

Annex III: Full Table: Conceptual and Empirical Validity of Migration Impacts (Including Risk and Migration Impact Hypotheses and References)

	Migration Impacts	Variable	Risk Impact Hypotheses	Impact of Variable on Disaster Risk	Conceptual Validity				Overall Impact on specific Risk Variable	Overall Impact on Risk (all Risk Variables Related to This Migration Impact)	Conceptual/ Empirical Clarity: Is it clear if this migration impact intensifies/alleviates the risk variable(s) and how this impacts disaster risk overall?	Comment
					Migration Impact Hypotheses							
					Emigration Area	Impact on Risk Variable (in Emigration Area)	Immigration Area (incl. Migrants)	Impact on Risk Variable (in Immigration Area)				
	Population Movement											
1.	Population Movement (Immigration) between Areas with Different Languages/ with Respect to Language Proficiency	(Low) Language Homogeneity & (Low) Proficiency of Local (Warning) Languages	A higher number of people who do not understand the languages which disaster risk warnings are issued in indicates an overall higher susceptibility and lower coping capacity for the community (Donner & Rodriguez 2008).	+ increases disaster risk	No impact expected.	/	Immigration can contribute to a lower language homogeneity in a community, potentially resulting in fewer people who understand the languages which disaster risk warnings are issued in (Donner & Rodriguez 2008; IOM 2012).	+ intensifies risk variable	+	+	It is conceptually clear that if the language homogeneity in an area is high and if many people speak the language(s) in which disaster risk warnings are issued, this indicates lower disaster risk as these people can better access information, education and social assets. Migration usually can be expected to either not change or decrease the local language proficiency in a community, and therefore its impact is not ambiguous.	This can also be seen as a specified example for impact no. 15.
		(Low) Social Cohesion, (High Degree of) Marginalization & Discrimination of Social Groups	Increased marginalization and discrimination of individuals in a community leaves the community more vulnerable (Birkmann et al. 2013a; Wisner et al. 2012).	+ increases disaster risk	No impact expected.	/	Immigration can contribute to a lower language homogeneity in a community, potentially resulting in more people with a lack of native language proficiency, which can be a socio-cultural characteristic that makes these individuals prone to marginalization or discrimination, e.g. decreasing their access to assets (Beesey et al. 2016; Guadagno et al. 2017).	+ intensifies risk variable	+			
		(Low) Education/ Skills	A higher level of skills and knowledge indicates higher resilience, as it unlocks new livelihoods and thus livelihood assets (Kellenberg & Mobarak 2011 ; Krause 2016).	+ increases disaster risk	No impact expected.	/	Immigration can contribute to a lower language homogeneity in a community, potentially resulting in more people with a lack of native language proficiency, which can decrease their access to education (Anselme & Hands 2010).	+ intensifies risk variable	+			
		(Low) Institutional Information	Lower institutional information makes individuals more vulnerable as it reduces their capacity to cope with hazards by using institutional disaster risk assistance (Wisner et al. 2004).	+ increases disaster risk	No impact expected.	/	A lack of native language proficiency is a barrier in accessing institutional information (Banerjee et al. 2016).	+ intensifies risk variable	+			
2.	Population Movement (Net-Migration) with Respect to Labor Force and Local Labor Demand ("Labor Pressure")	(Low) Income/Wage Level	Lower wage levels are connected to lower per capita income and higher economic susceptibility (Cutter et al. 2003).	+ increases disaster risk	Emigration can increase the wage level because the local labor supply is decreased by emigration (while the labor demand stays the same), labor therefore increases in its value (Lucas 2005; The World Bank 2006).	- alleviates risk variable	In immigration areas, wages might be lowered due to the inflow of workforce (reverse effect to emigration area) (Ratha et al. 2010; The World Bank 2006).	+ intensifies risk variable	E: - ; I: +	E: - ; I: +	The general, theoretical link between labor pressure and economic susceptibility seems to be clear: Through impacts on wage levels and on the risk of unemployment, emigration contributes to lower economic susceptibility and immigration to higher economic susceptibility. However literature suggests that next to the overall supply of labor, many other factors are important for these variables (wage level and risk of unemployment) (e.g. market flexibility or education opportunities (Lucas 2005) or macro-economic effects such as economic growth (Ratha et al. 2010; De Moor 2011)), which might be the reason why not all related studies find a clear empirical link (see e.g. Carter & Sutch 2008). This suggests that though the impact of migration might be clear in this process, it is probably outweighed by different processes which are more important for the resulting disaster risk variable - making it empirically unclear.	
