

Appendix 3

Table A3.1 Original wording of push factors given in respective studies;

G = Ghana, BF = Burkina Faso, N = Nigeria.

		factor	factor named in study	categorization based on	
Environmental driver	unfavorable climatic conditions	G unfavourable climatic [...] resources	Adjei-Nsiah et al. 2004	Black et al. 2011	
		recurrent droughts	Aniah et al. 2019		
		inadequate rainfall	Antwi-Agyei et al. 2021		
		harsh weather	Antwi Bosiakoh et al. 2014		
		irregular / unreliable rainfall	Braimoh 2004		
		storms	Goldbach 2017		
		high inter-annual rainfall variability	Rademacher-Schulz et al. 2014		
		poor rainfall pattern	van der Geest 2011		
		BF drought	Barbier et al. 2009		
	[...] during the dry season, [...], when rain-fed agriculture is not possible in the Sahel	Hampshire 2002			
	drought period, climatic risks	Jahel et al. 2018			
	frequent droughts	West and Nèbié 2019a			
	erratic rainfall	Ouedraogo et al. 2009			
	climate change and variability	Ruf et al. 2015			
	N change of environment	Ango et al. 2014			
	worsening weather condition; erratic rainfall	Olaniyan and Okeke-Uzodike 2015			
	poor soil & land degradation	G unfavourable [...] soil resources	Adjei-Nsiah et al. 2004		Neumann et al. 2015
		inherent poor soil fertility	Aniah et al. 2019		
declining soil fertility		Braimoh 2004			
destruction of landing sites for fishing boats as a result of inundation and high cliffs		Codjoe et al. 2017			
land infertility		van der Geest 2011			
BF saturation of land, land degradation		West and Nèbié 2019a	Black et al. 2011		
declining soil fertility		Ouedraogo et al. 2009	Neumann et al. 2015		
N dwindling grazing opportunity		Olaniyan and Okeke-Uzodike 2015	Black et al. 2011		
poor soil conditions		Dreier and Sow 2015	Neumann et al. 2015		
Economic driver	lack of economic opportunities	G lack of jobs	Adamtey et al. 2015	Black et al. 2011, Neumann et al. 2015	
		lack of jobs	Aniah et al. 2019		
		lack of employment opportunities	Antwi-Agyei et al. 2021		
		economic deprivation	Antwi Bosiakoh et al. 2014		
		changed employment to farming	Braimoh 2004		
		adverse economic conditions	Marquette et al. 2002		
		seeking jobs	Owusu-Ansah and Addai 2014		
		lack of local means to generate personal income	Tufuor & Sato 2017		

Table A3.1 (continued)

		factor	factor named in study	categorization based on	
		BF	lack of opportunities	Barbier et al. 2009	
			fewer off-farm income opportunities	West and Nèbié 2019a	
			lack of economic opportunities	West and Nèbié 2019b	
		N	lack of job opportunities	Ango et al. 2014	
			lack and costs of agricultural tools	Dreier and Sow 2015	
		poverty	G	poverty	Owusu-Ansah and Addai 2014
			poverty	van der Geest 2011	
		lack of available land	G	scarcity of land	Sward 2017b
				land scarcity	van der Geest 2011
BF	scarcity of arable land		Ouedraogo et al. 2009		
		N	land in northwest Benin is very limited	Dreier and Sow 2015	
Demogr. driver	scarcity of land due to population pressure	G	scarcity of land at source of migration (Author's note: due to population pressure)	Braimoh 2004	
		BF	increasing land scarcity (Author's note: due to population pressure)	Barbier et al. 2009	
Social driver	social conflicts	G	escape outmoded cultural practices such as female genital mutilation and forced marriages	Adamtey et al. 2015	
			problems at home	Goldbach 2017	
			escaping from cultural practices	Owusu-Ansah and Addai 2014	
			divorce; widowhood; avoiding arranged marriage	Tufuor & Sato 2017	
		N	parry sorcery/ conflicts	Dreier and Sow 2015	
			natural inclination to migrate	Olaniyan and Okeke-Uzodike 2015	
Political driver	political conflicts	G	ethnic conflict	Braimoh 2004	
			disputes over customary land ownership	Sward 2017a	
		BF	conflicts (Ivory Coast)	Jahel et al. 2018	
		politico-economic unrest in the neighbouring Côte d'Ivoire	Ouedraogo et al. 2009		
			N	conflict	Kamta et al. 2020
		poor infra-structure	G	lack of education facilities	Adamtey et al. 2015
	low infrastructure development		Aniah et al. 2019		
	poor infrastructure		Antwi-Bosiakoh et al. 2014		
		N	lack of social infrastructure/facilities	Ango et al. 2014	
Food insecur.	food insecurity	G	dwindling fish harvests	Codjoe et al. 2017	
			food shortages	Rademacher-Schulz et al. 2014	
			hunger; food scarcity	van der Geest 2011	
		BF	need to produce more food	Ouedraogo et al. 2009	
		N	crop failure and famine	Ango et al. 2014	

