ЭКОНОМИКА

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THE EFFECT OF ECONOMIC FACTORS ON THE CONSEQUENCES OF NATURAL DISASTERS AND THEIR INTERDEPENDENCE

Резюме

Мақала экономикадағы сауданың рөлі мен дамуына арналған. Халықаралық нарықтың интеграциялануы, жұмысшы күшінің халықаралық бөлінісіне қатысты инвестицияның құйылуын, жұмыссыздықтың жойылуын және де барлық адамдарға маңызды болып табылатын әр үйдегі ақша кірісіне елеулі әсер ететіндігін басып айтады.

Резюме

Тематика данной статьи посвящена ролью торговли в развитии экономики. Автор статьи отмечает, что интеграция на международные рынки и участие в международном разделении рабочей силы стимулирует приток инвестиций, производит занятость и вносит свой вклад в домашний рост дохода, который является очень важным для всех людей.

Resume

Subjects of this article is devoted to the role of trade in economic development. The author notes that the integration of international markets and participate in the international division of labor encourages inward investment, produces employment and contributes to household income growth, which is very important for all people.

Examination of interdependence between socio-economic factors and consequences of natural disasters has become an urgent necessity. For this purpose economic impacts of natural risks should be carefully considered. Risks can be reduced through better preparedness and raising of resistance to disasters. In the present article it has been attempted to examine macro and microeconomic impacts of disasters. Furthermore, major directions of preventive and rehabilitation measures for mitigating the impacts of disasters have been proposed here.

In the globalizing world natural disasters inflict severe damage on health and safety of the populace, and on economic growth and infrastructures of the regions and nations they hit. However, those negative impacts stretch out beyond national borders as disasters don't recognize political borders. Natural disasters are of global nature, and they are sure to affect global economic relations network (particularly through the medium of reassurance companies).

Thus, a devastating earthquake which brings about physical, social, and economic pathologies is as dangerous for humans and their property as it imperils social, economic and political systems. Admittedly, raising resistance of physical, economic, social, and political basis to earthquakes and to all other risks has become a matter of vital importance.

Natural disasters affect economy in macro and micro scale. Of late progressively increasing natural disasters that threaten economic, social, and political structures have become one of the world's priority issues. This problem is gradually converting into hazard to the existence of the universe. Poorer preparedness in the less developed and the developing countries, and progressively increasing magnitude and intensity of disasters inflict immense damage on financial and commodity markets of the regions as a whole. Now that the world is globalizing, mitigation of the effects of natural disasters is being regarded as an international rather than a regional problem[1].

Today investigation of interrelation between socio-economic factors and natural disasters has become an urgent necessity. One of the most important issues to be considered with this regard is to find out the factors affecting the scale of economic damage inflicted by a disaster. The economic consequences of natural disasters are classified into or referred to as direct effects, indirect effects, and secondary effects[1].

Indirect effects occur immediately after a disaster, and usually take from several months to years to recover[1].

Secondary effects (macroeconomic) of disasters as a rule occur after a while. Since they inflict damage on national economy as a whole, they are referred to as macroeconomic effects. Secondary effects slow down growth rate and adversely impact economic development, inflation rate, bring about foreign trade balance problems, increase in government expenditure and in budget deficit with respect to GDP, attenuation of federal funds, off-balanced foreign debts, a cut back in state funds, and other negative outcomes[4].

Direct (microeconomic) and indirect macroeconomic effects of a devastating earthquake are primarily caused by injury of resources, water reservoirs, roads and communications, buildings and infrastructure, and loss of inventories. Furthermore, they result from injury to business premises and facilities, increase in net costs and process loss in various sectors, and other analogous economic factors[2]. The impact of these effects on profits, infrastructures, physical investment reserves, and human resources may be explained as below:

The impacts of a devastating earthquake on economy sectors: like all other natural disasters a major earthquake severely hits domestic industrial output which results in reduced capacity to meet demands. Such sectors as communications, transport, entertainment, sports, education, health care system, tourism, and the like are usually lagged. All those negative impacts are sure to bring about loss of profits for a regional economy.