		(Low) Job Security/ (High) Risk of Unemployment	(Risk of) unemployment is seen as a sign of livelihood insecurity and thus economic susceptibility (Cardona & Carreño 2013).	+ increases disaster risk	The reduction of available labor force by emigration might lead to a lower risk of unemployment in emigration communities (Lucas 2005).	- alleviates risk variable	The increase of available labor force by immigration might lead to a higher risk of unemployment in immigration communities (Ratha et al. 2010).	+ intensifies risk variable	E: - ; I: +			

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			Risk Impact Hypotheses	Impact of Variable on Disaster Risk	Migration Impact Hypotheses				Overall Impact on specific Risk Variable				
					Emigration Area	Impact on Risk Variable (in Emigration Area)	Immigration Area (incl. Migrants)	Impact on Risk Variable (in Immigration Area)					
3.	Population Movement (Emigration) with Respect to People Working at and Needed for Maintaining FSNL	Abandonment of Fragile Socio-Natural Landscapes > Environmental Degradation	The abandonment of Fragile Socio-Natural Landscapes often leads to environmental degradation and thus contributes to a trend which can increase the frequency and magnitude of hazards (IOM 2014; Guadagno 2017).	+ increases disaster risk	Emigration can reduce the maintenance of fragile socio-natural landscapes, potentially contributing to environmental degradation (IOM 2014; Guadagno 2017).	+ intensifies risk variable	Usually no impact expected, though there is one study by Tiffen et al. (1994) claiming that population inflow and the related increased human intervention in an unstable ecosystem resulted in an ecological stabilization.	not very clear (- alleviates risk variable)	E: + ; I: - not very clear	E: + ; I: -	The conceptual link between emigration and the decreased maintenance of FSNL, as well as the subsequent effect on environmental degradation is not very clear in the literature. Though most research suggests that disaster risk is increased in emigration areas the effect on immigration areas is not very clear. The literature handles this specific issue rather theoretical/ descriptive and not much empirical research seems to be available.		
		Abandonment of Fragile Socio-Natural Landscapes > Environmental Degradation >> Access to Natural Resources	A high level of access to natural assets helps to lower the susceptibility of communities (DFID 1999).	+ increases disaster risk	Emigration can reduce the maintenance of fragile socio-natural landscapes, potentially contributing to environmental degradation (IOM 2014; Guadagno 2017), which can decrease the access to natural resources among a community (IOM 2014; DFID 1999).	+ intensifies risk variable	Usually no impact expected, though there is one study by Tiffen et al. (1994) claiming that population inflow and the related increased human intervention in an unstable ecosystem resulted in an ecological stabilization.	not very clear (- alleviates risk variable)	E: + ; I: - not very clear				
4.	Population Movement (Net-Migration) with Respect to Gender	Gender Balance (more women than men)	Women are in many cases more socially susceptible to hazards, meaning that a higher share of women might result in higher disaster risk (UNISDR et al. 2009; Wisner et al. 2004; Cutter et al. 2003).	+ increases disaster risk (but can be criticized, see comment)	Emigration is generally likely to alter the gender balance of a community towards a relatively higher share of women (Schensul & Dodmann 2013). However, recently migration becomes increasingly 'feminized', which might disrupt this process (Deshingkar & Grimm 2005).	+/- unclear	Immigration is generally likely to alter the gender balance of a community towards a relatively lower share of women (Schensul & Dodmann 2013). However, recently migration becomes increasingly 'feminized', which might disrupt this process (Deshingkar & Grimm 2005).	+/- unclear	+/-	+/-	The impact of migration on the gender balance in a community can go in both ways. The link between migration and gender balance depends on the specific migration flows and the demographic characteristics related to it. If this issue is accounted for in an appropriate indicator, the conceptual link could be clearly explained by the risk hypothesis. Because the risk hypothesis can be criticized (see comment), this migration impact is anyways not seen as conceptually clear.	The risk hypothesis can be criticized, though it is popular, because it just supposes that women in general are more vulnerable than men. Similar to the way risk assessments often deal with migrants, women are here just labelled a vulnerable group. This approach does not target the actual processes which make women more vulnerable. Because of this criticism the whole conceptual link in this process is quite weak. It is therefore considered to be more accurate to operationalize gender as a socio-demographic characteristic which can lead to marginalization and discrimination, depending on the role of women and other socio-cultural patterns of the community (see impact no. 15 below in this table).	

