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Investigating health and environmental standards of sport complex management in Iran

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ABSTRACT

This study aimed at investigating how health and environmental standards for sport complexes in the City of Damghan, Iran, are implemented. This study is of applied type and the methodology is descriptive-quantitative. The directives of Iran Department of Environment, especially Directives on Implementing Environmental System and Green Management, were employed to make comparison between the current states of the complexes against the standards. The sample involved public sport complexes in the City of Damghan. The dada was gathered through questionnaires and standard checklists involving 14 main questions and 83 subordinate questions in a regular face to face fashion. Data analysis showed that not only all of the complexes used inefficient incandescent light bulbs and fluorescent tubes, but also neither used energy efficient ones. Also, 90% of the complexes were heated up by central heating and only a 10% portion by kerosene. 100% of the sport complexes had conventional windows (non-insulated glazing). Environmental information and educational-promotional signs were not presented adequately in 95% of them. 76% of the sites used disposable utensils and 13% made use of tissues for hand drying purposes. 18% of the restrooms were unsanitary. The noticeable point was lack of attention to environmental awareness raising by complex managers. The results suggested that these complexes were not in appropriate condition in terms of energy consumption; but in a good condition in terms of complying with health requirements .

Keywords: sport complexes, green management, environmental standards, environmental contamination, health

INTRODUCTION

Sport includes activities at different levels, ranging from people doing and learning sports accidently and rarely to professional athletes, from small clubs to international federations, form local competitions to championships or big events like the Olympics (1). Sport centers are an integral part of nurturing body and soul of individuals, especially the young, in any developed country. They are among places where young population spends most of their free time, hence environmental health, environmental sanitization, and cutting costs to lower cost prices are greatly important. The nature of being young and corresponding tendency to use sport services highlights addressing the above issues

and providing healthy, cheaper places. Fulfilling such goals is feasible to a great extent through "Green Management" (GM) (2). The United Nation Environmental Program (UNEP) defines the environment (2008) as "...water, soil, air, and the biotic part of the earth." World Health Organization (WHO, 2004) believes that "environmental health consists of controlling those factors of the environment affecting human's physical, spiritual, and social health one way or another." (5) International Standard Organization (ISO, 2002) defines green management as "a set of comprehensive, purposeful, ongoing studies and measures at different levels of an organization to improve and maintain its current state with the purpose of achieving goals like optimizing energy, water, paper, and supplies consumption to produce society's required goods and services". (4, 6)

In Iran like other countries, the issue of the environment and pursuing sustainable development has begun since many years, and has gone on slowly. In line with this, Green Management Plan (GMP) was developed and presented by. In the Social, Economic, and Cultural Development Plan (SECDP) (2000), optimized resource consumption and basic resource and environmental conservation were emphasized, and all executive organizations and governmental companies were required to incorporate GMP in their action plans. To clarify and facilitate GM implementation within the executive organizations, Iran Department of Environment (DOE) has undertaken studies and measures including presenting guidelines and directives with the assistance of GM experts. GMP requires public sport complexes involving stadiums, gyms, enclosed swimming pools, mountain climbing organizations, horse racing venues, etc. to cooperate and do their part in meeting basic requirements of a green organization .

A sport center can be called a "green organization" when operating and moving toward decreasing environmental pollution and toward efficient use of resources. A "green sport center" ought to have the following characteristics:

a) Being environmentally friendly and without any destructive activities to natural cycles in their daily operations such as administrative, athletic, cultural, etc.;

b)Using non-poisonous, clean, environmentally friendly material, reusing items, and using recycled goods;

c) Being efficient from different perspectives including conserving resources, supplies, etc.

The goal of this study was observing sport complexes in the City of Damghan, Iran, form the angle of environmental requirements to explore their current state and appraise opportunities and challenges of establishing MG in them.

MATERIALS AND METHODS

This study is applied and the methodology is descriptive-quantitative. The sample involved public sport complexes in the City of Damghan. The dada was gathered through questionnaires and standard checklists involving 14 main questions and 83 subordinate questions in a regular face to face fashion.

To increase the reliability of appraisals, and to provide authorities and MG workgroups with adequate information on current state of the sport complexes in Iran, a number of forms and questionnaires were developed in 2003 by (DOE, 2004). These were later verified by DOE. According to the 4th SECDP (2004-2008), they were to be used as a standard tool for appraising different bodies. These forms are categorized into two groups:

• Form 1: sport structure features questionnaire

This form involves 25 rows and 24 columns. On each row the features of a single building of the complex is incorporated. If the complex possesses only one building, the only row filled in will be the first one. The main items on the form involve surface, number of personnel, use types, kinds of energy used, sewage system, parking lots, and greenspace.

• Form 2: current state questionnaire:

The form encompasses detailed characteristics of the buildings of the complex. This form is made up of 14 main questions and 83 subordinate questions. The major items include staff, vehicles, lighting, maintenance, paper consumption, water consumption, heating, air conditioning, telecommunication, bathrooms and kitchens, structure safety, and management measures.

Once the two forms were completed, the information was checked by ad-hoc to verify the content.

RESULTS AND DISCUSSION

The results showed that the educational status of the sport complex personnel in Damghan was as follows: 30% high school graduates, 13% associate degree holders, 37% graduates, 5% master degree holders, and no Ph.D. holders (figure 1).

0% of the complexes used energy efficient lighting and 100% used energy wasting lighting (figure 2). Heating system in 90% of the places was based on central heating and in the rest on kerosene fueled heaters (figure 3). Also, 93% utilized water-based air conditioning; however, 7% lacked any air conditioning. One very important point was that neither of the complexes had insulated glazing, otherwise had conventional, non-insulated windows (figure 4).



Figure 1: personnel educational level



Figure 2: lighting efficiency



Figure 3: heating system



Figure 4: window types



Figure 5: sanitary condition of bathrooms



Figure 6: hand drying method







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According to the observations, the sanitary state condition of 18% of the restrooms was inappropriate. In addition, in 13% of the locations, tissue was the means to dry hands, and 87% lacked any means to do so. Furthermore, in 12% of the sites the hand washing material was solid soap (figures 5 and 6).

The results revealed that in 24% of the complexes, ordinary utensils and in the rest disposable utensils were used (figure 7). In 5% of the cases, environmental and health education was to some extent provided for the staff (figure 8). Finally, 70% of the locations enjoyed green space (figure 9).

CONCLUSION

The study showed that there was no particular planning for the betterment of sport complexes in environmental terms in the City of Damghan. In other words, sustainable sport management, which highlights complying with environmental requirements, was not implemented desirably. High rate of energy and supplies consumption, low environmental awareness, and lack of a management system were among challenges that these complexes faced. On the other hand, high average educational level of the personnel in addition to stated tendency of the management to improve the situation was amongst the opportunities. The major management measures to be taken in order to overcome weaknesses of the complexes follow:

- Waste management;
- Conserving energy, optimizing energy consumption as well as taking advantage of sustainable energy resources;
- Conserving water;
- Optimizing paper consumption; and
- Reforming health and nutrition system within the organization.

It is expected that sport centers do their best in this line by adopting the concept that achieving sustainable development goals is possible through GM.

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