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## Walls, fences and international borders

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Tekst jest udostępniony do wykorzystania w ramach dozwolonego użytku.

Gideon Biger

## **Walls, fences and international borders**

This article deals with fences and walls built along international boundaries, especially by rich countries which try to prevent illegal entering. The article will present different types of fences, built for different needs. Case studies from all over the world will be presented in order to show that as long as there are so many differences between countries, people will try to cross the line and those who try to halt it, will continue to build fences along their boundaries.

**Key words:** international boundaries, illegal immigration, terrorist activities, walls and smuggling.

*He says again, "Good fences make good neighbors."  
(Robert Frost, "Mending wall", last line)*

### **1. Introduction**

International boundaries are usually seen as a line marked on map. Sometimes this line becomes a line marked on the ground by cairns or other means. In special situation some states find it necessary to build a fence or wall in order to mark the boundary and to prevent illegal movements from side to side.

Boundary fences and walls have been built since early history, by the Chinese Empire, by the Roman Empire and by others as well. Walls and boundary fences are under constriction in various parts of the world today.

### **2. International borders**

Political boundary lines divide the land area of the Earth between more than two hundred sovereign states. Some of these countries are island states, with no land borders (Australia, New Zealand, Iceland, Madagascar, Japan), but more than three hundred land-based border lines separate the different countries. These boundary lines are intended to mark the area of territorial sovereignty of countries and as such they are marked on maps and are part of international agreements. In most cases these boundaries are also marked in various ways.

It is the duty and the right of each country to maintain its territory and for that, it prevents unauthorized passage of people from outside into its area. This

process is done using the international agreements between the various parties that control both sides of the border. Sometimes – due to the unwillingness or inability – there occur flows of people, goods and drugs from one side of the border to the other side. Previously, international boundaries were delineated in accordance with natural obstacles (rivers, mountain ranges, deserts and swamps). In order for the determination of borders that are not natural obstacles and facing an increasing mobility of individuals and groups, different countries set up obstacles – walls and fences, to prevent illegal passage. This review deals with these obstacles.

Geographical examination of the construction of barriers along such international borders can present some types of the relationship between the fence and borders:

A. A wall that creates a border by its existing – The Great Wall of China, Hadrian's Wall (between England and Scotland Roman), (Offa Dyke) between England and Wales.

B. A boundary fence – A barrier built by one side over the existing boundary – the United States against Mexico, India against Pakistan, India against Bangladesh, Botswana against Zimbabwe, Spain against Morocco (Mediterranean enclaves of Ceuta), Gibraltar with Spain, French Algeria against Tunisia (Morris line), Israel versus Lebanon Syria, and the Gaza Strip. There were also special cases of fences established in Eastern Europe in order to prevent the movement of its citizens to the West – East Germany (including Berlin Wall) versus West Germany, Czechoslovakia and Hungary against West Germany and Austria.

C. Double fence – a barrier built by both sides along the common border – South Korea – North Korea, Malaysia – Thailand.

D. Fence constructed within the area of one side, near the border but not parallel to it – a fence built in north Palestine during the Mandate period.

E. Fences in areas whose status is not agreed – Morocco in Western Sahara, India in Kashmir, Israel in the West Bank (the last fence will not be dealt in this work).

F. Partial fences – Egypt versus Libya, Morocco versus Algeria.

G. City walls and fences – Jerusalem, Rafah (not reviewed in this study), Nicosia, Belfast and Gorizia.

### **A. Walls that create a boundary**

In periods when it was impossible to reach clear agreements about the territory of states, when an organized state stood versus a non organized political entity, in areas where there were orderly settlements versus migratory tribal systems – the organized state often built a wall or an obstacle in order to protect the permanent settlements from nomadic raids. These walls became a boundary

lines. Those are the Great Wall built in China; the walls built by the Roman Empire and the wall which was built in the early Middle Ages in England.

#### A1. The Great Wall of China

The Chinese Wall, built over centuries, between the Chinese Empire and the Mongol tribes was located in north China. This wall was built mostly in the third and second centuries BC, although its foundations were laid in east China in the seventh century BC and the building in the west continued until 1644, when the Manchurian people, who lived north of the wall, took over China. Ever since, the wall has not functioned as a security boundary. The wall is crumbling and only parts of it, restored and preserved, are a tourist attraction. The length of the wall was about 7,500 km and it has created a clear boundary in the north of China. Its height ranged from 10 to 15 meters, its width of the top allowed coaches to run and troops to march on it. There were gates that allowed Chinese soldiers and traders to move north when needed, as well as movement of goods from the north into the Chinese empire. This wall played well the mission when guarded by soldiers and was a permanent barrier to penetration from the north, especially of organized armies. Although it has never been defined as the border and at some times the Chinese Empire dominated some areas north of wall, the construction of the wall actually set China's northern delimitation.

#### A2. Hadrian's Wall

The Roman Empire built several fortified borders (Limes). Most known of these walls, of which its relics are now kept as a tourist attraction, is Hadrian's Wall. This wall was built over six years – from 122 AD, under orders of the Roman emperor Hadrian. The wall was built in northern England, between the Irish Sea and the North Sea. It served as a border between the Roman Empire and the tribes who lived north of it, in the territory of today's Scotland, and was in fact the north-west frontier of the Roman Empire. The length of Hadrian's Wall was about 118 km and more than five meters high. Moats were dug on both sides of the wall and every few hundred meters (a Roman mile) was a watchtower. Forts, built in several points along the wall monitored both the maintaining of the wall and the passage to the other side. The wall fulfilled successfully the mission for about 275 years and prevented the penetration of tribes, who lived in Scotland, into areas of the Roman Empire, until the collapse of Roman rule in Britain (and the rest of Europe) around 400 AD. Even after the end of Roman rule, the wall was used for hundreds of years as a line that separated the kingdoms of England and Scotland. The current division line between them passes near the Roman line.

