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Western Sahara Case Study Report

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1. INTRODUCTION

1.1. *Synthesis of context*

1.1.1. *The Western Sahara Conflict: Roots and evolution*

Western Sahara remains at this moment as the largest colonial territory of Africa, whose legal status is still not resolved, despite the various attempts by international diplomacy to establish a definitive solution. After the withdrawal of the Spanish colonial rule in 1975, Morocco has effectively taken control of most of its territory, and even annexed it, but it has not obtained international recognition of its claimed right of sovereignty. Originally inhabited by a small, sparse population of nomad Berber tribes, Spain established its rule in the territory in the early 20th century. It was not until the last third of 19th century when Spain officially made its claim over the land that would later become known as Western Sahara. On June 12th, 1886, an expedition organized by the Spanish Geographical Society and led by captains Cervera and Quiroga disembarked at *Río de Oro* -today's Dakhla- and formally requested the whole territory as a colonial belonging of Spain (Morillas Gómez 2003-2004: 121). In the following years Spain annexed additional territories in the north, predominantly in the region of Saguia-el-Hamra and Tarfaya, in close proximity to the Canary Islands. The boundaries of the colony were gradually established with successive treaties signed between Spain and France in 1900, 1904 and 1912, the last of which set the recognized international borders of today of Western Sahara with the French Western Africa and the Protectorate of Morocco. Nevertheless, Spain would not occupy the whole territory until the 1930s and the end of the Spanish Civil War.

In the beginning of the 1970s, Spain started the process of decolonizing Western Sahara, "intending to transform it into a closely aligned independent state after a referendum on self-determination" (Migdalovitz 2006: 1). Since its independence in 1956, Morocco had been claiming Western Sahara as part of its national territory, "based on the desire to restore the boundaries of the ancient Almoravid empire of the 11th and 12th centuries" (Von Hippel 1995: 70). It argues that on the oaths of allegiance, the chiefs of several Sahrawi tribes had once given the territory to the Sultan of Morocco. By that time, it was already founded the *Frente Popular para la Liberación de Saguia el Hamra y Río de Oro (Polisario)*, with the aim to institute a Sahrawi Arab Democratic Republic [SADR] (López García and Hernando de Larramendi 2005, Solà Martín 2005:13). Even though the International Court of

Justice, after a request by the UN Assembly, ruled in favor of the self-determination of the territory, Morocco did recognize the newly acclaimed sovereignty of the Western Sahara. The government of Morocco rather took advantage of the power vacuum in Spain in the last months of Franco's dictatorship. Along with Mauritania, Morocco asked for the partition of the territory, and organized a huge demonstration towards the Morocco-Western Sahara frontier in 1974 (the *Green March*). As a result, Spain agreed to sign the Treaty of Madrid in 1975 (Vaquer i Fanés 2007: 127) and transferred to Morocco the administration of the territory. The Polisario denounced this treaty and declared the independence of Western Sahara, whose first government-in-exile was proclaimed in Algeria in 1976 (OHCHR 2006: 3). Algeria was the first country that recognized the independence of SADR. Immediately following the denouncement, a war between Polisario rebels and Morocco's army broke out (Mauritania withdrew from Western Sahara in 1979). In the early stage of the war, a large number of Sahrawi refugees fled to the western Algerian province of Tindouf, in which several refugee camps were created.

The period of open war lasted until 1991. During this time, the Polisario tried to obtain international recognition with poor results. In 1982 the SADR was accepted as member of the Organization of African Unity (López Belloso, 2005); but by the end of the 1980s, only 79 countries were recognizing the SADR, none of them part of the

European Union¹ (Hoover 1983). Morocco also succeeded in preceding military operations. By the end of the decade, Morocco controlled almost $\frac{3}{4}$ of the country, along with the most populated towns and other economically important areas. In order to secure them, the Moroccan Army started the construction of defensive banks. Gradually these earthworks joined up into a single large wall (known as the *berm*), from the Algerian-Moroccan border in the North to the Mauritanian border in the South, dividing the territory of Western Sahara into a Moroccan-ruled zone along the coast, and an inner region controlled by the Polisario, as shown in the *Map 1*².



Map 1: Western Sahara (2005).

Source: MINURSO (<http://www.un.org/Depts/dpko/missions/minurso/>)

¹ Albania and Yugoslavia recognize the SADR. The list of states that recognize the SADR has been slowly diminishing since (53 countries in 2006, 32 in 2008).

² The wall is located in a small portion of Mauritanian territory, dividing de facto the Polisario-ruled territory into two sectors. As the border between Western Sahara and Mauritania is effectively open, there is no significant obstacle to free movement between both sectors.

The *berm* created a *de facto* frontier inside Western Sahara, leaving most of the territory under Moroccan administration, and a long Eastern strip of land along the international borders with Algeria and Mauritania, that remained under the control of the SADR, even though the political and military headquarters of the Polisario remained at Tindouf camps. This situation crystallized in 1991, after a ceasefire arrangement supported by the United Nations, which led to the effective end of the war. According to the UN's "Settlement Plan", a Mission for the Referendum in Western Sahara (MINURSO) was established, whose main task was to monitor the ceasefire, and to take steps to organize a referendum on the future of the territory. Nonetheless, after a hopeful start, the successive plans promoted by the UN mission has resulted unsuccessful (Moshe-Finan 2000, Migdalovitz 2006) leading to an endurance of the situation (Von Hippel 1995: 69).

The EU has not been as engaged in the Western Sahara conflict as would be expected given the geographical proximity, the economic interests and the historical and cultural ties of some European countries (Vaquer i Fanés, 2004). As Urruela affirms (1995: 188), behind the lack of an EU's unified policy on the issue of Western Sahara, lies the great divergence on the understanding of the problem among two of the members of the Union, France and Spain. In fact, some sociological surveys have shown that, while France's public opinion presents the highest rates in the whole EU in supporting the position of Morocco in the conflict (Berramdane-Gambie, 2006: 207), on the contrary Spain is the country whose population is more attached to the position of the Polisario (Pérez García 2006, Vaquer i Fanés 2007).

1.1.2. *The social and economic context*

Western Sahara depends on pastoral nomadism (the first and traditionally most important economic activity, today in decline) (Morillas Gómez 1990), fishing (promoted by the first Spanish colonizers) (Maldonado Polo 2001: 86), phosphate mining (at the inner location of Phos Bucraa), and the search for possible oil reserves, as the principal sources of income³. Morocco is today, for instance, the first worldwide producer of phosphates (Reina Delgado 1998). In the last years some intensive agriculture has also been developing in the north of Western Sahara, especially bananas and tomatoes for export (AFASPA 2003: 33). Most of the richest natural resources are located in the area ruled by Morocco, whose governments have exploited these resources, as well as the trade associated with them, to the objection of the SADR authorities. There is debate on the cost of the occupation of Western Sahara for the Moroccan economy, even though Morocco is obtaining high earnings because of the increasing prosperity of several Western Sahara-based enterprises, large amounts of money have to be spent to secure the territory and the *berm* (Cembrero 2000).

³ Interview with the representative of the Spanish NGO *Ayuda a la República de Sáhara Occidental (ARSO)* in the Basque Country. Bilbao, 2007 December 17. Also at <http://www.arso.org>.

While it seems that incomes and standards of living in Western Sahara are substantially below the Moroccan level,⁴ on the other hand, it is also true that the Sahrawis living in Moroccan-controlled territories "may be said to have a better material standard of living -chiefly as a result of significant Moroccan investments in the region", than those who fled to the refugee camps (ICG, 2007: 7). Western Sahara presents also the highest urbanization rate of Africa, with 95percent of its population living in urban environments. The first attempts to sedentarize Sahrawis started as soon as the 1930s, when Spanish governors create the first urban centers in Saguia-el-Hamra and promoted the expansion of agriculture in nearby areas to fix the population, starting by some previous semi-permanent native settlements like Laayoune (Meana Palacio, 2006). By the end of colonial period, about 82 percent of Sahrawis lived in urban environments, since it was understood as a way to improve social conditions and to escape from the extreme living conditions of nomadism (Reina Delgado 1998). This process intensified after the implementation of Moroccan rule (OCHA 2006). The expansion of population is seen both as a way to secure and revitalize the region. Furthermore, the construction of the *berm* produced a fast decline of the traditional Sahrawi culture and increased sedentarization, as the last tribes that practiced nomadism were no longer able to follow the routes they used to with their livestock (Interview to Mohamed Abdelaziz, president of the SARD: Tindouf, december 2007). The increase of urban population, both by natural growth and immigration, has created new pressures on basic urban services, such as water supply, though their rates -as well as sanitation rates- are higher than in other parts of Africa.

Quite different is the situation among Sahrawi population living in the refugee camps. The only similarity with the population living in the Moroccan side can be seen in the high rate of urbanization, if we understand the refugee camps as urban environments. The Tindouf area was structured in four main settlements or *wilayas*, named after the main cities of Western Sahara that remain under Moroccan rule: Laayoune, Dakhla, Awserd and Smara. Each wilaya is divided into six or seven districts or *dairas*, in order to perform a better administration of the population. There are also other smaller settlements with specific functions, like Rabbouni that functions as the seat of the ministries of the RASD.

More than thirty years have passed from the exodus of 1976, and even though clay brick buildings replaced tents, a severe lack of public services and basic infrastructure remains. For instance, the most populated settlement, Smara, has no fresh water supply; and electricity is only provided by UNHCR in five dairas (Sánchez Díez 2007: 10-11). Householders have no property rights, but only a permit for five years, usually given to females once they get married. This sense of provisionality, legal barriers, limited existing resources and usable lands, and dependence on external aid have delayed the emergence of a local productive economy. Between 1991 and 1999, when the enthusiasm on the forthcoming referendum was subsiding, some local small enterprises commenced in sectors like

⁴ Country information from UNEP site (<http://countryfiles.unep.org>) Also World Fact Book. For instance, while life expectancy in whole Morocco is 69 years, in Western Sahara it is only at 50.

agriculture. Regardless however, dependence on external resources is still very elevated.

