ORIGINAL ARTICLE

The Health Impact of Economic Sanctions

RICHARD GARFIELD, RN, DRPH, JULIA DEVIN, JD, AND JOY FAUSEY, JD*

Abstract. *Embargoes and sanctions are tools of foreign policy. They can induce a decline in economic activity in addition to reducing imports and untoward health effects can supervene, especially among older persons and those with chronic illnesses. Often, violations of the rights to life, health, social services, and protection of human dignity occur among innocent civilians in embargoed nations. This paper examines the effects of embargoes and sanctions against several nations, and calls for studies to determine ways in which economic warfare might be guided by the rule of humanitarian international law, to reduce the effects on civilians. It suggests that the ability to trade in exempted goods and services should be improved, perhaps by establishing uniform criteria and definitions for exemptions, operational criteria under which sanctions committees might function, and methods for monitoring the impact of sanctions on civilian populations in targeted states, particularly with regard to water purity, food availability, and infectious-disease control. Prospective studies are advocated, to generate the data needed to provide better information and monitoring capacity than presently exists.*

Throughout recorded history, the laying of siege has commonly included the halting of food and other humanitarian goods in an effort to force the enemy's civilian population into submission. The strategy of using food as a weapon against civilians continues in modern warfare.[1]

Economic sanctions became more common as a prelude or alternative to warfare in the 20th century. Multistate sanctions, such as those imposed by the United Nations (UN), were applied only to Southern Rhodesia before the dissolution of the Soviet Union in 1991. Since that date, collective international sanctions have been applied against Iraq, the Yugoslav federation of Serbia

---

* Richard Garfield is Hendrick Bendixen Professor in International Nursing, School of Nursing, Columbia University, New York, NY 10032. Julia Devin is an attorney, International Commission on Medical Neutrality, New York, NY 10014. Joy Fausey is an attorney in Hartford, CT.

and Montenegro, Libya, and Haiti. The United States has also instituted unilateral sanctions against Nicaragua, Cuba, Iran, Sudan, South Africa, and Rwanda. Many more countries are likely to be subjected to economic sanctions in the years ahead.

The term *embargo* is used here to describe the application of trade restrictions to coerce a change in the policy of another state. It includes *sanctions*, which are specific punitive economic actions, usually the refusal to sell goods to the offending state. It is also more general than the term *boycott*, which implies a refusal to purchase goods from the embargoed state.

Embargoes are generally designed to punish states for actions taken, to pressure them to change offending policies, and/or to weaken the ability of enemies to govern. They lead to unpredictable outcomes in foreign policy. Variables influencing the potential success of an embargo include duration and thoroughness of the interruption of trade relations, the degree of economic independence of the embargoed state, and the specificity of the impact on targeted groups in the embargoed state.

Policy changes are seldom ascribed solely to the impact of an embargo. An embargo may even be counterproductive when it unifies the population against an external threat, stimulates national industry to replace imported goods, or demonstrates the political isolation or disunity of the embargoing state.

The health impacts of embargoes are similarly difficult to specify. Threats to health caused by an embargo are seldom direct and may become apparent only after years of resource shortages. Major impacts occur through the effect of an embargo on the production, importation, and distribution of essential goods. Other threats to a social system that often accompany embargoes, including economic inefficiencies, inequitable distribution of goods, civil conflicts, and population movements, are also threats to a population's health. Thus, the unique impact of an embargo is difficult to specify because of the multicausal and indirect nature of the outcomes. Further, reactions of the populace to an embargo may confound its effects on health. Quasi-experimental modeling is limited by difficulties in measuring the degree and timing of the

imposition of an embargo or finding states to compare temporally with those that are embargoed. Data on key indicators of health effects are often missing or unavailable from embargoed states.

It is nonetheless important to assess the impact of embargoes on health and well-being. Health professionals have a unique opportunity to assess the impact of embargoes. This involvement may make it possible to better specify the impact of embargoes and establish approaches to protect vulnerable populations.

Legal Background

International law aims to reflect and guide the conduct of international affairs. Several areas of law apply to the use of economic measures in international relations. None adequately addresses problems created by embargoes.

