities.



## Women in Agriculture, Environment and Rural Production – The Maldives

### PROGRAMME FOCUS

Global threats related to increasing greenhouse gases and an associated rise in the sea level are real issues of concern to an island nation like the Maldives where most of the population lives on land hardly above mean sea level. Increased population pressure and growing demand for space in the form of reclaimed land threaten the lagoons and reefs on which so much of the country's economic survival depends. Factors that further damage the country's natural wealth are increased pollution silting up lagoons and illicit activities like coral quarrying. New efforts and initiatives are required to ensure the sustainability of the country's terrestrial and marine-based

resources and to enhance resource management. It is crucial to incorporate gender roles in addressing economic, environmental and population issues.

- ✓ A national campaign to inventory the floral and fauna wealth of the islands is therefore essential. The atoll-based women's community organizations can make an important contribution to this effort.
- ✓ The government's distance education programme could also play an important role in disseminating knowledge about the national bio-resource heritage to people living in atolls.
- ✓ Business management training for women should therefore also be part of any atoll-based vocational training programme.
- ✓ Women from each island should be trained in integrated pest management and given responsibility for nursery management on a rotational basis.
- ✓ Technology can be introduced to reduce the hours Maldivian women spend working on burdensome domestic tasks and to increase the economic value of their work. Technology can improve productivity, both in economic and social values.

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