

Article

Migration, Social Demands and Environmental Change amongst the Frafra of Northern Ghana and the Biali in Northern Benin

Papa Sow ^{1,*}, Stephen A. Adaawen ^{1,†} and Jürgen Scheffran ^{2,†}

¹ Center for Development Research (ZEF), University of Bonn, Walter-Flex-Street 3, Bonn D-53113, Germany; E-Mail: adaawen@uni-bonn.de

² Institute of Geography, Klima Campus, University of Hamburg, Grindelberg 7, Hamburg D-20144, Germany; E-Mail: juergen.scheffran@zmaw.de

† These authors contributed equally to this work.

* Author to whom correspondence should be addressed; E-Mail: papasow@uni-bonn.de; Tel.: +49-228-73-1824; Fax: +49-228-73-1972.

Received: 11 October 2013; in revised form: 11 December 2013 / Accepted: 12 December 2013 / Published: 14 January 2014

Abstract: The impacts of environmental change and degradation on human populations, including the possibility of sharp increases in the number of people considered “environmental migrants” have gained considerable attention. Migrating communities may try to distribute their members along particular lines of kinship, gender, marriage and/or services linked to land exploitation and agriculture. This paper explores archives and narratives of African migrants in northwestern Benin and northeastern Ghana. These regions have been marked by severe ecological change and resource deterioration over the years, as well as changes in marital patterns, family relations and customary practices. In the case of Benin, the paper looks at different ethnic groups that migrated from neighboring countries to the study region. It then focuses on the Biali, who undertake marriage journeys after practicing rituals, which are often related to agricultural activities. The Frafra (Ghana), who, in their bid to out-migrate as a livelihood/coping strategy in the advent of environmental deterioration and rainfall variability, are confronted with high bride prices, changing family relations and customary practices. The paper concludes by highlighting socio-cultural changes that ensue in the face of outmigration among different ethnic groups, especially the Biali and Frafra, and the relationship between non-environmental and environmental factors, and mobility strategies.

Keywords: migration; environment; marriage; Biali; Frafra; northern Ghana; northern Benin

1. Introduction

Migration in West Africa, like in other parts of the developing world, has had an immense impact on both home and host societies [1]. Indeed, the movement of people within and across borders in the sub-region has been an on-going phenomenon for a very long time [2]. Besides the movement of people within the West African sub-region, the emigration of people to Europe, North America and other parts of the world has caught the attention of scholarship [3,4]. Over the years, attempts by irregular migrants from West Africa to cross into Europe through the Sahara, and their subsequent spread across countries in North Africa, have also been documented [5,6]. More recently, the ECOWAS (Economic Community of West African States) protocol, which facilitates the free movement of goods and persons across member states, has triggered and enhanced movement within the sub-region [7]. Demographic dynamics in Ghana and Benin, like other West African countries, have been characterized by population movements since pre-colonial times [8–10]. While colonialism undoubtedly influenced migration patterns in both countries, more recently, global and internal political, economic and environmental dynamics have, to a larger extent, dictated movements within and across borders [1,11,12].

Ghana has long witnessed persistent migration within and from other countries. The relative economic boom that the country enjoyed from the pre-colonial times to the late 1960s attracted many migrants from neighboring and other African countries [8]. A marked emigration of both skilled and unskilled Ghanaians to Europe, North America and other West African countries, like Nigeria, Gambia and the Ivory Coast, however, has been prominent since the late 1960s [13]. Internally, north-south migration has long marked Ghana's migration dynamics [14]. Aside the conscription of people, mostly men, into the Royal West African Frontier Force (RWAFF) of colonial Britain, the then Northern Territories (Upper East, West and Northern Regions and parts of Burkina Faso) also served as a labor reserve for the mines and cocoa plantations in the forest and coastal belt of southern Ghana during the colonial era [15].

While the three northern regions (Upper East, Upper West and Northern Region) have been areas of persistent outmigration [16], the Upper East Region (UER) has been noted as a principal source of outmigration to southern Ghana, with a migration rate of 22.2% as of 2005 [17]. The region, which is situated in the northeast of Ghana, is predominantly rural. It is plagued with high levels of poverty with agriculture being the mainstay of the people [18]. Its location in the Guinea Savannah Ecological Zone has had a profound impact on agriculture which is rainfall-dependent [19]. Also, the population of the area (1,031,478 people in 2010), at a growth rate of 1.2% per annum has doubled since the 1960, with a population density of 118 km² [20–22].

The high population density has culminated in pressure on land, over-exploitation of scarce natural resources and environmental degradation. Environmental degradation, coupled with climate/rainfall variability and perennial flooding, has affected agricultural productivity in the area [23]. In response to these physical environmental stresses, many of the people in the region have, over time, resorted to

seasonal outmigration to the south of the country as a livelihood strategy [24]. The movement, which was hitherto characterized by predominantly male youth, has more recently included women and children in the exodus to work in southern Ghana [25].

Benin, our other focus country, has, over the years, also experienced the persistent emigration of people, with a large diaspora of Beninese in other West African countries and parts of the world [12,26]. More than four million Beninese are reported to be living outside the country, mostly in neighboring countries (Nigeria, Togo and Burkina Faso) and other parts of West Africa (Table 1).

Table 1. Repartition by region of Beninese living abroad. ECOWAS, Economic Community of West African States.

Region	Number	%
ECOWAS	4,298,300	98.0
Rest of Africa	49,221	1.1
USA/Canada/Latin America	4080	0.1
Asia	433	0.0
Europe	32,652	0.7
Total	4,384,686	100

Source: [26], p. 44.

The reasons for such a high exodus of Beninese people have been variously advanced; including increased living costs, difficult climatic conditions and dwindling natural resources, population growth, poverty and unemployment. Remittances have characterized these movements, and their volume have been estimated at approximately USD \$28.9 million, representing 2.4 percent of Benin's GDP. These remittances have been noted to contribute significantly to poverty reduction in the country [26].

The northwest of Benin (Atacora) has been considered a high-risk food area since the 1980s and 1990s [27]. The area has an unfavorable agro-ecological environment and is marked by fragile soils. Annual rainfall ranges between 800 and 1100 mm. This notwithstanding, the Pendjari biosphere reserve represents a rich biodiversity. While the area remains a major tourist attraction for animal and nature lovers, it also receives a persistent influx of people from neighboring countries (Togo, Niger and Burkina Faso) for mostly agricultural purposes [9].

Population growth, food insecurity [27], pressure on land, the low rate of the adoption of soil conservation techniques and the influx of people into the northwest of Benin make the Dassari watershed an important geographic space marked by a dynamic and ecologically diverse composition. Atacora has 549,417 inhabitants, with a population density of 26.8% per km² and with women representing 50.76% of the total population [28]. The population of Atacora generally consists of Somba/Batonu (19.1%), Biali (14.2%), Waama (11.2%) and Fulani (9.8%), with Gourmantché and Zarma inhabiting the Dassari area [28]. However, the last ten years have witnessed the arrival of Mossi, Bamana and Hasonké from Burkina Faso and Mali, thereby constituting a dynamic migration pattern. However, because of the lack of a migration policy (except the Declaration on Population Policy (DEPOLIPO) and the legislative and regulatory texts governing migration issues, which tie into ECOWAS and international agreements and conventions), data on migration remains scant. Where data exist, they come from various sources, including censuses, surveys and administrative documents.

Although these migrations appear to be influenced by socio-cultural drivers, movements are often underpinned by the search for fertile land for farming and grazing cattle or as a result of rapid environmental degradation [29,30]. In light of the foregoing, we seek to brave into environmental change and migration nexus debate by questioning the relationship between migration, environmental change and society. More specifically, how has migration evolved and influenced population dynamics in northeast Ghana and northwest Benin? What is the role of socio-cultural practices and expectations in influencing migration in the study areas? What are the environmental underpinnings of these socio-cultural practices in influencing migration?

Physical-environmental change and extreme events, like floods, hurricanes and droughts, have displaced and precipitated movements globally. The role of physical environmental change in precipitating migration can be direct or indirect. Indeed, many scholars have emphasized the role of physical environmental change in forced migration, with people affected classified as “environmental refugees” or “environmental migrants” [31].

Many other schools of thought have, however, expressed reservations about the direct causal role of environmental change in influencing migration; describing the causal link as simplistic and “common sense” [32]. In light of these contrasting views, what then is the link between “forced” migration and physical environmental change?

2. Environmental Change and Migration: Theoretical Debates

The issues of physical environmental change and migration have, over time, been at the heart of intellectual debates [33,34]. The effects of physical environmental change (e.g., climate change, desertification, deforestation, drought and bio-diversity depletion) on agriculture and livelihoods in especially rural areas of the developing world are forcing people to move to different regions [34]. In the advent of climate change and population growth, Homer-Dixon has contended that environmental degradation may “produce waves of “environmental refugees” that spill across borders with destabilizing effects on the recipient’s domestic order and on international stability” [35] (p. 77).