The first area involves the principles underlying law for international trade and politics: sovereignty and nonintervention. National sovereignty is the right of each state to establish its own social, economic, political, and cultural systems. Nonintervention prohibits one country from interfering in the internal affairs of another. Experts generally agree that economic measures implemented with the intent to "influence changes in the noneconomic policies—domestic or foreign—of another state" are coercive interventions. To meet the criteria for such an intent, there must be some identifiable socioeconomic impact on the target state.

International human law has been more widely developed. The Universal Declarations of Human Rights, the UN Charter, and other international covenants guarantee to every individual life, shelter, health, food, medicine, and other basic needs. However, unlike the principles of nonintervention and sovereignty, human rights law does not challenge the legitimacy of economic measures as a means of influencing policy. Although these agreements imply limits to the use and permissible impact of economic embargoes, they are hampered by a lack of data on the manner and degree to which embargoes affect life and access to essential supplies.

The Geneva Conventions of 1949 and their 1977 protocols

further specify the rights of civilians and obligations of states in war. In particular, the Fourth Geneva Convention forbids the destruction of agricultural crops. It calls for the unhindered delivery of food and medical supplies, explicitly including soldiers who are no longer combatants.[2] While these conventions apply solely to situations of military conflict, they specify clearly the obligations of states to protect individual human rights.

Customary and codified international law further regulates permissible targets and weapons as well as the treatment of noncombatants and prisoners in warfare. For example, the methods and means of warfare pursued by most states are limited by principles of proportionality (that the military importance of a target must outweigh the likely harm to civilians) and distinction (ie, not targeting civilians and civilian sites).

Embargoes are neither an act of war nor a situation of normal relations among states. They thus overlap both the domains of human rights law and humanitarian law on warfare.[3]

Country Case Studies

During the past 15 years, embargoes have been imposed against countries with a wide spectrum of political systems. The following case studies summarize salient characteristics of the embargoes and information concerning their health impact in each country. They were developed on the basis of both published and unpublished reports and interviews with country specialists. Because of great variations in the political and social conditions under which these embargoes were implemented, and because of major differences in the goals and implementation of embargoes in these countries, direct quantitative comparisons are not possible. Other countries, including Southern Rhodesia, Vietnam, Mozambique, and Libya, were not included because of lack of data.

An ideal data set for analysis would include key process and outcome health indicators drawn from prospective studies, using historical information or neighboring countries for comparison. Process indicators could include access to and consumption of

critical goods, including food, water, cleaning materials, medical services, and public health materials. Outcome indicators should include both mortality and cause-specific morbidity for vulnerable population groups. Available data fall far short of this ideal.

Nicaragua

United States action against the Sandinista government began in 1982 with the abrogation of commercial agreements as well as the withdrawal of P.L. 480 surplus food assistance.[4] In 1985 President Reagan announced that Nicaragua was a "serious and immediate threat" to the security of the United States and established a bilateral commercial and transportation embargo. During the previous year the United States mined Nicaragua's major port and began gunboat patrols to interrupt shipping. However, land borders with neighboring countries were never closed and purchases from subsidiaries of US firms in other countries were never controlled effectively. Some US allies continued trading openly with Nicaragua. There was no asset freeze or prohibition of financial transactions or travel.[5] The US-led Contra war of 1984 to 1988 extended and further aggravated the effects of the embargo and resulted in 6,760 deaths and 10,542 injuries, as well as an estimated $5 billion in value lost.

The US embargo exempted medical and relief supplies "to be used for immediate relief of humanitarian needs."[5] The interpretation of this statute was arbitrary and varied over time. Used eyeglasses were permitted under the embargo, but machines for the production of eyeglass lenses were not. Foodstuffs were sent for those displaced by the war, but seeds and shovels for growing food were not permitted.

Because of the ambiguity of the embargo law and fear of possible prosecution, many US firms refused to sell medicines or medical equipment intended for Nicaragua. Others sought arbitration to get their supplies exempted. Church and veterans' organizations even organized truck caravans to deliver prohibited goods overland to Nicaragua; none was prosecuted successfully.