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			Risk Impact Hypotheses	Impact of Variable on Disaster Risk	Migration Impact Hypotheses				Overall Impact on specific Risk Variable						Overall Impact on Risk (all Risk Variables Related to This Migration Impact)
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5.	Population Movement (Net-Migration) with Respect to Age	Age Structure (more children and elderly than middle-age)	A community with a high share of young (<15-16 years) and elderly (>60-65 years) population is considered to be socially more susceptible (Wisner et al. 2004; Krause 2016).	+ increases disaster risk	The largest share of migrants is of working age (20-64 years) (IOM 2017a), meaning that emigration tends to contribute to a relatively higher share of young and elderly in a community.	+ intensifies risk variable	The largest share of migrants is of working age (20-64 years) (IOM 2017a), meaning that immigration tends to contribute to a relatively lower share of young and elderly in a community.	- alleviates risk variable	E: +; I: -	E: +; I: -	The conceptual link between migration and age structure suggests a clear interrelation between emigration and more elderly/ young (higher social susceptibility) and the reverse effect for immigration. The risk hypothesis is also quite clear and even though it also labels people a vulnerable group, it makes more sense here compared to labelling women a vulnerable group, because in the case of young and elderly the assumed increased vulnerability is due to physical characteristics and human assets and does not only materialize through socio-cultural patterns.				
6.	Movement of Skilled Labor Force (Net-Migration)	(Low) Availability of Skilled Labor > Institutional & Community Functionality	A high availability of skilled labor contributes to the resilience of a community, as it increases its capacity to cope with and recover from hazards (e.g. by increasing the institutional capacity concerning health care services) (IDEA 2005; Krause 2016).	+ increases disaster risk	The loss of highly skilled labor due to emigration potentially decreases the productivity, self-reliance and innovative capacity (including the ability to learn) of communities with high rates of emigration (Marchiori et al. 2013; The World Bank 2006).	+ intensifies risk variable	Immigration can result in a gain of highly skilled personnel, increasing efficiency, productivity and innovative capital of communities (Carter & Sutch 2008; Ratha et al. 2010; The World Bank 2006).	- alleviates risk variable	E: +; I: -	E: +; I: -	The link between the movement of skilled labor and resilience seems to be clear in the literature: Emigration of skilled labor force leads to less skilled labor and thus lower resilience in the respective communities, and the other way around for immigration.				
		(Low) Availability of Skilled Labor > Innovative Potential	A high availability of skilled labor contributes to the resilience of a community, as it increases its innovative capacity which can be essential when recovering from/ anticipating hazardous impacts (Marchiori et al. 2013; Folke 2006).	+ increases disaster risk	The loss of highly skilled labor due to emigration potentially decreases the productivity, self-reliance and innovative capacity (including the ability to learn) of communities with high rates of emigration (Marchiori et al. 2013; The World Bank 2006).	+ intensifies risk variable	Immigration can result in a gain of highly skilled personnel, increasing efficiency, productivity and innovative capital of communities (Carter & Sutch 2008; Ratha et al. 2010; The World Bank 2006).	- alleviates risk variable	E: +; I: -						
7.	Population Movement (Net-Migration) with Respect to Institutional Capacity (for Institutional Functionality Specifically in Health & DRM Services)	(High) Institutional Pressure with Respect to Institutional Capacity	When the institutional pressure gets too high to be met by the institutional capacity of a community, this means that the community is not capable of providing institutional services such as health or disaster risk management services to all of its members, which can be seen as an attribute of institutional susceptibility of the community (Birkmann et al. 2013a).	+ increases disaster risk	Migration directly influences the distribution of people over space and is accordingly an important dynamic influencing demographic pressure (Schensul & Dodmann 2013; Scheffran et al. 2012): Emigration decreases institutional pressure.	- alleviates risk variable	Migration directly influences the distribution of people over space and is accordingly an important dynamic influencing demographic pressure (Schensul & Dodmann 2013; Scheffran et al. 2012): Immigration increases institutional pressure.	+ intensifies risk variable	E: -; I: +	E: -; I: +	There exists a clear link between migration and demographic pressure and thus also between migration and institutional pressure. An increase of institutional pressure can be clearly interpreted as increasing institutional susceptibility and the other way around.				
8.	Population Movement (Net-Migration) with Respect to Housing Available	Dysfunctional Housing Market > Low Institutional/ Community Functionality >> Unsafe Housing Conditions	If the demographic pressure and its related demand for housing in an area exceeds the capacity of the local housing market to provide safe accommodation, this often contributes to dangerous housing conditions or informal settlements (Deshingkar & Grimm 2005), increasing the physical susceptibility of the community.	+ increases disaster risk	Emigration decreases demographic pressure (Schensul & Dodmann 2013; Scheffran et al. 2012), potentially leading to a relaxation of the housing market which might open up opportunities for safer housing and thus decreased physical susceptibility for the community.	- alleviates risk variable	Immigration, especially when it is headed towards centers of already high demographic pressure with relation to the capacity of the local housing market, sometimes overwhelms the capacity of the community to provide safe housing (as it increases demographic pressure (Schensul & Dodman 2013; Scheffran et al. 2012).	+ intensifies risk variable	E: -; I: +	E: -; I: +	The conceptual link between migration/demographic pressure and housing markets is clear: Immigration leads to more pressure on the housing market; while emigration might have the reverse effect. When housing markets in the following get under higher pressure than they can deal with, the physical susceptibility of community often increases.				