#### A3. Offa's Wall

The Anglo-Saxon kingdom of England built around the year 790 AD, an earth Wall – (Offa Dyke) – separation between England and the Celtic tribes,

who lived in Wales. This earth wall, built in north west England from Chester to a point north of Bristol, was about 180 km long and passed through hills and valleys. We have no information relating to the degree of success of this wall to prevent incursions of Welsh people into England but it served as a boundary line, which, like Hadrian's Wall, is located near the present line between England and Wales.

Thus, walls and obstacles mentioned above have not been declared borders but actually created a clear demarcation between the territories of the country's sovereignty beyond the neat areas that were controlled by other entities.

### **B. A boundary fence**

After a boundary line is established, it is sometimes necessary to protect the country area from unwanted traffic over the border. Thus, a fence is built along the boundary line. The location of this fence is inside the state's territory, parallel to and close as possible to the agreed line. Here are a few outstanding examples of such fences which existed and exist today worldwide.

#### **B1. United States – Mexico**

The border between the United States and Mexico is determined as a result of the historical process of the U.S. westward expansion through the 19<sup>th</sup> century. Marking the boundary line was a long and tiring work, but eventually, in April 1856, this task was completed.

The overall length of the boundary is approximately – 3,140 km. In the eastern section, between the estuary of the Rio Grande River in the Gulf of Mexico and the city of El Paso, over 2,018 km, the boundary passes in the center of the Rio Grande (Rio Bravo for the Mexicans) River. West of El Paso the border consists of a series of straight lines and a 38 km section along the Colorado River. The area in which this section of the border passes is mostly desert – partly flat and partly hilly.

Most of the area near the border line is not inhabited, mainly due to harsh climatic conditions. However, there are many cattle ranches along both sides of the line, and several nature reserves on both the U.S. (Big Band in Texas, Arizona Organ Cactus reserve in Arizona) and on the Mexican side. The area along the river section is also largely deserted, except for the eastern part, near the Gulf of Mexico and near the city of El Paso, where there are dense agricultural settlements. Since the delimitation of the boundary, “twin cities” have been developed near the border crossings. Most of the American cities are smaller than their Mexican counterparts (except for the American city of San Diego).

Much of the population living on the American side of the border, residents of the cities and of most of the rural areas, are of Mexican origin and most of them have relatives and friends over the Mexican border. U.S.-Mexico border is

the world's most active border. In recent years some 350 million legal entries were recorded each year. Hundred thousand trucks, carrying goods, cross the border both ways each year. Hundreds of thousands of Americans cross the line in their quest for cheap shopping and spending a vacation on the beaches of Mexico. Some hundreds of thousands of Mexican workers, working legally in the United States, cross the line every day, especially in the border cities.

Since the outline of the border US attracts millions of people looking for economic future. The United States has two main problems supervising the border. First – to allow the flow of millions of legal crossing, but at the same time, to block as much as possible the movement of illegal immigrants from Mexico, as well as the flow of illegal workers crossing the line in order to work and go back to Mexico. The second problem is smuggling, particularly drugs, smuggling from Latin America through Mexico into United States.

Up to 1970, there were only cattle fences along the border, designed to prevent theft of American cattle to Mexico. Although since 1924 Border Patrol unit operated along the line, its efficiency was very low due to the lack of a physical barrier, a small number of Rangers and the difficulty of reaching large areas along the border, especially in arid areas.

In the 1970's the U.S. government began building a high wire fences near the adjacent city centers, to prevent a free movement of people from Mexico northward. These fences did not prevent the illegal crossing much. Only in 1994 the U.S. government began a series of more efficient operations. The Border Patrol unit was increased from 2,000 in 1977 to 4,000 in 1992 and currently has been close to 10,000. The building of a physical barrier – a fence and a wall also began. The first operation was done near the city of San Diego, in the Pacific coast in the west (this operation was called Operation Gatekeeper). President Clinton's administration began another operation, Operation Hold the Line, designed to close the border between the cities of El Paso in west Texas and the Mexican city of Ciudad Juarez. The Clinton administration also announced a campaign that brought the construction of fences and walls in the cities in Arizona (Nogales, Port Douglas) and elsewhere. Later, fences and walls were built along the boundaries that separate the “twin cities” located near the border, and a fence was also built along the populated sections along the Rio Grande River. Roadblocks were erected on the main roads leading from Mexico to the United States. Tall light poles were built near the fence and are used every night. Regular patrols along the fence, operate night and day. Border patrol vehicles equipped with reliable and high-crime capability, as well as night-vision goggles and automatic weapons are used.

At the same time the construction of a solid wall section between the Pacific and the eastern side of the city of San Diego began. Here, corrugated tin wall

was built about 3 meters tall. Similar walls were built in other cities. In order to obscure the ugliness of the iron wall it was designed as a facades of houses. In other sections, vertical iron rod fences, also of about 3 meters in height, were erected. Sensitive observation towers were built with closed circuit television cameras that allow long distance watching of the line. In more desolate areas, heat and motion sensors were placed. Fences and walls such as these have been established in all cities and their length parallel to several kilometers; sometimes they end for no reason – perhaps because the budget ran out.

In every city along the border line, a complex crossing point – for vehicles and people – was built, equipped with advanced devices that prevent illegal crossing, but allow rapid legal crossing.

These measurements were expanded to the border desert and mountain areas, especially in sections where previously no movements of pedestrians and cars of people and drug smugglers were observed. In those areas, in which most of the travel routes of illegal vehicles run, low parallel bars were erected to prevent the vehicles traffic, but pedestrians can cross the fence easily. In dry river areas, a fence of vertical iron bars, close to each other – which prevents passage of people and cars, but allows flow of flood water desert, was erected. Border Rangers expert scouts are also involved in order to track trail pass. The Rangers are equipped with automatic weapons as a defense against drug traffickers, but rarely using weapons fire against migrants and illegal workers.

