Julija Aleksic[1], Violeta Mihajlovic[2], Tamara Jovanovic[3]
COST-BENEFIT ANALYSIS OF SHIPPING CONTAINER EMERGENCY SHELTERS: THE CASE STUDY OF THE REPUBLIC OF SERBIA

Modular containers, besides the traditional use for the purpose of transporting goods — especially in marine traffic — are experiencing the transition to much more innovative applications in architecture in terms of habitability. Due to easy transport, opportunity for combination, simplicity, reuse, networking with existing available infrastructure, low cost and speed of construction, they have become the best solution in the care of vulnerable populations in emergency situations (such as war disasters), and it is concerned with the economic and financial profitability of such a project in the Republic of Serbia.
Keywords: shipping containers; shelter; crisis; emergrncy; cost-benefit analysis.

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АНАЛІЗ СПІВВІДНОШЕННЯ ЗАТРАТ ТА ВИГОД ПРИ ВИРОБНИЦТВІ КОНТЕЙНЕРІВ, ЩО ВИКОРИСТОВУЮТЬСЯ ЯК ТИМЧАСОВЕ УКРИТТЯ ПРИ НАДЗВИЧАЙНИХ СИТУАЦІЯХ: ПРИКЛАД СЕРБІЇ

У статті показано, як модульні транспортні контейнери, крім традиційного їх використання у морських перевезеннях, також можуть використовуватись як тимчасове місце проживання при надзвичайних ситуаціях. Для подібних ситуацій вони стали оптимальним варіантом рішення проблеми розміщення переселенців через простоту транспортування модулів, легкість їх побудови та комбінування блоків, швидкість зведення. Крім перерахованих технічних переваг, таке рішення питання є ще й фінансово обґрунтованим, що продемонстровано на прикладі Республіки Сербія.
Ключові слова: транспортний контейнер; криза; надзвичайна ситуація; аналіз вигод та витрат.
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АНАЛИЗ СООТНОШЕНИЯ ИЗДЕРЖЕК И ВЫГОД В ПРОИЗВОДСТВЕ КОНТЕЙНЕРОВ, ИСПОЛЬЗУЕМЫХ КАК ВРЕМЕННОЕ УБЕЖИЩЕ ПРИ ЧРЕЗВЫЧАЙНЫХ СИТУАЦИЯХ: ПРИМЕР СЕРБИИ

В статье показано, как модульные транспортные контейнеры, помимо традиционного их использования в морских перевозках, также могут использоваться в качестве временного места жительства при чрезвычайных ситуациях. Для подобных ситуаций они стали оптимальным вариантом решения вопроса размещения переселенцев из-за простоты транспортировки таких модулей, легкости построения и комбинирования блоков, быстроты построения. Кроме перечисленных технических преимуществ, такое решение вопроса является ещё и финансово обоснованным, что показано на примере Республики Сербия.
Ключевые слова: транспортный контейнер; кризис; чрезвычайная ситуация; анализ выгод и издержек.

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Introduction. Overpopulation as a global problem in urban areas inspired the architects to resolve the housing problem, in the situations where traditional architecture does not give an adequate answer, by introducing the container in housing construction. Recently, containers have become applicable in various spheres of life, and no doubt would meet all 3 criteria of structure as seen by the famous Roman architect Vitruvius (Firmitas — stability, Utilitas — expediency; Venuitas — Beauty), engaging a little of the architect's effort and imagination when it comes to the third criterion but additionally meeting the challenges of modern life and rapid response in necessary occasions. Beside the general criteria, containers for housing fulfill the following specific criteria: availability, cost, durability, portability, modularity, recycling, transformation (Brandt, 2011). Furthermore, they are being produced in standard sizes defined by ISO standards 6346.

Economic viability of a project is determined by generally accepted methods of economic evaluation carried out through the analysis of cost optimization, analysis of cost and impact, analysis of cost and benefits (related to social benefits) and analysis of cost and profit — cost-benefit analysis (CBA).

The analysis of costs and benefits is usually defined as the activity that enables capturing and comparing costs and benefits that are a result of an investment project in terms of wider or narrower social environment. This method performs the evaluation of the profitability of projects and at the same deals with the rankings based on given priorities. In decision-making, this analysis has a dual role: the establishment of the project and the assessment and selection of projects. Both aspects of the analysis are related to future use of economic resources.