9.	Movement of Work Force (Net-Migration)	(Low) Supply of Labor > (Low) Capacity to Self-/ Reorganize & Economic Productivity	A community with a high supply of work force and thus high productive capacity can better reorganize after a disaster and is thus more resilient (Birkmann et al. 2013a; Kellenberg & Mobarak 2011).	+ increases disaster risk	Emigration can deplete the productivity and thus capacity to reorganize of a community (Deshingkar & Grimm 2005).	+ intensifies risk variable	Immigration can increase productivity due to the increased work force in immigration areas (Ratha et al. 2010; De Moor 2011).	- alleviates risk variable	E: +; I: -	E: +; I: -	Generally, the conceptual link is clear: By impacting productivity, immigration contributes to a higher capacity for reorganization and vice versa for emigration. However, Lucas (2005) suggests, that the effect of population in-/outflow on the productivity of a community depends largely on the skill profile of the population moving. Also, migrants often face restrictions in their access to labor markets and livelihood opportunities, which might diminish the direct impact of population-inflows on productivity (IOM 2014; UNDP 2009). It therefore is considered clearer to measure more explicit impacts such as movement of skilled labor (see impact no. 6) or movement with respect to legal status (see impact no. 14).				

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10.	Spatial Population Movement (Immigration) Related to Hazard Patterns in Areas of Origin of Migrants	(Low) Risk Experience	More risk experience can lead to a larger coping capacity, as it helps people to estimate how severe a situation is (Sudmeier et al. 2013). OR More risk experience can lead to underestimation of risks and thus worse judgement of a situation (= lower coping capacity) (Gänsbauer et al. 2017).	+/- unclear!	No impact expected.	/	Immigration of people from areas with higher hazard frequencies, might have more risk experience concerning specific hazards which they can draw on when living in a different place (Gänsbauer et al. 2017).	- alleviates risk variable	-	unclear	The conceptual link between risk experience and coping capacity should be handled with care (see comment). Measuring people's likely experience with risks therefore is conceptually not very clear.	An indicator measuring the risk experience of people would not be conceptually clear due to the unclear risk hypotheses: more research would be needed here.
11.	Spatial Population Movement (Net-Migration/Immigration) Related to Local Hazard Patterns	Spatial Change in Population & Asset Distribution (Higher Spatial Exposure)	A higher number of people living in the spatial range of specific hazards indicates higher exposure and thus higher disaster risk (Birkmann et al. 2013a).	+ increases disaster risk	Emigration reduces the number of people living in an area, potentially decreasing spatial exposure (Adger et al. 2018).	- alleviates risk variable	Immigration increases the number of people living in an area, potentially increasing spatial exposure (Adger et al. 2018).	+ intensifies risk variable	E: - ; I: +	E: - ; I: +	The conceptual link that immigration generally increases exposure and emigration decreases exposure is clear. Its implication for disaster risk is as well, as exposure is one of the core elements of risk.	
12	Temporal Population Movement (Net-Migration) Related to Local Hazard Patterns	Temporal Change in Population & Asset Distribution (Higher Temporal Exposure)	A higher number of people living in the temporal range of specific hazards indicates higher exposure and thus higher disaster risk (Birkmann et al. 2013a).	+ increases disaster risk	Emigration reduces the number of people living in an area, potentially decreasing temporal exposure (Adger et al. 2018).	- alleviates risk variable	Immigration increases the number of people living in an area, potentially increasing temporal exposure (Adger et al. 2018).	+ intensifies risk variable	E: - ; I: +	E: - ; I: +	The conceptual link that immigration generally increases exposure and emigration decreases exposure is clear. Its implication for disaster risk is clear as well, as exposure is one of the core elements of risk. However temporal exposure has not been much analyzed with respect to migration dynamics so far. More conceptual and empirical work is therefore needed on the specific topic of migration impacts on temporal exposure.	
13	Population Movement (Net-Migration) with Respect to Resource Capacity	(High) Resource Pressure with Respect to Resource Capacity > Environmental Degradation	If the natural resource pressure exceeds the natural resource capacity of a socio-ecological system, this can lead to environmental degradation (Schwilch et al. 2017), which can increase the frequency and magnitude of hazards (IOM 2014).	+ increases disaster risk	Emigration reduces resource pressure (Schwilch et al. 2017; Barnett & Webber 2010; Adger et al. 2002), as the overall demand for natural resources is decreased when people are leaving (Barnett, Webber 2010).	- alleviates risk variable	A migration-related inflow of people leads to increased natural resource pressure (Barnett & Webber 2010), which can lead to environmental degradation (Schwilch et al. 2017).	+ intensifies risk variable	E: - ; I: +	E: - ; I: +	The conceptual link between immigration and increased resource pressure potentially leading to environmental degradation and decreased resource access, and vice versa for emigration, is clear. Also, the link between environmental degradation and an increased frequency and magnitude of hazards, as well as the connection of resource access and vulnerability can be considered to be clear.	