Table A3.2 Original wording of pull factors given in respective studies;
G = Ghana, BF = Burkina Faso, N = Nigeria.

		factor	factor named in study	categorization based on
Environmental driver	better climatic conditions	G where climatic [...] resources are more favourable	Adjei-Nsiah 2004	Black et al. 2011
		reduce the effects of climate and ecological change on their livelihood	Aniah et al. 2019	
		more attractive rainfall pattern	van der Geest 2011	
		N rain fall	Dreier and Sow 2015	
		G soil resources are more favourable for food production	Adjei-Nsiah et al. 2004	
	better soils or fertile land	more fertile lands	Rademacher-Schulz et al. 2014	Neumann et al. 2015
		BF pastures are still available	Barbier et al. 2009	
		fertile valley	West and Nébié 2019b	
		seek for pasture to graze their cattle	Ouedraogo et al. 2009	
		N soil productivity; good harvest	Dreier and Sow 2015	
Economic driver	increase of income or better opportunities	G seek employment; look for resources to expand or start up business	Adamtey et al. 2015	Black et al. 2011, Neumann et al. 2015
		to work on farms to earn income and accumulate food	Aniah et al. 2019	
		work to make a living; undertake different menial jobs	Antwi-Agyei et al. 2021	
		desire to be successful, desire to support family, desire to tap opportunities in receiving areas	Antwi Bosiakoh et al. 2014	
		to increase output/make more income	Braimoh 2004	
		work	Goldbach 2017	
		avoid poverty in the off-fishing season; to make lump sum savings; lower costs of living; petrol prices	Marquette et al. 2002	
		job opportunities in the city	Owusu-Ansah and Addai 2014	
		relatively good farming prospects	Sward 2017a	
		better life; economic advancement	Tufuor & Sato 2017	
		making money	van der Geest 2011	
		BF to Côte d'Ivoire where they mainly work in Cocoa plantations	Barbier et al. 2009	
		offering greater economic opportunities	Hampshire 2002	
		better opportunities	West and Nébié 2019a	
		non-farm income generating opportunities	West and Nébié 2019b	
		need to make income	Ouedraogo et al. 2009	
		pulled by perceived future opportunities [...] to improve their livelihoods	Ruf et al. 2015	
		N search for better employment; look for money through labor; to improve livelihood welfare; to learn trade	Ango et al. 2014	
		find paid work in the agrarian sector; accumulation of money; employment; agricultural work; prosperous economic activity; means for construction; available agricultural tools; commerce; bettering of life situation	Dreier and Sow 2015	
		to engage in crop farming	Olaniyan and Okeke-Uzodike 2015	

Table A3.2 (continued)

		factor	factor named in study	categorization based on	
	available land	G	more secure land tenure	Braimoh 2004	
			availability of farmland	Sward 2017a	
			attaining relatively fertile farmland	Sward 2017b	
			abundance and fertility of land	van der Geest 2011	
	access to market	BF	pastures are still available; where land is still available	Barbier et al. 2009	Parrish et al. 2020
			available lands	Jahel et al. 2018	
			new cocoa farm; access to forest plot	Ruf et al. 2015	
	N	available soils	Dreier and Sow 2015		
	G	better exchange rates and markets	Marquette et al. 2002		
	N	need for market	Olaniyan and Okeke-Uzodike 2015	Neumann et al. 2015	
Demogr. d.	lower population density	BF	[...] where population density is lower	Barbier et al. 2009	
Social driver	social network	G	marriage	Goldbach 2017	
			family reunion	Owusu-Ansah and Addai 2014	
			escape from restrictive marriage; more freedom; adventure	Tufuor & Sato 2017	
		BF	kin networks	Hampshire 2002	
	education opportunities	N	join family members in the city	Ango et al. 2014	Black et al. 2011
			personal development, information, networks, adventure	Dreier and Sow 2015	
		G	access to quality education	Adamtey et al. 2015	
	desire to get good quality education	Antwi Bosiakoh et al. 2014			
	education	Goldbach 2017			
	N	further education	Ango et al. 2014		
Political driver	better infrastructure	G	good quality health care; good roads and transport; telecommunication facilities	Antwi Bosiakoh et al. 2014	
			harbor or safe landing place [for canoes]	Codjoe et al. 2017	
		BF	where [...] <i>tse tse</i> fly is under control	Barbier et al. 2009	Authors' decision
	safety	N	better transportation in the urban areas; better housing in the city	Ango et al. 2014	Czaika and Reinprecht 2020
			relatively low transportation costs	Dreier and Sow 2015	
	N	safety and availability of humanitarian assistance	Kamta et al. 2020	Black et al. 2011, Parrish et al. 2020	
Food sec.	food security	N	food security	Dreier and Sow 2015	Neumann et al. 2015