The embargo was routinely blamed for shortages of essential

drugs, medical supplies, and surgical equipment.[6] This was only occasionally clearly demonstrated. In 1984, for example, delivery of a shipment of raw materials to produce medicines was delayed for 3 months because of the mining of harbors.[7] Serious shortages of goods in the medical system became apparent in 1985 and worsened in 1986. In the capital city's referral maternal-child hospital, for example, only 15 of the expected 135 basic items were available in mid-1986.[4]

The shortages arose mainly from a lack of foreign exchange from the combined effects of economic problems, the war, and the embargo. This mixed etiology became more apparent when shortages became even more serious following the electoral defeat of the Sandinistas and subsequent suspension of the embargo in 1990. The UN estimated that for each $1 in value destroyed during the war, $3 in investment funds were lost because of the withdrawal of international credits and loans. This, together with budgetary shifts toward military spending,[8] left the country seriously decapitalized.

Cuba

The embargo against Cuba was imposed unilaterally by the United States in 1961 and made more stringent in 1964 to variously destabilize, punish, and isolate the country's socialist regime. Rather than a single act of Congress, it is composed of many actions over the last 34 years.[9] From 1975 to 1992, the embargo was partially relaxed as part of the US policy of détente with the Soviet Union.

The current statute is part of the "Cuban Democracy Act of 1992," signed into law by former President Bush. This is the most restrictive law since the embargo in the early 1960s. Almost all goods, including food and medicines, and transportation, are restricted, as is the re-export of US products from third countries. Ships docking in Cuba are not permitted to visit US ports for 6 months. Cuban assets in the US have been frozen, civil and criminal punishments for violations have been increased, and

unilateral presidential power has been established to deny aid to any country providing "assistance" to Cuba.

This tightening of the embargo followed the dissolution of the Soviet Community for Mutual Economic Assistance (CMEA), and the loss of markets accounting for 85% of Cuba's trade.[10] It was reported that in 1992 the loss of markets, credits, and favorable terms of trade through CMEA dropped the dollar value of this commerce by 93% compared to 1988.[10] The ability to import goods dropped by $2.2 billion in 1992, leaving Cuba with a 73% decline in productive activity[10] and a 45% drop in Gross National Product.[11]

About half of all proteins and calories intended for human consumption were imported in the 1980s; importation of foodstuffs declined by about 50 percent from 1989 to 1993. Reduced imports and a shift toward lower-quality protein products are significant health threats. Milk production declined by 55% from 1989 to 1992. A daily glass of milk used to be provided to all children in schools and day care centers through age 13; it is now provided only up to age 6. Per-capita protein and calorie availability declined by 25% and 18%, respectively, from 1989 to 1992.[12] The nutritional deficit falls mainly on adult males, who comprise almost all of the 50,000 victims of a neuropathy epidemic associated with B vitamin deficits.[13]

Unavailability of supplies and raw materials from US subsidiaries greatly increases the costs of production of essential goods in Cuba. Overall, it is estimated that the embargo creates a "tax" of 30% on all imports, which must be purchased from markets that are smaller and more distant than the United States.

Several essential medical products are produced only in the United States. Even when exceptions to the embargo have been granted, serious delays occurred while foreign firms sought US authorization for sale. Because of this, on several occasions the product was useless by the time it arrived.

A highly organized public food distribution system, combined with a highly professionalized and universally accessible system of public medical care and nutritional supplementation, has limited

the effects of shortages on women and children. The percentage of low-weight births rose from 7.3% in 1989 to 8.7% in 1993, wiping out ten years of progress.[14] The incidence of women with inadequate weight gain during pregnancy or with anemia also rose rapidly. Infectious diseases, including tuberculosis and diarrhea, have risen rapidly among people age 65 and older. While infant mortality continues a stable decline from already low rates, mortality among those 65 and older rose 15% from 1992 to 1993. This rise is associated with declining hospital capacity, shortages of medicines for chronic diseases, and the lack of laboratory reagents to monitor such patients.

Yugoslavia (Serbia and Montenegro)

On the basis of fighting in the Bosnia-Herzegvovina region, which began in 1991, the UN Security Council adopted sanctions against the Federal Republic of Yugoslavia (Serbia and Montenegro) in June 1992 (Resolution 757). The sanctions prohibit the importation and exportation of any products or their finance, except for medical supplies and food. Technical and cultural exchanges, as well as accommodation of any aircraft traffic with Yugoslavia, are prohibited, except for humanitarian or diplomatic flights.