The system of constructions and reinforcements accelerated after September 11, 2001 and subsequently increased the number of caught. However, there is no estimate of the number of those who managed to pass. In 2001, for example, there were over 1.5 million recorded illegal crossings. The caught are briefly investigated, recorded, photographed, their fingerprints are taken and they are returned across the border. Illegal crossing was not halted, but their activities moved from the cities to the deserted areas. Wilderness areas crossing brought about few victims among those who tried to pass. In 2002, in Arizona alone, 134 bodies of people trying to cross the border were found. Most of them died due to heat and cold at night and lack of shelter. Others were run over by trains and cars. Some died from disease and about 29 of them recorded as “unknown causes of death”. The forces guarding the border caused losses and injuries, mostly from drug smugglers and illegal immigrants.

U.S. border – Mexico border is hostile and blocked for illegal crossing, but meetings with most of the illegal who cross the border are not violent. The Mexican government is supposedly friendly government and cooperates to prevent illegal traffic, but actually does nothing. Pursuit of illegal passing and stopped at the border is not drawn to Mexico and there is no barrier and fencing inside Mexico. However, on the Mexican side there are signs warning against

the dangers associated with illegal crossing, which sometimes is done at night, in the desert, in arid and dangerous areas. Of about 1,000 kilometers of land border approximately 180 kilometers are fenced. Construction continues in many places, but large areas still have no obstacle, although some of them held the actions of observation and control, using helicopters and low-flying aircraft, to control the illegal crossing.

### B2. India-Pakistan

India-Pakistan border stretches over 2,912 kilometers, between the Arabian Sea in the south to the north ridge Karakorum. For most of the line, about 2,200 kilometers, from the Arabian Sea, north to Kashmir, the boundary line is agreed upon and marked, and except for a few discussions about the exact location, there is currently no problem about it. In contrast, the northern part, in Kashmir, there is a dividing line, an unofficial border known as the "Line of Control". The border area is a trouble area and during the last fifty-five years there have been several military conflicts along it and lots of terrorist activities mainly from Pakistan. India has built a fence to prevent the infiltration of hostile irregular forces, (fence should not and could not block aster of regular military forces), as well as to prevent smuggling which is very common in this area. The construction of the fence began in the 1980's. Initially a fence was built along 554 km noncontiguous sections in the Punjab province and was completed in 1992 at a cost of \$ 300 million. Then it was decided to continue the fence to the south, toward Rajasthan, a desert region, and northward, to Kashmir region. The construction of the fence brought no problem, except for topographic and climatic conditions, and now there is a fence along most of the recognized international border, a total of about 1,900 km of fence. Its height is about 3.5 meters and it is equipped with systems that make it an electric fence.

Electrification of the fence is at night – from 22:00 till morning. Daytime patrol forces move along the fence and prevent uncontrolled crossing. This fence was built within the territory of India, about 300 meters from the border as agreed thus, avoiding any Pakistani claim against it.

The fence is not continuous along the border, partly because it goes through difficult traffic areas of swamps and rivers. These areas cannot be protected and patrolled along the fence, as topography in these areas makes it difficult to filter and makes it easy to shield. Pakistan on its part did not build any fence.

### B3. India – Bangladesh

India is also building a fence along its border with Bangladesh. Bangladesh was once part of British India, and as it is populated mostly by Muslims, it became part of the State of Pakistan, and was called East Pakistan. Due to feelings of isolation and deprivation by Pakistani authorities, a rebellion broke out in 1971 against the central government and East Pakistan declared its



independence and became an independent country – Bangladesh. The border between the two countries is about 4,143 km, but “only” about 2,000 km of it, is “a problem” for India. Most of the activities along the border are against illegal immigrants from Bangladesh to India and Indian cattle smugglers to Bangladesh. To prevent illegal crossing of the border line, India decided to establish a high chain-link fence along parts of the border between the countries. More than 1,000 km of fence has already been built and 500 km are under construction. Observations are conducted during daylight hours including patrolling along a road next to the fence; electric fence only operates at night, from 22:00 until morning. India intends to stretch a fence along the border to prevent the movement of illegal immigrants (estimated number about 10,000 per month) and more recently against terrorists. In some sections along the line a radar systems is in use, in order to detect movement of people. Although the fence is located entirely inside sovereign Indian territory, Bangladesh government strongly opposes India's intention to build the fence, being built mostly on main roads between the two countries. According to Bangladesh, construction of the fence harms the local fabric of relations along the border, trade and violates the free movement of people who have not been disturbed for centuries, despite political divisions over history. India claims to prevent uncontrolled movement of Bangladeshis into its territory, claiming that today many Bangladeshi hostile elements penetrate India, use terrorism and hit different targets within the territory of India. To allow easier control near the fence, India began to evacuate villagers living in India along the border, in the Indian side, to create a “no man's land” between it and Bangladesh. The slow pace of construction and budgetary problems have led to a situation where traffic on the main roads and next to them is limited because of the fence being built, but at the roadside there is free passage of pedestrians.

#### Africa border fences

Most African borders were determined as a result of a dispute between the European powers during the 19<sup>th</sup> century. Boundaries were determined for the most part regardless of terrain. Sometimes the boundaries are straight lines on the ground – along the lines of astronomical abstracts (latitude and longitude) – and sometimes they run along physical routes such as rivers and mountain ranges.

Upon independence in the second half of the twentieth century, African countries decide not to change the borders set by the European powers, though essentially erroneous, in order to avoid political shocks, tension and war between the new states which were established. As a result today boundaries cross cultures and peoples and completely ignore the movement of migratory animals in Africa. Over the years, the new states have developed in a different direction.

Some were more successful and some less; some more convenient regimes and some dictatorships. This results in constant pressure along the borders of several countries to which immigrants and refugees try to reach work and asylum in other states. As a result, some states, especially the rich ones are more and more threatened, build fences to protect their territory against hostile intrusion of humans and animals infected with diseases.