Other major differences are also apparent in literacy rates. While Morocco presents one of the highest levels of illiteracy in MENA countries (up to 47percent, in which Western Sahara's population is included⁵), on the other side, the situation at the refugee camps is quite the opposite. From 1976 the authorities of the camps devoted many resources to children's education, as by that time illiteracy rate was about 95percent, combining the creation of schools in the camps with the sending of students abroad (Vidal Bertran, 2006: 103). One of the characteristics of this educational system is the place given to Spanish language, used as second scholar tongue, with the expressed aim to differentiate from a mainly French-speaking Morocco. Notably, there is no perceivable inequality of literacy rates according to gender (OXFAM, 1995). Although, this does not mean that women in Sahrawi society enjoy equal Thus, women have acquired more rights and responsibilities because of the situation of war, that have led to a positive development of their social condition.

Because of the historical and social background of the region, Sahrawis have developed close migratory ties with Europe, especially with the former colonial ruler, Spain, the intensity of which has been strengthened by the means of a long-time political and military conflict.

1.2. Brief overview of environmental problems

Western Sahara is a mostly uninhabited desert territory of about 266.000 km². The area constitutes one of the eastern coastal subtropical deserts, located between the latitudes of 20^o-30^o. According to the climate classification by Strahler & Strahler (1989), the main features of the climate of Western Sahara are an elevated daily thermic oscillation and extreme dryness, with varied annual rainfall levels, but which overall tend to be mild. The relatively low average altitude of the territory -there is a lack of high mountains, only small plateaus that rarely reach to 400 meters- does not permit the region to catch most of the wetness of the sparse clouds brought by the trade winds coming from tropical areas. The area has been involved in a growing process of desertification, started more or less 6000 years BP but that is increasing strongly in the last mid-century. (Noblet-Ducoudré et al. 2000). As Foley et al. state (2003: 524),

The Sahara presents us with very a good example of a region with alternative stable state and dramatic regime shifts (..) While the exact timing and circumstances of regime shifts may be unpredictable, the existence of the alternative stable states can be -and has been- predicted. We may therefore forecast the future of the Sahara in terms of probabilistic assessments of wet versus desert conditions -but not

⁵ There are no data available for the whole territory of Western Sahara, For Laayoune, for instance, illiteracy rates are 38.9 (men) and 51.9 (women). School attendance for the children between 7 and 12 years old is 91.8percent (men) and 83.2 (women). Cfr. El Mahdad, El Hassane; El Madani Mountasser & Lékbir Ouhajou; "El Gran Sur"; in López García & Berriane. 2004. 198-204.

the precise timing of the regime shifts. It seems that there is much more likely to be an increase of the process of desertification in the future, rather than the return to a "green-Sahara" situation, and that the territory may be triggered by slow changes in land degradation.

According to the conditions of the arid nature of the climate, the lack of vegetation is one of the features of Western Sahara's landscape. Only 0.6 percent of its surface is covered by forest (as stated by FAO⁶), in which are included the areas of palm-trees in the oases and riversides of the wadis, and some acacias in inner, drier zones. Most of the greener areas are located in the north of the country, especially in the basin of Saguia-al-Hamra *wadi*.⁷ Along the riversides, sufficient vegetation for grazing can be found, and even in some places cereals like barley or corn are cultivated (Goldau 2008). In these areas, a sustained water balance has been noticed, helped by the use of underground fossil water and a few natural lakes (Daias and Graras), cisterns and wells.

On the contrary, in the southern and inner part of the territory, rainfalls are even fewer and more sparse, making agriculture almost impossible. Ergs and sand dunes are the dominant landscape, with the only exception being the coastal strip, where the humidity permits a steppe-like flora. As the refugee camps are located in this area -Tindouf region in Algeria happens to be one of the driest places within the Sahara desert- one of the main concerns of the people living there has been related to the extreme difficulty, if not impossibility, to pursue income-generating activities, as "the lack of economic opportunities has determined the dependency of the refugees on external assistance" (OHCHR 2006).

Apart from the very strenuous life conditions imposed by the habitual desert climate of the region, Western Sahara also suffers some other kinds of environmental, natural or man-made hazards:

1. There is high interannual variability of rainfalls, with periodic *droughts*. From mid-1800s on, records present an average of one extreme drought every 25 years, with a tendency to increase their recurrence in the last decades. Swearingen and Bencherifa (1996) or Goldau (2008) have suggested a link between the expansion of the agriculture and the increase of the most harmful effects of the droughts in areas of Southern Morocco, whose situation is quite similar to northern Western Sahara. Goldau also states that the changes introduced by colonial rule in agricultural practices destroyed the traditional food supply and increased food vulnerability. The effect of droughts may also be visible in other traditional economic activities as grazing or nomadic farming.

2. The lack of capacity of the wadis to cope with sudden heavy rainfalls creates a risk of severe *flash floods*: "short lived but very rapid rises in the level of water courses or filling of dry beds" (Swearingen and Bencherifa 1996). In past floods,

⁶ Evaluation of the World forest resources (<http://www.fao.org/docrep/005/Y19975S/y1997s1u.htm>). According to this source, only 152 ha. is covered by forest.

⁷ A *wadi* is a stationary river, where water gathers during the brief rainy seasons.

communities have suffered severe loss due to the lack of protection, as was the case in the floods of Tindouf's refugee camps in 2006 (UN World Food Programme, Emergency Report 2006).

3. There are also other natural hazards linked to the desert climate, as the periodic hot, dry, dust/sand-laden winds, such as the sirocco that can occur during winter and spring, or the most frequent harmattan that hits especially the inner part of the territory almost 60 percent of the year. According to Helgren and Prospero (1987), high velocity winds are responsible for or associated with dust-raising events. These dust storms not only produce problems in human, economic activity, but also in public health, as there are also reported to cause several diseases, specially related to eyes and the respiratory system (Murube del Castillo 1975). The increase of desert dust and sand in suspension is considered a main cause for a higher prevalence of diseases of the respiratory system, such as episodic asthma attacks (García Carrasco et al. 2001). The issue of climate change has intensified the interest in the research on the effects of desert dust in public health, as dusty winds are expected to reach the countries of Southern Europe (Ballester 2005; Viana et al. 2002).

4. Human activity is also creating other environmental hazards. Most of them are related to the quality of available water. Both in the Morocco-ruled area and in the regions controlled by Polisario, the concentration of dense human populations in relatively small areas is creating a pressure. In both areas, a large percent of the population has settled in areas:

- a) That were unknown for the newcomers, so they were not adapted to them and have no knowledge about their possibilities and resources;
- b) That belong to very fragile ecosystems, which could easily be interrupted by human activity (ex. pollution), and that traditionally have not been very populated, at least not at the levels they are now, because of the limits set by a restricted access to technology;
- c) Which lack sufficient natural resources (especially fresh water) for sustaining communities:
- d) Which are vulnerable to the effects of climate change, particularly the advance of desertification.

For instance, in the region of Saguia-el-Hamra, scarcity of freshwater has been reported in the last years as one of the main problems of urban areas, because of the salinization of water sources from poor irrigation methods, and pollution from wastewater. As stated by Polisario, mining and fishing, because of over-exploitation of natural resources, are also behind several processes of environmental degradation in Western Sahara (Interview to Mohamed Abdelaziz, president of the SARD: Tindouf, december 2007). In the case of fishing, for instance, Morocco has made full use of the fisheries off Western Sahara's coast after the overexploitation of

other parts of Moroccan Atlantic coast in the north of the country. By 2004, the exports from Western Sahara's fisheries (ex. octopus, sardines, squid) represented more than 60 percent of Morocco's total annual fisheries yield (Omar 2008: 99).

In the Tindouf's refugee camps, reports of NGOs indicate that as a result of pollution, the underground water (the only source available, as the wadis or this region remain dry most of the time) cannot be used as a permanent source for usable water. In contrast to what could be expected a priori, the amount of available water does not represent a major problem for the water supply system, as the spring used to provide most of the camps, near the *wilaya* of Laayoune, with plenty of water (Docampo 2006). From the end of the 1990's however, a growing problem of pollution of these underground waters has emerged, because of the lixiviation of fecal wastewater that end up merging into the aquifers. The first signal was an epidemic of cholera in the *wilaya* of Dakhla, following similar episodes that have forced Polisario's authorities to undertake additional measures (Docampo & Molinero 2006: 12).

1.3. Brief overview of migration processes

1.3.1 The population of the country

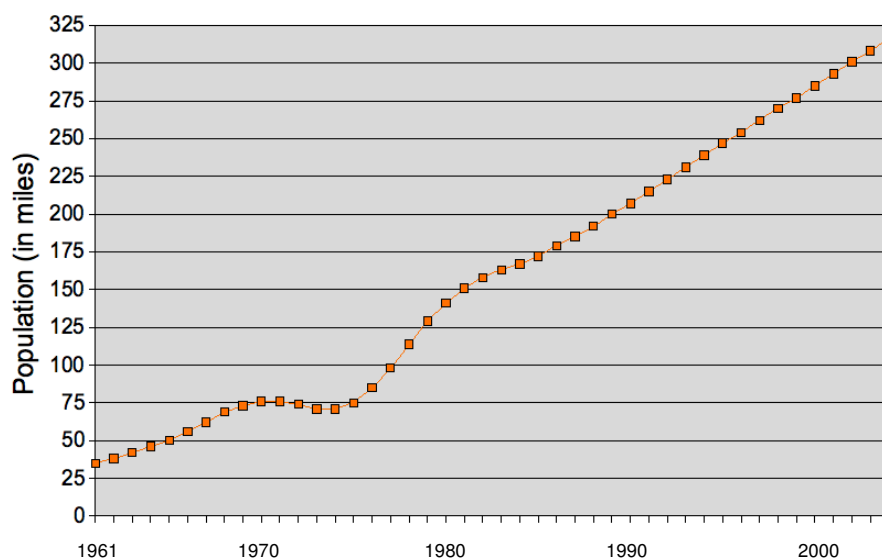
The population in Western Sahara is a highly political issue, given that Morocco and the SADR have been arguing for years about who should be allowed to vote in a future referendum on self-determination. Actually, as San Martín states (2004: 652), "the main obstacle to the implementation of the 1991 Settlement Plan" -and we would add, to the following peace plans also- "was, from the beginning, the census of voters for the 'self-determination' referendum". Because of this, it is extremely difficult to determine the actual population of the territory, both *de facto* and *de iure*, as the sources not only are often unlike, but clearly contradictory, depending on the affiliation and intentionality of their producers (Von Hippel 1995). Moreover, there are problems with estimating the total amount of Sahrawi population, after more than three decades, since a large number of them opted for exile. The meaning of the term "Sahrawi population" itself is controversial, as it can be referred to the current population living in the Western Sahara, no matter where they have come from, or only the aboriginal inhabitants prior to 1975 and their descendants, wherever they live today.

