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Authors: Nurit Meron, Isaac A. Meir

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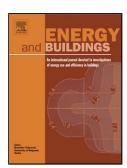
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Building green schools in Israel Costs, economic benefits and teacher satisfaction

Nurit Meron

Architect Environmental Planner, HaHaroov St., Moshav Aviel 3783500, Israel nuritmeron@gmail.com

Isaac A. Meir

Desert Architecture & Urban Planning, J. Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, Sede Boqer Campus 84990 Israel, sakis@bqu.ac.il ¹

¹ Corresponding author

Abstract

Green construction is gaining foothold among professionals, decision makers and the broader public. However, its success depends on a clear minded analysis of its pros and cons based on critical assessment, including cost-benefit analysis. This paper makes a first attempt at such an analysis of some of the first green sustainable schools in Israel. It deals with a limited sample available, as well as diverse rating systems which the different architects have chosen to comply with. By identifying and isolating the "green premium" of those schools which are comparable, and by analyzing actual direct benefits for the schools through energy and water bills (23% and 24% lower consumption respectively per year), the paper concludes that for the time being the payback period of green schools in Israel may prove counterproductive and prohibitive if calculated only on the basis of these two direct and immediate benefits. However, including in the analysis additional benefits, e.g. staff satisfaction (included in this paper), student achievements, user and broader public health issues and other public benefits (not included in this paper) can change the cost-benefit analysis outcome significantly.

A. Introduction: Building green schools

Schools are public buildings, precious both to our hearts and our budget. Our children spend many hours in them, for ten months a year. Hence the great effect they have on children's health and their academic achievements. Such buildings are built in every new neighborhood, and are being used for many years. Therefore, the cumulative effect on the use of resources, and the potential financial savings for the community as a whole, are significant. In addition, these buildings are public: their

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