

THE CONTRIBUTION OF WOMEN IN ENVIRONMENTAL PROTECTION WITHIN THE CONTEXT OF LOCAL SUSTAINABLE DEVELOPMENT

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Abstract

Sustainable local development aims to improve economy while taking into account environmental protection. Within this context, the contribution of women to sustainable local development over the years is essential to be explored in order to highlight the importance of their offer. This research aims to investigate the role of women in environmental protection for sustainable local development in a Greek island, Rhodes.

A semi-structured interview was designed as a data collection tool. It was a field research which was conducted in the villages of the island as well as in the city of Rhodes. The sample of the survey was composed of women over sixty-five (65) years of age.

The results of the survey show that the participation of women was particularly important in the environmental protection of the island, as their daily habits and occupations were environmentally friendly. The yards of their houses were decorated with flowers and trees. In their gardens they planted vegetables that were cultivating without using fertilizers or pesticides. They also collected rain water and they generally spent water with great care and attention. They did not throw the excess food in the garbage, they were giving pets or domestic animals the leftover food, and they also made sure that garbage from housework was scarce. Therefore, their work, their everyday habits and their way of life did not burden the environment, so they made a decisive contribution to the sustainable development of the island.

Keywords: environmental, local sustainable development, women

1. INTRODUCTION

There are various forms of environmental actions (Papavasileiou et al., 2017). The forms of action are defined as environmental management or action in nature or eco-management, i.e. direct action in the environment, consumption action, the conscious or non-conscious purchase of certain products, persuasion by individuals or groups to others on environmental issues, political and legal action (Papavasileiou, 2015).

In general, environmental studies include three types of environmental actions. Firstly, environmental

activism, secondly, environmental actions in the non-activist public sphere, such as public policy support or the willingness to pay higher taxes, and thirdly, environmental actions in the private sphere, such as green product purchases, energy saving behaviors and recycling (Stern, 2000).

Other research studies have used similar categorizations. There are three types of environmental actions, environmental actions in the private sphere, in their households, and environmental actions in the public sphere, at the community level (Hunter, Hutch & Johnson, 2010). In all these actions the role of women seems to be particularly important (Xiao & Hong 2010).

Many scientific studies have been conducted investigating the relationship of gender to participation in environmental actions (Zelezny, Chua, & Alrich, 2000; Uçar, M. & Canpolat, E., 2019), as well as other research studies focusing on daily home energy saving practices (e.g., Carlsson-Kanyama & Linden, 2007; Rätty & Carlsson-Kanyama, 2010). Although some studies have found no gender differences in environmental behaviours (Blankenau, Snowden, & Langan, 2008), most studies conclude that women have a higher level of environmental behavior than men (Torgler, García - Valiñas, & Macintyre, 2008; Lee, 2009),

Furthermore, some scientific research is attempting to interpret gender differences in environmental action. These analyzes are related to the socialization of the sexes and the values to which both sexes are oriented. According to the theory of socialization, women are socialized to be more compassionate, caring and cooperative, so they have a more intense element of care including care for the environment (Zelezny, Chua, & Alrich, 2000). The socialization of men is different from that of women. Priority is usually given to integrating them into the labour market in vocational development and economic development (Wehrmeyer & McNeil, 2000). However, findings from other surveys show that gender differences are not related to social roles (McCright, 2010; McCright & Sundstrom, 2013).

In developing countries, women's daily life regarding issues related to the natural environment and its protection, as well as their environmental actions, are of particular interest (Jahan, 2008; Aditya, 2016). They are involved daily in activities related to the preservation of the environment in the context of traditional home activities. Their activities are multiple, so they manage and use natural resources and therefore play an important role in managing them. They are in direct contact with the natural environment and they have a direct relation with it, as they collect from nature important species such as fruits, vegetables, herbs, wood for fuel and water. They see forests as a source of basic household needs. There is a close relationship between women and the natural environment. Women's lives depend entirely on the environment. Most rural families depend on nature to live. Therefore, sustainable local development cannot be achieved without the support and recognition of women's contribution to environmental management (Jahan, 2008; Nasrin, 2012).

The findings of many studies indicate that women are important contributors to natural resource management and contribute significantly to environmental protection. The direct contact of women with the environment results in a deep knowledge of the environment. Women, having the role of managing the household, interact more intensively with the natural environment. In addition, women are closely associated with the natural environment, as they actively participate in agricultural and livestock farming as well as they collect water and wood for fuel. Therefore, they get in touch with the natural environment, they know it, and simultaneously take care of it (Aditya, 2016).

In developing countries of the world, women mostly use water and other natural resources because they have undertaken various family and rural obligations that are interconnected. Therefore, they know more about the soil, the plants, the trees and they do not abuse them. Women tend to be more closely associated with land and natural heritage, which results in a new culture of respect for and conservation of natural resources and the environment, ensuring that future generations meet their needs. In many countries around the world, therefore, women's traditional roles are related to the conservation of natural resources. In this context, there is a need to understand the ways in which women are involved in protecting and preserving the environment in order to be highlighted and utilized in a creative way.