The point of departure for any approach to the question is the last officially implemented and internationally recognized census of the territory, performed in 1974 by the Spanish colonial authorities. This census not only comprised the indigenous people, but all the population, including the Spanish officials, soldiers and workers. Barbier (1985) defines this census and their outcomes as "reasonably accurate." As this census does not differentiate between native and colonial population, estimations normally use religious affiliation to split them, as it seems reasonable that Christians were mainly Europeans, and Muslims native Sahrawis. If we accept this method of classification, out of approximately 74,000 inhabitants, 73,000 were Sahrawi.

After the withdrawal of Spain and the start of the war, two main events have considerably affected the demographic makeup of the territory. On the one hand, as noted before, right after the start of the war, a large number fled from Western Sahara in search of refuge in Algeria along the border. Estimates of the number of refugees that escaped to Tindouf range from 160,000 (Migdalovitz 2006) (which may be exaggerated considering this was more than twice the actual population of the territory at that time), to only 40,000. On the other hand, a state-favored immigration of Moroccans to the new "southern provinces" began (AFASPA 2003: 25), commencing with a strong military presence (it is calculated that 200,000 soldiers which made up half of the total Moroccan army and security forces, were stationed somewhere in Western Sahara), and followed by functionaries and economic migrants. After the 1991 UN cease-fire, it seems that the efforts to attract the settlement of newcomers from Northern Morocco, have been successful.

The implementation of this policy on internal migration has undoubtedly had an impact on the size and composition of Western Sahara's population. In September 1982, when Moroccan authorities launched a new population census of the country including the new "southern provinces", the population of the former Spanish colony under its administration was 163,838, of which more than a half (96,784) lived in the capital city, Laayoune (San Martín 2004). Even if the most conservative numbers of refugees in 1976 were accepted, it would still represent a population growth rate between 300 percent and 600 percent in only six years, thereby implying that the population would have doubled within each 1-2 years.⁸ According to World Statesmen.org, in 2006, Western Sahara had a population of about 273,000 inhabitants, and maybe more than 300,000, as stated by FAO (see *Graph 2*). The speed of population growth in Western Sahara is one of the most prevalent features of the demographic nature of this territory in the last thirty years. This extraordinary growing percentage seems to exemplify not only the existence, but also the significance given by Moroccan authorities to "moroccanize" the Western Sahara through the facilitation of internal migrations. AFASPA states that, as a consequence of these migrations, aboriginal Sahrawi population only represents today 30 percent of the total inhabitants of Laayoune city, 20 percent of Smara, and only 10 percent of Dakhla (2003: 25). UN sources also support this statement: in January 2002, when MINURSO's Identification Commission for the Referendum published the definitive list of persons eligible to vote, 86,381 Sahrawis were included there, from which only 48,000 lived in the Moroccan side of Western Sahara. About 120,000 candidates proposed by Rabat were rejected, supposedly because of being of Moroccan, not Sahrawi, origin (San Martín 2004).

⁸ This rate comes after calculating the population that would have remained in Western Sahara at the time Morocco took control of the territory, subtracting the number of refugees from the estimated aboriginal population at 1974's census.

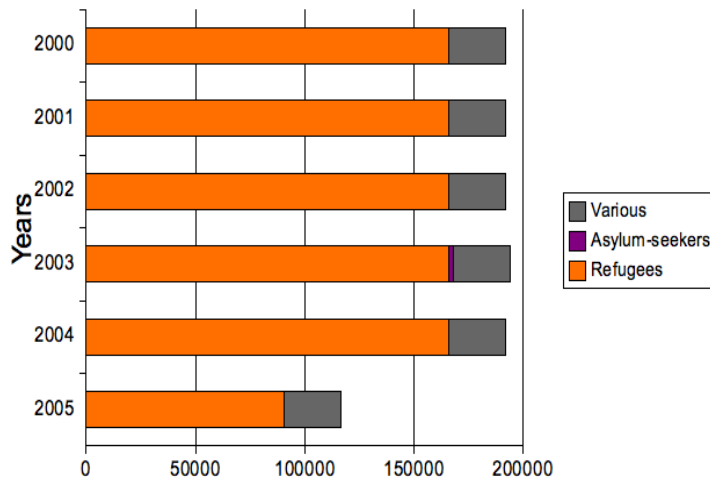


Graph 1. Estimates of Western Sahara's population, 1961-2004.

Sources: FAO, www.faostat.fao.org.

Obtaining the number of refugees is difficult, especially considering the early migratory process from the camps to other foreign destinations. Nonetheless, considering that the camps are mostly located in Algerian territory, and despite the fact that the Sahrawi people are not officially considered to be "refugees" by many countries (among them Spain, that has become maybe the largest destination of Sahrawi emigration abroad), the Sahrawi population still enjoys some kind of protection by the UN High Commission on Refugees. Thus, the UNHCR, as well as the Algerian government, provide some figures about this population.

There are however some minor discrepancies between the different sources. Until 2004, UNHCR accepted the figures of the existing population in the camps presented so far by Algeria, around 165,000 people. In accordance with the World Food Program, in 2003, there were 158,000 people in the Tindouf camps receiving humanitarian aid, 122,700 of them being members of "vulnerable groups" (Sánchez Díez 2007). In 2005 however, the UNHCR made a "significant decrease in the refugee population" of Tindouf camps, as a result of "revised refugee estimates following registration exercises" (UNHCR 2005: 4 + 16, see also *Graph 2*). From 165,000, the number of registered refugees went down to only 90,652. The estimated number of 26,000 included in the item "various" did not change, and it is reported to cover, among others, the floating population that is to be settled abroad. By November 2006 the WFP also decided to decrease its estimations to 125,000, following the procedures implemented by UNHCR.



Graph 2: Western Sahara. Refugees, 2000-2005.
 Source: UNHCR Statistical Online Population Database;
<http://www.who.int>.

1.3.2. Migratory processes

Western Sahara is located in one of the four main migrant subsystems within MENA region defined by Castles and Miller (2003: 123), in addition to other Mahgreb countries as Morocco or Algeria. Although the most visible part of the migratory flows that cross the region are those incoming to Western Europe, there are also other migratory currents, both traditional and new ones, that must be taken into account. In the case of Western Sahara, we can differentiate three main distinct movements, according to their protagonists, the distance and the countries involved.

1. First of all, there were traditionally, long-established *regional movements* that brought populations between nearby territories, linked all of them by the presence of Sahara desert. Nomadism has been a long time practice among peoples around the desert. The absence of formal, severe border controls in past periods, even in the recent history of the region, undoubtedly advantaged a migratorial behavior that was rooted in the customary usages of most of these peoples. Both Spanish and French colonial authorities soon noticed it, but no substantial measures were taken until the end of colonial age. In 1958, after the Spanish-Moroccan non-declared war in Sidi Ifni and the northern borderland of Western Sahara, the Military Governor of Laayoune, General Alonso, declared openly that one of the first priorities of Spain's policy on Sahara would be to grant economic aid to Sahrawi people to secure them against the necessity of going to Morocco's south, "as they have used to do so far" (Reina Delgado 1998). Something similar was stated after the independence of Mauritania, a nation where about 30,000 people of Sahrawi origin lived.

The changes of the political situation of the area after the Polisario-Moroccan war started have undeniably altered the traditional paths of this migration. In the Moroccan-ruled side, the absence of any kind of formal frontier between the country and the former Spanish territories have fixed old patterns, adding also some novelties, since -as we have seen before- the main movements today are coming from the north to the south, instead of the opposite current that was dominant in the past (AFASPA 2003: 33). In the other side of the *berm*, Sahrawis enjoy a wide freedom of

movements across the borders of Algeria and Mauritania, but principally because of political alignment rather than historical customs.

2. *Migration to Europe* started as early as the 1950s, during the times of Spanish colonial domination. In a first stage it was predominantly to Spain, and became the starting point for new chain migrations (González Pérez 1994). Because of the efforts made by Franco's nationalistic administration, there was an expansion of the knowledge of Spanish language. However limited to the native groups admitted to formal education, it helped in the process of successful integration and strengthened the migratory flows. In any case not very numerous until the first half of the 1970s. After the cession of the territory to Morocco, immigration of Sahrawis from this area ceased almost completely. By 1991, for instance, only 61 persons with Moroccan citizenship were registered in Spain as coming from one of the provinces of the "Great South"⁹, about 0,06 of the total amount of Moroccan immigration (El Mahdad et al. 2004: 205¹⁰). A decade after, the figures were quite different, as the presence of Moroccan citizens from the Great South had increased 140.7 percent yearly, up to 1,070 immigrants in 2001 (see *Map 2*). One of the reasons expressed by El Mahdad to explain the emergence of this migratory current is based on the identity of this region, "characterised by historical and political links with Spain" (2004: 208).