Many scholars have, however, questioned the role of environmental change in large migration flows [32]. Black [36] (p. 1) argues that “although environmental degradation and catastrophe may be important factors in the decision to migrate, and issues of concern in their own right, their conceptualization as a primary cause of forced displacement is unhelpful and unsound intellectually, and unnecessary in practical terms”. Considering different sources of evidence and, in particular, migration patterns in the Sahel, Black reckons that migration is “an essential part of the economic and social structure of the region rather than a response to environmental decline” [36] (p. 4). Migration, according to Black *et al.* [37], is therefore driven by the interplay of socio-economic, political and demographic factors in tandem with physical environmental change. Nkomo *et al.* [38] have, in relation to the foregoing views, enumerated socio-cultural, economic and environmental factors as acting to exacerbate the vulnerability of people in Africa to physical environmental change.

Migration in Africa is a common social and demographic feature. Accordingly, Africa is often regarded as a mobile continent [39,40]. Nonetheless, climatic and environmental change have influenced societies, livelihoods, government policies and, as such, migration on the continent [41]. While many studies have sought to enumerate the driving forces and the complexity of human mobility in Africa,

more recent studies have stressed the need to delve into the meanings and cultural perspectives that migrants give to their life-worlds as they move in the context of environmental change [42–44].

In the light of these views, scholarship on migration in Ghana and Benin has underscored the role of socio-cultural factors like witchcraft, forced marriages, bride price payments, aspirations towards social prestige and *rites de passage* in influencing movements [45–47]. Notwithstanding resource scarcity and over-population, many studies have attributed the north-south migration in Ghana to socio-cultural factors [48–50]. Outmigration in the UER has been shown to be common and widespread among the various ethnic groups [45,51,52]. Similarly, studies have been conducted on socio-cultural dynamics [53,54] in northern Benin, population pressure and agricultural development in the Adja Plateau and the marital relations and sustainable development of the Adjatado of Kufo [55,56] in southern Benin. Recent contributions [29] on rural migration, access to land and inter-ethnic relations in southern Borgou (Benin) and several other studies [4,57,58] remain important theoretical and conceptual references.

This paper delves into the relationship between migration, bride prices and changing family relationships in the context of physical environmental change in the northeast of Ghana, with a case study on the Frafra in the Bongo District. It also focuses on marriage migrations among the Biali in the northwest of Benin and how these migrations are related to environmental issues. Against this backdrop, the paper is broadly divided into six sections. The first section above highlights the introduction and background of the study. The second discusses the theoretical debates on the migration-environmental change nexus. The third part gives a background of the socio-cultural characteristics of the Frafra and Biali. Following this, the research design and methodology are highlighted in the fourth section of the paper. The findings of the study, with sub-sections on the Biali and Frafra migration in the context of socio-cultural demands are examined in the fifth section. The sixth section discusses social practices as sometimes rooted in the heart of environmental issues and finally concludes.

3. Socio-Cultural Characteristics of the Frafra and Biali

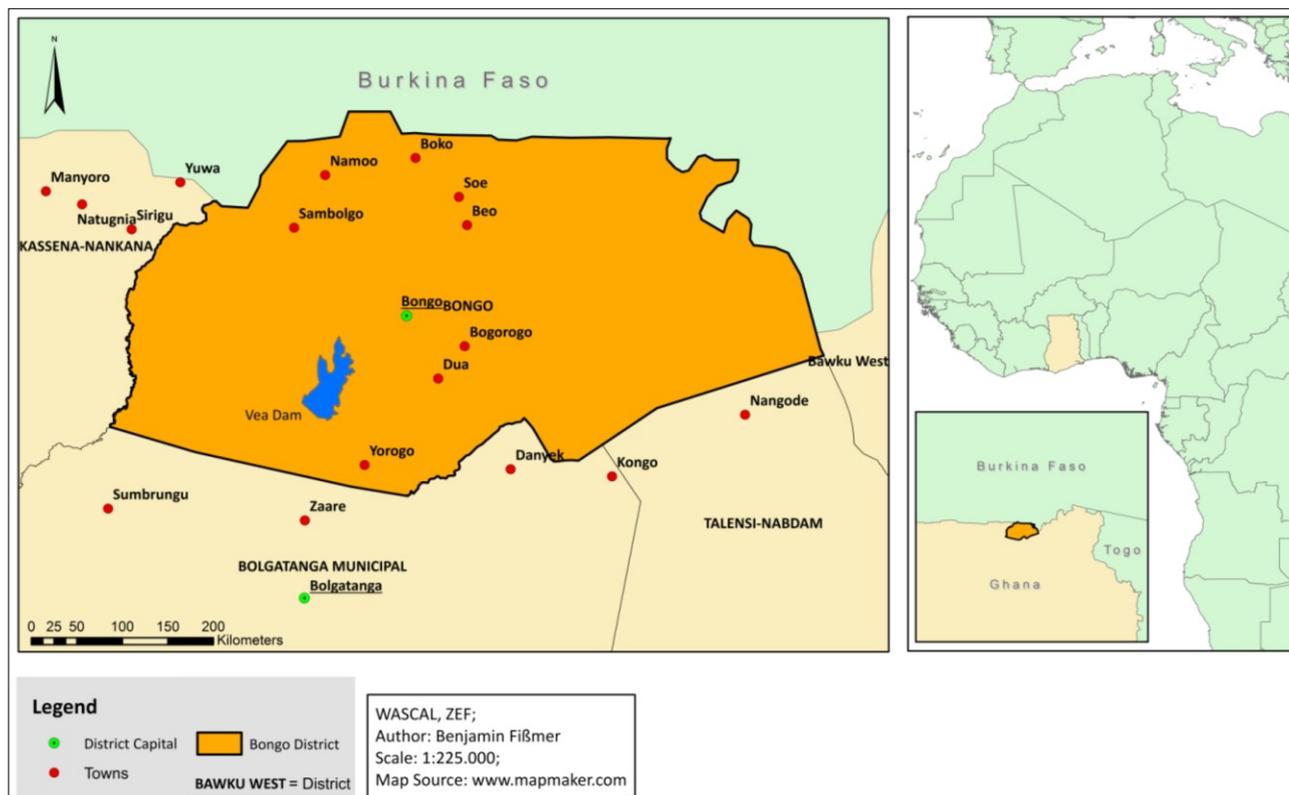
3.1. The Frafra in the Bongo District

The “Frafra”, also known as Gurunsi, as they are widely known across Ghana as an ethnic group, were given prominence probably by the first Europeans who came to the area [59]. The name became established with their migration to southern Ghana to participate in the labor economy and with the British colonial army recruitment. They constitute close to about 40% of the population of the UER and spread across to neighboring Burkina Faso. The main languages spoken within this ethnic group include *Gurune* or *Frafra*, *Nankani*, *Booni*, *Tallensi* and *Nabdam*. The reference term, Frafra, has brewed some level of unity among different language speaking groups along cultural practices and lineage patterns which hitherto lacked any visible sign of unitary identity, but for clan settlement [60].

The Bongo District (Figure 1) is one of 13 districts in the UER and shares borders with Burkina Faso to the north and east, Kasena-Nankana west and east, and Builsa District to the west and south. The district consists mainly of the Bossis and Gurunsis, who constitute 94.2% of its population [61]. The area is predominantly rural, with almost 90% of the population engaging in agricultural-related activities. Bongo, like other areas of northern Ghana and northwest Benin, does not only lag in

“development”, but is also plagued with high levels of poverty [62]. Rainfall variability, floods and environmental degradation over the years have also affected agricultural production in the area [19].

Figure 1. Map of the Bongo District of the Upper East Region, Ghana showing the study areas.



Source: Source: West African Science Service Center for Climate Change and Adapted Land Use (WASCAL) (2013).

In terms of population, the area has witnessed a growth of 2.8%, with increases from 77,885 people in 2000 to 84,545 in 2010 [20,22]. The population density as of 2009 was projected to be 217 persons per km² over a land size of 459.5 km². This is compounded by the rocky landscape of the area, which covers about 40% of the land surface of the district, thereby undermining agricultural activity [41].