The impacts of a devastating earthquake on infrastructures: a devastating earthquake has toughest destructive impact on water pipes, sewer systems, power and communication lines networks, railroads, motorways and bridges, as well as on environment. When water pipes burst or pure water is polluted with waste water, drinking water supply becomes a problem. That will result in additional expenditure related with getting drinking water to the area and transportation of sewerage dumps. Disrupted railroads, water and airways, and destroyed power supply system will cause great damage to tourism and services sector, which will considerably lower the living standards of the residents. Damaged environment may affect convenience of living and nature protection issues. All those factors will come at a dire cost to the regional economy in terms of loss of services and workplaces, reconstruction and rehabilitation costs, and profits and currency loss.

The impacts of a devastating earthquake on physical investment reserves and human resources: a devastating earthquake may partially or completely destroy residential buildings, facilities, schools, hospitals, administrative buildings, plants and factories, historical and cultural monuments. It has a psychological effect on labor force in the sense that people affected by a disaster as a rule demonstrate lower working capacity. Natural disasters may cause personnel failure or loss for the reasons of casualties or necessity to stay home for some specific reasons. The same reasons will probably cause an increase in social protection costs.

On the basis of the said above we can arrange the direct and indirect economic effects of a devastating earthquake or any other natural disaster into the following groups:

- the effects on vital arteries;
- the effects on the sectors of economy.

Vital arteries are all public, social or private activities aimed at protecting or providing the essentials of life for the welfare of the community. These include the police, fire brigades, emergency health care, public services, hospitals, communication companies, transport companies, petroleum suppliers, and financial institutions. Since they are of vital importance for the community, the protection of these arteries is an absolute necessity.

By the word "infrastructure" is meant a system of arteries comprising of entities which provide vital functions of a city or a region. Disrupting system of transport, power supply and public services networks, an earthquake adversely impacts vital activity of the area it hits. A system of transport includes railroads, motorways, bridges, tunnels, ports, subway systems, and airports. Public and utility services comprise pure water pipes and sewer systems, water treatment facilities, power stations and power supply networks, gas supply system, and communication systems. The economic cost of lifelines of those systems is estimated by multiplying the degree of damage by the cost of rehabilitation[5].

Apart from these direct microeconomic impacts disasters bring about secondary macroeconomic effects, too. Disasters spawn investment loss, and in cities in particular. It has been estimated that a hypothetic earthquake of 6.5 on the Richter scale might destroy 93% of total investment reserves and spawn severe lack of financial resources in the industrial sector[6].

A financial sector (banks, financial markets, etc) can be every bit as much destructed as a real sector itself. Moreover, communication and tourism sectors also suffer serous damage. Tourism industry in particular is one of the most affected by disasters. It primarily suffers losses from the destruction of buildings, premises and facilities like any other sector which is later followed by further economic damage spawned by canceling of tours and loss of orders.

Investigation of disasters' affecting factors on services and industry sectors is of no less importance. The impact of disasters on companies should be explained in correlation with their specificities. Thus, this impact depends on the company's age, dimensions, its internal and industrial structures, the types of property it owns, and also its financial position before a disaster strikes[3].

To mitigate immense economic damage natural disasters inflict a set of preventive and rehabilitation measures should be worked out key directions of which can be listed as follows:

1. Natural disasters are inevitable. Risks might possibly be reduced through the educating of individuals, groups and entities, and also improvement of internal mechanisms and verified systems.

2. In rehabilitation of economy foreign investments and grants must be used most efficiently so that economy can recover its onset balance.

3. To restore foreign trade balance, tourism profits, budget balance and currency markets long term interest-free loans or credits on easy terms provided by the IMF, the WB and European Bank for Reconstruction and Development must be devoted to servicing needs and recovering of losses.

4. The primary task is to restore infrastructures, at least partially, as soon as possible. To restore damages in agrarian and industrial sectors loans must be granted, previously given credits' terms be extended, and delays in tax payment be exercised.

5. Stability of human resources is a very important factor in economic rehabilitation of the area struck by a natural disaster. Consequently, measures should be taken to hinder the populace from moving to safer sites. The authorities should set up relief camps with temporary schools, hospitals, shops, etc. to meet the minimum requirements. Information shortage should be overcome through regularly informing people of the consequences of the disaster and of measures to be taken.

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Сөз жазатын адам әрі жазушы, әрі сыншы болуы керек.

А. Байтұрсынов

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