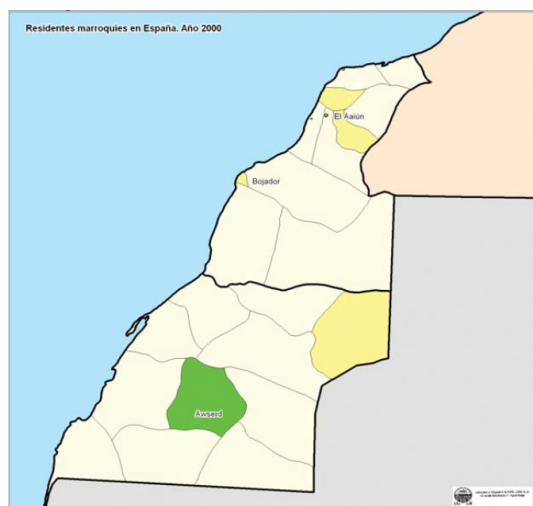
But these figures present several concerns. First of all, as they present migration data according to the last known legal residence, it remains unclear how many of these migrants are really reemigrating from Western Sahara to Europe, after a prior internal migration from other parts of Morocco to the Great South. The research by Domínguez Mújica & Guerra Talavera (2004) on Moroccan immigration to the Canary Islands states that, although 34 percent of Moroccan citizens living on this archipelago had come from one of the provinces that comprise the territory of former Spanish Sahara, about half of them were not an aboriginal Sahrawi, but "born in other regions of the country" (the highest rates of Morocco). According to the *Atlas of Moroccan Immigration in Spain* (López García & Berriane 2004: 210), the patterns of residence of "great southern" Moroccans in Spain was similar to those of Moroccan immigrants as a whole.

3. The second issue concerns the Western Sahara as a *transit point for illegal migrants* (not only Moroccan or Sahrawi, but also sub-Saharan African, an even South Asian) attempting to reach European Union via the Canary Islands by boat (Migdalovitz 2006: 6). The geographical proximity of the Western Sahara to the southern border of the EU, together with other push and pull factors, make this area a crossroad of international migration towards Europe (see *Map 3*). However, this area did not emerge as a crucial space for migratory flows until mid-1990s, when the pressure of EU on some Maghrebian countries, especially Morocco, to control the flows of sub-Saharians trying to cross the Mediterranean Sea northwards (De Haas

⁹ This concept covers most of the territory of the former Spanish Sahara, with the only exception of Smara, which was included in the Moroccan province of Guelmin (see *Map 2*).

¹⁰ El Mahdad, El Hassane; El Madani Mountasser & Lékbir Ouhajou; "La emigración hacia España desde el sur (Suss, Draa, Guelmim, Gran Sur): un fenómeno reciente"; in López García & Berriane .2004:205-210.

2007), led the migratory routes to begin further south. Instead of following routes along the Mediterranean coast, the boats with illegal immigrants started departing from ports further in the south Atlantic coast. The first *cayuco* (boat with illegal immigrants) from Western Sahara did not arrive to the island of Fuerteventura until March 1994,¹¹ but from that time on, their numbers have increased (OCHRH 2006). During 2002, for instance, Sahrawis that emigrated to Spain by this route were mainly mothers with their children, coming after previously emigrated male householders (Del Valle Gálvez 2007: 8).



Map 2: Emigration to Spain from Moroccan Western Sahara (Great South).

Source: El Mahdad et al., 2004.

Based upon inscriptions of Moroccan citizens in Moroccan consulates in Spain.

LEGEND: White: No migration / Yellow: 1-50 migrants / Green: 51-474 migrants (El-Aaiun (Laayoune) is colored in green)



Map 3: Routes of subsaharian migration to Southern Europe.

On the other hand, the situation in the refugee camps in Tindouf has been quite different regarding the existence and evolution of international migrations.

Although there is a lack of precise data, international observers, NGOs and the authorities of the SADR admit unanimously that as soon as the refugee camps were established, some of their residents began migrating abroad. The year 1991 put a breaking point in the causes and rhythm of departures. Before this date, when war was still on, most of the migrants were students sent to acquire higher degrees, supposedly necessary for the war effort and "the future reconstruction of the country after the desired victory" (Interview to Mohamed Abdelaziz). Several scholarship programs were implemented, usually funded by NGOs or -in the case of Spain- local and regional administrations, carrying a first wave of migrants that has impacted on migration patterns by creating new networks, principally directing migrants to urban environments (see *Table 1*). Thus, one can draw a clear link between NGOs' activity and immigration.

Resultingly, only a few countries today host Sahrawi immigrants from the refugee camps in an appreciable amount. Algeria serves as the country in which the camps are located and has also helped and accepted Sahrawis in other locations,

¹¹ Espinosa, Javier; "Los balseros saharauis", *El Mundo*, Madrid, 11/13/1999.

especially in the most populated cities at the Mediterranean coast. Cuba and Italy are also main destinations of this migratory flow.¹².

	Spanish sources		Algerian sources		Variation
Andalusia	2440	10,23	653	12,25	-2,02
Aragón	2327	9,76	375	7,03	2,72
Asturias	87	0,36	37	0,69	-0,33
Balearic Is.	543	2,28	25	0,47	1,81
Canary Is.	504	2,11	53	0,99	1,12
Cantabria	121	0,51	38	0,71	-0,21
Castilla y León	639	2,68	218	4,09	-1,41
Castilla - La Mancha	595	2,49	130	2,44	0,06
Catalonia	4572	19,17	754	14,14	5,03
Valencia	6530	27,38	1676	31,43	-4,05
Extremadura	219	0,92	150	2,81	-1,89
Galicia	247	1,04	53	0,99	0,04
Madrid	1000	4,19	208	3,90	0,29
Murcia	1254	5,26	302	5,66	-0,41
Navarre	1401	5,87	207	3,88	1,99
Basque Country	781	3,27	371	6,96	-3,68
La Rioja	590	2,47	82	1,54	0,94
Ceuta & Melilla	37	0,16	2	0,04	0,12
Total	23850		5332		18518

Table 1. Algerian immigrants to Spain, according to official sources. 2003.
Sources: Spain: Anuario Estadístico de Extranjería, 2003. Algeria: Algerian Citizens registered in consulates in Spain, 2003.

It is far more difficult to estimate the number of people that have emigrated from the camps. Together with the very particular kind of migratory patterns implemented in the camps, the lack of recognition of the SADR and, thus, of "sahrawi" nationality by two of the main receptors, Spain and Italy, makes even more arduous the efforts. Spain, for instance, includes the entrances of Sahrawis coming from Tindouf as Algerians, as they usually cross the border with a provisional Algerian visa for three months. But the Algerian government does not recognize them as its own citizens and, when sometimes one of those provisional-visa holders tries to use the services of an Algerian consulate, the applications are usually rejected. The number of 26,000 people defined as "various" in UNHCR statistics is an indication of the uncertainty concerning classification of this group. In Spain, for instance, there is a permanent population of probably about 15,000-17,000 Sahrawis from the camps, deduced from the balance between "Algerians" living in Spain according to both Spanish and Algerian authorities (*Table 1*)¹³.

2. METHODS

¹² The aid provided by Cuba decreased dramatically during the 1990s. From that time on, the collaboration of Cuban authorities has been limited to providing assistance in areas of education and public health (González López 2000, González López 2002).

¹³ Maybe in a near future this situation will change. In January 21, 2008, Judge Rafael Fernández Valverde of the Supreme Court of Spain announced his decision to accept an appeal to permit Sahrawi refugees the accession to the condition of "stateless." Furthermore, several NGOs have proposed the concession of Spanish nationality to the descendants of Sahrawis that lived in the former colony before 1975 and were holders of Spanish identity cards (Cembrero, Ignacio; "500 saharauis se concentran en El Aaiún para intentar ser españoles" *El País*, Madrid, 1/17/2008. The first outcome has been the emergence of a "black market" of Spanish Saharan old identity cards ("Los antiguos DNI saharauis, objetos de tráfico para optar a la residencia española", *Abc*, Madrid, 2/19/2008).

2.1. Justification of the selection

The lack of definition or debated situation of the legal status of Western Sahara has undoubtedly affected the process of our research, as our first purpose was to include in it a whole vision of the territory, in spite of the actual division and other political issues. Our attempts to make field research in the area under Moroccan control was unsuccessful. First of all, the diplomatic clash between Spanish and Moroccan governments, that had worsened after Spanish military troops controversially took by force the island of Perejil in the northern coast of Morocco (2002), posed a significant obstacle to the undertaking of the research. In particular, we were unable to gain access the part of Western Sahara territory under Moroccan administration. As far as it has been possible, we have tried to fill the gaps using available data and published works.

Nonetheless the work process in the areas under Polisario control, both in Western Sahara and the refugee camps of Tindouf, was far more successful. Two researchers were sent in December 2007 to the wilayas of Laayoune, 27 de Febrero and Rabbouni, to perform surveys and interviews to authorities and representatives of several NGOs in the camps. At the same time, other two researchers were hired to carry out surveys and interviews with Sahrawi migrants and NGOs' representatives in Spain, the country with the highest presence of Sahrawi migrant population, apart from Algeria.¹⁴

2.1. Discussion of methods

Summing up the results of field work, 61 migrants, 18 non-migrant and 14 expert interviews were collected. Expert interviews included Sahrawi and Spanish politicians and functionaries and NGO's officials. All the surveys and interviews were carried out without any need of translation, as all the people that participated in the research, from both sides, was proficient in Spanish. We use for this purpose the Spanish version of the questionnaires translated by the sub-WP of Latin America. The questionnaires were always filled out directly by the researchers who performed all the interviews personally.

With regard to the meaning of "non-migrants," in this case, the immense majority of them are persons that fled from Western Sahara between 1975 and 1976 and have spent more than 30 years in a refugee camp. Two "non-migrants" were born in the camps. Moreover, 13 of 18 interviewed non-migrants actually declared a previous migratory experience, of not less than three years, most of them in Spain; and two of them stated that they have been twice abroad. Five were planning a immediate migration to Europe, and 100 percent of them had at least one member of their family that had migrated before. A surprising finding was that only a small majority of the people in the category of "migrants" (all of them elected because of being householders) were male (61percent).