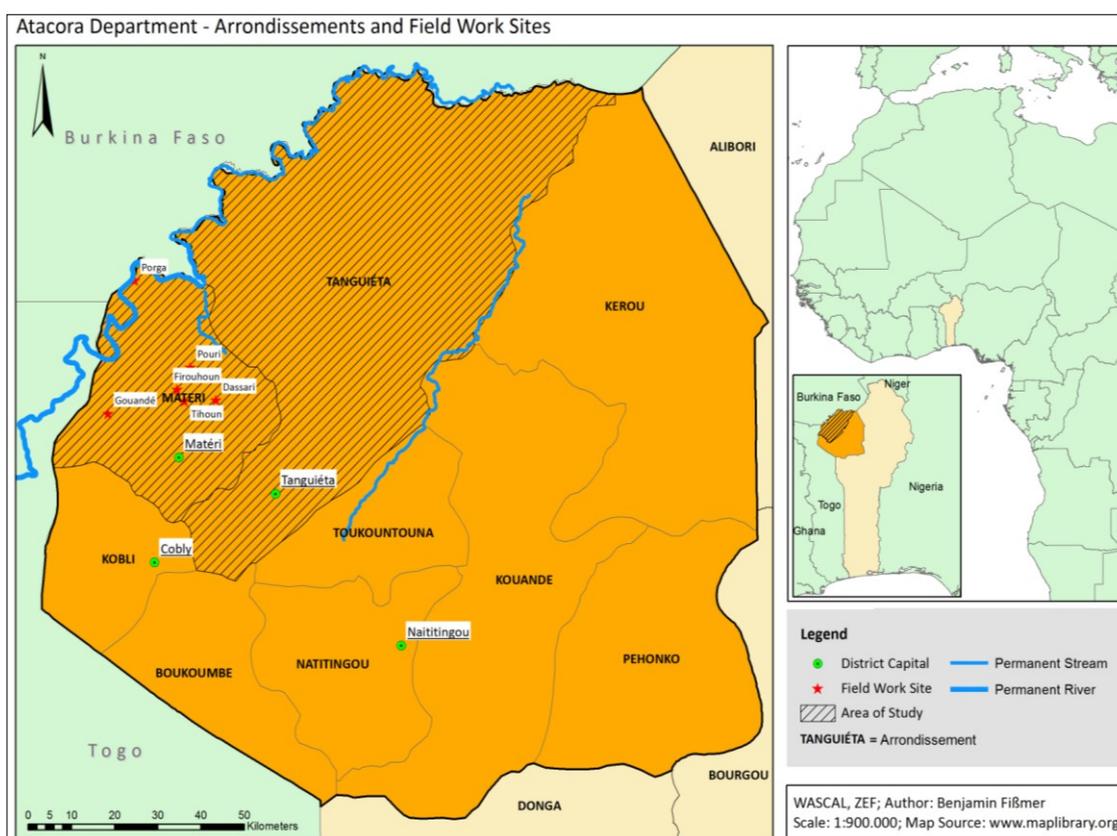
The Frafra also practice the patrilineal and extended family system [60]. Most extended family members live on a common compound in different households, and identify and help each other in times of distress, social activities and farming. The traditional religion practiced by 53.6% of the population [61] is seen to strengthen the values and unity of the people. This is because beliefs in ancestor worship and animism, which are widely practiced in northern Ghana, have largely given way to traditional rites and ceremonies. These rites and ceremonies are intricately embedded in the society as well as maintained and conservatively guarded mostly by elders and *tindaamba* (singular: *tindaana*; Nankani for custodians of the land) [63]. Fortes [46] (p. 8) asserts, for example, that when it comes to marriage, the Tallensi, “adhere to traditional Tallensi customary norms and procedures; in religious allegiance, they are pragmatists”. This attachment to tradition and culture has, in a way, influenced the Frafra’s appreciation of and interaction with the environment [46,64]. This supports the view that the culture of a place normally frames the way people appreciate, understand and relate to certain important elements of the world or environment around them [65].

Many Frafra have attributed environmental/climatic change and other misfortunes to sociological explanations or supernatural forces [66,67]. In Eguavoen's [66] study on climate change and trajectories of blame in northern Ghana, moral transgressions on the part of people have been blamed for the floods and poor rains in the Nankani area of the UER. For instance, one of Eguavoen's respondents succinctly stressed that "the floods are not caused by natural things only, also spiritual. Sometimes, the flood is like a curse to us for our sins, for what we have been doing...women sleep anyhow with men. Men are sleeping anyhow with women" [66] (p. 15). Their perception of natural and social events, which are couched in their belief in ancestor worship and animism, have given authority and credence to the *Saawira* (custodian of rain in Frafra) and *tindaamba*, who respectively play the roles of performing rituals for good rains and bountiful crop harvests (see also [44]).

3.2. The Biali of Materi and Coby District

The Biali inhabit the Dassari region and Gouandé (the northwest of Benin) and mainly reside in the districts of Materi and Coby (Figure 2). According to Cornevin [68] (p. 36), the "(...) first immigrant Berba [were] two brothers who [were] upset to see their cadets rise to the throne of Fada N'Gourma [in Burkina Faso]; they took refuge in *Bahouna*, which they called Gouandé, a deformation of the word *Kouanti*, which means a bitter vegetable used in cooking and which, in the early days of their stay, had saved them from starvation" [own translation from French]. The area occupied by the Biali is called *Bialihoun* in their language.

Figure 2. Map of Benin showing the study area of Atacora (northwest Benin).



Source: West African Science Service Center for Climate Change and Adapted Land Use (WASCAL), 2013.

The Biali, who constitute over 90% of the population in the Dassari area and proclaim themselves to be “natives” and “landowners” [69–71], are purported to have arrived there at an unknown time well before French colonization [72,73]. Being among the first migrants from Burkina Faso, the Biali, now having become “natives”, are an ethnic group of more than 100,000 people throughout the area of Atacora, with its 549,417 inhabitants [74,75]. Despite this, nationally they remain a minority compared to the major ethnic groups in southern Benin and the Batonu, who represent 14.2% of the population of the Atacora area.

Usually sedentary, the Biali are also great emigrants and are forced into migration in search of fertile land in regions as far as Nigeria or southern Benin (Borgou and Zou North), as they are also confronted with climate variability, which affects agricultural production [75]. Many have often migrated to southwestern Nigeria in search of fertile land to settle for agricultural purposes. These lands were normally acquired through *tutorat* relationships, which entailed “a dyadic clientelistic relation between a migrant and a landowner embedded in the local moral economy” [12] (p.882). The Biali, like their Frafra counterparts, remain attached to their ancestral practices and remain a highly mobile group. While some Biali practice Islam, most of them believe in traditional ancestor worship, where cult and mystical power is very common in the society. With a belief in ancestors serving as intermediaries between God and the living, they often offer sacrifices to their ancestors to intercede on their behalf. This has greatly influenced their culture, as well as their perception and use of the environment.

4. Methodology

4.1. Research Design and Methodology

Data for this paper came from recent studies in northeast Ghana and northwest Benin. These areas have been marked by severe ecological decline, as well as changes in marital patterns, family relations and customary practices. Besides the linguistic differences between the two study areas and countries, the effects of colonial government interventions have influenced political, economic and social structures, as well as patterns of migration in both countries over time [46,75]. The similarities and differences that both study areas and ethnic groups share call for an interesting study on how these factors, particularly socio-cultural practices, play out in influencing migration patterns.

The methodologies adopted were qualitative in nature. We combined in-depth and focus group interviews and an ethnographic survey with an emphasis on the techniques of “ecological inference” [76], that is, using available general information extracted from colonial archives to make inferences about migratory patterns of people and their environmental relationships. These techniques allowed for an analysis of multi-causality assumptions with reference to migration. They also indicated representations of migrations and climate change on local, as well as larger scales. These methodological approaches and techniques have been used extensively in study programs and projects (see [69,70]). Ethnographic methods were combined with archival research in the French colonial archives located in Porto Novo, Benin.

The study utilized overt participant observation in order to gain insights into the daily lives of the people. The varying meanings that the inhabitants of northwest Benin placed on the processes, events and patterns of their everyday lives were analyzed [77] (p.11). Particular relationships, aspects and

phenomena were observed at different times and locations in order to capture the different contextual factors of migration. The selection of the participants was based on snowball techniques.

In northwest Benin, the fieldwork was done in three stages and spanned a period of three months. The first stage took place in October, 2011, and consisted of a prospection and an observation of the different areas. The second stage consisted of 25 in-depth interviews, which were undertaken between April and May, 2012. The third stage spanned March through April, 2013, and a survey of 35 households and four focus group discussions of 20 persons per session were conducted. Additionally, 25 in-depth interviews with immigrant household heads were conducted on a wide range of issues from historical migration patterns to countries of origin, migration motives, types of marriages and alliances, social control, the relationships between the various social practices and environment and climate change. Relevant data were also collected from the National Archives of Benin, and the opinions of resource persons and research partners were also sought. In all, eleven sites (Tihoun, Nodi Tula, Dassari, Kombado, Tanguiéta, Gouandé, Tantéga, Matéri, Pendjari, Porga and Pouri) located in the districts of Matéri and Tanguiéta in Atacora and drained by the Dassari watershed were selected in the northwest of Benin (Figure 2) for interviews and surveys. North-western Benin, which is marked by the effects of climate variability, falls under the Sudanian ecological zone, with one rainy season (June–October) and a dry season (November–May). There are strong seasonal shifts in precipitation, with a marginal rainfall gradient from southwest to southeast. The Atacora mountainous chain, whose summit lies at Boukoumbé (835m), represents the “water tower” from which the several rivers of Benin and Togo have their source. The area has a very rugged landscape, with erosion, declining soil fertility and a shortage of arable lands.

With the data from northeast Ghana, a study of migration, climate change and population dynamics was conducted in the Bongo District (UER, Ghana) from July, 2012, to March, 2013. Communities of the seven area councils, namely, the Bongo Town, Balungu, Soe, Beo, Valley Zone, Namoo and Zorko Area councils, were covered. In all, 57 in-depth interviews with household heads and members, four focus group interviews and a 120 household survey were conducted. For the interviews and household survey, a list of all houses (compounds) and members in all the communities of the seven area councils was obtained from the Ministry of Food and Agriculture (MoFA). From this list, a systematic random sampling of every fifth house was drawn. From the selected houses, a household head and member (preferably female in cases where the head was male) were then selected for interviews. The qualitative interviews gave insights into the varying precursors of movements, perceptions of climatic/environmental change and how these influenced population dynamics, as well as the development of the area.