#### B4. Botswana – Namibia

The length of the boundary between the two countries located in the southern part of Africa is 1,360 km. Most of the border passes in the Kalahari Desert, as straight lines. In 1995 Botswana began building an electrified fence to prevent animals crossing the border fence along the border, following an epidemic of cattle that took place in Namibia and threatened to penetrate Botswana. The Government of Namibia protested against the killing of wildlife and claims damage to seasonal animal roaming. Botswana agreed to remove some sections of the fence, but keeps other parts.

B5. Botswana built a similar fence, electrified wire fence at a height of 3.5 meters, along its border with its neighbor Zimbabwe. Due to the better economic situation in Botswana, and the blocking of the border between Zimbabwe and South Africa, Zimbabwe has increased the movement of migrants toward Botswana. In order to stop this movement somewhat, Botswana built a high chain electrified fence. It was announced that the fence was built to block movement of infected cattle and the objection was voiced here claiming damage to the natural movement of animals in the area. Unlike the previous case, Botswana did not dismantle the fence and continues to build it along the common border.

#### B6. South Africa – Mozambique

During the period when South Africa had an exclusive power of the white, its northeastern border with Mozambique was exposed to the movement of black guerrillas penetrating South Africa. The border between the countries is 491 km long and is composed of two distinct segments separated from each other by the State of Swaziland. The main part of the boundary line which runs along the eastern part of a ridge, blocked free movement by a fence barrier erected by South Africa in the early 1980's. Despite the changing regime in South Africa the fence was left to set in place to prevent the movement of illegal immigrants, and more recently to prevent car theft in South Africa, transferring into Mozambique. Thieves' vehicles backed and hit the fence, so South Africa is building a hedge solid stand against them. The current system consists of two parallel fences. One which was originally preventing the passage of animals infected with diseases; behind them, deep inside, fence with obstacles preventing from climbing over by humans. Along the segment of the boundary running in

the Limpopo River there is no fence but the crocodiles in the river prevent free crossing. The fence was built in order to demarcate the northern boundary of the great natural reserve of “Kruger Park” of South Africa. With the establishment of a joint park with Mozambique and Zimbabwe in the tri-border area, border fence may be removed, but the entire park will be fenced and maintained by South Africa controlling illegal immigrants.

#### B7. South Africa – Swaziland

The 430 km border between Swaziland and South Africa is almost a semi-circle line. Unlike other African countries, Swaziland, landlocked country, held a reasonable relationship with South Africa. But its open border with Mozambique, where freedom fighters fighting against rule of whites in South Africa combined with the lower standard of living and sanitation, especially of animals, brought South Africa to fence the border with Swaziland, to prevent traffic from Mozambique to South Africa. Today, the fear of diseases of animals has now left the fence in its site, and prevents crossing of animals and smuggling between the two countries.

#### B8. Nigeria – Cameroon

The 1,690 km of the boundary between Cameroon and Nigeria, was finally determined after 1961. Determination led to transfer of populations and areas between the countries and this transition was not quiet. In 1981, when five Nigerian soldiers were killed by Cameroon, Nigeria decided to erect a fence between the two countries – both to demarcate the exact boundary line and to protect the area from the adverse actions by Cameroon. Parts of the fence are indeed established, but the economic crises in Nigeria, the change of government and public disorder led to a halt in building the fence, and its position today is not clear.

#### B9. Spain (Ceuta and Melilla) – Morocco

Another fence built in Africa today but totally different from those described above is set between the Spanish enclaves of Ceuta and Melilla on the Mediterranean coast of Morocco and Morocco. Ceuta is located in the south eastern side of the Strait of Gibraltar and the connection with Spain is mainly by sea ferries.

In order to prevent illegal crossing, smuggling, and especially the movement of illegal immigrants from Morocco and other parts of Africa to Spain and from there to Europe, Spain has set up a fence along the 10 km long border. This is a double fence, backed by barbed wire. Its height is about 4 meters and it is equipped with acoustic sensors and touch sensors, infrared cameras, observation towers, and closed circuit television cameras. About 40 soldiers patrol along the fence 24 hours a day. The European Union recently gave Spain a grant of 200 million Euros to build a new wire fence and to improve it, to prevent the passage

of illegal immigrants from Morocco to Ceuta and to Spain and other EU countries.

In recent years, more than 4,000 individuals have died in an attempt to cross the sea from Morocco to Spain, due to the existence of the fence and keeping it tight no-one can pass through the Spanish enclave into Europe.

#### Border fences in Asia

##### B10. Saudi Arabia – Yemen

The border between Saudi Arabia and Yemen is the new line agreed upon only in August 2002. However, tribes living in the border area, especially on the Yemeni side, are not familiar with this line. Yemenis shepherds and smugglers still cross the line that was marked on the ground. In order to guard the passages against these unwanted movements, Saudi Arabia built a barrier between the two countries also to prevent the movement of terrorists wishing to strike targets inside Saudi Arabia. The barrier was built along some 500 kilometers (about one third of boundary length) and consists of a concrete pillars next to each other which prevent cars and herds from crossing. However, the fence allows free flow of flood water. Saudi Arabia has recently announced that it suspends the continued construction of the fence.

##### B11. Kuwait – Iraq

The 240 km boundary line between Kuwait and Iraq was finely determined after the first Gulf War, in 1991. Kuwait set up an electric fence with a moat, along the line. Battery of sand desert (Berm) at an altitude of about 3 meters, and a stone wall upon it, is built, backing up the fence. This system was built to secure the border, particularly against claims, not ceased, of Saddam Hussein, and to prevent smuggling and the movement of Iraqi to the oil-fields of Kuwait. In January 2004 Kuwait decided to build a metal fence along its border with Iraq, mainly to prevent vehicle traffic from Iraq. In addition, Kuwait paved asphalt road along the fence and parallel to it.