In practice, several assessment methodologies are used when it comes to the efficiency of projects and they usually include the UNIDO methodology and the methodology of the World Bank. CBA finds its application in both the methodology and the territory of the Republic of Serbia, because of the great influence of the EU, as well as its access to development funds, complies with the requirements defined in the Manual on the development and financing of capital investment projects (Guide to Cost-benefit Analysis, 2008). No matter what project is concerned, the basic idea of cost-benefit analysis is to calculate and evaluate all social benefits and costs of a project basing on their assessment of the validity of comparisons and profitability of specific investment. At the same time apply similar procedures are used when it comes to private investors and when it comes to state (Stiglitz, 2004).

CBA of modular shelters. CBA is used in management of emergency situations arising as a result of natural or other man-made disasters, in order to timely prepare local government. "Displaying the benefits of reducing disaster risk through quantitative methodologies such as CB analysis provides an insight into finding real value of these interventions" (Benson and Twigg, 2004). Total benefits and expenses, including claims brought by public projects, extends to all areas of social life: economy, standard of living, health, environment (at the local level, within state and regions) etc. Therefore, this analysis is not easy to execute. If you are investing in public projects larger and of longer lifespan increasing the risk and uncertainty of its realization, the CBA makes it considerably more complex. As such, it is more expensive and requires more processing time, but is no alternative, as it provides relevant indicators for assessing the financial viability of a project.

CBA can be economic and financial. CB economic analysis shows that if a project is viable from the socioeconomic point of view. This analysis is done by way of the economic net present value, cost-benefit ratio that is greater than 1 or economic internal rate of return greater than the discount rate used to calculate the economic net present value. If the financial analysis of the negative financial net present value, it indicates the need to seek financial assistance from government or financial institutions.

CBA is conducted through several steps (Guide, 2008): defining objectives and contextual analysis, project identification, feasibility analysis and options, financial analysis, economic (social) analysis and risk assessment.

Defining goals and contextual analysis. Contextual analysis or analysis of the socio-economic environment aims to collect and process information about social, economic and institutional environment in which a project is to be implemented. Consideration of socioeconomic environment provides necessary information as to assess costs and benefits depending on general economic and social conditions.

As a part of this analysis, it is necessary to establish a relationship between a project wirh other projects at national and international levels. Since this is a project that relates to emergency situations, it is the same in compliance with the National Strategy for protection and rescue in emergency situations which is based on the Law on Emergency Situations (Official Gazette of RS, No. 111/09), which defines the establishment of an integrated system of protection and rescue and other national and international documents such as the National Programme for Integration of Serbia into the European Union, the National strategy for Sustainable Development, the National Security Strategy of the Republic of Serbia, the Millennium development Goals, which have been defined by the members of the United Nations and the Hyogo framework for Action 2005—2015: Development of the Resilience of Nations and communities to Disasters (National Strategy for protection and rescue in emergency situations, Official Gazette of RS, no. 86/2011).

Starting from the contextual analysis the objective of a project should be clearly and precisely defined to identify the benefits that this project brings to a particular environment. Benefits and the aim of this project is to quickly respond to emergency situations, caring for victims and reducing disaster risks.

Justification of this study shows that in Serbia over the past two decades about 700 collective centers for receiving war-affected populations have been opened. On January, 2002, on the territory of the Republic of Serbia there were 388 collective centers where 26,863 people were housed; on the 1st of May, 2013, 25 collective centers were accommodating 1,977 people. Of the total number of collective centers in Serbia outside Kosovo and Metohija there were 14 collective centers with 1,519 persons, while in the territory of Kosovo and Metohija, there were 11 collective centers with 458 persons accommodated (http://www.kirs.gov.rs/articles/centri.php?lang=SER). Apart from these disasters have befallen Serbia and natural disasters and earthquakes that have occurred in Kopaonik in 1980, measured 5.8 on the Richter scale, in Mionica in 1998, measured 5.7 by the Richter scale and Kraljevo 2010, measuring 5.4 on the Richter scale. The report of the Commission to assess the damage caused by the earthquake in Kraljevo states that the operating team for the safety of facilities reviewed the total of 11,385 objects, of which 1554 were no longer in use, while in

9831 buildings needed urgent repairs, and operations team for the care of people took care of 701 persons in collective accommodation establishments, of which 62 sick persons housed in facilities of health institutions (Action Plan for urgent rehabilitation of the earthquake in Kraljevo).