¹⁴ Fieldwork in the Tindouf camps was conducted by Matteo Manfredi, with the assistance of Verónica Barzola. Fieldwork in Spain was performed by Matteo Manfredi and Neida Jiménez.

Although we made the effort to follow the standard questionnaires developed by the EACH-FOR project as accurately as possible, some parts of them were not relevant. For instance, the questioning about religion did not provide any pertinent information, as all the Sahrawi population practice Islam, and furthermore, religion does not play a relevant role in the conflict with Moroccan government, as both Sahrawis and Moroccans are faithful of the same branch of Islamic religion. The enquiries on crops and livestock did not serve a useful purpose either, because all the respondents had come from an urban environment, or, more precisely, from refugee camps in which productive activities as herding and farming was not practiced until very recently.¹⁵

The researchers were free to append some additional open-ended questions the concerning life in the camps and the specific features of their migration, as well as about their expected outcomes of the peace conversations.

It is finally necessary to remark that the fieldwork at the refugee camps was under strict supervision of SADR's authorities, which began with the management of the permits to get into the camps -that were conceded by the representative of SADR in Catalonia after preseeing him a detailed description of the purpose, funding and partners of EACH-FOR project's consortium- and followed by the conditions set about when, who and where to go once in the camps. Regardless of the parameters placed on our work, our research team believed it had freedom enough to fulfill their duties.

3. FIELDWORK FINDINGS & ANALYSIS

3.1. Historical evidence of environmental migrations in Western Sahara

Environmental conditions, and especially severe climate events, have historically played an important role, not only in the economic and political development of Western Sahara's societies, but also, and particular, in their migratory behavior. The inhabitants of Western Sahara have thus developed a temporary migratory pattern in order to meet the challenges of a changing, extreme climate.

Until the second half of the 20th century, most of the inhabitants of Western Sahara belonged to nomad tribes that were not established in fixed settlements. This behavior was first of all a cultural and economic adaptation to the severe desert climate of the region, and primarily to its extremely dry conditions. "From the southern edge of Anti-Atlas Mountains towards the South, a much more sterile country begins, poor in water", described in 1944 captain Bullón Díaz, the military governor of Western Sahara. "Old scorched riverbeds are always waterless, fresh water wells are more and more scarce, and the traveler has to settle for his lucky and be glad when he found a bit of water" (1944: 10). In such an intensely arid environment, the availability and management of water used to be one of the greatest factors

¹⁵ While respondents to "migrant" questionnaire did not hesitate to define the camps as "urban", in the case of "non-migrants" the proportion between those that defined their original environment as "urban" or as "rural" was 10 to 8. A possible explanation for this divergence may come from the way the respondents understood some of the questions, as we are of the opinion that they were referring to the places they lived in Western Sahara before the exile.

influencing the way in which the Sahrawi people organised their society and their *modus vivendi*.¹⁶

Scarce rainfalls randomly fall in different parts of the territory without any apparent pattern. Because of this, rainfall average's annual variability is very high in each of the meteorological stations that have been registering climatic data there from the beginning of the same century. The search for rainfalls became thus one of the most crucial facets of the cultural practices of the Sahrawis, and the origin of their nomadism. As Bullón Díaz described, the native inhabitants of Saguia-el-Hamra were proud of calling themselves "sons of the clouds" [*"hijos de las nubes"*], for the reason that they used to move nomadically around the territory, "north to south and east to west", was to follow the rainfalls and thereby inhabit the fresh, temporary prairies created by the rain in the desert, to graze and feed their livestock-especially goats and some camels.

By the end of 19th century, several tribes, maybe influenced by the recent presence of Europeans in the coast, made some attempts to sedentarize. Some of them, as the Ulad Bu Sha, even tried to start growing crops, but since they elected a bad location, that dependend considerably on rainfalls because of there were no well enough in the surroundings, the periodic droughts that affected the area condemned their endeavors fo failure (Bullón Díaz 1994: 13). By the decade of the 1930s, the village of Smara was the only successful native settlement, because of its location in a crossroads and the livestock market there was held. However, most of the population remained attached to the traditional nomadic life.

While climatic conditions remained within the limits of normality, this nomadic practice was normally within a well-defined space. This space did not coincide with present day's political international borders, since it included not only Western Sahara's whole territory, but also some neighboring regions of Mauritania, Algeria and even the southern part of Morocco. Nonetheless, it showed very similar geographical and climatic features, forming a distinctive natural region, whose inhabitants shared the same cultural habits and economic practices.

As mentioned, Western Sahara is periodically struck by episodes of severe droughts, because of an abnormal decreasing of rainfalls, that use to last several years. When a period of drought came, Sahrawi population was unable to implement the same solutions used in normal, wetter years.

The first outcome of droughts affected the economic base of the tribes: their livestock. Manuel Bernal, a Spanish Army's doctor and official that witnessed the first drought at Western Sahara in 20th century, from 1908 to 1911, stated in 1910 that

¹⁶ The importance of water in traditional Sahrawi society was noticed by the first European observers who came to the territory in the second half of 19th century. For example, when the first Spanish troops disembarked in Villa Cisneros (today's Dakhla), some Sahrawis approached the ship, "begging us to give them water to drink. One of these faithfals consumed five litres of such a coveted liquid. The sufferings caused by the thirst are so enormous that, when it rains, the Maghrebian of that region feel indescribably happy" (Bonelli Hernando, 1885:142).

The absolute lack of rainfalls that the arid territories of the Desert are suffering since two years ago, has led to a great mortality of huge amounts of farm animals, as we can conclude from the thousand of leather stocks that I have seen [at the market], and even those that have come here [to the coastal Spanish settlements] have also died because of the lack of pastures, since this would have been the only way to feed them all (in De Paz Sánchez & Carmona Calero, 1991: 54).

Sometimes the effect of droughts created conflict. Captain José Conde, another member of Spanish army, wrote in 1909 in his memorandum on Western Sahara that "because of the recurrent droughts, many of the factions of the *kabilas* fight each other in order to gain control over the limited water and other resources they have" (De Paz Sánchez & Carmona Calero, 1991: 36).

The most commonly applied solution to severe environmental conditions however, involved migration. This solution was arguably an extension of their nomadic behavior: the only major change that presented these migrations was their range of distances and the destination. Instead of moving around the desert environment they were most familiar with, when periodic drought occurred, Sahrawi tribes used to go farther to the north, out of the desert, reaching the region of Anti-Atlas, inside the kingdom of Morocco. Some Spanish military sources confirm the existence of huge pendular movements of population during some of the driest droughts of the first half of 20th century, for instance the one around 1910, and specially the other that struck painfully the region of Saguia-el-Hamra in 1930. On these occasions, the drought put at risk the disappearance of the native settlement of Smara, after several years with no crops, forcing most of their inhabitants to safer places in Morocco. Furthermore,, the drought delayed the development of some of the most important Spanish settlements.

This situation and its risky political implications for the Spanish colonial rule, have been described in 1944 by governor Bullón Díaz, who stated:

Since in years of drought in the Sahara the tribes had to escape to the more favored countries of Morocco's south, and since because of commerce their visits to these countries were also frequent, once they arrived there, the Sahrawi tribes, or more precisely several families of them, offered oaths of allegiance.

These oaths of obedience to the local authorities were a necessary condition for the newcomers to be permitted to use local pastures to graze there their animals. There has been much debate about the limits and interpretations of these oaths concerning whether or not they were mere formalism (as part of the belief that the Sahrawis opposed to Moroccan rule) or genuine recognitions of sovereignty, as Morocco itself claimed and presented as evidence or argument in the 1974 trial on the International Court of Justice on the supposed rights of Morocco to Western Sahara.

The Spanish authorities were always aware of the inherent risks derived from this situation, especially after the former protectorate of Morocco acceded to its independence in 1956. Spain tried to impede these climate-induced migrations to Morocco that had become international. During the decade of 1960, the Spanish army established a line of fortifications in order to secure and block the frontier of the colony, which had previously been open for goods and people.

The effects of this new policy about the frontiers in Western Sahara on migratory movements were not formally acknowledged until the beginning of the decade of 1970. In 1974, a pioneering article published by De Marco was the first to clearly identify a relationship between environment and migratory movements in Western Sahara. Even though the author was more focussed on the study of the psychological impact of the process of aculturation linked to migrations, De Marco assessed that the severe drought that was striking the colony was the main factor behind the strong migration flows that were bringing some nomad tribes of the inner country to settle in urban environments in the coast and several oases; he even used the term "ecological migrations" [*migraciones ecológicas*] to define that kind of migration.

Between 1969 and 1975, Western Sahara was suffering one of the longest drought periods of the century. At this point however, the traditional adaptation strategy of migration to Morocco, had become much more difficult. Two other types of responses therefore emerged, both of which are actually linked to migration:

1) Movement of people from rural to urban areas. Together with the cultural changes that it provoked, this migration accelerated the rate of urbanization of Western Sahara, as we have noticed before. A witness of this moment described it to us like this:

I was born somewhere in the desert, I cannot say where. I belonged to a tribe that was nomad. We had goats (..) For several years my tribe did not find good pastures. Our goats were starving to death. A lot of them, everyday. People and children were really hungry. So my father and others decided to go with the Spanish. We went to Villa Cisneros. We were amazed at living in concrete houses. It was maybe about five years before Moroccans came and we escaped here to the camps (Non migrant survey, EHU/0014, female).

2) Other migrants seem to have fled to Spain. In fact, between 1971 and 1974, the population of Western Sahara experienced a period of demographic decline (about 6.6 percent less inhabitants in 1974 than half a decade before, according to FAO's estimates, see *Graph 2*), contrasted with the annual average rate of demographic growth of one decade before, 1960-1969, that was about 11.7 percent. Even though the Canary Islands were at first one of the principal destinations of these migrants, small colonies of Sahrawi also settled in other peninsular Spanish regions, following the paths of previous chain migrations, according to anecdotal evidence. However, no precise quantitative data on the weight and distribution of this wave of Sahrawi immigration can be obtained from Spanish official statistical sources, because at that

time, Sahara Occidental was formally a province of Spain like any other, so their data is not disaggregated from the rest of internal migrations.