##### B12. Kyrgyzstan – Uzbekistan

The border between Kyrgyzstan and Uzbekistan, both past republics of the Soviet Union, runs through 1,099 km. In 1991 both former republics declared their independence, and proclaimed the administrative boundaries set by the Soviets as international borders. The disengagement from the Soviet Union and the declaration of independence broke out battles between the Uzbeks and the Kyrgyz, in which over 300 people were killed. Hostile relationship between the two countries caused constant tension over their borders. Despite the consensus silence regarding the location of the boundary between them, each state makes requests to annex the territory of the towns and cities populated by its own people, but they are in the other territory. In 1999 Uzbekistan began to build a fence along its border with Kyrgyzstan, after the terror attack in Tashkent, the

capital of Uzbekistan. The construction of the fence affects farmers living in Fergana valley and separates families living in both sides of the border.

#### B13. China – Hong Kong

Although in 1999 Hong Kong returned to China sovereignty a fence along the previous border with China still exists due to the special status of the former British colony. The length of the border is 30 km. In the past it has also served as a boundary between the western world and the communist world. It is mostly located on rivers and partly over landlines. After the Communist takeover of China, UK built a high chain-link fence that marked the exact boundary, preventing the passage of illegal immigrants from China, who wanted to get to Hong Kong. After the return of Hong Kong to China the fence is still located in place and prevents free uncontrolled movement between China and Hong Kong.

#### B14. China – Macau

The length of the boundary between the world's most populous country, China, and the last tiny remnant of the Portuguese empire in the past – Macau, is 340 meters and it crosses the Macau Peninsula. A stone wall built along it was established by China in 1573 and it marks the exact delimitation of Macau. Sovereignty over Macau was transferred to China in 1999, but it is in a special status and delimitation, with a stone wall, which is still valid in the area.

#### Boundary fences in Europe

#### B15. Gibraltar – Spain

The length of the border between British Gibraltar and Spain is about 1.2 km and is a line connecting the peninsula located between the Mediterranean and the Atlantic Ocean. High chain-link fence, more than 4 meters high and 1.5 km long, was built already in 1909 and is reinforced every time. Sets, links and delimits the northern line of Gibraltar, it is not mined or electronic and its actual role was until recently to prevent illegal entry and theft purposes. Today, following the accession of Britain and Spain to the EU, this fence seems unnecessary. However, as mostly symbolic, it demarcates the last British control area in continental Europe, and as intended mainly to prevent theft and robbery, it is still there, and prevents free passage between Spain and Gibraltar.

#### B16. Boundary fences between the “West-East” in Europe

Fences were built during the “cold war” between the territories of the socialist countries in Europe and the Western world. Those fences, especially on the border between East Germany and West Germany, but also between the Czech Republic and Hungary on one side, and Austria and West Germany on the other side, and between Yugoslavia and Italy – were established not to prevent undesirable crossing, but to prevent escape of the residents of these countries outside their borders. Most known and remembered is the “Berlin Wall” which was erected in order to prevent passage of East Berlin residents to the territory of

West Germany, but actually it runs all the way along the boundaries between the two political worlds in Europe of the second half of the twentieth century. These walls and fences were removed with the collapse of the communist regime.

### **C. Double – two side fence**

There are some situations where there are mutual suspicion and hostility between the two countries, each trying to prevent the passage of one nation to another surface; these countries have walls and fences along the joint border.

#### **C1. Malaysia – Thailand**

The border between Muslim Malaysia and Buddhist Thailand run along 506 km. Its exact location was finalized in 1909. Both countries suffer from the actions of terrorists and smugglers operating on both sides of the border. In 1991 Malaysia built a fence along 30 kilometers to prevent smuggling. Later Thailand built a border fence on her side, in part to prevent the actions of Muslim terrorists, with the help of the Muslim population living in Thailand near the border area. Early in 2001, the two countries decided to dismantle part of the parallel settings and build a common fence on the border itself. Malaysia has built a 2.8 km section, while Thailand has built a 2.5 km-long segment. Other sites in these double fences boundary still exist, each held by the different states. In February 2004, the Thai government decided to build a concrete fence along part of the borders with Malaysia, to enhance its struggle with smugglers and terrorists infiltrating its territory, the action aimed at Malaysia.

#### **C2. South Korea – North Korea**

The border between North Korea and South Korea divides the Korean peninsula. The border more or less stretches along latitude 38 north and continues for 238 km. The line is not defined as an international boundary line and in fact is a line separating army forces, resulting from the agreements between the United States and the Soviet Union in World War II. The final line was determined after the Korean War (1950–1953). The separation line which is called “military demarcation line” clearly marked on 1292 borders and blocks of concrete barrier. Both sides are trying to prevent the uncontrolled passage of humans, animals and even military forces from one side to another, and therefore established along strap line “demilitarized zone” (DMZ), and all along there is an anti-tank ditch, run practically along the whole width of Korea. This ditch is also beyond the northern fence. Entrance to this area is prohibited except for patrols carried out near the fence – on its own side. The border area is considered the most heavily fortified on the planet today. The area mined against persons and vehicles, and many scattered sensors to prevent the transition. Automatic artillery systems scattered field and over two million soldiers (both sides) are positioned along it. The fence is chain link fence, its height is 2.5

meters; accompanied by barbed wire curls (sometimes three such fences) and triple-head wire fence and fence sensors. South of the fence many mines were buried therefore created an additional belt “closed military zone” that prevents citizens from approaching the fence on the south side. As only few people enter the DMZ, natural flora and fauna are preserved there. Therefore, border fences have created an ecological area and it is used for learning about the natural flora and fauna in Korea.

#### **D. Fences built in an no-agreed political situation**

The World's land area is now divided by boundaries agreed between the countries of the world, although sometimes there are disagreements about the precise delineation of the boundary line. Furthermore, there are still areas with no agreed sovereignty. This is the status of Judea and Samaria (West Bank) – an area where Israel builds a security fence – as with regard to the fence along the “Line of control” between India and Pakistan in Kashmir<sup>1</sup>. These are two examples used in claim construction fence builders, security fence, and condemned by opponents of a fence determining the boundaries. A similar situation also exists on the border between Morocco and Western Sahara.