		(High) Resource Pressure > Environmental Degradation >> (Low) Access to Natural Resources	If the natural resource pressure exceeds the natural resource capacity of a socio-ecological system, this often leads to environmental degradation (Schwilch et al. 2017) and thus contributes to decreased access to natural resources among a community, which potentially makes it more vulnerable (DFID 1999).	+ increases disaster risk	Emigration reduces resource pressure (Schwilch et al. 2017; Barnett & Webber 2010; Adger et al. 2002), as the overall demand for natural resources is decreased when people are leaving (Barnett & Webber 2010). Followingly, the access to natural resources among a community is relatively increased (IOM 2014; DFID 1999).	- alleviates risk variable	A migration-related inflow of people leads to increased natural resource pressure (Barnett & Webber 2010), which can lead to environmental degradation (Schwilch et al. 2017). Followingly, the access to natural resources among a community is relatively decreased (IOM 2014; DFID 1999).	+ intensifies risk variable	E: - ; I: +			
14	Population Movement (Immigration) with Respect to Legal Status/Human Rights	(Low) General Access to Assets/ Livelihood Opportunities	A high level of access to assets and livelihood opportunities is a sign of resilience, as it enables people to replace assets and livelihood strategies better when these are harmed by disasters (DFID 1999).	+ increases disaster risk	No impact expected.	/	Undocumented/irregular immigration potentially adds people with no or an unclear legal status to a community, potentially decreasing these peoples' access to assets and livelihood opportunities. (Guadagno et al. 2017; Dshingkar & Grimm 2005; Beesey et al. 2016).	+ intensifies risk variable	+	+	The impact of a higher percentage or immigration of people with no permission of stay can be clearly conceptualized as negatively affecting the community's vulnerability. Even though it triggers a number of different impacts, all of them are expected to have a negative influence on disaster risk, which is why it can be seen to be unambiguous.	
		(Low) Education/ Skills (>) Innovative Potential; >> Availability of Skilled Labor	A higher level of education increases the innovative potential and the availability of skilled workers in a community, which both contribute to increased resilience (IDEA 2005; Krause 2016; Folke 2006).	+ increases disaster risk	No impact expected.	/	Undocumented/irregular immigration potentially adds people with no or an unclear legal status to a community, potentially decreasing these peoples' access to education, eventually lowering the percentage of the community receiving education (UNDP 2009).	+ intensifies risk variable	+			

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		(Low) Trust in Local Authorities	High trust in local authorities among a community increases the likelihood that institutional disaster risk assistance is used and is effective (Guadagno et al. 2017; Guadagno 2017).	+ increases disaster risk	No impact expected.	/	Undocumented/irregular immigration potentially adds people with no or an unclear legal status to a community, potentially decreasing these peoples' trust in local authorities, eventually lowering the percentage of the community with a high trust in local authorities (Guadagno et al. 2017; Guadagno 2017; Beesey et al. 2016).	+ intensifies risk variable	+			The variable informal work is complex and impacts disaster risk in many interrelated ways. It also can have many reasons, amongst which legal access to labor markets is likely to be important (UNDP 2009). However, the causal relationships to migration need to be further conceptualized. It is nonetheless quite clear that a high share of the population with no permission to work is a likely sign of missing resilience and high economic susceptibility, which is why this impact fits in the overall picture of this migration impact as clearly risk increasing.	