It is also hard to determine whether these migrations were understood as temporary or not by their protagonists. After the end of the Spanish colonial rule, the immediate occupation of the territory by Morocco and Mauritania, and the start of the war, an undetermined number of these possibly temporary environmental immigrants became, maybe against their will, permanently exiled.¹⁷

3.2. Migrations from the Moroccan side of Western Sahara

Soon after Morocco took control of most of Western Sahara's territory, the demographic pattern of the territory changed once again, launching a three decade period of constant and intense growth. Most of this increase in population is due to immigrations to the territory from other parts of Morocco. At the same time however, emigration abroad was also taking place, although to a much lesser extent. The emigration was mainly of sub-Saharan illegal migrants to Europe, and the residence patterns of Moroccans, at least in Spain and France. Environmental problems are also reported, most of them linked directly or indirectly to the enlargement of the population, the development of new, environmentally hurtful economic activities, the changes on the use of land, the fast urbanization and the problems associated to it (pollution, availability of public services and basic supplies), and the exhaustion of some natural resources as underground water (by the disposal of wastewater) or fisheries (due to excessive exploitation). Pressure over the territory and its natural resources is now stronger than ever.

Nevertheless, it does not seem that there is a clear evidence that migrations, both incoming and outgoing, are closely related to environmental problems. If we notice that desertification is one of the main environmental matters of Morocco (Puigdefábregas & Mendizábal 2005), it should be hard to understand how people triggered by desertification are actually migrating southwards, to a place that is even more dry.¹⁸ On the other hand, the few people that are leaving Western Sahara towards the European Union who are of Sahrawi ethnic origin, explain their decision to migrate is solely based on economic factors. The environment does not even appear as a secondary reason. Thus, according to the limited research conducted in this study, it is presently not possible to determine whether environmental causes are involved in migratory movements occurring in Morocco-ruled Western Sahara or not¹⁹.

¹⁷ Nevertheless, we cannot affirm, neither that all the Sahrawis that could have gone to Spain in the first half of the decade of 1970 were only moving because of environmental reasons, nor that all of them -or even a majority- remained there. In fact, in the same estimations by FAO that we are using, 1975 is the year when demographic growth starts resuming after five years of decrease of population. There could have been a return process in hopes of a possible independence, or perhaps because extraordinary climatic conditions had returned to normality.

¹⁸ And it also could happen, as Puigdefábregas & Mendizábal state (2005), that inverse flow of people and remittances from Europe to the Maghreb "may have similar effects at the source and receptor areas, in the sense of increasing desertification risk", as the arriving of money "may cause loss of sustainability by disrupting its traditional common regulations (...) in resource use".

¹⁹ It should be necessary to complement this research in the future with fieldwork in the territory of

3.3. The environment and the refugee camps: migration or resettlement?

In contrast with what we know about the influx of migrants from the Moroccan side of Western Sahara, we can assert that environmental problems are actually being taken into account, among other reasons, in the process of emigration from the refugee camps in Tindouf abroad, mainly to the European Union. Of course, this does not mean that we can consider the environment, neither as the only nor the most relevant cause for people to migrate. Other considerations, such as political problems and economic factors may take precedence. Nonetheless, interviewees did come to recognize (over the course of the interview) that the decision concerning future migrations are influenced by environmental factors by way of the rhythms, timings, protagonists, destinations and other relevant questions about migrating.

3.3.1. What are the environmental conditions in the refugee camps?

We have already provided some insightful information about the overall natural conditions of the desert area in which the camps are located. Emboirik Ahmed, delegate of Polisario in Catalonia describes the early situation of the region of Tindouf in these terms: "In 1975, when we arrived to the areas where the camps are today, we found no water and no cemeteries, so we realized that nobody had lived in this region before Algeria gave us this land to organize our camps there" (Interview to Emboirik Ahmed: Barcelona, november 2007). The general public agree with this view: "When we arrived here in 1975 there was nothing" (Non migrant, EHU/011, female). Considering the duration of the existence of the camps, the Sahrawi people have an immense capability to adapt to the desert, as SADR officials stated repeatedly (Interview to Mohamed Abdelaziz: Rabbouni, december 2007). The camps are also an example of what kinds of problems the people have to confront when the environment they live in changes abruptly, in this case, not because a sudden alteration of the environment itself, but due to a forced migration to a unknown space.

Notably, 93 percent of interviewed Sahrawis (both migrants and non migrants) agree that the population in the camps are faced with serious environmental problems. 9 out of every 10 put the climate as the main generator of environment stress, because of extreme cold and heat, together with the lack of water due to the almost total absence of rainfalls, cited by 39.9 percent of informants. After the political situation of Western Sahara, including the struggle against Moroccan occupation in 1975, environmental issues are the second most important question of concern for the people living there. Environmental conditions not only influence the feeling of "living good" (some informants quoted having got astounded after they first abandoned the refugee camps, when they experienced daily life's luxuries as "sensing the grass upon your feet", "don't having to protect yourself from the sun in midday", or "see the water flowing each time you turn the tap on"), but moreover and above all, their alleged effects on more relevant aspects such as economic development or human health.

Western Sahara under Moroccan rule, in order to achieve better conclusions.

3.3.2 How has the environment affected the lives of refugees in the camps?

For all of us that come from the camps of Tindouf, the bad environmental conditions was the problem that affected more negatively our lives, even if we remember that we are in that situation because of Moroccan occupation (Migrant survey, EHU/0014, female).

Life in the camps is conditioned by their dependency on foreign humanitarian aid, and thus, the strict limits set by international law to what is permitted or not inside the camps. Protection is sometimes unquestionably necessary, but it also means, on the contrary, some restrictions to which we could consider a normal life. For instance, commerce and open markets were almost nonexistent at the camps until very recent times, due to the ban on trading with goods provided by international help, even if its aim was only to exchange some products for other goods of first necessity as food or clothes.

Legal impediments however were not the only obstacle to the emergence of productive economic activities. The people also faced severe environmental constraints to the implementation of economic activities such as agriculture or herding. "The geographic features of the inner desert, in the highest degree of aridity, prevented any kind of agricultural activity, therefore reducing the production to levels even lesser than the necessities of domestic consumption" (Interview to Emboirik Ahmed: Barcelone, november 2007). Hidalgo (2007:5) lists all the attempts made by SADR's departments to implement productive activities, especially for the self-provision of food, like familial and collective vegetable gardens, little aviculture farms, and other similar projects, but most of these initiatives have been unsuccessful, "since they have not reached the desired level of results because of external problems like the plague of locusts that occurred recently in the camps" and other environmental issues.

Notably, 8,2 percent of the informants admitted that during their stay in the camps, they have worked herding animals, but 2 of every 3 of them affirmed that they have been obliged to give up because of environmental problems:

There's a rural area around the refugee camp I lived. We were allowed to be nomads during six months every year, herding our livestock. But when the animals died, we had to return to the camps. We waited for the international help but we could do nothing. It was an enormous calamity (Migrant survey, EHU/0063, male)

The main causes for the unsuccessful efforts at pastoral work deduced by this informant were the overgrazing of an area of very sparse and sparse natural coverage of vegetations, along with shortage of water and issues of animal diseases. Today there are new attempts to resume the creation of little farms based on animals traditionally herded by Sahrawis and adapted to the environmental conditions like goats or camels. Taking into account the situation described above, many people were not involved in pastoral activities. In fact, up to 62.5percent of informants declared to be working in the "public sector" -more specifically, "for the Polisario"-

before they emigrated from the camps, and 21.5percent declared that they were unemployed or just that they were not performing any activity.²⁰

The lack of economic horizons is one of the most important problems that can modify the migratory patterns and "traditions" of Sahrawis living in the camps, especially for those that after having been sent abroad to study, cannot use the abilities and skills gained in the personal environment they will find after their return (Sánchez Díez 2007: 19). "They don't return to their homeland, but to a refugee camp, where they have nothing to do. This is very painful for them, as the people that have turned the age of 50 are a lost generation between the war and the exile."²¹ We will return to this question later.

Health was the second major concern in the camps linked to the severe and harsh climatic conditions of the Tindouf region. There has not been much research on the health conditions in the refugee camps. From the scant data available however, a pattern of chronic diseases among the population is detectable, some of which are related to the climate, and others to the nature of non-permanent human settlement with clear deficiencies on public health. Concerning the former cause, medical literature has cited chronic medical conditions such as eye diseases, which may lead to blindness, athsma, and chronic bronchitis. As a result of the latter cause, residents at the camps present high prevalence of hepatitis, several kinds of parasitemias, also and nutritional deficiency (see, for instance, Polanco Arias et al. 2007).

Health services in the camp are lacking. About 58.3 percent of informants put the insufficiency of health care services as one of the most crucial problems at the camps, stating that this problems was also among the causes of their migration (actual or projected), even though some of them recognized that "services have improved considerably, but the desert environmental context is really having its affect [*sic*]" (Non migrant survey, EHU/014, female). The lack of health services was seen directly in connection with other inadequacies in public services: energy, water, public transportation, school and markets (as stated by 69 percent of informants).

3.3.3. *Is the environment a cause of migration from the refugee camps?*

The environmental conditions in which we, the Sahrawis, live in in the Tindouf camps oblige us to migrate, after 35 years of exile. But we cannot forget that the people do not regard the camps to be their genuine home, and therefore usually do not make very much effort to improve the conditions. This puts the necessity of emigrating on younger generations (Migrant survey, EHU/0065, male).

Most of the Sahrawi immigrants we have interviewed would possibly agree with this statement, made by one of the informants now living in the Basque Country, near the

²⁰ 3.6 percentpercent declared they were working in "industry", and another 1.8 percentpercent in "services" (as drivers).