##### **D1. Morocco – Western Sahara**

Western Sahara was a Spanish colony, south of Morocco. In 1969 a national liberation movement “Polisario” was set against the Spaniards. Algeria and Libya supported it, but Morocco objected to its activity, because of its claims to the territories of the Spanish Sahara. The territory of Western Sahara is rich in phosphates, uranium, iron, oil and gas and fishing activity along the extensive coasts. Due to these resources and historical reasons Morocco demanded control over it since 1974 and together with Mauritania has rejected the idea of a Spain granting independence to the colony. The Hague International Court rejected, on 16 October 1975, the demands of Morocco and Mauritania to this territory. Morocco's King Hassan II organized in response a “green march”, in which 350 thousand unarmed Moroccans marched on 31 October 1975 into the territory, occupied part of its northwestern area. Morocco, Mauritania and Spain agreed in secret on the departure of the Spanish regime from the colony and dividing the area so that two-thirds of the northern part would be given to Morocco and Mauritania will have the southern third. On 27 February 1976 this was carried out while the Polisario movement declared its independence, with a government in exile. Later on Mauritania left Western Sahara and in 1979 Morocco seized the entire former colony. Since then, Morocco has opposed the UN and the African Union resolutions to leave the area. Referendum to determine the future

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<sup>1</sup> For various reasons, the Israeli Security fence is not dealt with in this article.

of the area was planned for January 1992 but it has never been done and the region's political future is not clear yet.

Morocco began in 1982 to build a series of demarcation lines and fortifications known as “The Bern”, which passes from the north to the south and border about three quarters of the territory of Western Sahara. Huge earth wall composed of sand mounds and chain-link fence whose parts are built of concrete. Mines are scattered along its length against persons and vehicles, to protect the area and the mineral deposits from attacks from the desert by the Polisario. Six sections of this wall were built, the first of them near the cities of Zag and Loyoun in southern Morocco. Until 1987 the construction had been completed, about 90% of the total length of “the Bern” and its southern parts are currently used in practice as a separation between Moroccan military forces and the forces of the Polisario. The security fence is located within 100 to 50 km offshore and a similar distance from the international border between Western Sahara and Mauritania. The boundary length is 1,561 km and the length of the barrier, including the section inside Morocco, is close to 1,700 km. About 100,000 troops stationed in the border area, and locals were depleted. Forts scattered along and around it and the anti-personnel mines were laid there. The cost of maintenance of the barrier, including the cost of maintenance of soldiers stationing at is now estimated at USD 2 million per day. Although the amount seems large, Morocco income from exploitation of natural resources in Western Sahara (phosphates, uranium, various metal ores) warrant for its maintenance area, in addition to the fulfillment of the historical claims of Morocco.

#### D2. India – Pakistan barrier in Kashmir

Unlike the international border between India and Pakistan, the “line of control” in Kashmir is not marked and is not an international boundary. This segment length is about 750 km long. In 1990, with increased terror attacks, India began building a fence in that area too. Building that fence raises a political conflict between India and Pakistan, a conflict that arose sections of the fence along the recognized international boundary. Kashmir status is a major problem between India and Pakistan and there is no point in elaborating the details of the sources of conflict. Suffice it to say that India and Pakistan of today were (together with the current Bangladesh), one united area of British India. With the British decision to evacuate India in 1947 it was decided to divide the territory of India into two states – one Hindu and one Muslim – basing the partition on the political administrative division that existed in India at that time. Provinces and countries whose population was mainly Hindu became India while provinces with largely Muslim became Pakistan. The State of Kashmir, an area of some 220,000 square kilometers, had, in 1947, approximately 4 million people, more than three quarters of them, Muslims. It was to be a part of



Pakistan, but the Maharajah (local ruler) of Kashmir who was a Hindu, attached the state to India. To avoid implementing this decision a Muslim rebellion was conducted in October 1947, encouraged by Muslim tribesmen from Pakistan. The riots became a real war conducted in 1948 between the two newly independent countries – India and Pakistan. The United Nations, mediated between the warring states, achieved a cease-fire between them, decided to hold a referendum on the region, that the two the referendum was never held. The two countries argued that the other State invaded Kashmir, which was to be part of their territory.

Consequences of the war brought distributed practice of Kashmir along the cease-fire line, which became the armistice line called “Line of control”. The Agreement clearly states that the “Line of control” will not be marked in any way and living in the area will continue without interruption, including the “innocent” passage of residents of both countries through the line for local trade, visiting relatives and even marriages. The agreement on marriage was put to it, because most of the population on both sides of the line are Muslims. India currently has the region's southern part, called the Jammu – Kashmir and Pakistan hold the northern and east parts called Azad – Kashmir. India claims full sovereignty over the territory it controls and argues that the “Line of control” is a borderline practical for all purposes, while Pakistan claims that there is no borderline, that the status of the area is uncertain and so it is necessary to make the referendum, and India has no right to determine in any way the location of the line or to build any checkpoint or a fence which will determine what was not agreed. Since the end of war of 1948, India and Pakistan clashed several times in battles and wars. In most cases it was an attempt by Pakistani regular or irregulars to invade the area held by India. These attempts failed to achieve the end result of territorial gaining and time and again all returned to the “Line of control”.

About building fence, India claims, as stated, that the Line of Control is a boundary line for everything, divides the Kashmir region and consequently the entire area of Jammu, Kashmir is its sovereign territory, and therefore hedging activity is legitimate. Pakistan strongly opposes to the construction of the fence, claiming that India's acts is contrary to international law and it is trying to establish a border area where no agreed border exists. Conflict along the line is daily and bulk penetration of armed elements, not military, from Pakistan territory to India to impede and stimulate the Muslims living in Pakistan to join the area. To prevent these incursions – and not against organized military operations – India decided to extend the border fence that ran along the international boundary to the conflict area, although the legitimacy of that activity is controversial. India started to build a fence in Kashmir in 1992.