Identification of the project. Subject CBA includes the activities aimed at the realization of a common shelter for people in emergency situations, taking into account all indirect impacts and related social effects. Given the fact that these are events which we do not know when, where and in what proportions will occur or how much it will devastate a particular area and how many people should be taken care of, the analysis is of a hypothetical nature.

The subject of this analysis is the construction of a container village of 205 containers on the surface of 100x100 m, including the purchase of containers for housing, preparatory work, earthworks, works on pavements, electrical work, building fences around settlements, connection to water supply and sewerage systems.

According to the Regulation on common rules for land division, and building regulation (Official Gazette of RS, no. 50/2011), Article 25 stipulates that the degree (index) utilization or occupancy represents the ratio of dimensions of the horizontal projection of the planned building and the total area of the building plot expressed in %. In Article 39, par. 2 of the same Ordinance certain permitted occupancy index for construction zones from 25 to 80%. Regarding the specific use, the occupancy index is up 60%. Hypothetical calculation was made for the occupation of about 60% on the basis of which the number of containers that can be installed is 205 pcs, dimensions of 6.0x4.87 m. The calculation is performed as the following: container net area 6.0x4.87 m = 29.22 m^2 that can be installed on the surface level of utilization of about 60% (10,000 m^2 x 60% = 6,000 m^2) of the total occupancy and 6,000 m^2 / 29,22 m^2 ≈ 205 pc.

Analysis of feasibility and sensitivity. This part of CBA refers to the analysis of markets, analysis of financing sources, technological analysis, analysis of personnel and legislation.

Market analysis. On the territory of Serbia there is a number of manufacturers and distributors of containers: EUROMODUL Nova Sad, Novi Sad Mobil Systems, Enigma idea Belgrade, Novi Sad AGROPARTNER, Argus Engineering Novi Sad, Belgrade DEVIX, MORAVA IN Krusevac, EURO INVEST MONT Ltd. Obrenovac, VITALBOX Ltd. Bulgaria — Subotica, RUMEKON Ruma. We offer a wide range of containers whose price ranges between 2300—6000 EUR per container with standard dimensions of 6 m x 2.4 m, depending on the quality of equipment.

Demand for these products isn't negligible, since in a short period of time container sales would be conducted after the completion of a project alond with permanent accommodation for vulnerable populations.

In the building industry of prefabricated (prefabricated) houses, there are several barriers to the penetration of the real estate market including:

1. Insufficient information to public — the people see this house as a object made of worse quality components and materials and by less expensive work force. This fact for management in the construction industry indicates that it is necessary to invest a lot of efforts and resources into marketing campaigns to highlight the benefits of these facilities. These efforts must be comprehensive and public so that the majority of pop-

ulation would change their opinion. The problems of inadequate and insufficient insulation material with the development of technology and new materials are now obsolete and it is considered that the market of prefabricated houses in Europe and America is rising. An advantage is that after its construction there is not much construction waste.

2. Competition. The conventional way of building is the biggest competitors in this field.

3. Traditional construction uses economies of scale to reduce the costs related to construction materials and labor.

4. It is positive that lifestyle trends are moving towards situations when people increasingly want to live outside urban zones, or in the locations where environmental technologies could be easily applied. Also small residential units can be adapted for densely built environments while referring to spatial problems, thereby justifying economically affordable housing.

In the US the concept of modular house is still limited, although it is widely used in the world (Pagnotta, 2011). Over the past 10 years, in the university towns of Holland and France, such constructed homes for students consisting of 100−1000 container units have been widely used.

Analysis of the source of funding, personnel and legal regulations. Construction of container settlements is financed from the budget of the Republic of Serbia, Budget Fund for Emergency Situations and other sources in accordance with the Act. In cooperation with international partners, donations and joint projects aimed at supporting the implementation can be planned. Resources for donations and humanitarian assistance from abroad are received on the basis of donations and humanitarian aid, as adopted in September 2001 (Official Gazette SRJ, no.53/2001). According to this law, grantees may be public authorities, local governments, public enterprises and institutions, other organizations and communities that do not make profit, as well as domestic and international humanitarian organizations.

Disaster risk reduction requires a strong institutional basis, which can be achieved through capacity building, good management, promotion of appropriate policies and legislation, mitigated information flow and efficient coordination mechanisms.