4.2. Methodological Challenges

Archival material and interviews emphasized the need to be extremely careful about how concepts like “environment” and “climate” were understood locally. Generally, it was not obvious to assume that there was an entity called “environment” and that this entity was distinct from “economic resources” or elements of “livelihood”, human mobility, social reproduction, geographical boundaries and perceptions of values.

The interviews strongly emphasized the need to recognize the subtle and interactive way in which the social and physical contexts are shaped. Links between migration and climate change were often

indirect and difficult to establish, if they existed at all. Adequate statistics on environmental and social events in the study regions were patchy and relatively difficult to obtain. It is important to underline here that it was challenging to access adequate statistics and historical data for reliable contextual information. For example, the small quantity of existing environmental data in the colonial archives was scattered and sometimes not quantified in terms of indicators and incidence.

5. Findings

5.1. Drivers of Migration towards Northwest Benin

The settlement history of people from neighboring countries to the north of Benin, specifically the northwest (north Dahomey), has been documented [68,72]. Population movements over the years have been closely related to changing environmental conditions. However, they have also been linked to the political and social factors influencing family migrations, such as requisitions, colonial tax collection, overpopulation, “theft” of young girls by suitors, forced marriages, female elopements, invaders, hunger and land grabbing. The integration of immigrants from different socio-cultural backgrounds thrived throughout history. These movements and settlements account, in part, for the interweaving of socio-political and environmental factors. The population mix has been especially exacerbated by the migratory waves from Burkina Faso, Niger, Ghana and Togo. The Mossi of Burkina Faso, for example, have been most engaged in the search for land in northern Benin in response to their fragile and deteriorating environment, but also due to their geographical proximity. As the narratives below show, many Mossis migrated and settled in northern Benin in search of land and livelihood opportunities.

“If you do not open yourself to others, you cannot understand where good manners come from. I have two houses in Ouaga 2000 [a hub quarter in Ouagadougou, Burkina Faso], so I came to follow in the footsteps of my old father who loves agriculture. I prefer the freedom of the bush than the stresses of the city, so I followed my father in his desire to conquer new lands because he wanted to settle in northern Benin. So here I am now” [78].

“I am a trader. I sell tyres, spare parts and food. I also have corn fields, and I own an area of two hectares. My spouses help me to sow and harvest” [79].

The narratives underline the mechanisms of accessing land as well as the negotiations over land that migrants have with natives. Land arrangements have often led to complex relationships between natives and non-natives. Migrants, like [79] in the narrative, have acquired land and have been fully engaged in their agricultural operations for many years.

Furthermore, the migration of the Zarma from the Republic of Niger to the north of Benin is not new and has generally been driven by starvation. Notably, the drought of 1931, which brought significant ravage, precipitated the emigration of people towards northern Benin, as documented in a colonial report:

The Zarma “(...) from Niger, expatriated after the hunger of 1931, which has remained an unforgettable experience. Afraid of being deported to their country of origin, they were established provisionally in the arid regions bordering the Dahomey and Niger. Afterwards (late 1932), they came to live in the county of Pabli, where they were well received by people who gave them land for cultivation. (...) Their desire to settle permanently in our region is such that

they expressed a preference to die if a repatriation policy were to force them to return to their country of origin. They established large plantations, and particularly in relation to the Kérou, the vast expanses of cleared lands that you can see from the caravan pathway are the product of their work” (own translation from French Colonial Archives) [80].

A slow, but progressive, immigration from pre-colonial times up until the mid-twentieth century also came from what is today Togo to the north of Benin. According to French colonial archives, migrants from Togo fleeing overcrowded areas have developed a progressive “agricultural colonization” on available arable land. In addition to the search for land and natural resources, immigrants from Togo were noted for the building of settlements and having a unique way of doing things. The Dahomey colonial report of the first quarter of 1933 shows that migrants from Togo were:

“(…) living in an overpopulated country where they did not find enough arable land. They came to settle in the township of Birni and subsequently discovered valuable resources for themselves. These new settlements, which were established by this strong, sane and hardworking tribe, became important. The immigrants were subsequently welcome, albeit reluctantly, by autochthons” (own translation from French Colonial Archives) [80].

The influx of other people, like the Fulani [81], Fanti and Malians, in the area has also been noted [82,83]. Most of these people came and settled in order to exploit the natural resources that are relatively abundant in the northwest of Benin, at least in comparison to their places of origin. The Fulani, for example, have settled and are widely dispersed in the area [84]. However, they move during the dry season in search of pasture for their herds. The Fanti move to engage mostly in fishing along the Pendjari and Oti Rivers.

Aside the influence of environmental stressors in driving people to migrate to the northwestern parts of Benin, migrant crossings are not only based on agricultural activities. Indeed, cross-border trade and dynamic cattle driving have also characterized migration dynamics, as shown in the narrative below:

“My parents came here because they were herdsmen and fishermen. They fished, but they were also cattle drivers; they bought and sold animals, and decided to stay. They first settled in Togo near the border with Benin and then came to Tantéga where I was born. My father died there six years ago and my mom is still alive, thanks to God” [85].

The foregoing migrant narratives clearly show dynamic migration patterns over time in the area. Migration was not always confined to a single individual. It normally involved couples and entire families in search of a better life. Migrants were often grandparents or parents who first migrated to northern Benin. Although their children are born in Benin, they are usually attached to the country of origin of their parents. The concept of national borders emanating from the immigrants’ narratives did not appear to be a binding obstacle for them.

In many cases, commercial activities were closely related to migration and were probably the major causes. Since the business of cattle driving involved the movement of pasturelands over long distances, it was seen as one of the main reasons for emigration among the Zarma of Niger. Among other factors, marriage also served as a conduit for people to embark on sojourns. Many often relocated, depending on the circumstance under which the marriage took place, to establish their own homes or families or

to flee from “social control”. This invariably demanded the availability of land for agricultural purposes. These kinds of movements were prevalent among the Biali of Northwest Benin.

5.2. Marriage Migrations among the Biali

Within the Biali group, marriages follow an initial rite of passage called *Kuhundu* (“becoming mature”). According to Kiansi “for a teenager to become an adult, he must be initiated by the *Kye* (the God of initiation). After this cultural process, the initiate is integrated into the society. He can marry and establish his home” [53] (p.25). The same goes for the girl who undergoes the *Kuhundu* rite, which is equivalent to marriage and signals readiness for sexual relationships. After initiation, the Biali girl is entirely subject to her future husband and in-laws. Once the marriage is contracted, it is indissoluble, even if the husband dies or the spouse gets involved in an adulterous relationship. In addition, the woman is expected to never leave the marital home even though she could live an openly libertine life. Thus, as in most rural communities in northern Benin, marriage among the Biali does not necessarily require the consent of both spouses. It is closely linked to agreement between the two families and based mainly on the gradual accumulation of labor for agricultural services on the fields of the in-laws.

Kiansi [53] (p. 33–37) describes three types of marriages among the Biali:

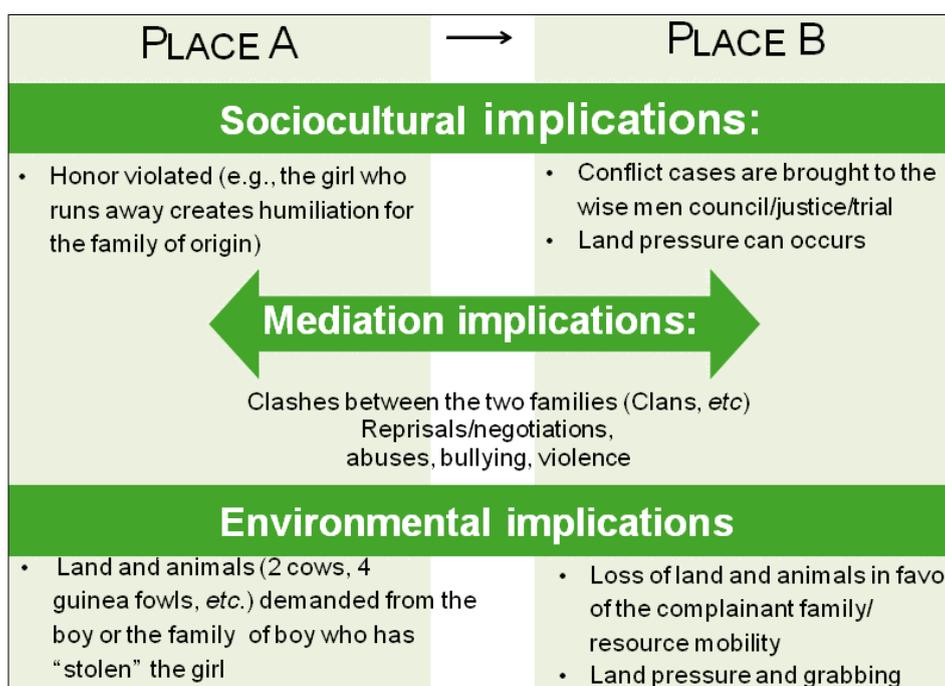
The first type is the *Tchahereme*, which more frequently “consists of exchanging two daughters from one family between two men from another family. Persons involved in the exchanges may be a uterine or half-brother, or the paternal uncle of the girl. The exchanging person (normally male) has to meet a girl that he likes, after which he makes inquiries and background checks on her and the family. Afterwards, he establishes contact by going to her family. When the meeting is set, they inform the girl’s family that they would like the “mother of the water”, referring to their daughter. The host family then states their conditions for handing over their daughter for marriage” [53] (p.33–37).

