

Development of Ghour Fifa village to an Eco-Village

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Abstract:- This project report deals and develops the village of Fifa as an ecological village. We define the ecological village: A traditional or intentional society with a view to being socially, culturally, economically and environmentally sustainable GEN(n.d(b)) . They are conscientiously designed through locally owned participatory processes to renew and restore their social and natural environment, which serves as a catalyst for the development of education, health, science and how to preserve natural resources in the region. In this report, we focus on improving the efficiency of natural resource use and access to the concept of sustainability and improvement. Individual and collective behavior responsible for building an environmental community through the implementation of a number of environmental projects in the village to design the first model of the Eco-village in the Hashemite Kingdom of Jordan.

shares with local communities including eco-initiatives like clean solar energy, water reuse, school gardening, and an oriented capacity building, education, participation and awareness, the idea of eco-village started to be developed.

At the same time, the initiation of Ramsar city concept also developed in the convention (Resolution XII.10 on Wetland City Accreditation of the Ramsar Convention), which can be applied on Fifa village to be a Ramsar city, and eco-village as a first eco-village in the country.

In this paper I will focus on investigating the development of the Fifa Nature Reserve as an ecological village. To transform an indigenous rural community into environmental communities and to help our society to get closer to nature and to develop new sustainable livelihood styles.

I. INTRODUCTION

Ecovillages are intentional communities that follow a whole-systems approach that uses integrative design, local economic networking, cooperative and common property structures and participatory decision-making, with the purpose of minimizing ecological footprints and developing sustainable human settlements by internalizing production and consumption processes (Lockyer and Veteto, 2013).

Ecovillages can be regarded as prefigurative attempts to “mitigate the antagonism between humans and nature” (Ergas and Clement 2015) by “putting bioregional thought and permaculture methodology in practice at the community level” (Lockyer and Veteto 2013). Their goal is to become “human-scale, full-featured settlements in which human activities are harmlessly integrated into the natural world in a way that is supportive of healthy human development and can be successfully continued into the indefinite future” (Gilman 1991)

Fifa nature reserve was declared as a Ramsar site in 18th April 2017, due to the unique type of wetland at the lowest place on earth [-426 metre below sea level], the globally endangered endemic fish (*Aphanius richardsoni*), and the large number of wintering water birds every year. Having the site declared, and in the context of protected areas and benefit

➤ Site Description

Fifa village is located at the southwestern part of Jordan, about 33.5 km south to southeast of the Dead Sea 157km north of Aqaba city [East 731366.653, North 3427479.77].center coordinates. It is situated in the Jordan Rift Valley between the southern part of the Dead Sea and the northern extent of Wadi Araba)Figure 1) Fifa village is located within the Sudanian (Tropical) Bio-Geographical Zone, which is characterized by high temperatures with warm winters and hot summers, combined with low annual rainfall of about 50-100 mm /year.

The population of the Ghor Fifa region is 3078, according to the last estimate of the Department of Statistics for 2016, and the number of families in the region is 499. It is noted that the Ghor Fifa area constituted about 9%. The second largest gathering is the center of the brigade in terms of population. The number of houses in the area reached 493, of which 442 were occupied by families, according to the census of the General Statistics Department for the above year.

The average monthly expenditure per capita in the center of the brigade (104.95 dinars) while the monthly income (99.5 dinars). The average expenditure and annual income is as follows: Poverty, employment and unemployment: The center of the Ghor al-Safi Brigade, in which the Ghor Fifa is located within the pockets of poverty, was classified as an area of government intervention with developmental specificities.