The sanctions are associated with an estimated 50% decline in total economic activity by 1994.[15] The availability of basic pharmaceuticals is reported to have declined by more than 50%. This is, in part, the result of restrictions on the importation of materials for the formerly extensive Yugoslav pharmaceutical industry.[16,17] After repeated reports of the exportation of pharmaceuticals in violation of the commercial aspect of the embargo and the refusal of the government to provide data on the destination of products produced, the importation of materials to produce pharmaceuticals was prohibited.

Typhus, measles, and tuberculosis are reported to be on the rise and the death rate for other conditions in hospitals has increased. Overall death rates reportedly increased by 10%.[18] Hospital mortality is reported to have increased by 30%[19] and rates of increase

in incorrect diagnoses, as confirmed by autopsies, varied from 19% to 35%. Lack of products for hygiene and lack of medicines for patients with chronic conditions were particularly worrisome. The suicide rate reportedly has risen 22%.[20]

Haiti

The United States imposed sanctions with Executive Order 12775 in October 1991, after a military coup which ousted the elected government. Similar sanctions were adopted by the Organization of American States and the UN, and were strengthened by additional US sanctions in the following months. Initial sanctions froze Haitian governmental assets in the United States and prohibited payments to the regime. Later sanctions prohibited exports to Haiti, except for humanitarian aid, and imports from Haiti, except those that assembled product components for US firms.[21]

Ironically, these sanctions had little impact except to effect the withdrawal of nearly all US humanitarian organizations, to protect their staff members. Reportedly, more than $67 million in nonexempted apparel was exported to the United States in 1992.[21] In June 1993, the UN extended the embargo to include arms and oil shipments. Only a year later, bank accounts were frozen, commercial flights were restricted, and cross border trade with the Dominican Republic was restricted.

Access to basic goods and services declined for the poor. A longitudinal study of a rural population of 45,000, undertaken in 1991 and 1992, showed a rise from 5% to 23% in malnourished children.[22] During this same period, infant mortality declined from 48 to 39 per 1,000 live births, while deaths among children aged 1 to 4 years rose from 10 to 18 per 1,000. This increase is associated with a rise in the number of cases of measles, diarrhea, and malnutrition.

The price of staple foods increased fivefold from 1991 to 1993, unemployment rose rapidly, and the exports of mangoes, upon which many poor people depended, were halted.[23] This resulted in a reported 3.3% increase in the already high national rate of severe malnutrition.[24] To assist those most affected by the

embargo, 600 feeding centers were established by international charities. These centers provide both 15-day supplies of basic foods as well as one meal on site per day for women and children. They served 350,000 to 1 million persons per day in July 1994 and planned to expand to 1.7 meals per day. This represents nutritional coverage for about 25% of the population.

South Africa

The UN sanctioned South Africa for apartheid in Resolutions 418 in 1977, 558 in 1984, and 569 in 1985. The United States issued executive orders against South Africa in 1985 and one in 1986. Implementation in many countries was voluntary, gradual, and failed to include major foreign exchange-earning industries, such as strategic metals. The major economic impact was reduced investment capital and fewer foreign firms. Although trade was not prohibited, US firms operating in South Africa declined from 267 in 1986 to 104 in 1991.[25] The Organization for African Unity, front-line states in southern Africa, and many political and cultural organizations around the world boycotted and excluded South Africa.[26]

The first US sanctions prohibited loans to the South African government, except those for nondiscriminatory education, housing, or health services. It also prohibited the export of computer and military products and pressured US firms to follow specified nondiscriminatory labor practices for subsidiary operations in South Africa. US sanctions were lifted when the governmental underpinnings for apartheid were dismantled in 1991; the UN eliminated sanctions in 1994 on the eve of the country's first election after apartheid ended.

