





"Improving Energy Efficiency in Buildings" UNDP/GEF/00059937 Full-Sized Project

Programme Area:

Energy and Environment

Project Number:

UNDP/GEF/00059937
The Project document is signed by the RA Government and UNDP Armenia

PMIS Number: 4245

Funding:

Global Environment Facility

Implementing Agency:

UN Development Programme

Duration:

2010 - 2015

National Executing Agency:

Ministry of Nature Protection of the Republic of Armenia, Ministry of Urban Development of the Republic of Armenia

Project Budget:

GEF: USD 1,045,000 GoA co-funding: USD 2,350,000

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Background

Due to Armenia's markedly continental climate with long heating season and winter average temperatures around -5°C, energy consumption and GHG emissions in Armenian building sector are mainly associated with space heating. Furthermore, climate change projections for Armenia indicate a continuous rise in summer temperatures (ranging from 2.1°C to 8.4°C in the year 2090), leading to increased demand for air-conditioning in summer.

As 88% of buildings in the total non-commercial building stock of Armenia is in the residential sector, and the largest portion of the urban housing stock is between 30 and 60 years old with typically poor thermal characteristics, this project is directed towards enhancing energy efficiency in residential buildings.

Objective

The objective of the GEF full size project is to reverse the existing trends and reduce consumption of electrical and thermal energy and associated GHG emissions in new and restored, primarily residential buildings in Armenia.

It will do this by creating enabling regulatory environment, skills and capacity among industry professionals to introduce the principles of integrated building design in Armenian construction practices from the stage of building design through construction to maintenance of the buildings.

The support to be provided by the project will combine development of a new regulation (EE building codes and certification scheme) with the training of professionals, demonstration of integrated building design and stimulating manufacturing of new EE materials and equipment.

Components

- 1. Design and enforcement of new mandatory EE Building Codes and Standards: methodology, institutional capacities and accountability
- 2. Quality control, testing and certification of EE materials and equipments: standards for internal QA/QC and testing/certifying laboratory
- 3. Outreach, training and education on integrated building design, including curricula improvement and professional development for architects and engineers, and outreach for investors and tenants
- 4. Piloting integrated building design approach: at least one building designed and constructed using an integrated building design approach and energy saving and GHG reductions in pilot building monitored and reported

Projected Impact

The project aims to decrease the average thermal energy consumption for space heating in new residential buildings in Armenia from 160 kWh/m² year in 'business-as-usual' scenario to 96 kWh/m² year. Thus cumulative CO_2 emission reductions from new residential buildings to be built during project lifetime (2010-2015) will reach approximately 60 ktCO₂eq against the baseline compared to the BAU scenario.

Beneficiaries

Local residents using and local companies applying modern EE approaches in buildings, Armenian design and construction companies, the GoA bodies.