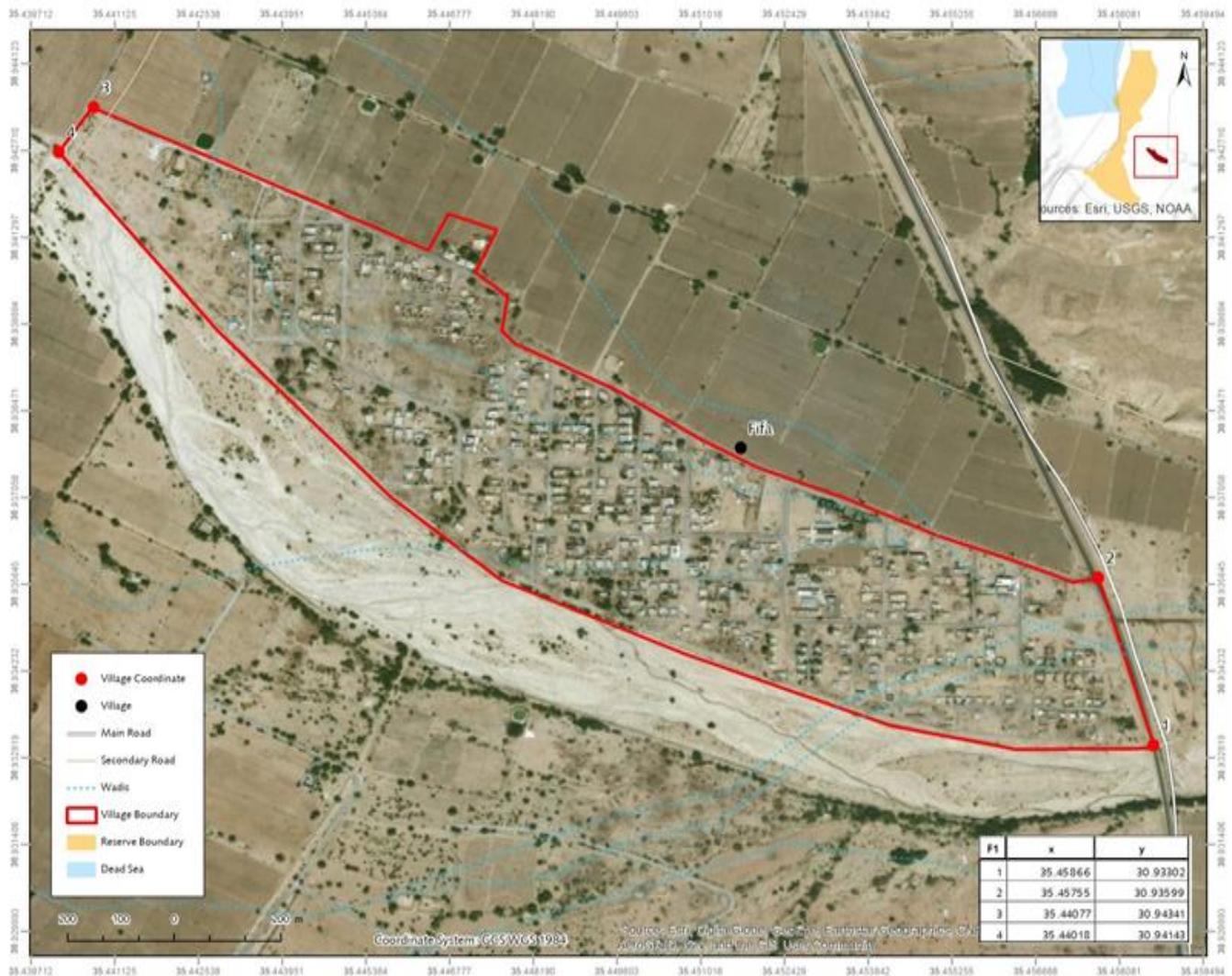


Fig 1:- Boundary of Fifa Village

II. MATERIALS AND METHODS

The proposed ideas for reaching the concept of environmental village were obtained through holding about 15 meetings with decision-makers in the region, such as heads of charities and club leaders, the head of the local council, the regional development director and the administrative governor who represent the majority of the local population to identify the most important projects to reach this concept and the benefit of the local population by a majority decision

III. RESULT

Four projects were proposed for implementation within the village, which would achieve the concept of eco- village and help increase the efficiency of energy use by the local population.

IV. PROPOSED PROJECTS

➤ *Solar Power*

Due to high temperatures in the region and high rates of poverty and unemployment. Renewable energy is becoming a necessity.

Solar panels are designed to absorb sunlight as an alternative energy source to generate electricity. The government launched a project solar mission in 2018, to be implemented in 2019. Amount required (1200000JD).

➤ *Plantation*

Planting trees creates immediate forests, and we do it through growth Long seedlings in the shortest possible time. Provide local trees in the area. Making people in the region self-sufficient through the production of these trees in the near future. Amount required (25000JD)

Gray water treatment: Gray water is considered semi-pure water, but it is mixed with materials during the washing process, such as soap and some oils. This water is estimated to be larger than we would get during the drainage process and will be used to irrigate the crops in the proposed home gardens. Amount required (30000JD)

➤ *Recycling*

Recycling is the process of converting waste materials into new materials and objects. It is an alternative to "conventional" waste disposal that can save material and help lower greenhouse gas emissions. Recycling can prevent the waste of potentially useful materials and reduce the consumption of fresh raw materials, thereby reducing: energy usage, air pollution (from incineration), and water pollution (from landfilling). Recycling is a key component of modern waste reduction and is the third component of the "Reduce, Reuse, and Recycle" waste hierarchy. Thus, recycling aims at environmental sustainability by substituting raw material inputs into and redirecting waste outputs out of the economic system.

- Amount Required

V. DISCUSSION

After the Fifa Nature Reserve was designated as the world's lowest elevation Ramsar Site, the idea came to transform the village of Fifa into an ecological village to protect this national and global heritage by creating several projects that would create an environmentally friendly generation and help people in the region. Such as solar power project which has been installed on many homes and public institutions in the region, such as schools, mosques and health centers as a prototype and has benefited greatly in reducing the price of electricity bill, especially in the summer to high temperatures in the region and this is also the case of water bills, where the gray water treatment project will exploit this water, which will reduce the price of the water bill. For the plantation project, this will reduce the extinction of a number of threatened plant species at the national level. And a recycling project that will reduce waste and its risks to the region's biodiversity and the health of the villagers.

VI. CONCLUSION

Develop the village of Fifa into an ecological village will improve the efficiency of the use of existing natural resources, enhance the relationship between humans and the environment, and improve the lives of some low-income individuals. In the future, this concept could have helped create many projects in the region, for example environmental schools and eco-tourism, which would improve the standard of living in the village by providing a number of employment opportunities for the villagers.

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