The second is called *Puleiga* (“ploughed woman”), who is acquired after a “human investment” in terms of rendering services in the form of weeding or offering labor on the farm. The procedure entails a friendship without sexual relationships in the beginning between a young man/suitor and the wife of an elder. This is often to facilitate efforts at marrying the girl of the elder’s wife. Based on the services that the young man offers to the parents of the would-be wife, and in appreciation of the services rendered, the daughter is then handed over to him for marriage. It must be noted, however, that the “given girl” can also be an unborn girl child. The young man is fully informed, along with his family, and provides services on the farms of those who will be their future in-laws. These tasks may span five years or longer.

The third type is the *Tandem* (“marriage of youth”). It requires that a boy and a girl become friends. When they eventually agree to marry, they then make an appointment in a public place where the man “kidnaps” the girl. This “kidnapping” is called “theft”. Most of the time, the couple leaves the village in order avoid the possibility of withdrawal by the parents of the girl. The only occasion in which the couple can return to their village of origin is when the marriage has produced a “sufficient number” of children.

In the context of northwest Benin, “marriage migration” (exchanges, theft of young girls and elopements) are common social practices. These practices have some socio-environmental implications, whereby the respective roles of the actors are defined in the migration process. The spatial dispersion of unions occurs mainly between villages or across borders and faraway areas in order to escape social control. The “spatiality” of these unions is sometimes modelled in response to risks. This is particularly evident in areas that are potentially affected by environmental change stressors. Normally, types of unions, like the “theft of women” and exchanges based on the notion of the “ploughed woman”, represent some form of dominion over women and an avenue for claiming or negotiating over land to establish a family, as illustrated in Figure 3 below.

Figure 3. Different stages of repercussions after a young girl’s exchange, “theft”, kidnapping and or elopement from Place A to Place B.



Source: Fieldwork, P. Sow, 2013; Design: Jelana Vajen, Public Relations WASCAL.

Similarly, apart from eloping to faraway areas to avoid the likelihood of withdrawal by the girl’s family, the motive for unions like *Tandem* is for the new couple to be able to acquire enough fertile land for farming. This is often to enable them start a new life and family of their own, devoid of control from parents and competition for limited arable land in the source area. To this end, migration and agricultural activities are almost always highlighted and form a passage through which, for example, the Biali man should traverse in order to acquire a wife. The geographical and environmental context of northwest Benin is, therefore, of special relevance to marriage migration. The scarcity of fertile lands for agricultural purposes and limited natural resources in relation to population pressure (due in part to the immigration of people from neighboring countries) often triggers the emigration of young “ambitious” couples to seek livelihoods elsewhere, so as to establish a home of their own.

The context often plays a decisive role in the organization of social relations, the conditions of engagement and the interaction between individuals and social groups [86]. Kouagou contends, for example, that “other factors do not systematically prevent the exchange but makes some protagonists

reluctant. Issues related to water, for example, feature prominently in these types of exchange marriages. Mothers emphatically oppose that their daughters go to a village where there are water problems (*nihansu siéli*: objection in Biali). They want their daughters to avoid suffering, as in Biali society, fetching water is the sole responsibility of the women. And one woman may be responsible for supplying water to an entire household inhabited by more than a dozen people, and she may need to travel long distances to find water sources” [54] (p.48).

However, for those who try to escape the system of forced marriage, migration is often a way to *libertinism*. Obviously, marriage is not isolated from environmental phenomena. The “acquired” woman is, in fact, both some form of savings and social security for the survival of the husband’s family. She is plunged right into the dynamics of “domestic reproduction” [87]. That complex situation shows that the woman represents a kind of commodity whose profitability is to help with, above all, agro-environmental activity that her future husband will have to engage in.

5.3. Migrations of the Frafra to Southern Ghana

Research has enumerated several factors that trigger the migration of the Frafra to southern Ghana. Historically, the resettlement of Frafra farmers from Bongo as a result of infestation by oncho flies and population pressure on land by the government under the “Gonja (Damongo) Resettlement Scheme” in the early 1950s saw the outmigration of people from the area to occupy the thinly populated area of Damongo [48]. Many studies have emphasized the population density of northeastern Ghana in relation to the availability of arable land for agricultural purposes and settlement; migration is seen as an escape valve for people. About 40% of the landscape in Bongo is covered with rocks and stones [61]. The situation in relation to the increasing population has made arable land for agricultural purposes scarce [24]. Not only have lands become increasingly fragmented in relation to population growth over time, soil fertility has also declined due to the effects of flooding, soil erosion and persistent cultivation.

These factors, combined with rainfall variability, have affected agricultural production in the area, thereby prompting a host of responses, one of which is outmigration, mostly to southern Ghana [19,88]. Nonetheless, the influence of socio-cultural factors in precipitating movements in the area cannot be discounted [45]. Plange explains that the attribution of north-south migration to reasons of natural resource scarcity “ignore the functioning of the socio-economic system and rather, emphasizes natural conditions” [89] (p.10). Since migration is a societal phenomenon [90], there is also the need to consider the societies of origin, the ensuing socio-cultural values, as well as the views and experiences of the migrants themselves [42].

Outmigration among the Frafra is deeply ingrained in the psyche of the people and, as such, appears more as “normality” than a “disorder”. Travelling to the proverbial “bush” or “Kumasi” (southern Ghana) in Frafra society was not only prestigious, but had become a rite of passage for the youth [91]. For the male youth, apart from the prestige that came with traveling, it was a demonstration of masculinity and attainment of maturity, as culturally, the inability to travel and work to support the family was seen as laziness, meekness or timidity [45,52]. Hence, many young people were predisposed to migrate in order to meet such societal expectations.

As highlighted in the research, one of the major reasons that young Frafra men migrated, besides the environmental push, was to be able to accumulate enough money and resources to be able to return

home to match the marriage bride price. The issue of expensive and complex courtship involving high bride prices in the face of economic hardship has precipitated the outmigration of the youth [46].

Courtship for marriage among the Frafra is a long and complex process. In brief, it involves constant visits by the suitor to the house of the bride with gifts of guinea fowls, kola nuts, tobacco and alcoholic drinks. The intentions of the suitor are made known during the visits in asking for a daughter's hand in marriage. These visits will go on normally for about three or more times until the father's "satisfaction" with the conduct and worthiness of the suitor as a husband. If the marriage comes on, the bride price would often involve the payment of at least three cows. Depending on the negotiation between the suitor and the father or family of the woman, two cows and seven sheep can be given instead of three cows. Seven sheep are believed to be equivalent to one cow.

Although the payment of cows or sheep can be done immediately or in instalments depending on the negotiation, what actually seals the marriage is the exchange of a cock known as the "witness fowl". Afterwards, a feast known as the "marriage feast" or "hand running" must be fulfilled by the husband. The payment, like the *Puleiga* of the Biali, sometimes also comes with extending courtesies or services, such as farming and organizing labor to work for the father-in-law. Indeed, the payment of the bride price had, until recent times, been the collective responsibility of extended family members in the Frafra society.

Many of the youth interviewed indicated that besides the quest for economic opportunities in general, the drive to get enough cash to meet the expensive bride price demands was crucial in influencing their movement. The "highly pro-natal Bongo communities place emphasis on the number of children one is able to produce. Young people are encouraged to marry early, and reproduction continues until nature takes its course. This means family sizes are large, and with the limited land space, some have to seek better fortunes elsewhere. Some young people are forced into marriage without the necessary resources and have to travel to find support. Some also travel to work for money that can help with dowry (bride price) payments, funerals and family care" [52] (p. 51). However, because of the unfavorable socio-economic conditions prevailing in the destination areas, many find it difficult to get jobs to accumulate enough resources to return home to marry. Because of bride price issues, many youth marry very late or are not interested in marriage at all. An interviewee noted:

"Yes, the bride price is part of the reason for delays in getting married. For instance, imagine you go to marry and they tell you to give two cows and seven sheep and you don't have any of these; how are you going to get married or give these things? But if you meet reasonable or tolerant in-laws, they ask you to pay them little by little, and you can get married" [92].

While many studies suggest that general economic hardship, education, modernity and poverty in the area had partly accounted for this observed trend [49,52,61], the unwavering insistence by elders for customary items involved in the bride price had compounded the problem. Cash bride price payments are not encouraged among the Frafra. The belief is that if cash payments are made, this will create the impression that the girl is a "commodity", which is non-conforming to Frafra customs. The effect of rainfall variability and environmental degradation on agricultural productivity has resulted in families adopting coping mechanisms. Apart from resorting to migration as a way of reducing the number of "mouths" to feed in the family, it was highlighted that parents sometimes pushed their daughters, even as early as 12 years old, to get married [23], as a way to shed the pressure on food

stocks and family resources. The insistence on the customary payment of the cows can also be seen as a way to accumulate wealth in the form of increasing the family cattle stock to forestall any food shortages due to crop failure. A young man expressed his frustration:

“You travel down south, and you see their way of marriage; you see that it is less expensive. You see how your own is expensive, and that creates a fear in you. First, you don’t even think of that as a reason for not marrying, but you have now seen others. They marry cheaper than you do. You wonder whether you should waste all this money to buy bulls or cows for the dowry. You become discouraged” [93].

