
IS THERE ANY LINK BETWEEN BELIEFS AND ENVIRONMENTAL ISSUES WITHIN A GREEN ENERGY CLUSTER?

Feiza Memet*

Constanta Maritime University, Mircea cel Bătrân Street 104, Constanța, 900663, România

(Received 11 May 2016, revised 18 June 2016)

Abstract

Nowadays, renewable energy is attractive for investors and also for society. Still, there are needed actions for the population awareness and environmental education. Internationally, religions started to have also an environmental mission, but maybe they should be involved in this issue more seriously. This study is presenting the results of a survey between the Romanian members of the Cross-Border Green Energy Cluster Romania – Bulgaria, investigating a potential link between beliefs of the members and environmental values. The questionnaire was structured on three sets of aspects: religious identity, relationship humans – environment and relationship self-involvement – environmental quality. Although the survey is at scale small – 34 participants, it resulted that there are represented people from Orthodox and Muslim communities, sharing many times the same opinion on religious and environmental attitudes.

Keywords: renewables, religion, cluster, environment

1. Introduction

The usage potential of different renewable energy sources (RES) at disposal of human beings is huge, all over the world, and the technology specific to RES is capable to supply greener and more sustainable ways of responding to the need of energy of our society, compare with conventional fuels [1]. Green technology is featured by advanced specialized technology and adequate trained personnel and it has the following directions: the production of green energy based on renewables, the storage and the distribution of this type of energy, the monitoring and purification of the quality of air and water, tracking of waste and its capture followed by the conversion to fuel [2].

According to Toyan, for people who believe that God has created the Universe, as long as we know it, Terra is a privileged planet and should be a priority the use of adequate technologies and the use of energy in a wise way, with focus on the use of renewables [3]. Our society faces the challenge of CO₂ emissions reduction, which is asking for important changes in energy systems,

*E-mail: feizamemet@yahoo.com

leading to new technologies specific to renewable sources of energy. According to Weaver, this is for the care of any part of the Creation serving the purposes of human beings [4]. In this context, it is possible to find opinions stating that God gave to the human kind the responsibility and the ability of taking care of this world, which is God's world, and to develop the given resources [5].

Not only Christians are concerned about the wellbeing of our planet. According to Al-Jayyousi, Islam is a religion which binds believing to preserve the carrying capacity of the Earth, being encouraged the diminishing of the dependence on fossil fuels in favour of the green technologies [6].

In 2015, the Cross Border Green Energy Cluster Constanta – Dobrich (GEC) was founded within the project Green Energy Cluster 'Constanta – Dobrich', implemented by Varna Business Agency (Bulgaria) and Constanta Maritime University (Romania) as partners through Romania Bulgaria Cross Border Cooperation Programme. The clusters' centre from Constanta supports the mission of the cluster in order to create a long term pattern of increasing the use of renewables from the region in a sustainable manner, in the framework of promoting efficiently the risk management.

The literature provides different definitions for the concept of cluster resulted by the fact that they are so popular that has been analysed by several scientists, coming from various fields; but this situation led to adding richness to the concept through new point of views, terminologies, etc. A cluster comprises a wide zone of specialized suppliers, service companies, related downstream and upstream industries, providers of complementary products, governmental agencies, research and education institutions, NGOs, etc., which are connected by different links and closely located from geographical point of view [7]. A successful cluster offers a lot of advantages to its members, translated in the increase of efficiency, productivity, innovated activities leading to getting an increased competitiveness [8]. The principal obstacles encountered when dealing with a green cluster foundation are the lack of information among potential members on the notion of cluster, the insufficient number of entities responding to the joint invitation, the bureaucracy and the passive attitude of some actors involved, although the benefits shown by participating in a cluster are taking advantage of transfer of information, best practices and know-how [9].

Having in view that the networking concept is related with relationship established between persons who are debating in order to exchange ideas on specific topics, the key points of GEC are stated as:

- contributing to a better exploitation of research results obtained by universities and research institutions in RES field;
- identifying suitable national and European programs for financing SMEs, mostly in the production and distribution of renewable energy sources;
- enlargement of the membership and strengthen their partnership, for a wiser exploitation of renewables in the region.

The number of Romanian members of GRC is fifteen. There are seven public and private companies and professional associations, five education and research institutions and three NGOs, each of them having its own interest in

RES. The benefits achieved by the members of the cluster might be summarized as:

- for business: easier cooperation in order to achieve economic advantages, technology acquisition and production, more rapid information and technology transfer, participation to an integrated marketing system, access to European funds, better support from the authorities, cost savings;
- for educational and research institutions: more actual correlation of the curricula to the economic realities, stimulation of research and innovation, development of modern laboratories and up-dating of existing ones for an advanced research, promotion of applied research and technology transfer through tight cooperation with business, fostering of cooperation in know-how transfer;
- for public authorities: better support of the region development from economic and social point of view, lowering of unemployment, an increased promotion of the region at national and international level, boosting of infrastructure development;
- for intermediary organizations: enlargement of customer database, developing of new products or services, participation in conferences, seminars through lobbying.

This study explores how religious beliefs interfere with environmental issues by the help of a questionnaire survey between the Romanian members of GEC. The need of such a study relies on two facts: renewables are attractive for stakeholders and also for population – which should be aware of the advantages offered. On the other hand the acceptance of new technologies might be influenced by religion, according to Hope and Jones [10].

2. Method

Participants are coming from the Romanian members of GEC and responded willingly. Data collection was done by face to face interview questionnaires, participants being previously informed on the purpose of the study (exploration of how beliefs of respondents interfere with their environmental attitude) and items included in the questionnaire. Details concerning some characteristics of respondents are given in Table 1.

Table 1. Baseline features of respondents.