		(Unsafe) Housing Conditions	Safe housing conditions indicate lower physical susceptibility (Krause 2016; DFID 1999).	+ increases disaster risk	No impact expected.	/	Undocumented/irregular immigration potentially adds people with no or an unclear legal status to a community, potentially decreasing these peoples' access to safe housing, eventually lowering the percentage of the community living in safe housing (Guadagno et al. 2017; Deshingkar & Grimm 2005).	+ intensifies risk variable	+				
		(Low) Job Security/ (High) Risk of Unemployment	(Risk of) unemployment is seen as a sign of livelihood insecurity and thus economic susceptibility (Cardona & Carreño 2013).	+ increases disaster risk	No impact expected.	/	Undocumented/irregular immigration potentially adds people with no or an unclear legal status to a community, potentially decreasing these peoples' job security, as they often have no access to basic labor protection, which eventually lowers the percentage of the community working in jobs protected by basic labor rights (Guadagno et al. 2017).	+ intensifies risk variable	+				
		(High Prevalence of) Informal/ Dangerous Working Conditions >> (Low) Physical Health Status	Informal work is often related to dangerous working conditions and thus potentially affects the physical health of people working informally negatively (Beesey et al. 2016).	+ increases disaster risk	No impact expected.	/	Undocumented/irregular immigration potentially adds people with no or an unclear legal status to a community, which tends to decrease these peoples' access to safe and non-health-threatening jobs, which eventually decreases the physical health among the community (Guadagno et al. 2017; Deshingkar & Grimm 2005).	+ intensifies risk variable	+				
15	Population Movement (Net Migration) with Respect to Ethnicity/ Religious Characteristics (or Other Socio-Cultural Characteristics) Which Might Be Stigmatized/ Discriminated in the Community of Interest	(Low) Socio-Cultural Homogeneity > (Low) Social Cohesion, (High Degree of) Marginalization & Discrimination of Social Groups	A higher socio-cultural homogeneity and/or a higher acceptance and tolerance for specific socio-cultural characteristics in a community both influence the development of marginalized, susceptible subgroups of the population (Kokkali 2011).	+ increases disaster risk	The impact of emigration on the socio-cultural homogeneity of a community can vary and has to be assessed depending on the context.	+/- unclear	Immigration tends to decrease the socio-cultural homogeneity of a community as migrants often have different socio-cultural characteristics than the natives in their areas of destination, which can lead to marginalization and discrimination (Kokkali 2011).	+ intensifies risk variable	Impact on Emigrati on Area unclear, in Immigration Areas it increases risk	Impact on Emigration Area unclear, in Immigration Areas it increases risk	Depending on the tolerance for specific socio-cultural characteristics within a community and the impact of migration dynamics on the socio-cultural homogeneity of the area, the outcomes of migration can vary here. An indicator for this process therefore always has to combine a context-assessment of the impact of migration on a specific socio-cultural characteristic and the host-community's attitude towards this characteristic. Which characteristics are of interest is again very context specific. Overall the link can be conceptually clear but has to be assessed carefully within each context, especially in emigration areas.	Besides socio-cultural characteristics, socio-demographic characteristics might as well lead to the marginalization/ decreased agency of individuals. In this respect, the role of women and the impact of migration on the gender balance in a community could be assessed.	
		(Low) General Access to Assets/ Livelihood Opportunities	A high level of access to assets and livelihood opportunities is a sign of resilience, as it enables people to replace assets and livelihood strategies better when these are harmed by disasters (DFID 1999).	+ increases disaster risk	The impact of emigration on the socio-cultural homogeneity of a community can vary and has to be assessed depending on the context.	+/- unclear	Immigration tends to decrease the socio-cultural homogeneity of a community as migrants often have different socio-cultural characteristics than the natives in their areas of destination, which can lead to marginalization and discrimination, with a negative impact on these peoples' access to assets and livelihood opportunities (Kokkali 2011).	+ intensifies risk variable	Impact on Emigrati on Area unclear, in Immigration Areas it increases risk				

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		(Few) Local Social Contacts >>(Low) Institutional Information	Lower institutional information makes individuals more vulnerable as it reduces their capacity to cope with hazards by using institutional disaster risk assistance (Wisner et al. 2004).	+ increases disaster risk	The impact of emigration on the socio-cultural homogeneity of a community can vary and has to be assessed depending on the context.	+/- unclear	Immigration tends to decrease the socio-cultural homogeneity of a community as migrants often have different socio-cultural characteristics than the natives in their areas of destination, which can lead to marginalization and discrimination (Kokkali 2011), potentially leading to few local social contacts of marginalized people, which can impact these peoples' access to institutional information (Wisner et al. 2004; Beesey et al. 2016).	+ intensifies risk variable	Impact on Emigration Area unclear, in Immigration Areas it increases risk			
16	Disease Spreading Due to Population Movement (Total Migration Volume)	(Low) Physical Health Status	Diseases threaten the physical health status of people, making those who already are in bad health more vulnerable to severe outcomes (Birkmann et al. 2013a).	+ increases disaster risk	The spread of diseases like HIV, has been found to be accelerated by (international) migration flows in some cases (Lucas 2005).			+ intensifies risk variable	+	ary+	The conceptual link is quite clear but empirically thin and also not easy to generalize. If migration really accelerates the spread of diseases has to be assessed in each specific context.	