The youth were disillusioned with the high bride price associated with marriage. Those who were forced into marriage sometimes ran away with their lovers to seek refuge in southern Ghana. Migration was being used as an avenue, not only for enlightenment of what goes on in other cultures, but also as an escape from prevailing obsolete customs and an independence from the suppression and control of elders in the community.

This situation was not peculiar to young Frafra men. Many young women also joined the bandwagon of migration in order to take advantage of the economic opportunities that abounded in the south [91]. Hitherto, outmigration to southern Ghana was primarily a male activity, and women mainly accompanied or travelled to join husbands [46]. Especially unmarried women who migrated to the big cities were often seen as prostitutes or social misfits [94]. However, women are now moving independently of their husbands and are also driven to work in the south [95].

Women who return to the community with sewing machines, cooking utensils (often referred to as “silver”), wax prints, a toned skin, skinny jeans and dresses and fanciful hairdos appear modern and enviable. They are accorded the social prestige that is associated with a “successful” returnee. Further, it makes them a favorite of potential suitors and a better candidate for marriage [45,96]. Many unmarried female migrants who travel to the south, however, often end up getting married or, in many cases, become pregnant by engaging in sexual relations in order to make a living in the city. This often results in them having to return home with children whose fathers cannot be identified or have refused to accept responsibility. In these circumstances, the responsibility of care for those children who are left behind falls on grandparents. These children may become a burden to grandparents. They may also be endangered as many become malnourished and do not receive formal education, or resort to “streetism” and child labor. It was widely acknowledged that venturing south in search of greener pastures had helped tremendously with improving the socio-economic welfare of people in the area. This was particularly evident in the pivotal role that remittances played in improving household welfare and forestalling food insecurity in the area [97]. However, it was lamented that the imbibing of certain behaviors, greed and “tastes” that were “alien” to the customs and beliefs of the society upon return were partly to blame for the waning societal solidarity that served as a safety net for many people. With most of the Frafra communities remaining largely rural, communal spirit, in spite of the seemingly diminishing solidarity, is still pervasive in the society and is an important mobilizing tool for development.

As much of northern Ghana lags in development and is predominantly rural, the role of socio-cultural factors, in tandem with ecological change as precursors for migration movements to the south cannot be underestimated.

6. Discussion and Conclusions

Broadly speaking, the paper has examined the relationship between migration, the formation of conjugal unions and environmental change. What ethnographic accounts have described as forced marriages, the “thefts” of young women, exchanges between brothers from one family and sisters from another, have often been closely linked, throughout history, to the issue of the environment in the study areas. The findings point to a potentially direct or indirect role that environmental stress may play in migration decisions. They add to concerns about the intrinsic and complex relationships between mobility and climatic/environmental change on a smaller scale. That is, issues bordering on land and natural resource scarcity in the study areas and the quest to look for alternative means of survival on the one hand, and certain social practices which drive the movement of people on the other.

More often, the responses given by some informants are sometimes divergent from concerns about climatic/environmental change. Additionally, where climate change is discussed, responses are often very predictable, while some give their own understanding of the concept. Many also have a variety of strategies they employ to deal with climatic/environmental change stresses. In most of the cases, mobility is employed as a livelihood strategy when it is most appropriate to do so and often when it can improve livelihood security. One has to reckon that various imperatives to migrate exist, and in many cases, environmental factors may not be dominant. Indeed, many of those who emigrate out of the area to places, like the southwest of Nigeria, sometimes work for a period of time as wage laborers in order to be able to access land under the arrangements of *tutorat* to engage in farming for survival. Again, one has to acknowledge that various imperatives to migrate exist. Among these are environmental drivers, like the need to move away from the shortage of arable land (considering the mountainous nature of the Atacora area), poor soil fertility and rainfall variability to neighboring areas, like south and central Benin and southwestern Nigeria, in search of good and fertile lands, as well as to work waged farm labor for survival.

The issue of marriage relations and migrations, although partially highlighted in some studies, has not been widely discussed by scholars of international migration. Yet, the French colonial archives suggest that such social phenomena may have been related to efforts by larger populations in search of productive land or a better life. By taking a fresh look at what have often been dismissed as “traditional” social practices, the paper has explored a series of interwoven socio-cultural and ecological histories of how people from neighboring West African countries converged in this part of northwestern Benin.

In northwest Benin, environmental issues are at the heart of the relations of autochthony as arable lands are assigned to newcomers who settle in the territory of the “natives”. At the same time, the environment also remains a centerpiece among social demands. It is shown that mobility-related migration practices and unions of any kind may represent issues or stakes that could involve mobility and the environment. However, one has to keep in mind that mobility strategies are also very complex, and therefore, they are not always enacted as a response to physical-environmental change. The diversity of the context informs how mobility can take place in response to a changing cultural and physical environment.

Comparatively, the Frafra migrations, like the patterns observed in the northwest of Benin, have also been characterized by ecological and socio-cultural precursors. Although the complex courtship process and expensive bride price may serve to trigger outmigration, it can be seen as, among other

things, a form of social control mechanism to instil discipline and ensure marriage stability. The advent of climatic/environmental change, land scarcity and declining agricultural productivity is also seen to influence these social factors and expectations. These situations have resulted in the bride price payment being seen as an avenue to accumulate wealth. In case of any famine or financial need, cows can be sold to buy food or solve problems that the family may face.

Although the bride price can be seen as a customary requirement for marriage, the unwavering insistence on the payment of cows, which have risen in economic value over time, can also be seen as some measure or insurance against agricultural failures, due to ecological change. In the case of northern Ghana, the bid to accumulate enough money to be able to meet social expectations, such as the bride price payment, can lead to low remittances or none at all, from migrants to their families. This can further exacerbate the poverty situation in the northeastern part of Ghana. Nevertheless, migrant remittances from southern Ghana have been seen to improve the socio-economic wellbeing of migrant households and food security in the northern parts of the country. This notwithstanding, ecological issues have generally precipitated movements in the area. It is pertinent to note, however, that the people of northern Ghana have lived and coped with these challenges for a very long time, while outmigration has also remained persistent.

In this vein, Biali and Frafra migrations, as well as that of other people from neighboring countries, can be said to be perpetuated by self-reinforcing factors, of which the cause-effect role of socio-cultural factors, in tandem with physical environmental and economic issues, should be taken into consideration. This would provide a better understanding of the climate/ecological change and migration dynamics ensuing in these societies.

Acknowledgments

This research was carried out under the auspices of the West African Science Service Center for Climate Change and Adapted Land Use (WASCAL) with financial support from the German Federal Ministry of Education and Research. We would like to thank the anonymous reviewers, as well as Irit Eguavon and Elina Marmer for their useful comments and Caroline H. Bledsoe for her valuable remarks on the methodology and its challenges. Our gratitude also goes to the DFG Cluster of Excellence “CliSAP” (EXC177) at University of Hamburg for the support. For the technical support (maps and figures), we would like to thank Jelana Vajen and Benjamin Fissmer (WASCAL team). Our sincere thanks go also to: Yokoue Kiatti Badime, WASCAL local guide at Dassari (Benin); Sabine Aengenendt, Igor Bado and Boubacar Barry, WASCAL coordination in Bonn and Ouagadougou; Ahissou Sylvain (Natitingou-Benin); Emile Guirinaye (Fihroun’s District-Benin). For data and discussion on the national and international Beninese emigration context and on the cultural societies of northern Benin, we would like to thank: Joseph Sahgui, Simon Ahouansou Montcho, Yantibossi Kiansi and Coffi Sambieni all of the University of Calavi-Abomey (Benin). We would also like to acknowledge all our respondents and the research assistants in Benin and Ghana.

Conflicts of Interest

The authors declare no conflict of interest.

