be severe in the short term, suggesting the need for policies that better insure against consumption losses during this time [2].

Challenges faced by the construction industry: The construction industry bears a significant brunt of natural disasters. Construction sites become vulnerable hotspots, material costs surge due to increased demand for reconstruction, and labor shortages arise as workers are displaced or prioritize emergency response efforts. Delays in ongoing projects and a decline in new construction contracts contribute to a slowdown in the industry [3].

Impact on construction costs: Natural disasters can lead to rising supply costs in the construction industry. Building material prices, such as lumber, can increase due to increased demand and reduced availability. Other materials like drywall, concrete, and steel can also become scarce, further complicating the rebuilding process. Construction delays can occur due to labor and supply shortages, driving up rebuilding costs.[4]

In conclusion, it is important to note that the impact of natural disasters on the construction labor market can vary depending on the specific characteristics of the affected area, the population, and public policy.

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WAYS OF REDUCING THE NON-RENEWABLE CONSUMPTION ENERGY IN CLIMATE CONTROL BUILDING SYSTEMS

The main condition for the functioning of any technology at a given time is the reduction of non-renewable energy consumption in indoor climate control systems.

The improving of indoor comfort is one of the areas for further development of life support systems in buildings.

Modern energy crisis creates a new technological policy based on the principle of energy conservation and strict control of its consumption. Energy consumption analysis for indoor climate control in buildings over the past decade has shown that it has been increased significantly. At the same time it should be expected that the trend of its increase will continue with the planned economic growth. At present, the microclimate systems use energy which is obtained from the non-renewable types of energy (coal, oil, gas) [1].

Reduction of energy consumption in indoor climate control systems can be achieved by means of the following:

- highly efficient thermal protection of the building envelope;
- use of renewable energy (sun, wind, biomass, soil and water heat, etc.);

▪development of highly efficient indoor climate control technology.

The experience of creating the high-performance building envelopes in the world is very large.

The microclimate provision with the use of renewable energy sources is environmentally friendly and it is a modern, highly efficient microclimate technology [2].

One of the promising areas of modern energy development is the use of renewable energy for heat and cooling supply of microclimate systems in buildings based on installations that use insulated combined heat and cold production - absorption heat transformers (AHT). These heat transformers are a thermodynamic system where heat is transformed by means of combined forward and reverse cycles. AHTs have high efficiency, environmental friendliness, quiet operation, ease of maintenance, long service life and full automation.

On the basis of these thermo-transformers, a technology is proposed and a schematic diagram of its operation is developed to ensure year-round microclimate parameters in buildings with the integrated use of solar, wind, and biomass energy, as well as soil and water energy. Due to the instability of this energy, accumulation is provided. Of there is a shortage of renewable energy, a backup energy source is provided.

The analysis of the heat and air balance of the premises showed that the reduction of energy consumption by microclimate systems should be achieved by means of:

▪optimizing air exchange and reducing the amount of supply air to the required minimum,

▪zoning of premises by the area of the working or service area,

▪the use of natural air movement stimuli,

▪monitoring the state of the internal atmosphere and managing its parameters.

In order to solve the problem of reducing energy consumption, it is proposed to provide indoor microclimate by two simultaneously operating systems:

▪a system of year-round provision of thermal comfort in the room due to surface heating (in the transitional and cold periods of the year) and cooling (in the warm period of the year);

▪air conditioning system.

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HUMIDITY AND AIR MOVEMENT IMPACT ON THERMAL CONDITIONS

The temperature conditions of the room determine its thermal microclimate and limit the other parameters such as humidity and air movement. It is necessary to consider the values of relative air humidity $\varphi_в$, which, in combination with the temperature of three normalization zones, will not have any adverse effect on human well-being and performance.

The boundaries of the range of permissible combinations $t_в$ - $\varphi_в$ must be also taken into account. It is known that low relative air humidity (20...25%) is one of the causes of colds. In addition, it causes increased dust due to excessive drying of objects made of natural materials (wooden furniture, parquet floors, etc.). High relative air humidity (above 70%) also negatively affects human well-being. Even at a comfortable temperature, it leads to increased heat loss from the body, which makes a person feel chilly.