²¹ Interview with Javier Reverte, Spanish journalist specialized on African topics: *Deia*, Bilbao, 1/15/2006.

town of Vitoria-Gasteiz. Although only 28 percent of Sahrawi migrants mentioned that environmental problems had affected their decision to migrate in the beginning of the surveys, after surveys went on, almost all of them (95 percent) concluded that they had moved from their original home "in part because of environmental problems." Nonetheless, all consider themselves primarily as political refugees: 97 percent responded that they were first of all war refugees that had run away from their homeland because of political violence, and also escaping from the persecution because of being members of a minority group (37 percent, even though they had declared before that they were living in the camps from the earlier times, 1975 or 1976, when aboriginal Sahrawis were not a minority in Western Sahara yet). Some people also pointed out that the conflict may also be understood as a fight over natural resources.

After political issues, the environment appears to be the second main factor that has somehow been taken into account for their migratory processes. 62.5 percent of interviewees admit that environmental degradation made it impossible to earn a decent living; and moreover, 66.7 percent point to the lack of land available for farming and grazing, because of the extreme climatic conditions. When they were asked about the most important environmental issue they have found as acting in their desire of migrate, results were like that (summing up all the surveys' results):

Climate conditions and lack of water.....	38.9 %
Climate and health	22.2 %
Cannot work at the camps	16.7 %
Lack of land for farming or grazing.....	11.1 %
Political conflict [<i>sic</i>].....	11.1 %

Sudden environmental events and climatic disasters are not mentioned as having any effect on migrations. Furthermore, 48.8 percent believe that their relatives and friends that have migrated before were impelled to a certain extent by environmental reasons.

For the experts of NGOs and SADR authorities, health problems due to environmental concerns is a main concern, and may therefore be considered as the most important driver for inducing environmental migrations. The prevalence of chronic diseases as a result of climate, which effects, above all, the most vulnerable groups (older and younger people), has obliged a lot of Sahrawis to move from the camps to Europe. There, they can receive the medical treatments that they require but that are not available at the camps. At the same time, it can be also for them an opportunity to take a "climatic rest" from the extreme environmental conditions in the Western Sahara. 78.6 percent of immigrants coming into Spain with a three-month provisional Algerian visa (who are assumed to be Sahrawi) state "health" to be the main reason for entering the country. Of course, we cannot affirm that this is actually true in all the cases in that there is always the possibility of immigrants explaining fake reasons at the time they cross the border, nonetheless, the figures are somewhat telling.

The composition of the Sahrawi community in Spain somehow supports this assertion. In contrast to the most usual patterns of age and sex distribution of other immigrant groups living in the country, among the Sahrawis, there is a relatively higher presence of immigrants that are not in the labor market (such as students, women or men who take care of the household and family but do not earn an income, those who cannot work because of illness, and children). About half of the Sahrawi community in Barcelona, for instance, is composed of a non-active population (Non migrant survey, EHU/0011, female).

Actually, health is the main reason deduced for the implementation of a program of temporary migrations for Sahrawi children of the camps, named *Holidays in Peace*. In order to protect the most vulnerable part of the population from the effects of the hottest, driest period of the year at the camps (in July and August temperature can reach up to 50° C at midday), most of the children of the camps are sent abroad, usually to Spain, in order to spend there two or three months in summer holidays. In 2007 about 10,000 children participated in this program, financially supported by several NGOs and local and regional governments. Although these movements of population are always intended to be merely temporary, occasionally they have created links for future monetary remittances and chain migrations, converting some of these temporary stays into permanent migrations (Interview to Emboirik Ahmed: Barcelone, november 2007).

The perception of environmental problems as affecting emigration among Sahrawis present two important features:

1) Environment -and environmental degradation- is also seen as a secondary factor, always subordinated to the main reason that has forced them to live in refugee camps, and therefore obliged them to migrate elsewhere afterwards: the conflict with Morocco. 39.1 percent affirm that if the situation improves in their original homeland, they would think carefully about returning; but when they are asked to explain why, the answer is completely related to politics. This means that they prioritize their goals, putting first the resolution of the political matters, and afterwards the environmental ones. In other words, the Sahrawi people would return to their homeland if the political situation changes, even if the environment does not; but not in the opposite case.

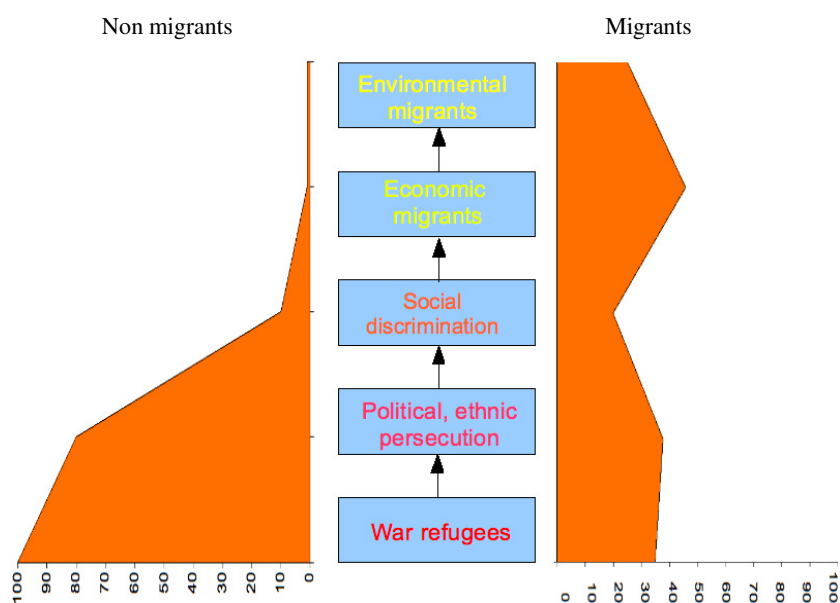
I wish my people and family to live in a place with better environmental conditions, but what I really desire is the independence of Sahara. If we could achieve independence [sic] I would return to construct a new country (Migrant survey, EHU/090, female).

The environmental condition forced me to migrate. So the environment has affected me very much. I don't however think I would have migrated, had I lived in an independent country (Migrant survey, EHU/0101, male).

I feel good in Catalonia. I would return to Africa, in spite of environmental conditions, only if we would achieve the independence (Migrant survey, EHU/0065, male).

The principal condition that has to be improved to make us return is the political condition: we need the independence of our country (Migrant survey, EHU/0064, male).

2) There is also a contrasting perception of the weight of environmental problems as cause of migration, between people that migrated and are now living abroad, and those that are still living in the camps. The latter tend to give particular emphasis to political causes, while the others are more willing to accept also the importance of other causes, economic and also environmental (see *Graph 3*).



Graph 3: Stress given by Sahrawi informants to several types of causes of migration.

Source: Interviews. Based also partially upon Lacomba (2001).

The researchers here suggest two reasons for this disparity in perception. On the one hand, it can be generated by the different social and political context each of the groups live. Migrants living in Europe can become more aware of the matter, influenced by the relevance given in European societies and mass-media to the environmental problems; while the Sahrawis that remain at the camps are secluded in a society where propaganda about political claims and demands on the conflict with Morocco is omnipresent. On the other hand, there could also be simply a difference of interpretation: those who live in the camps may be referring to the causes that forced them to leave their homeland and flee to the camps -in this case, mainly, if not only, political, while those that are living in Europe may be referring to the causes of their migration from the camps.

3.4. Where do environmental Sahrawi migrants go and how?

The results of the surveys fully coincide with the list of destinations of Sahrawi migrations from the camps abroad, provided by other sources such as NGOs. By

order of importance, these emigrants use to go to Spain, Algeria, Italy, Mauritania and Cuba. Only one of the informant cited an additional destination- Norway- but this is linked to the help of a local NGO in the process of immigration and settlement.

For most Sahrawis, migration is much more than a mere change of residence or a way to improve personal conditions. It is also, and above all, a political issue. Their views on migration are always positive: "Emigration is not necessarily negative at all. Every person that migrates remains Sahrawi, so he will remain attached to the cause of our people" (Migrant survey, EHU/102, male). Some of the people we interviewed defined migration as "essential", "very good, especially for younger people", "necessary". Almost all of them presented the most positive aspects of migration, citing such benefits as education, health, remittances, personal improvement, and above all, an opportunity to spread in host societies the knowledge about the cause of Western Sahara and their struggle for independence.

Migration is strictly controlled by Polisario and SADR authorities. 95 percent of Sahrawis that had migrated from the camps, stated that Polisario had helped them finance their migration: grants to study, travel expenses, even dresses and food for the travel were provided by SADR's functionaries. The destination seems to be also determined to a certain extent by Polisario, limiting in most of the cases the personal autonomy. About 60 percent of migrants accepted with SADR's government the terms of their resettlement, while 40 percent presented some kind of resistance, expressed by their desire to move away to a place of their choice instead of the destination offered by Polisario.

There have repeatedly been claims about the lack of freedom of movement in the camps. The OHCHR mission at Tindouf camps in 2006 quoted some allegations about this question: "Prior to its arrival to Tindouf, the delegation had received allegations that Sahrawis in the Tindouf camps had to obtain permission from the authorities controlling the camps to travel outside the boundaries of the camps. Sahrawis who met with the delegation denied such allegations." Although the delegation was not in a position to obtain evidence to confirm allegations as to the restrictions of movement, similar allegations have also made in the context of the implementation of the MINURSO's Programme of Confidence Building Measures, which promotes visits between Western Sahara and Tindouf benefiting families from both sides. "(..) some sources in Western Sahara claimed that the leadership of the Tindouf camps had not been allowing some Sahrawis to register in the visiting programme" (OHCHR 2006:13-14).

Notably, 77 percent of Sahrawi migrants declare to be members of Polisario or other associations linked to it. The SADR has offices and representatives in all the major towns where Sahrawi immigrant colonies are located.