References and Notes

1. Yaro, J.A. *Migration in West Africa: Patterns, Issues and Challenges*; Centre for Migration Studies, University of Ghana: Legon, Ghana, 2008; pp. 1–17.
2. Arthur, J.A. International labour migration patterns in West Africa. *Afr. Stud. Rev.* **1991**, *34*, 65–87.
3. Adepaju, A. Patterns of Migration in West Africa. In *At Home in the World? International Migration and Development in Contemporary Ghana and West Africa*; Manuh, T., Ed.; Sub-Saharan Publishers: Accra, Ghana, 2005.
4. Quan, J. Changes in Intra-Family Land Relations. In *Changes in “Costumary” Land Tenure Systems in Africa*; Cotula, L., Ed.; International Institute for Environment and Development: London, UK, 2007; pp. 51–63.
5. De Haas, H. *The Myth of Invasion: Irregular Migration from West Africa to the Maghreb and the European Union*; IMI Research Report; University of Oxford: Oxford, UK, 2007.
6. De Haas, H. *Irregular Migration from West Africa to the Maghreb and the European Union: An Overview of Recent Trends*; No. 32; International Organization for Migration: Geneva, Switzerland, 2008.
7. Adepaju, A. Illegals and expulsion in Africa: The nigerian experience. *Int. Migr. Rev.* **1984**, *18*, 426–436.
8. Anarfi, J.; Kwankye, S.; Ababio, O.M.; Tiemoko, R. *Migration from and to Ghana: Background Paper*; Migration DRC Working Paper, No. C4; Development Research Centre on Migration, Globalization, and Poverty: Sussex, UK, 2003; pp. 1–38.
9. Brouwers, J.H.A.M. *Rural People’s Response to Soil Fertility Decline: The Adja Case (Benin)*; Wageningen Agricultural University: Wageningen, The Netherlands, 1993.
10. Hessling, M. La Solidarité Africaine est encore une Réalité: A Study of Urban Migration in Benin, West Africa (in French). In Proceedings of the National Conference of Undergraduate Research, Asheville, NC, USA, 6–8 April 2006.
11. Adepaju, A. Issues and recent trends in international migration in Sub-Saharan Africa. *Int. Soc. Sci. J.* **2000**, *52*, 383–394.
12. Le Meur, P.Y. State making and the politics of the frontier in Central Benin. *Dev. Change* **2006**, *37*, 871–900.
13. Yaro, J.A.; Codjoe, S.N.A.; Agyei-Mensah, S.; Darkwah, A.; Kwankye, S.O. *Migration and Population Dynamics: Changing Community Formations in Ghana*; Centre for Migration Technical Working Paper, No. 2; University of Ghana: Legon, Ghana, 2011.
14. Cleveland, D.A. Migration in West Africa: A savanna village perspective. *Africa* **1991**, *61*, 222–246.
15. Killingray, D. Military and labour recruitment in the gold coast during the Second World War. *J. Afr. Hist.* **1982**, *23*, 83–85.
16. Van der Geest, K. *The Dagara Farmer at Home and Away: Migration, Environment and Development in Ghana*. Ph.D. Thesis, University of Amsterdam, Amsterdam, The Netherlands, 2011.
17. Ghana Statistical Service (GSS). *Socio-Economic and Demographic Trends Analysis; Population Data Analysis Reports*; GSS: Accra, Ghana, 2005.
18. Ghana Statistical Service (GSS). *Patterns and Trends of Poverty in Ghana: 1991–2006*; GSS: Accra, Ghana, 2007.

19. Dietz, A.J.; Ruben, R.; Verhagen, A. *The Impact of Climate Change on Drylands with a Focus on West Africa*; Kluwer Academic Publishers: Dordrecht, The Netherlands, 2004; Volume 39, pp. 149–171.
20. Ghana Statistical Service (GSS). *2000 Population and Housing Census: Summary Report of Results*; GSS: Accra, Ghana, 2002.
21. Ghana Statistical Service (GSS). *1984 Population and Housing Census of Ghana: Special Report on Localities by Local Authorities*; GSS: Accra, Ghana, 1989.
22. Ghana Statistical Service (GSS). *2000 Population and Housing Census: Summary Report of Final Results*; GSS: Accra, Ghana, 2012.
23. Armah, F.A.; Yawson, D.O.; Yengoh, G.T.; Odoi, J.O.; Afrifa, E.K.A. Impact of floods on livelihood and vulnerability of natural resource dependent communities in northern Ghana. *Water* **2010**, *2*, 120–139.
24. Nabila, J.S. Rural Depopulation in Northern Ghana with Special Reference to the Migration of the FraFra People. In *Proceedings of the West African Regional Seminar on Population Studies*, Accra, Ghana, 30 November–4 December 1972.
25. Hashim, I. *Research Report on Children's Independent Migration from Northeastern Central Ghana*; Development and Research Centre on Migration: Brighton, UK, 2005.
26. International Organization for Migration (IOM). *Migration au Bénin: Profile National 2011*; IOM: Geneva, Switzerland, 2011.
27. Zinzindohoué, E. *Etat des Lieux de la Sécurité Alimentaire Dans le Département de l'Atacora (au Nord Ouest du Bénin) et Analyse des Politiques Publiques* (in French); Centre for Education and Research in Humanitarian Action (CERAH): Genève, Switzerland, 2012.
28. National Institute of Statistics and Economic Analysis (INSAE). *Cahier des villages et quartiers de ville Département de l'Atacora, Direction des études Démographiques* (in French); INSAE: Cotonou, Benin, 2004.
29. Doevenspeck, M. Migrations rurales, accès au foncier et rapports interethniques au sud du Borgou (Bénin) Une approche méthodologique plurielle. *Afr. Spectr.* **2004**, *39*, 359–380, (in French).
30. Abdul-Korah, G.B. “Now if you have sons you are dead”: Migration, gender and family economy in Twentieth Century Northwestern Ghana. *J. Asian Afr. Stud.* **2011**, *18*, 390–403.
31. Myers, N. Environmental refugees. *Popul. Environ.* **1997**, *19*, 167–182.
32. Castles, S. *Environmental Change and Forced Migration: Making Sense of the Debate*; United Nations High Commission for Refugees: Geneva, Switzerland, 2002; Volume 70, pp. 1–14.
33. Myers, N. Environmental refugees in a globally warmed world. *BioScience* **1993**, *43*, 752–761.
34. Scheffran, J.; Marmer, E.; Sow, P. Migration as a contribution to resilience and innovation in climate adaptation: Social networks and co-development in west Africa. *Appl. Geogr.* **2012**, *33*, 119–127.
35. Homer-Dixon, F.T. On the threshold: Environmental changes as causes of acute conflict. *Int. Secur.* **1991**, *16*, 76–116.
36. Black, R. *Environmental Refugees: Myth or Reality?* New Issues in Refugee Research; United Nations High Commissioner for Refugees: Geneva, Switzerland, 2001; Volume 34, pp. 1–19.
37. Black, R.; Adger, W.N.; Arnell, N.W.; Dercon, S.; Geddes, A.; Thomas, D.S.G. The effect of environment al change on migration. *Globe Environ. Change* **2011**, *21*, S3–S11.

38. Nkomo, J.C.; Nyong, A.O.; Kulindwa, K. The Impacts of Climate Change in Africa. In *Final Draft Submitted to the Stern Review on the Economics of Climate Change*; Institute for Security Studies: Pretoria, South Africa, 2006; pp. 1–51.
39. De Bruijn, M.; van Dijk, R.; Foeken, D. Mobile Africa: An Introduction. In *Mobile Africa: Changing Patterns of Movement in Africa and Beyond*; de Bruijn, M., van Dijk, R., Foeken, D., Eds.; Brill: Leiden, The Netherlands, 2001; pp. 1–7.
40. Schapendonk, J. Turbulent trajectories: Sub-Saharan African migrants on their way to the European union. *Societies* **2012**, *2*, 27–41.
41. De Bruijn, M. Mobility and Society in the Sahel: An Exploration of Mobile Margins and Global Governance. In *Cultures of Migration: African Perspectives*; Hahn, H.P., Klute, G., Eds.; LIT Verlag: Münster, Germany, 2007; pp. 109–128.
42. Skinner, E.P. Labour migration and its relationship to socio-cultural change in mossi society. *Africa* **1960**, *30*, 375–401.
43. Sanders, T. Territorial and Magical Migrations in Tanzania. In *Mobile Africa: Changing Patterns of Movement in Africa and Beyond*; de Bruijn, M., van Dijk, R., Foeken, D., Eds.; Brill: Leiden, The Netherlands, 2001; pp. 27–46.
44. Sanders, T. *Beyond Bodies: Rainmaking and Sense Making in Tanzania*; University of Toronto Press: Toronto, ON, Canada, 2008.
45. Cassiman, A. Home and away: Mental geographies of young migrant workers and their belonging to the family house in Northern Ghana. *Hous. Theory Soc.* **2008**, *25*, 14–30.
46. Fortes, M. Some aspects of migration and mobility in Ghana. *J. Asian Afr. Stud.* **1971**, *6*, 1–20.
47. Grindal, B.T. Why the Young Leave Home: Witchcraft, Authority and the Ambiguity of Evil in Sisaland. In *Ghana's North: Research on Culture, Religion, and Politics of Societies in Transition*; Kroger, F., Meier, B., Eds.; Peter Lang: Frankfurt, Germany, 2003; pp. 45–59.
48. Ghana Statistical Service (GSS). *Internal Migration. Migration Research Study in Ghana*; GSS: Accra, Ghana, 1995; Volume 1.
49. Frempong-Ainguah, F.; Badasu, D.; Codjoe, S.N.A. North-South Independent Child Migration: The Push and Pull Factors. In *Independent Migration of Children in Ghana*; Anarfi, J., Kwankye, S.O., Eds.; Institute of Statistical, Social and Economic Research (ISSER), University of Ghana: Legon, Ghana, 2009; pp. 71–100.
50. Lentz, C. *Land, Mobility, and belonging in West Africa*; Indiana University Press: Bloomington, IN, USA, 2013.
51. Mensah-Bonsu, A. Migration and Environmental Pressure in Northern Ghana. Ph.D. Thesis, Free University of Amsterdam, Amsterdam, The Netherlands, 2003.
52. Mohammed, J.A.; Apusigah, A.A. *Report of Baseline Study on Human Trafficking and Forced Labour in Northern Ghana*; International Labour Organization: Accra, Ghana and Geneva, Switzerland, 2005. Available online: https://www.academia.edu/1625770/Human_Trafficking_and_Forced_Labour_in_Ghana (accessed on 11 October 2013)
53. Kiansi, Y. Impact du mariage Biali sur le développement dans la sous-préfecture de Matéri (in French). Master Thesis, Université Abomey Calavi, Abomey Calavi, Benin, 1993; p. 108.