Number of participants	34
Number of females	18
Number of persons under age 40	11
Higher engineering studies graduates	29
Higher economic studies graduates	2
Biologists	3

The respondents have received three sets of questions dealing with: religious identity and relationships between humans–environment and self-involvement – environmental quality.

Religious identity

1. Do you belong to a religious community?
 Yes No
(if Yes) to which one do you belong?
 Orthodox
 Catholic
 Islamic
 Jewish
 Other
2. How strong are you connected to your religious community?
 Very strong
 Strong
 Moderate
 Weak
3. How often do you attend religious services during one year?
 More than once a week
 Once a week
 Only on special occasions (as weddings, funeral, etc.)
 Seldom
 Never
4. Which of the statements is reflecting your believe?
 There is a God with whom I can have a personal relationship
 There is a God inside each person
 There is a supernatural force in the Universe
 There is no God or supernatural force

Relationship humans – environment

1. Humans have a divine mission to dominate over the world and increase in number
 Yes No
2. Humans have a divine responsibility to behave as custodians of the Creation
 Yes No
3. Humans have the right to adapt the environment to their needs
 Yes No
4. How often your religious leader brings into discussion the issue of environment during the religious services?
 Often Sometimes Never

Relationship self involvement – environmental quality

1. Do you worry more about prices and jobs and less about the future of the environment?
 Yes No

Is there any link between beliefs and environmental issues within a green energy cluster?

2. Do you agree that economic growth has a negative impact on the environment?
 Yes No
3. Do you consider that what you can do for the environment is not too much?
 Yes No
4. Do you agree to pay higher taxes for the protection of the environment?
 Yes No
5. Did you take part in a protest or demonstration related to the environmental protection?
 Yes No

3. Results and discussion

All the 34 participants to the survey belong to a religious community. Thus, are found to be 2 Muslims and 32 Orthodox. Among the 32 Orthodox, 2 are very strong connected to their religious community, 9 are strong connected, 17 are moderately connected and the rest of them replied to be weakly connected. The Muslims replied to be strong connected. 20 Orthodox respondents attend religious services only on special occasions, 7 – once a week and the rest – seldom. The Muslims never attend religious services. All of the participants agreed with the personal relationship with God.

It is interesting to observe that all the participants are highly educated and belong to a religious community. Also, all of them, no matter their religion, believe in a personal relationship with God.

Orthodox participants attend at least seldom their religious services during a year, only Muslims indicated no attendance. The reason might be that the two respondents are women and this is due to religious norms, Muslim women attend less the services at mosque than Muslim man. Moreover, special occasions take place at home, not just in mosque.

All the respondents replied that in their opinion, humans have a divine responsibility towards the Creation; they never heard their religious leader to speak about environmental issues during the religious services.

Representatives of both faiths are aware of the fact that humans, due to their specific features, dominate the Earth, but in the same time, they should act in an environmental responsible way, as stewards of the Creation of God. This attitude is not found in calls for responsible stewardship of the Earth coming from their religious leaders, which are not warning about the dangers of human actions on the environment.

All of the respondents answered, no matter their faiths, that they worry more about future and environment and agree that economic growth has a negative impact on the environment. All of them consider that each one might do something for the environment and agree with higher taxes for the environmental protection, although none of them took ever part in a protest related to environmental protection.

It results that the point of view on the relationship self-involvement – environmental quality is not affected by religious believes, the uniformity of the answers being explained by the educational profile and professional activity of the respondents.

4. Conclusions

This small scale survey gave some indication on the interaction between environmental values and beliefs of Romanian members of GEC, coming from two religious communities. In many aspects, the respondents have same opinions and all of them prove a high level of self-involvement regarding the protection of environment.

Respondents are highly educated and believing as well. They all believe that they establish a personal relationship with God and consider humans to be custodians of the Earth, although religious leaders in Constanta do not show environmental involvement. Due their professional structure, all the respondents show a responsible attitude towards the environment.

Since this survey revealed the connection between religious beliefs and environmental issues of respondents, the involvement of religious leaders from the area should be more serious. By remedying this lack, might raise the environmental awareness inside the society not only through environmental education but also by religious engagement.

References

- [1] T. Jackson, *Renewable Energy Sources*, Working Paper 07/00, Centre for Environmental Strategy, Surrey, 2000, 73.
- [2] L. Swallow, *Green Business Practices For Dummies*, Wiley Publishing, Indianapolis, 2009, 349.
- [3] K. Touyan, Perspectives on Science and Christian Faith, **46** (2012) 41
- [4] J. Weaver, *Christianity and Science*, SCM Press, London, 2010, 249.
- [5] C. Van Dam, *God and Government: Biblical Principles for Today: An Introduction and Resource*, Wipf & Stock, Eugene, 2011, 328.
- [6] O.R. Al-Jayyousi, *Islam and Sustainable Development: New Worldviews*, Gower Publishing Limited Routledge, New York, 2012, 216.
- [7] S. Saric, *Competitive Advantages through Clusters. An Empirical Study with Evidence from China*, Springer Gabler, Wiesbaden, 2011, 207.
- [8] P. Maserova and V. Yasikova, *SWOT Analysis of Method 'The Multi-Dimensional of Evaluation of clusters'*, in *Recent Advances in Communications Circuits & Technological Innovation*, WSEAS, Paris, 2012, 111-116.
- [9] A.D. Tantan and A. Chinie, *Green Clusters as new cooperation strategy*, in *The Changing Business Landscape of Romania, Lessons for and from Transition Economies*, A.R. Thomas, N.A. Pop & C. Brătianu (Eds.), Springer, New York, 2013, 189.
- [10] A.L.B. Hope and C.R. Jones, *Technology and Society*, **38** (2014) 48.