The patterns of migration inferred from the surveys present some unusual features:

Firstly, the Sahrawi population exhibit a high level of mobility: 95 percent of the Sahrawis we interviewed in Europe had experienced previous migrations to other

places. Approximately, 60 percent had been living at least in two different cities abroad, and 12 percent up to four different residences. Furthermore, 40 percent had been living in at least two different countries. We do not take into account here their exile from Western Sahara to the camps, as we understand, for this purpose, the refugee camps to be their initial home.

Secondly, the Sahrawi demonstrate a type of migratory displacement that we can define as "circular." Circular migration in this context means that before they move to a second destination abroad, the Sahrawi spend several years back in the camps. The return to the camps seem to be a regular step between two different migrations. Migrant interviewee EHU/0094 is one such example. As a male born in Dakhla city at Western Sahara in 1975, he was brought by his family to the refugee camps when he was only a few months old. He has been living successively in:

- 1975-1986. Refugee camps.
- 1986-1989. Cuba.
- 1989-2000. Refugee camps.
- 2000-2003. Mauritania.
- 2003-2005. Refugee camps.
- 2005-... Spain, Basque Country.

As another example, migrant EHU/0109, is a female born "in the desert" during the time of Spanish colonization, who has passed through the following locations:

- 1976-1990. Refugee camps (Laayoune).
- 1990. Italy.
- 1991-2002. Refugee camps.
- 2002-... Spain, Basque Country.

The average of each of the stays abroad, between departing and returning to the camps, is about 3-4 years in the case of non-active population, and 6-7 in the case of workers. This variation can be explained by the different aim of the migration in each of the cases. Sahrawi immigrants that have a productive job abroad can and choose to remain more time abroad, as with the money they earn they "can help the Polisario Front to help the refugees who are in the camps" (Migrant survey, EHU/0071, male). Sometimes it is quite difficult to make the distinction between a political concern (to use the money to help Polisario) and personal considerations, based on the well-being of relatives: "I've got a job and so I can help my family at the camps from here" (Migrant survey, EHU/0076, male). On the other hand, for the non-active population, migration seems to be a kind of "environmental holidays" provided inside a strictly controlled system in order to help the most vulnerable part of the population keeping its health in good conditions, which are planned for shorter periods of time based on limited finances and necessity. Nevertheless, additional evidence is necessary to build further interpretation or confirm this hypothesis.²²

²² Recently, SADR authorities are perceiving some important changes in the behavior of emigrants, especially among the youngest generations, born at the camps that did not experience personally the exile and the war. Among these "a new sense of Western-like individualism is spreading," so they do not understand migration in the same way their parents did (Interview to

3.5. Do sudden environmental problems affect migration?

Other important question is if sudden extreme climatic events also influence the migratory behavior of Sahrawis from the refugee camps? The following section utilizes the flood of 2006 as a case study to help answer this question.

By mid-February 2006, a mix of atypical intensity of torrential rains, together with heavy winds, disrupted "the deserts around Tindouf [*and*] caused severe flooding in three of five Sahrawi refugee camps, destroying nearly 50 percent of shelters and leaving, according to initial estimates, some 50,000 refugees homeless", a report of UNHCR described.²³ In the wilayas of Aswerd and Smara, 5 percent of the houses were totally destroyed, the remainder of houses presented severe structural damages or were in precarious conditions, and public buildings and areas were also damaged. In Laayoune, about 25-30 percent of private houses were destroyed, and 70 percent of food stocks ruined: most of the supplies "were soaked with flood water (..) since most refugees store their sacks of flour, lentils, rice and sugar on the dirt floor" (OCHA 2006). Some accounts also stated that the water "could also have been contaminated" (WFP 2006). In the region near the *berm*, the floods affected several mine fields, displacing most of the mines and thus converting large spaces into highly risky areas where human presence should be avoidable. International aid started to be delivered shortly after. "Numerous international agencies provided a diverse and substantial amount of assistance to the 60,000 affected refugees" (WFP, 2006). ECHO sent food supplies and the European Commission released 900,000 euro in emergency funding for humanitarian aid for the camps.²⁴ "By the 21st of February the emergency phase was transitioning into one of recovery and reconstruction." Nonetheless, even today, it has not been possible to deduce all the damage done (Sánchez Díez 2007: 10).

The researchers that conducted fieldwork at the Tindouf camps added several open-ended questions concerning the effects of the floods, trying to determine to which extent they had harmed the infrastructure of the camps and households, and also if there had been any modification of the migratory policy of the authorities of the SADR because of the floods. The answer to the former question was clear through interviews with the people and NGO representatives and still visible in some neighborhoods of the camps (see *Image 6*): the floods have significantly affected the life conditions at the camps, and thus much external funding has been necessary for recovery efforts. When SADR authorities and Polisario representatives were asked about the possible increase of migratory flows abroad in the aftermath of the

Mohamed Abdelaziz, president of the SADR: Tindouf, december 2007). Maybe economic reasons will be more important in the future of Sahrawi migrations to Europe. The impossibility of finding jobs and earn a normal living in the camps will probably force more Sahrawis to reject collective solutions and try to find personal and familial means to solve their situation through emigration.

²³ <http://www.unhcr.org/cgi-bin/texts/vtx/opendoc.htm?bi=NEWS&id=43f0bc6f4>, June 26, 2008.

²⁴

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/164&format=HTML&aged=0&language=EN&guiLanguage=en>, Press release IP/06/164, consulted on December 23, 2007.

floods, these statements were unanimously denied. As there is no statistical or independent source available that can either corroborate or deny these assertions, and while no deeper research is carried out, it has been impossible, in the parameters of this research, to establish any kind of direct relationship between this meteorological disaster and possible forced migrations

4. CONCLUSIONS AND FUTURE RESEARCH

There is historical evidence that migration has been a traditional response of Sahrawi societies to the changing challenges of environmental conditions, especially the climatic shift, severe periods of droughts, and the annual variability in rainfall. During "normal" years, nomadism inside Western Saharan territory was the normal answer to the changing environmental conditions. In the times of droughts, Sahrawis implemented temporary long-distance migrations to several regions of Southern Morocco, in the area of Anti-Atlas.

The disintegration of traditional society, together with modernization, the introduction of agriculture and sedentarization, the process of urbanization and the implementation of new strict political borders that fractured the once open space the Sahrawi people used to move in, modified dramatically the previous patterns and destinations of migration.

The drought of 1969-1975 marks the breaking point, as for the first time: a) traditional migration to Southern Morocco was not a viable option b) new migratory patterns (to the cities and to Europe) emerged; c) scholar evidence of the link between environment and migratory movements was suggested.

The political affair that confronts Morocco with the SADR from 1975 onward makes it very difficult to research the relationship between the environment and migration in Western Sahara. Several difficulties we experienced did not allow us to complete our projected research objectives in the part of Western Sahara under Moroccan rule. Thus, even though some information concerning a) internal and international migratory movements; and b) environmental problems were collected, sufficient data is lacking to be able to deduce to what extent the environment is affecting or not affecting migration. In any case, it seems that the slow economic development of the region is being aggravated by the effects of difficult environmental conditions, inducing emigration from the area.

In the case of Sahrawi refugees at the camps of Algeria, environment can be accepted as one of the elements -if not the most important element- that is today determining the rhythms, protagonists and destinations of migrations abroad, especially to Europe. The extreme climate conditions of the desert at Tindouf, does not allow the population living there to implement productive agriculture or farming, and results in serious problems of public health. Both questions have an undoubted affect in the process of migration, even though they are not understood by their protagonists as the main explanation (political concerns are more usually highlighted). The authorities of SADR and Polisario have also implemented temporary migrations for the most vulnerable part of the population, principally the

children, to avoid them from suffering the worse impacts of climatic conditions in the camps.

The control of SADR and Polisario officials over the people living at the camps and the people that have migrated, has provoked "circular movement" of migration, in which people use to alternate periods living in the camps with periods living abroad. In recent times however, observers have noticed that there has been a radical change in the migration patterns, as younger generations are not willing to accept the control of SADR over their migration choices, and desire instead to settle abroad permanently.

It would be important to conduct research in neighbouring areas of Morocco (with similar environmental conditions), in order to draw comparisons with the findings of this case study on the impacts of the environment on migration. This would help to determine the complex relationship between economy, society, politics and the environment.

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6- ANNEXES



Image 1: "Asturias" school. Laayoune camp. December 2007.
Photo by Matteo Manfredi.

Image 2: EACH-FOR researcher before the interview to SADR's president, Mohamed Abdelaziz.
Rabbouni, December 2007.
Photo by Matteo Manfredi (right).





Image 3:
The refugee camp
of Laayoune.
December 2007.
Photo by Matteo
Manfredi.

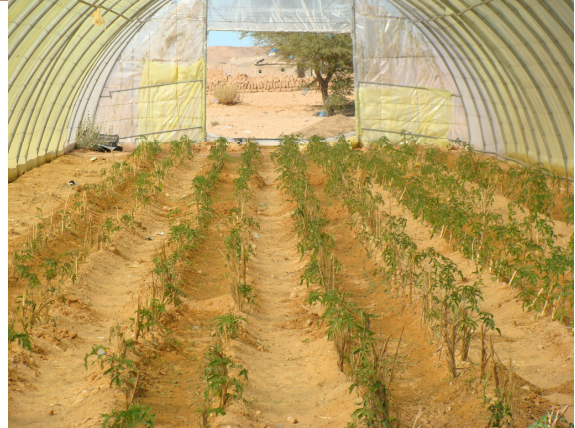


Image 4: Collective vegetable gardens at the refugee camp of Laayoune.
December 2007. Photo by Matteo Manfredi.



Image 5: Goat farms at the refugee camp of Laayoune.
December 2007. Photo by Matteo Manfredi.



Image 6: Remains of houses damaged by the 2006 floods.
December 2007. Photo by Matteo Manfredi.

**Image 7: Climatic diagram. Dakhla
(Western Sahara).**

Source: Worldwide Bioclimatic
Classification System
Phytosociological Research Center
(<http://www.globalbioclimatics.org>)