Because of the gradual implementation of sanctions, the relatively high level of local capitalization, and exemptions and nonobservance of sanctions among some countries, direct effects on the economy were not apparent. Indeed, it is believed that sanctions may have strengthened the existing white regime politically and economically for some time. Key health-related goods, such as pharmaceuticals, never became scarce, as existing US subsidiaries

remained in production. Other US firms expanded operations in South Africa, arguing both that they had no influence on governmental policy and that they provided essential goods (such as insulin) to the population. The suggestion that they provide essential drugs only via hospitals for blacks went unheeded.

Iraq

Following the Iraqi invasion of Kuwait, the United States and the UN imposed sanctions in August 1990. Virtually all commercial imports and exports were blocked, Iraqi funds were frozen, and travel on Iraqi transport or to Iraq was banned.[27] These sanctions were maintained through the Gulf War and they continue as of this writing. Only medicines were exempted, and those only before the war. The importation of food was permitted again starting in March 1991. In September 1992 a US resolution was passed to permit the use of frozen Iraqi funds to purchase some humanitarian goods. The UN was empowered to purchase and supervise the distribution of these goods. These conditions were onerous to the Iraqi government, which only accepted them in 1994.

Food shortages began as soon as sanctions were implemented. Rationing was instituted in September 1990 to help relieve this shortage. Shortfalls in production and imports became much worse following the war, resulting in a 25-fold increase in prices for nonrationed foods. Rationing is probably responsible for preventing open starvation. Rations provided more than 50% of calorie needs before the Gulf War, and were re-established by July following the war.[28] Water, sewage, electric, and communications systems were destroyed during the war. Except for sewage systems, these services began to function again within 2 months. Reported typhoid cases increased fivefold, low-birth-weight babies increased from 4% to 17% of the total, and measles and polio cases more than doubled.[29] Shortages of key medical products, including insulin, resulted in increased chronic disease mortality.

The risk of death among infants increased 2.8-fold in the year after the war.[30] It has declined somewhat, to levels still higher than those

before the Gulf War. It is estimated that twice as many civilians died in the year after the war than soldiers died during the war.

The ability of hospitals to respond to increasing health problems after the war was limited. Laboratory exams provided in the year after the war were down 70% and surgical interventions declined by 50%.

Discussion

Despite nearly universal provision for exemptions for food and/or medicines, all but one of the embargoes examined above are associated with limitations on the importation of foodstuffs and medicines. Most of the embargoes were associated with capital shortages and subsequent limitations in the importation of consumption and investment goods. It is thus not entirely possible to isolate the sum of the effects of an embargo on health and nutrition from its effect on the economy as a whole, because transportation, energy, and inflation all impact access to food and other essential goods.

Not all embargoes have been implemented aggressively; even under the strictest embargoes, some goods get through. Yet all the embargoes involved increased costs for trade and, at least until new capital and markets were arranged, reduced economic activity. In all cases these effects were delayed, resulting in the use of sanctions for more than a year.[31]

The most effective embargoes were those that were multilateral, comprehensive, and had clear economic goals.[31] Embargoes have been described as "foreign policy on the cheap. Not only are 'cheap' sanctions likely to be ineffective, but the costs of sanctions are very real, especially to the poor and powerless in target countries."[32] This review is consistent with a UNICEF analysis, which found that "The heaviest consequences often fall on those who are least culpable and most vulnerable."[33] By contrast, the military and political groups that are the most common targets of embargoes may be affected little if at all. They may even find an embargo profitable or politically advantageous.[1] Very often it is

because these governments are unresponsive to the needs of the population that embargoes are enforced; worsening conditions for the poor are unlikely to have the desired impact of pressuring such groups to reform.

Given the generalized economic impact of embargoes, the role of exemptions for health and humanitarian assistance can be critical in preventing a drop in the standard of living of some civilians below subsistence levels. There has been no general agreement for determining goods to exempt from sanctions.

Given the large role for international organizations and charity in the supply of such goods for some developing countries subjected to embargoes, these exemptions can have a critical role in making basic goods available. Since it is the vulnerable who suffer the most, social services should be maintained to mitigate the effects of embargoes on innocent populations.[34] Yet in each country studied, shifting interpretations of definitions for exemptions limited the ability of such groups to provide humanitarian assistance and inhibited supply firms from trading with the embargoed country, even among exempted goods.