Law on Social Protection (Off. Gazette of RS, no. 24/11) states that state budget should finance services of general interest and that state itself should ensure the provision of such services. Among other things, point 10 of Article 206 of the Law recognizes the right to one-time assistance in case of danger for a significant number of citizens.

Law on Emergency Situations (Off. Gazette RS, no. 111/2009 and 93/2012) defines the establishment of an integrated system of protection and rescue.

While developing the National Strategy, Internal Security Strategy of the European Union and the European Union Strategy for supporting disaster risk reduction in developing countries were considered. The purpose of the National Strategy is the protection of life, health and property of citizens, environment and cultural heritage of Serbia. The National Strategy determines the national coordination mechanisms and program policies for disaster reduction caused by natural phenomena and the risk of accidents, protection, response and recovery effects.

Financial Analysis. Financial analysis includes the consideration of effects of the investments or assessing profitability and assessing financial benefits. The preliminary design is often unable to predict costs and that is why knowing whether investment is economically justified is beneficial.

Table 1. **Bids for the construction work on the containers and making 2 bathrooms-SITE "DYTEX" Serbia**

	Description of position	Unit meas.	Quantity	Price in Euros	Total
A	Containers				
1	Supply, transport, unloading and placement of containers with air-conditioning and heating at a place chosen by an investor. Container dimension – 4870x6000x2570 mm. Construction of box steel, specially curved profile. Walls are waterproof, insulateded sandwich panels d = 40 mm, heat transfer coefficient K = 0.50 W/m2K. The roof of the two-layer outer shell made of galvanized sheet TR 0.80 mm thick, rainy overhang on short sides, fill mineral wool d = 100 mm in the vapor defend and ceiling of plaster board 9,50 mm. Heat transfer coefficient K = 0.37 W/m2K. Under the multilayer: galvanized mineral wool d = 100 mm, and the final layer of adhesive bonded vinyl tiles. The container has 4 units PVC windows (980x980) and PVC front door (980x2000).	part	1	7,000.00	7,000.00
2	Supply, delivery of materials and taking self-supporting aluminum cable 4x16 mm² connecting GRO and the boards of the container.	m²	100.00	6.20	620.00
3	Labeling, removing the humus layer d = 20 cm from the loading and disposal at the landfill, reclamation planning base d = 10 cm and compacting the same to proper density.	m²	100.00	6.00	600.00
4	Making AB surface of concrete MB30 d = 10 cm and mesh Q188 (surface of the container, bathrooms and trails).	m	100.00	12.50	1,250.00
				TOTAL	9,470.00
	VAT 18%				1,894.00
TOTAL					11,364.00

Note: Fiscal adjustments include the elimination of the transfer, be it a transfer from the state to the new local government, or the individual level to the state level. These transfers do not reflect the actual costs incurred by the company, as the only instrument of income redistribution (taxes and subsidies are the most common forms of transfer). Transfers should not be included in the economic analysis (Guide to cost-benefit analysis of investment projects, 2008), so in this analysis they are omitted.

Recapitulation of the cost of installing 205 residential containers measuring 6.0x4.87x2:57 storage capacity about 1640 persons (205 persons x 8 = 1640), with the cost of preparing the plateau of 100x100 m and construction of water supply sewerage system and electrical:

Preparation plateau without gravel: 6 EUR x 10000 m² = 60,000 EUR.

Making toilets, pathways and substrates for container: 12.5 EUR x 10000 m² = 125,000 EUR.

Electric works: 205 x 620 EUR = 127,100 EUR.

Container Complex: 205 x 7000 EUR = 1,435,000 EUR.

TOTAL = 1,747,100 EUR.

Since income does not include prilve from grants and subsidies from the budget, as it is a non-profit project, for the purpose of this analysis, the residual value of the project after one year of use was calculated and it amounts to 1,076,250 EUR (75% of the total value of the container 1,435,000 EUR).