Observation towers were built and some parts of the fence along the line where also built, but two years later, in 1994, was discontinued due to pressure included Pakistani military conflicts by Pakistan shelling the fence builders. India resumed the construction of the fence in 2000, following a cease-fire in the conflict. Fence was placed along the “Line of control” – about 800 meters from the Pakistan Army's positions. India claims that the fence could prevent infiltration from Pakistan and announced that it would continue fencing and building physical barriers as needed. Pakistan threatens to oppose it by force.

Set cost per km of Jammu Kashmir fence was twice that of construction of the fence in Punjab and much higher price of the fence in the dunes of Rajasthan. Additional amounts are also paid for regular maintenance – a million dollars a day. Knowing these amounts Indian authorities declared that to save the damage caused by infiltration of violence and weapons smuggling is a small matter considering that the existence of the fence gives India a tactical advantage in managing the “Line of control” area against Pakistan.

The construction was halted due to fire from Pakistan and resumed in 2000. In first four months of this step, India built 15 km of fence. Construction was initially done at nights and foggy days using lighting. The method of work was the establishment of the wall of mud and dirt by the military defenders. After the wall was put in, a chain link fence was built at about 3.5-meters high and on both sides a tangle of three parts of a wire fence. Along the fence there are observation towers and a system of lighting a fence – lighting poles are placed at a distance of about 15 meters apart, to make up all day and night. As the “Line of control” had to be an “open border”, several posts were built, allowing traffic on the roads and railways that links the two countries.

### **E. Partial fences**

There are cases where countries built fences along only some part of the boundary borders – especially where natural barriers (impassable mountain ranges or desert sands) prevent free movement. In these areas there is no point in building a fence, but in other sections along the border fences are being erected to prevent the movement of people between two sides of the border. The borders of the Sahara Desert are such limits.

#### **E1. Morocco – Algeria**

Along part of the long border between Morocco and Algeria (1,559 km in length), in the province of Oujda – from the Mediterranean Sea to the Sahara Desert – Morocco built a fence on its territory made with barbed wire, to prevent passage of migrants. Most immigrants are from Central West Africa (Mauritania, Mali) trying to pass through Algeria and Morocco, to get to Gibraltar or Spain and then to Europe. It is also built to prevent smuggling of goods. South of

the fenced section, the Sahara desert is non-transferable for human movement and vehicles, and therefore is not fenced.

#### E2. Egypt – Libya

The length of the border between Egypt and Libya is 1,100 km. Along about 800 km the boundary is a straight line along longitude 25 East, in a desert area with high sand dunes, runs beyond convenience for people and vehicles, and even camel caravans cannot cross this area. In the Northern part, near the sea, the border is a series of semi-circle lines connected by a straight line. This is to divide the space in which there are oases. In the 1960's, and later in the 1990's, Egypt began building a fence along the northern border passages, where the line runs in the high rocky and salty marshes, allowing passage of people and multi-vehicle engines. The barrier was designed to block smuggling, terrorist activities by Libya and the movement of illegal immigrants from Libya to Egypt.

#### F. Urban boundary fences

Nicosia in Cyprus, Rafah (on the border between Egypt and the Gaza Strip) at the present and Berlin, Gorizia and Jerusalem in the past, are cities, separated by border lines. In all these places fences and high walls were built to prevent passage of civilians or paramilitary elements from side to side.

##### F1. Nicosia

In 1974 Turkey invaded Cyprus, occupied the northern part, and established there a one – sided Turkish Cyprus. Between the two parts of Cyprus a security zone exists, run by the UN force between the Turkish army positions and the Greek Cypriot army. In Nicosia itself, the capital of the island and of the former joint state, there stretch “green line” that divides it into the two territories. Along this line, a fence was built over the years, part of which was piled up from the ruins of houses situated between the sides and a smooth wall is built, preventing passage between the two parts of the city, but through on controlled point, supervised by UN soldiers. This line had been actually created in 1964, ten years before the Turkish invasion, to create a clear dividing line between Greek and Turkish population in the city. After 1974 the UN force stationed in this line along its 18 kilometers long (including area east and west of the city). The War hit this part of the city – residential, commercial buildings and other structures. Following, many streets were blocked; concrete walls to prevent injuries by snipers were built by both sides along the ceasefire line in the city. Observation towers were built, enclosed abandoned buildings and fences were further clouded by inhibitory existing settings. Roads were blocked by walls and concrete casks, and in fact, without any preliminary planning, block walls formed on both sides of the line. Throughout the rest of the division line (known as “Attila line”) fences were not built so this line will not be discussed here.

### 3. Conclusions

Today there are over three hundred terrestrial borders between countries. Along some of them walls and fences were built to prevent uncontrolled crossing from one side to another. These barriers can be divided into two groups:

A. Obstacles to prevent the passage of migrants and job seekers, goods and drugs. In this group are the obstacles set up by the United States against Mexico, the border barriers between Morocco and Spanish enclaves in Morocco, between Gibraltar and Spain, between China and Hong Kong, fences in Central and South Africa (try to avoid even beyond the diseased animals) and the fence between India and Bangladesh. These settings are mainly fences, no violence, intended to prevent, through a combination of barrier and patrol activity, illegal crossing of the border.

B. Obstacles to prevent the passage of armed groups and terrorist activities, or even military. These obstacles fence the border between India and Pakistan, Malaysia, Thailand, past fence between South Africa and Mozambique (although this is currently turned primarily to prevent the passage of migrants and job seekers), between Nigeria and Cameroon, the fence set up by Morocco in Western Sahara and the Military barrier between North Korea and South Korea.

Setting up fences and walls between East and Western Europe, and especially “Berlin Wall”, intended mainly to prevent the flight of people from countries that built them and were not maintained by a state against illegal entering activity. Therefore, even though they have become a symbol, they were not like the rest of the obstacles discussed here.

The examination of these barriers done here raises several points:

A. In recent decades, although there is a process of removing border barriers between countries, particularly in Europe – a growing phenomenon of constructing barriers that separate the countries is ongoing.

B. Most of the obstacles were erected by the countries near their border within their territories, where the boundary line is clearly marked.