	Usage of Financial Remittances											
17	Financial Remittance Usage for Productive Investments	(Low) General Access to Assets and Livelihood Opportunities  (Low) Capacity to Self-/ Reorganize & Economic Productivity	A high level of access to assets and livelihood opportunities is a sign of resilience, as it enables people to replace assets and livelihood strategies better when these are harmed by disasters (DFID 1999).  A good capacity to self-/ reorganize/ and/or a related high economic productivity indicate resilience (Birkmann et al. 2013a; Kellenberg & Mobarak 2011).	+ increases disaster risk  + increases disaster risk	Households which use financial remittances available for the acquirement of productive assets can thereby increase their access to new livelihood opportunities and assets (as productive assets return new assets and therefore enable new livelihood strategies) (Adger et al. 2002; Ratha et al. 2010).  Households which use financial remittances available for the acquirement of productive assets can thereby increase their capacity to reorganize (as productive assets return new assets and therefore enable new livelihood strategies) (Adger et al. 2002; Ratha et al. 2010).	- alleviate s risk variable  - alleviate s risk variable	No impact expected.  No impact expected.	/	-	-	Remittances are a clear input factor, whose implication for disaster risk (outcome) is dependent on the individual investment decisions of each household. One therefore cannot take the total inflow of remittances as a direct indicator increasing or decreasing disaster risk. Thus, a possible impact has to be specific in the purpose remittances are used for, in order to have a clear implication on a risk variable.  However, the overall amount of remittances is important when interpreting such purpose-related remittance volumes, as only through this relation one can compare different amounts of remittances spend for specific purposes and draw conclusions on the strength of the impact of remittances on the specific risk variable. One would therefore additionally need to normalize such numbers on remittances used for a specific purpose by the overall amount of remittances. Here however arises a second conceptual problem: To interpret a relative share of remittance expenditures by purpose, one would need to disentangle first, which remittance investments are better than others with respect to alleviating disaster risk. This is because shares of remittance usages are relative to each other - meaning that a higher share of usage for one purpose implies that the money was not used for another purpose. Such a ranking however is often very individual, and it can also be the "best" choice to invest in more than one purpose at the same time.  So, overall the impact of remittances on disaster risk is very difficult to operationalize and not conceptually clear on a general level.	
18	Financial Remittance Usage for Health Insurance	(Low) Health Insurance Coverage > (Low) Health Status	A high coverage of health insurance indicates lower institutional susceptibility, as people are better able to access basic health care (Cutter et al. 2010).	+ increases disaster risk	Households which use financial remittances available for health insurances, can decrease their susceptibility by doing so.	- alleviate s risk variable	No impact expected.	/	-	-		
19	Financial Remittance Usage for Education	(Low) Education/ Skills  (Low) Innovative Potential	A higher level of skills and knowledge indicates higher resilience, as it unlocks new livelihoods and thus livelihood assets (Kellenberg & Mobarak 2011; Krause 2016).  Innovation is a sign for resilience as it helps people to enhance their livelihoods in risk-reducing ways and/or to reorganize after a hazardous event (Folke 2006).	+ increases disaster risk  + increases disaster risk	Financial remittances have been found to be an important investment capital, which is in many cases to a large share used for education expenses (Ratha et al. 2010; Adger et al. 2002). This way, migration can directly support the education of remittance recipients.  Financial remittances have been found to be an important investment capital, which is in many cases to a large share used for education expenses (Ratha et al. 2010; Adger et al. 2002). Because higher education levels can support the innovative potential of a community, migration can in that way contribute to the innovative potential of the community (IDEA 2005; Krause 2016; Folke 2006).	- alleviate s risk variable  - alleviate s risk variable	No impact expected.  No impact expected.	/	-	-		

	Migration Impacts	Variable	Conceptual Validity							Overall Impact on Risk (all Risk Variables Related to This Migration Impact)	Overall Impact on specific Risk Variable	Conceptual/ Empirical Clarity: Is it clear if this migration impact intensifies/alleviates the risk variable(s) and how this impacts disaster risk overall?	Comment
			Risk Impact Hypotheses	Impact of Variable on Disaster Risk	Migration Impact Hypotheses			Overall Impact on specific Risk Variable					
					Emigration Area	Immigration Area (incl. Migrants)	Impact on Risk Variable (in Immigration Area)						
		(Low) Availability of Skilled Labor	A high availability of skilled labor contributes to the resilience of a community, as it increases its capacity to cope with & recover from hazards (e.g. by increasing the institutional capacity concerning health care services) (IDEA 2005; Krause 2016).	+ increases disaster risk	Financial remittances have been found to be an important investment capital, which is in many cases to a large share used for education expenses (Ratha et al. 2010; Adger et al. 2002). Because higher education levels can support the long-term availability of skilled workers in a community, migration can in that way contribute to the availability of skilled workers in a community (Ratha et al. 2010; Adger et al. 2002)	- alleviates risk variable	No impact expected.	/	-				