Ironically, when embargoes mobilize local populations and prioritize government action to protect the most vulnerable, health can sometimes be improved. This is likely the result of the more efficient use of increasingly scarce resources. Examples include promotion of breast feeding, equitable rationing of food, popularization of preventive health campaigns, and boiling unsanitary water. A decrease in infant mortality has been noted in several countries where overall mortality rose during an embargo. This is to be expected, as a healthy microenvironment for young children is easier to assure with limited resources than is a similar protective environment for older people, who may need more and more-sophisticated resources to survive.

Conclusions

As embargoes have grown in importance as foreign-policy tools, so too has grown the controversy regarding their use. The Security

Council of the United Nations is empowered, under Chapter VII of its charter, to use economic means to maintain or restore international peace and security. Use of this power may result in the violation of the rights to life, health, social services, and protection of human dignity accorded in the United Nation's Universal Declaration of Human Rights and the American Declaration of the Rights and Duties of Man.

Just as military leaders are responsible for minimizing such effects when aiming their weapons during overt hostilities, so should politicians be responsible for minimizing such effects caused by sanctions. This, however, remains codified only in customary law related to declared wars; embargo-related conflicts do not yet come under such rules.

When a society is well organized and an embargo is not complete, living standards can stabilize at lower levels, with only limited impact on morbidity and mortality. Even these effects can be abated or reversed among children, as their health generally responds to simple interventions. Effects on women, older people, and individuals with chronic or multisystem health problems are harder to address when economic activity declines and imports are restricted. When distribution of basic goods is not done efficiently and equitably, the health impact will likely be much worse.

Modern wars have increasingly affected civilians.[35] To date, civilians are provided none of the war-related protections under the less bellicose expression of warfare created by sanctions. Since it is less possible to target embargoes than warfare on individual targets of interest, because its impact is greatest on vulnerable civilian groups that are not supposed to be targets, and because this method of fighting will go on for an extended period, the relative impact of embargoes on civilians is greater. As is true of wars, embargoes should be guided by law to reduce the effects on civilians. Legal issues must be further examined to determine how humanitarian international law can be applied to sanctions.[36]

More attention should be given to exemptions from embargoes. Exempted goods and their distribution have tended to be poorly understood, confusing, interpreted in nonstandardized ways, and a

block to the rapid supply of humanitarian supplies.[37] One way to facilitate improved effectiveness of exemptions is to establish uniform criteria and definitions for exemptions as well as operational criteria for sanctions committees. Exempt goods should include items that have seldom been considered, such as laboratory reagents and radioisotopes.

Means of monitoring the impact of sanctions on civilian populations in targeted countries need to be established. Systems for preventive monitoring for water purity, food availability, and infectious disease transmission need to be improved.

The cases examined above show the difficulty in separating the impact of embargoes from other threats to well-being caused by related political oppression, economic problems, and war. Further isolation of the effects of embargoes will require the implementation of quasi-experimental prospective studies. Such studies will depend on good baseline data, careful follow-up to cover key periods in the evolution of hostilities, and comparisons with non-affected national populations or populations of neighboring countries. Comparative studies of this type will likely provide better information and monitoring capacity than presently exists.

References

1. Macree J, Zwi A. Food as an instrument of war in contemporary African famines: a review of the evidence. *Disasters.* 1993;16(4):299–321.
2. Miller R, ed. *The Law of War.* Lexington: Lexington Books, 1975.
3. Hufbauer G, Elliot K, Schott J. Economic sanctions reconsidered, Washington DC: Institute for International Economics, 1990.
4. Garfield R, Williams G. *Health care in Nicaragua.* New York: Oxford University Press, 1992.
5. Schwartzberg P. The U.S. embargo demystified. *Links.* 1985;2(4):8.
6. Nelson H. War takes toll on children in Nicaragua. *American Medical News.* (February 17 1989), p. 3.
7. Barcos N.A. Yanquis bloquean medicinas para el pueblo. *El Nuevo Diario* (October 7 1983), p. 1.
8. ECLAC. Notas para el estudio de America Latina y El Caribe, 1987, Nicaragua. Mexico City, ECLAC, 1987.
9. Krinsky M, Golove D, eds. *United States Economic Measures Against Cuba: Proceedings in the United Nations and International Law Issues.* Northampton, Mass: Aletheia Press; 1993.
10. N.A. Some antecedents on the availability of goods in Cuba at the beginning of 1993. Ministry of Foreign Trade, mimeo.
11. APHA. The politics of suffering: the impact of the U.S. embargo on the health of the Cuban people. Washington: APHA. 1993.