C. In most cases the building of the barrier, is on the richer side, trying to prevent the passage of people and goods from the poor neighboring states, which are subject to political difficulties and trying to improve its economy.

D. Countries where the barrier was built to prevent crossing from them, do not intervene in the activity of maintaining the line, but do not encourage the movement.

E. In most cases, the fence is built for the prevention of smuggling and crossing of labor migration of citizens. These walls and fences are not violent, although use military technological means, night vision equipment, and sensors.

F. Fences and walls are not intended to stop armies and therefore are not structured obstacles for armies. An exception is the barrier built between North Korea South Korea.

G. The higher levels of hostility and factors involved in crossing the militants reinforced the fences by adding obstacles and special warning devices.

H. In most cases there is no opposition from the other states concerning the location of the fence as long as it is built inside the sovereign territory of the country that builds it.

Sometimes, however, voiced opposition even in these cases (Bangladesh, countries in Africa).

I. Countries that build fences invest resources to build the barrier for economic reasons and security.

J. Walls are sometimes removed with a change in the political or economic situation.

K. There are some exceptions to building walls and fences as part of the determination of demarcation of a boundary. Currently the outstanding cases where – Morocco in Western Sahara and India against Pakistan in Kashmir. In the past, so are the Chinese empire and the Roman Empire.

L. When building a fence in a populated area and the fence is not attached to the border, there are problems of processing agricultural land. These problems are solved by building controlled crossing gates.

M. It is difficult to monitor a large population living in densely populated area near the obstacle, and so some countries have population transferred and by this reduce the numbers of those who live near the border.

One last remark

Barriers continue to be built and as long as there are so many differences between countries, people will like to cross the line, with or without permissions. Those who want to halt these movements, will try to do as much as possible to prevent it, for the time being, fences are erected.

## References

- Asiwaju A.I., 1990, *Artificial boundaries*, Civilities International, New York.
- Biger G., 1995, *The encyclopedia of international boundaries*, Facts on Files, New York.
- Brownlie J., 1979, *African boundaries*, University of California Press, Berkeley.
- Dare M., 2003, *Fuzzy math at the border*, „Sierra Times”, 1 (22).
- Durrani M.A., 2001, *Enhancing security through a cooperative, border monitoring experiment: A proposal for India and Pakistan*, CMC Occasional Papers, Sandia National Laboratories, SAND 98-0505/21, July.

- Ganster P. (ed.), 2000, *The US-Mexican border environment*, San Diego State University Press, San Diego.
- Jones S.B., 1945, *Boundary making: a handbook for statesmen*, Treaty Editors and Boundary Commissioners, Washington.
- „Kashmir News”, 16.09.2001, 03.29.2001.
- Kristoff L.A.D., 1945, *The nature of frontiers and boundaries*, „Annals of the Associations of American Geographers”, 49.
- Lakshami R., 2004, *India's border fence extended to Kashmir*, „The Washington Post”, HindustanTimes.com, 23/01.
- Martinez O., 1995, *Troublesome border*, University of Arizona Press, Tucson.
- Nevins J., 2002, *Operation Gatekeeper*, Routledge, London.
- O'Reilly J.G., 1992, *Gibraltar: Spanish and United Kingdom Claims*, IBRU Press, Durham.
- O'Reilly G., 1994, *Ceuta and the Spanish sovereign territories: Spanish and Morocco claims*, „Boundary and Territory Briefing”, 1 (2).
- Prescott J.R.V., 1987, *Political frontiers and boundaries*, Allen and Unwin, London.
- Rebert, P., 2001, *La Gran Linea*, University of Texas Press, Austin.
- Ritter G., Hadju J.G., 1989, *The East-West German boundary*, „Geographical Review”, 73 (3), pp. 326–344.
- Rumley D., Minghi J. (red.), 1991, *The geography of border landscape*, Routledge, New York.
- Tahir-Kheli S., Biringir K., 2000, *Preventing another India-Pakistan War: Enhancing stability along the border*, CMC Occasional Papers, SAND 98-0505/17, October.
- Tuval S., 1972, *The boundary politics of independent Africa*, Mass, Cambridge.
- Utley M.R., 1996, *Changing course, southwest parks and monuments association*, Tucson.

### Websites

- Arabicnews.com (14.01.2004).
- La Nueva valla contra inmigrantes en Ceuta, El Pais (17.8.1999)
- National Geographic Magazine, National Geographic com. / Online\_extra.html (17.3.2004)
- Paknews.com (29.3.2001, 11.12.2002, 14.12.2003).
- The Telegraph (29.01.2004).
- www.imjinscout.com / Barrierfence.html

## Mury, ogrodzenia i granice międzynarodowe

### Streszczenie

Artykuł dotyczy relacji między granicami państwowymi i współczesnym zjawiskiem stawiania murów i ogrodzeń wzdłuż tych granic. W celu uniknięcia działań militarnych i terrorystycznych, nielegalnej imigracji, przemytu, zwłaszcza między krajami biednymi

i bogatymi, zbudowano i nadal się buduje coraz więcej ogrodzeń. Badania przedstawiają kilka modeli wspartych badaniami przypadków takich relacji, tzn. ogrodzeń/murów tworzących granicę, jednostronnych ogrodzeń/murów wzdłuż istniejącej granicy, dwustronnych murów wzdłuż uznanych granic państwowych, murów wybudowanych wzdłuż części granicy międzynarodowej, tj. granicy częściowo ogrodzonej, murów miast oraz murów w rejonach spornych, nieposiadających oficjalnych granic państwowych. Z podsumowania artykułu wynika, że dopóki istnieją różnice pomiędzy krajami, ludzie będą z wielu powodów próbowali nielegalnie przekraczać granice, a ci, którzy próbują ich powstrzymać, będą budować coraz więcej ogrodzeń na całym świecie.

**Słowa kluczowe:** granica międzynarodowa, mur graniczny, nielegalna imigracja, działania terrorystyczne, przemyt.

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