Tradition and environmental protection are inextricably linked. Actors are women, young and old, who are interested in preserving natural wealth, working sustainably and contributing to local development. Therefore, conservation of natural resources and promotion of environmental protection cannot be achieved without the participation of women in planning and training to promote values for the preservation and promotion of the environment (Mago & Gunwal, 2019).

2. METHODOLOGY

Sustainable local development aims to improve the economy, while taking into account environmental protection seriously. Within this context, the contribution of women to local sustainability over the years is necessary to be investigated in order to highlight the importance of their contribution. The purpose of the

research is to investigate the role of women in environmental protection for sustainable local development in a Greek island, Rhodes.

A semi-structured interview was used as a means of collecting the data of the present qualitative research, which was designed specifically to meet the specific needs of the present research. It was a field research which took place in 2019 in the villages of the island and in the city of Rhodes. The sample of the study consisted of women over 65 year old and in total, the sample was consisted of a total of 100 women. The purpose of the interviews was to ensure that the meetings were on such days and at such times, that were convenient for the interviewees, the rooms and the conditions were comfortable, the environment friendly and pleasant. It was also intended to be created a climate of trust so that the resulting data will be reliable and valid (Silverman, 2010; Bryman, 2016).

The coding of women's responses was numbered from 1 to 100 (W.1, W.2... W.100). In addition, in order to have research data from all over the island of Rhodes, the sample was intended to be drawn from all of the ten (10) former municipalities of Rhodes, prior to unification, namely the municipalities of Archangelos, Attavyros, Afandou, Ialysos, Kallithea, Kamiros, Lindos, South Rhodes, Butterflies and Rhodes city.

3. RESULTS

The research data show that women's participation was particularly important in environmental protection of the island, as their daily habits and occupations were environmentally friendly. Their activities at home, in the yards, in the gardens and in the outdoors have contributed to the preservation of natural resources and the promotion of environmental protection.

The courtyards of their homes were adorned with flowers and trees. There were vineyards in the courtyards of many houses "In my garden I had vineyards, which we no longer have it" (W.1), "There were vineyards in all the houses with nice grapes that people ate" (W.2), "We had vineyards in our house" (W.4) "We had a nice vineyard in the yard" (W.5), etc. In addition, many houses in their yards had mulberries "We had a mulberry tree" (W.6) "Mulberry trees with nice berries" (W.7), "There was a mulberry tree in our yard. When I was a kid, we used to eat berries" (W.43), "Mulberries for silkworm farming" (W.10), "Mulberries, that you will not find easy, I remember we did silkworm breeding and watched the whole process" (W.62) etc. In addition, in many yards there were pomegranate trees "I loved my pomegranates" (W.99), lemons "one lemon and it was threefold" (W.28), oranges "We had orange trees with delicious oranges" (W.86), citrus trees, (bitter oranges) "we had bitter oranges in our garden" (W.17) and loquat trees "we had two loquat trees" (W.16).

There were other trees in the Rhodian courtyards as well, such as "olive trees" (W.30), "almond trees" (W.16), "fig trees" (W.11), "prickly pear cactuses" (W.3), "jujube trees (ziziphus jujuba)" (W.30), 7, "terebinth trees or turpentine trees (pistacia terebinthus)" (W.17), "quince trees" (W.2), "apricot trees" (W.25), "apple trees" (W.26), "pear trees" (W.29), "walnut trees" (W.49), "peach trees" (W.63), "plum trees" (W.84) and even "carob trees" (W.11), "pines" (W.13), "tamarisk trees" (W.52), "plane trees" (W.60), "white mulberry trees (morus album)" (W.57), "cherry plum trees (prunus cerasifera)" (W.91), "european mistletoe trees" (41) and "palm trees" (W.68).

The women in the research sample also mentioned some other plants, such as "myrtle" (W.14), "nerium oleander" (W.48), "rosemary" (W.51), "hibiscus" (W.58). Finally, some plants were mentioned by only one woman, such as the "magnolia" (W.72), a tree called "guava tree" (W.76), a tree called "sambucus or elderberry tree" (W.93), the "monkey puzzle tree (araucaria araucana)" that resemble a fir tree (W.89).

In the flower beds and pots of the courtyards of the house, there were very beautiful flowers, such as "basil" (W.88), "rose bush" (W.73), "carnation" (W.75), "bougainvillea" (W..54). "Jasmine" (W.95), "gardenia" (W.91), "lily" (W.94), and also "wild roses" (W.99), "lonicera japonica" (W.27), "Frangipani (plumeria)" (W.58), "spearmint" (W.10), "lilac" (W.65), finally, "night blooming jasmine or cestrum" (W.96), "crane flowers or birds of paradise" (W.33), chrysanthemums (or mums or chrysanthus) and "passiflora or passion flowers" (W.10) etc.

The relationship of women to the flowers and trees they had in the backyard of their homes was very emotional, not only because they watered them and cared for them in general, but they also had tender feelings "The wild rose was my favorite plant" (W.99), "The olive tree was my favorite tree (W.30)," "I loved my pomegranate trees" (W.99), so they remember it with love and nostalgia" The plant I remember with love is the frangipani (plumeria) (W.58).