12. Programa national de action. Cuba: segunda informe de seguimiento y evaluation. La Habana, 1993.
13. Cotton P. Cause of Cuban outbreak neuropathologic puzzle. *JAMA*. 1993;270(4):421–423.
14. MINSAP. Informe Anual, 1992. MINSAP: La Habana, 1993.
15. Unkovic M. Yugoslav economy under sanctions. *Review of International Affairs*. 1993;94(1):4–5.
16. Scharf MP, Dorosin JL. Interpreting UN sanctions: the rulings and the role of the Yugoslavia sanctions committee. *Brooklyn J International Law*. 1993;19(3):771–827.
17. N.A., Humanitarian action in the former Yugoslavia: the U.N.'s role, 1991–1993. Brown University: Watson Institute for International Studies, 1994.
18. Avramov S. Sanctions in the post-cold war era. *Review of International Affairs*. 1993;94(1):7–9.
19. Jakovljevic B. Protection of the population of Yugoslavia under embargo and international law. *Review of International Affairs*. 1993;94(1):12–23.
20. Cohen R. Embargo leaves Serbia thriving. *New York Times*. May 30, 1994, p. 16.
21. French H. Embargo seen as insufficient for the return of Aristide. *New York Times*. May 4, 1994, p. 11.
22. Berggren G. Castle C, Chen L, et al. Sanctions in Haiti: crisis in humanitarian action. Boston: Program on Human Security Working Paper, 1993.
23. Pierre-Pierre G. As Haiti embargo tightens, poor children get hungrier. *New York Times*. July 3, 1994, p. 12.
24. USIAD. USAID Monitoring Report, May 1984 *(ibid)*.
25. Wayne L. New day dawns for South African investment. *New York Times*. June 7, 1994, June 7, 1994, p. D1.
26. Waterston R, Zwi AA. Health professionals and South Africa: supporting change in the health sector. *Brit Med J*. 1993;307(6896):110–112.
27. Minear L. U.N. coordination of the international humanitarian response to the gulf crisis 1990–1992. Thomas Watson Institute for International Studies, Occasional Paper No. 13, Brown University, Providence, RI, 1992.
28. Clawson P. How has Saddam Hussein survived? Economic santions, 1990–1993. National Defense University: 1993, Washington, DC.
29. Asherio A, Chase R, Cote T, et al. Effect of the Gulf war on infant and child mortality in Iraq. *New Engl J Med*. 1992;327(13):931–936.
30. Osborne Daponte B. A study estimating casualties from war and its aftermath: the 1991 Persian Gulf war. *PSR Quarterly*. 1993;3(2):58–66.
31. Doudi MA, Dajan MS. *Economic Sanctions: Ideas and Experiences*. Boston: Routledge and Kegan; 1983.
32. General Accounting Office. Economic sanctions: effectiveness as tools of foreign policy. Washington: USGAO, 1992.
33. UNICEF. UNICEF emergency operations. NY: UNICEF, E/ICEF/1993/February 1993, page 15.
34. Rodley N, ed. *To Loose the Bands of Wickedness: International Interventions in Defense of Human Rights*. London: Brassey's; 1992.
35. Garfield RM, Neugut AI. Epidemiologic analysis of warfare, a historical review. *JAMA*. 1991; 266:688–692.
36. Fausey JK. Does the United Nations' use of collective sanctions to protect human rights violate its own human rights standards? *Connecticut Journal of International Law*. 1994; 10(193).
37. Damrosch LF. The civilian impact of economic sanctions. In: Damrosch LF. *Enforcing Restraint: Collective Intervention in Internal Conflicts*. New York: Council on Foreign Relations Press, 1993.