Table 2. **Summary of cash inflows and outflows related to investments in 1 year,** *EUR*

Total operating revenues	1,076,250
Total cash inflows	1,076.250
Total operating costs	1,747,100
Total cash outflows	1,747,100
Net cash flow	-670,850

Financial analysis can include only investments, costs and revenues, which cause cash outflow or inflow. Cash inflow occurs relative to business income and residual value (although residual value occurs in connection with investments, it is not a cash outflow, but inflow). Cash outflow occurs in relation to total investment and operating costs. Net cash flow can be positive (when cash inflows higher than outflows) or a negative sign (when cash inflow is less than outflow). Net cash flow should be established for all years of the planning period. Starting from the data in the table, it is possible to calculate the main two indicators of the return earned on the capital invested. These are: financial net present value of the investment or part FNPV (C) (Financial Net Present Value on Investment Cost) applied for the purposes of this analysis and the financial internal rate of return or part FRR (C) (Financial Internal Rate of Return on Investment Cost).

Discounting cash flows. Financial discount rate is a measure of a missed return on long-term investment – 5% as recommended the European Commission. Process of discounting enables the reduction of the future value of money at present. We calculate the discount factor using the following formula:

$$Disc.\ factor = \frac{1}{(1+i)^n}. \tag{1}$$

Total cash inflow = 1,076,250 EUR.

The total cash outflow = -1,747,100 EUR.

Net cash flow = -670,850 EUR.

Discount factor rate 5% = 1.05.

The present value of cash flow = -704,392.50 EUR.

FNPV(C) = -670,850 x 1,05 = -704,392.50 EUR.

The calculation shows that the project is not financially viable because it brings more costs than benefits or financial net present value of the investment or FNPV (C) (Financial Net Present Value on Investment Cost) amounts to -704,392.50 EUR.

Economic Analysis. Economic justification on construction of container settlements is reflected in many savings and benefits aimed at understanding the total costs and benefits in terms of society as a whole. The inclusion of the Republic of Serbia in the European integration process implies the possibility of using the EU funds, which is a prerequisite for investment appraisal in terms of impact on society (Obradovic, Todorovic, Mihic, Brown and Jovanovic, 2011).

Economic viability of this form of construction in relation to the conventional form is reflected in many savings primarily related to:

- the concept of saving energy efficiency related to savings in power consumption and reduced heat dissipation;
- savings in construction time, because the time of delivery, installation and putting into operation of this house was reduced to a few days;
- savings in the required workforce;
- savings in materials through flexibility in the choice and the possibility of using the resolved object.

The disadvantages of conventional construction:

- the generation of waste and the problem of its disposal;
- inefficient use of materials with high costs and wastes;
- pollution of the site where construction is taking place;
- the seasonal nature of construction (construction delay due to climate change).

Converting to real economic costs. In order to objectify the value of products that are subject to foreign exchange we need to correct the established rates, which sometimes is not a good measure of social opportunity cost of inputs and outputs, and based on information about existing quantities of import, export and customs fees.

Regulation on the harmonization of customs tariffs for 2013 and the Report of the Department of Customs Policy of the Ministry of Finance (http://www.mfin.gov.rs) data on the average customs tariff are obtained.

Data on the volume of foreign trade of RS were obtained from the website of the Ministry of Finance of the Republic of Serbia (http://www.mfin.gov.rs).

Standard conversion factor in Serbia for 2013 amounts to

SCF = 0,953.

SCF = (M + X) / [(M + TM) + (X + TX)] = 24,167.70 / [15,052.11 + 10,302.30] = 0,953.

M (the value of total imports) 14,067.4 mln EUR.

X (the value of total exports) 10,100.3 mln EUR.

TM (taxes on imports 7% of the value of imports) 984.71 mln EUR.

TX (tax on exports 2% of the value of exports) 202.0 mln EUR.

Table 3. **Converted total costs**

Cost	Amount, EUR	SCF	Amount, EUR
Preparation of plateau	60,000	0,953	57,180.00
Making toilets	125,000	0,953	119,125.00
Electrical installations	127,100	0,953	121,031.00
Container complex of 205 containers	1,435,000	0,953	1,334,550.00
Total	1,747,100	0,953	1,664,986.30

In calculating economic benefits all the values used and all values of the cost are taken into account and if the resulting ratio is greater than 1, then the project is economically viable.

Both vulnerable individuals and community as a whole benefit from a project of this kind, as it prevents displacement of population and saves manpower and provides survival of the community, but also cuts costs for vulnerable people in existing facili-

ties, such as hotels and reception centers in other municipalities that have not been destroyed, which resulted in payment for accommodation.