In their gardens they planted vegetables which they used to grow without using fertilizers or pesticides, "we did not use fertilizers" "we did not use fertilizers or pesticides". It seems that the use of manure was very widespread, "we put manure in our plants" (W.25). Manure of various kinds, such as sheep manure (W.31), goat manure (W.61), oxen manure (W.71), donkeys' (W.61), hens' (W.53), depending on the crop.

They were very careful about using water. They didn't waste it, "The water is valuable so we were careful ..." (W.22), they did not spend water unnecessarily "we did not let the water be lost" (W.61). They even collected the rain water "we put basins and we collected the rain water and used it not only for cleaning but also for bathing" (W.77). In general, they used the water with great attention and care.

They cooked daily for the whole family. They made sure that the food was not left "food was not left ..." (W.1), "... the food was not left" (W.5), "we made sure that the food was not excessive" (W.25). But if it was excessive, they wouldn't throw it in the garbage bin "We didn't throw anything, nothing" (W.7). They usually ate it the next day "We ate it the next day" (W.18) many times accompanying it by something else "we warmed it up the next day, and with a simple accompaniment the family ate again" (W.7), or they mixed it with something else "I would mix it with something else, for example we mixed the lentil with orzo or rice, the chickpeas with rice ..." (W.33). Some gave it to the neighbours "The food that was left, we gave it to a neighbour" (W.17) or to some poor people in the neighborhood "... I gave it to poor people in the neighborhood" (W.31), "and if I had enough, I would have in mind a poor neighbour and I gave her as much as I could" (W.97).

They also gave the leftover food to pets or domestic animals, such as cats, dogs, hens, rabbits, pigs, etc. "We gave it to the animals" (W.25). Depending on what food was left, they gave it to the animals. "We usually gave it to cats. It also depends on the food, of course, depending on what the food was" (W.39), "depending on the food, we threw it to the cats, dogs and pigs" (W.45), "... when the food was left, if it was food that cats used to eat it," (W.54), "the leftover food, of course, we would not throw it away. We had our pets, our chickens, our rabbits and our cats, nothing went useless" (W.99), "we usually didn't have any leftover food, but when we had, we gave it to hens" (W.61), "we had hens that ate the little food that was left" (W.97).

Not even the clothes were thrown away. Reuse dominated. Characteristically it is mentioned "when the child grew up and his clothes were tight, the younger children wore them" (W.31). If there were no children of the same sex in the family then they would give it to relatives or neighbors with children of similar age "I would give my children's clothes to other children, but I would also take clothes from neighbours" (W.37). "I would never throw away the clothes, I was giving them to other families in the neighbourhood and I was seeing that their children were wearing them" (W.35). If a garment was pierced, they would sew it "when the garments were pierced, I was sewing them by myself" (W.21). Finally, if the clothes could no longer be worn, they would make them towels or cut them, in order to weave them on a loom, making "rags". "If some garment was damaged beyond repair, we used to cut it and make rags or we used to cut it to weave patchwork quilts for our home" (W.28), and therefore the rags became handmade works that adorned the houses.

4. CONCLUSIONS

The results of the research regarding exploring the role of women in environmental protection for the sustainable local development of Rhodes show that the participation of women was particularly important in environmental protection of the island, as their daily habits and occupations were environmentally friendly.

The backyards of their houses were unique as they combined simplicity with beauty. There was a great variety in the trees and flowers. There were mainly vineyards, mulberry trees, pomegranate trees, orange trees, citrus trees, loquat trees etc. Their courtyards were filled with bright colours. Inside the flower beds, clay pots, metal flower bins, broken barrels and various other elaborate constructions were planted very beautiful flowers, such as basil, roses, carnation, bougainvillea, jasmine, gardenia, lily, frangipani, spearmint, and night-blooming jasmine.

Most women in their gardens planted vegetables that they used to grow without using fertilizers or pesticides. Still, they made sure not to spend too much water. They cooked the products they produced, so their diet was healthy, while covering part of their dietary needs, by minimizing grocery shopping in the neighborhood, as they also raised their own animals. In addition, they utilized the products of nature, such as herbs that they used in cooking. Moreover, they used them as medicines.

They were cooking daily. Excess food would not be thrown away in the garbage bin. They either ate them the next day, or they gave them to a neighbour or to poor people in the neighborhood. In addition, food leftovers were given to pets or domestic animals, such as cats, dogs, hens, rabbits, pigs, etc., depending on what was left. In general, they took care that garbage from home chores was minimal. Not even the clothes were thrown away. Reuse dominated.

They did not exhaust their natural resources, but they took care to meet their needs without damaging the environment. They were not only interested in the present but also in the future. They were particularly careful about consuming water. They collected the rain water and generally they used the water, both in

household chores and in watering the plants with great attention and care.

Therefore, the way they lived was environmentally friendly. Their work, their daily habits and their various choices did not harm the environment, so the contribution of women to the island's sustainable development was crucial. It is therefore necessary to systematically study tradition in order to understand the ways in which women have been involved in protecting the environment and preserving it, with the aim of highlighting them and creatively using them in the context of sustainable local development.

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