54. Kouagou, A.M.N. Fondements Socioculturels de la Persistance du Mariage Par échange en Milieu Berba de Materi au Bénin (in French). Master Thesis, Université Abomey Calavi, Abomey Calavi, Benin, 2012.
55. Hougbo, E.N. Dynamiques de Pauvreté et Pratiques Agricoles de Conservation de l'Environnement en Milieu Rural Africain. Le cas du plateau Adja au Sud du Bénin (in French). Ph.D. Thesis, Université d'Abomey-Calavi, Abomey Calavi, Benin, 2008; p. 326.
56. Botchi-Morel, C. Femmes et Développement Durable en Afrique Noire. Essai de Compréhension de la Relation Entre le Contexte Matrimonial Ajatado du Kufo et le développement Durable (in French). Ph.D. Thesis, Université de Fribourg, Fribourg, Switzerland, 2007; p. 281.
57. Cindy, F.C.; Ling, L. Marriage and migration in transitional China: A field study of Gaozhou, Western Guangdong. *Environ. Plann.* **2002**, *34*, 619–638.
58. Chauveau, J.P.; Jacob, J.P.; le Meur, P.-Y. L'organisation de la mobilité dans les sociétés rurales du Sud. *Autrepart* **2004**, *30*, 3–23, (in French).
59. Lange, A.D. "In Sulemitenga Things Are There": A Study on the Images of the West Northeast Ghana. Master Thesis, University of Amsterdam, Amsterdam, The Netherlands, 2003.
60. Hart, K. Migration and tribal identity among the frafras of Ghana. *J. Asian Afr. Stud.* **1971**, *6*, 21–36.
61. District Planning and Coordinating Unit (DPCU). *Strategic Environmental Assessment of Bongo District Medium Term Development Plan from 2010–2013 under the National Framework*; Bongo District: Bongo, Ghana, 2010.
62. District Capacity Building Project (DISCAP). *Decentralised Poverty Monitoring and Evaluation Exercise: Bongo District*; Regional Planning and Coordinating Units: Bolgatanga, Ghana, 2005.
63. Der, B.G. God and sacrifice in the traditional religions of the Kasena and Dagaba of Northern Ghana. *J. Relig. Afr.* **1980**, *11*, 172–187.
64. Amenga-Etego, R. *Mending the Broken Pieces: Indigenous Religion and Sustainable Rural Development in Northern Ghana*; Africa World press: Trenton, NJ, USA, 2011.
65. Roncoli, C.; Crane, T.; Orlove, B. Fielding Climate Change in Cultural Anthropology. In *Anthropology and Climate Change: From Encounters to Action*; Crate, S., Nuttal, M., Eds.; Left Coast press: Walnut Creek, CA, USA, 2009; pp. 81–115.
66. Eguavoen, I. Climate change and trajectories of blame in Northern Ghana. *Anthropol. Noteb.* **2013**, *19*, 5–24.
67. Eguavoen, I.; Schraven, B. The Ambiguous Representation of the Savannah Landscape and Its New Political Relevance in Ghana. In *Rural development in Northern Ghana*; Yaro, J.A., Ed.; Nova Science Publishers Inc.: Hauppauge, NY, USA, 2013; pp. 207–223.
68. Cornevin, R. La République Populaire du Bénin: Des Origines Dahoméennes à Nos jours (in French); Maisonneuve et Larose: Paris, France, 1981.
69. Arenstam, G.S.J.; Nicholls, R.J. Island abandonment and sea-level rise: An historical analog from the Chesapeake Bay, USA. *Global Environ. Change* **2006**, *16*, 40–47.
70. Jäger, J.; Frühmann, J.; Grünberger, S.; Vag, A. Environmental Change and Forced Migration Scenarios, Synthesis Report. Available online: http://www.each-for.eu/documents/EACH-FOR_Synthesis_Report_090515.pdf (accessed on 11 October 2013).
71. McLeman, R.; Smit, B. Migration as an adaptation to climate change. *Clim. Change* **2006**, *76*, 31–53.

72. Mercier, P. *Tradition, Changement, Histoire: Les “Somba” du Dahomey Septentrional* (in French); Anthropos: Paris, France, 1968; p. 533.
73. Biondi, G.; Rickards, O.; Martinez-Larbarga, C.; Taraborelli, T.; Cimenelli, B.; Gruppioni, G. Biodemography and genetics of the berba of benin. *Am. J. Phys. Anthropol.* **1996**, *99*, 519–535.
74. Institut National de la Statistique et de l'Analyse Economique (INSAE). *Répartition spatiale, Structure par sexe et âge et migration de la Population du Bénin* (in French); INSAE: Cotonou, Benin, 2003; Volume 1.
75. Henson, B.J.; Tomkins, B. *A Sociolinguistic Survey of the Biali Language Area*; SIL Electronic Survey Report, 2011-011; International Society of Limnology (SIL): Dallas, TX, USA, 2011.
76. Piguet, E. Linking climate change, environmental degradation, and migration: A methodological overview. *Wires. Clim. Change* **2010**, *1*, 517–524.
77. Miles, M.B.; Huberman, A.M. *Qualitative Data Analysis*; Sage Publications: London, UK, 1994.
78. Interview extract: Mussa, Mossi Male-Age: 47 years, Nodi Tula, 19 March 2013, duration: 60 min.
79. Interview extract: Mansur, Mossi Male-Age: 42 years, Tantéga, 22 March 2013, duration: 55 min.
80. Policy Quarterly Report N. 5181 for the French General West African Government, Natitingou, 25 April 1933, p. 7. Benin National Archives, Porto Novo, Republic of Benin, Box 1E47.
81. Colonial Circular N. 907 written by the Lieutenant Governor of Dahomey for the Atacora Circle, 26 April 1923, p. 4. Benin National Archives, Porto Novo, Box 1E42.
82. Odotei, I. *Ghanaian Migrant Fishermen in the Republic of Benin*; Institute of African Studies, University of Ghana: Accra, Ghana, 1991.
83. Overa, R. *Institutions, Mobility and Resilience in the Fante Migratory Fisheries in West Africa*; Chr. Michelsen Institute for Development Studies and Human Right: Bergen, Norway, 2001.
84. General Report N. 106 on the general situation of the Circle of Atacora during the year 1914 for the General French West African Government, 15 February 1915, pp. 25–26. Benin National Archives, Porto Novo, Box 1E42.
85. Interview extract: Bukari, Zarma Male-Age: 29 years, Tantéga, 22 March, 2013, duration: 60 min.
86. Alber, E. Within the Thicket of Intergenerational Sibling Relations: A Case Study from Northern Benin. In *The Anthropology of Sibling Relations: Shared Parentage, Experience, and Exchange*; Albert, E., Coe, C., Thelen, T., Eds.; Palgrave Macmillan: New York, NY, USA, 2013; pp. 73–96.
87. Meillassoux, C. *Femmes, Greniers et Capitaux* (in French); Editions Maspéro: Paris, France, 1975.
88. Webber, P. Agrarian change in Kusasi, North-East Ghana. *J. Int. Afr. Inst.* **1996**, *66*, 437–457.
89. Plange, N.K. Underdevelopment in Northern Ghana: Natural causes or colonial capitalism? *Rev. Afr. Polit. Econ.* **1979**, *6*, 4–14.
90. Hahn, H.P., Klute, G., Eds. *Cultures of Migration: African Perspectives*; LIT Verlag: Münster, Germany, 2007.
91. Meier, B. Living in the Bush: Representations of Urban Life Among Northern Ghanaian Migrants. In *Ghana's North: Research on Culture, Religion, and Politics of Societies in Transition*; Kroger, F., Meier, B., Eds.; Peter Lang: Frankfurt, Germany, 2003; pp. 61–78.
92. Interview extract: Ben, Frafra Male-Age 36 years, Gowrie-Kunkua, 25 March 2012, duration: 42 min.
93. Interview extract: Michael, Frafra Male-Age 29 years, Bongo-Tingre, 10 October 2012, duration: 58 min.

94. Grier, B. Pawns, porters and petty traders: Women in the transition to cash crop agriculture in colonial Ghana. *Signs* **1992**, *17*, 304–328.
95. Awumbila, M.; Ardayfio-Schandorf, E. Gendered poverty, migration and livelihood strategies of female porters. *Nowag. J. Geogr.* **2008**, *62*, 171–179.
96. Cassiman, A. Home call: Absence, presence and migration in rural northern Ghana. *Afr. Identities* **2010**, *8*, 21–40.
97. Adaawen, S.A.; Owusu, B. North-South migration and remittances in Ghana. *Afr. Rev. Econ. Financ.* **2014**, *5*, 1–39, in press.

© 2014 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).