For the purposes of this analysis, we have analyzed social benefits through the savings that can be achieved in relation to the payment of tenancy price:

Minimum tenancy price status 50 EUR + Average Costs 50 EUR = 100 EUR x 1640 people =164,000 EUR of monthly expenditures, which means that the cost of tenancy housing 1640 people in one year amounts to 1,968,000 EUR. The investment would be paid off in 10 months and 10 days with only accommodation without other social benefits (EUR 1,664,986.30 / 1,968,000 = 0.84 x 12 = 10.08).

For a period of one year, the cost-effectiveness ratio (B / C) is 1,968,000 EUR / 1,664,986.30 = 1.18 thus meeting the criteria of economic profitability.

The total economic benefit of such a project after a period of one year would be equal to the difference of the sum of the residual value of the project and the cost the persons residing in the same period and the total cost of the project:

1,076,250 EUR + 1,968,000 EUR - 1,664,986.30 EUR = 1,379,263.70 EUR.

Economic net cash flow of the project. Total economic benefits include the total revenue increased by economic benefits from the table of converted total costs.

Total economic benefits = 3,044,250.00 EUR.

The total economic cost of 1,664,986.30 EUR.

Net cash flow of 1,379,263.70 EUR.

The social discount rate

Discount factor of 10% = 0.9091.

Net cash flow of 1,379,263.70 EUR.

The present value of 1,253,888.62 EUR.

ENSV = 1,253,888.62 EUR.

Discounting is used to ensure that all costs and benefits are reduced to the same base year. As defined in the Guidelines of the European Commission, to analyze costs and benefits, the discount rate in economic analysis of investment projects — the social discount rate — should reflect a view of society on how future benefits and costs should be evaluated in relation to the present (time preference of society). In the European Commission Guidelines for cost-benefit analysis there is a recommendation to use a social discount rate of 5% for the countries that join the EU as a standard benchmark for the projects cofinanced by the EU.

The recommended methodology for establishing the socio-economic discount rate for Serbia is to use long-term interest rate of the National Bank (real) and a supplement to the risk. In Serbia, long-term interest rates are around 9% (at current prices) and inflation is 2.2% (http://www.ipc.rs). This means that the real interest rate is 4%. According to international practice, Ministry of Finance of the Republic of Serbia is currently maintaining the social discount rate at 10%.

Risk Assessment. The basis for disaster risk reduction and increasing culture of disaster resilience lies in the knowledge of hazards and physical, social, economic and environmental threats faced by certain communities and society as a whole, and the ways in which these hazards and vulnerability in the short and long term modify.

Existing deficiencies highlight the need for better mapping and capacity building for risk analysis, promotion of integrated risk assessment and capacity, and improving the early warning system in order to develop strategies and measures on reducing the

risk of disasters that contribute to strengthening of resistance, appropriate to local conditions. Expanded research capacity and the use of research findings will help to overcome these deficiencies.

Objectives:

- adopted standards and assessment of methodology and identification of risks of natural disasters and other catastrophes in accordance with the recommendations;

- established system 112 within the Sector for Emergency Situations of the Ministry of Internal Affairs, the reorganization of the monitoring system, early warning, notification and alarm systems, and the formation of organized and integrated databases;

- promoted hydrological system for early warning and alert.

Conclusion. Despite many doubts and complaints regarding the quantitative evaluation of individual investment projects on the macrolevel, and the accuracy and reliability of the cost assesments, there remains the fact that CBA is now widely used in the world. Thus, despite all the problems and shortcomings, it remains the most acceptable method for the analysis of social investment projects.

The subject for CBA is the inclusion of activities aimed at the realization of shared accommodation for people in emergency situations, taking into account all indirect impacts and related social effects. Building a container settlement entails the purchase of housing containers, the preparatory works, earthworks, works on pavement, electrical work, building fences around settlements, water supply and sewage works.

Economic viability of this kind of construction can be manifested if the perceived costs of traditional construction and benefits of the use of container are reflected in cost reduction through energy efficiency concept that refers to savings in power consumption and reduced heat loss, reduced construction time, because the time spent on delivering, installing and putting this house into operation have been reduces to a few days, which means savings in the required workforce and materials through flexibility in the choice and the possibility of using the disassembled object for other purposes etc. Economic benefits can also be achieved by taking care of vulnerable people, which represents the greatest benefit that communities can achieve as it relates to the speed of saving lives through prevention of environmental influences on injuries, illnesses and mortality rates.

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