		(Low) General Access to Assets/ Livelihood Opportunities	A high level of access to assets and livelihood opportunities is a sign of resilience, as it enables people to replace assets and livelihood strategies better when these are harmed by disasters (DFID 1999).	+ increases disaster risk	Financial remittances have been found to be an important investment capital, which is in many cases to a large share used for education expenses (Ratha et al. 2010; Adger et al. 2002). Because higher education levels can support the community's people's access to assets and livelihood opportunities, migration can in that way contribute to the general access to assets and livelihoods in the community (Kellenberg & Mobarak 2011; Krause 2016).	- alleviates risk variable	No impact expected.	/	-				
20	Financial Remittance Usage for Natural Assets	(Low) Access to Natural Resources	A high level of access to natural assets helps to lower the susceptibility of communities (DFID 1999).	+ increases disaster risk	Households which use financial remittances available to enhance access to natural resources, can decrease their susceptibility by doing so (Banerjee et al. 2016).	- alleviates risk variable	No impact expected.	/	-	-	Subtheme of Translocality of Livelihood Asset Portfolios (Impact no. 31)		
21	Financial Remittance Usage for Safe(r) Housing	(Unsafe) Housing Conditions	Safe housing conditions indicate lower physical susceptibility (Krause 2016; DFID 1999).	+ increases disaster risk	Households which use financial remittances available to enhance their houses, can decrease their susceptibility by doing so (Mohapatra et al. 2009).	- alleviates risk variable	No impact expected.	/	-	-			
22	Financial Remittance Usage for Financial Insurance	(Low) Income Security	Financial insurances can help people to cope and therefore increases their resilience (Kellenberg & Mobarak 2011; Krause 2016).	+ increases disaster risk	Households which use financial remittances and use these to build savings have these available for coping (De Haas 2006).	- alleviates risk variable	No impact expected.	/	-	-			
23	Financial Remittance Usage for Savings	(Low) Income Security	Savings can help people to cope and therefore increases their resilience (Sudmeier et al. 2013).	+ increases disaster risk	Households which use financial remittances to purchase financial insurances have these available for coping (De Haas 2006)	- alleviates risk variable	No impact expected.	/	-	-			
24	Financial Remittance Usage for Unsustainable/ Sustainable Change of Consumption Patterns	(High) Resource Pressure > Environmental Degradation	Unsustainable consumption patterns can lead to environmental degradation, which increases the frequency and magnitude of hazards (Adger et al. 2002; IOM 2014).	+ increases disaster risk	Households which use financial remittances available to make changes in consumption patterns, can alter them towards both directions: more or less sustainable than the former (Adger et al. 2002).	+/- unclear	No impact expected.	/	+/- unclear	+/- unclear			
		(High Degree of) Environmental Degradation >> (Low) Access to Natural Resources	A high level of access to natural assets helps to lower the susceptibility of communities (DFID 1999).	+ increases disaster risk	Households which use financial remittances available to make changes in consumption patterns, can alter them towards a more or less consumption pattern than the former (Adger et al. 2002). In case the impact increases the environmental degradation in the area, this can also decrease the people's access to natural resources (IOM 2014; DFID 1999).	+/- unclear	No impact expected.	/	+/- unclear	+/- unclear			
25	Unsustainable of Land Use Patterns > Environmental Degradation	Unsustainable land use patterns can lead to environmental degradation, which increases the frequency and magnitude of hazards (Adger et al. 2002; IOM 2014).	+ increases disaster risk	Households which use financial remittances available to make changes in their land use, can alter it towards a more or a less sustainable land use form than the former (Adger et al. 2002).	+/- unclear	No impact expected.	/	+/- unclear	+/- unclear	+/- unclear			

	Migration Impacts	Variable	Conceptual Validity							Overall Impact on Risk (all Risk Variables Related to This Migration Impact)	Overall Impact on specific Risk Variable	Conceptual/ Empirical Clarity: Is it clear if this migration impact intensifies/alleviates the risk variable(s) and how this impacts disaster risk overall?	Comment
			Risk Impact Hypotheses	Impact of Variable on Disaster Risk	Migration Impact Hypotheses				Overall Impact on specific Risk Variable				
					Emigration Area	Impact on Risk Variable (in Emigration Area)	Immigration Area (incl. Migrants)	Impact on Risk Variable (in Immigration Area)					
	Financial Remittances Usage for More/Less Sustainable Land Use Change	(High Degree of) Environmental Degradation >> (Low) Access to Natural Resources	A high level of access to natural assets helps to lower the susceptibility of communities (DFID 1999).	+ increases disaster risk	Households which use financial remittances available to make changes in their land use, can alter it towards a more or a less sustainable land use form than the former (Adger et al. 2002). In case the impact increases the environmental degradation in the area, this can also decrease peoples' access to natural resources (IOM 2014; DFID 1999).	+/- unclear	No impact expected.	/	+/- unclear				
26	Financial Remittances Usage for Hiring of (Skilled) Labor	(Low) Supply of Labor > (Low) Capacity to Self-/ Reorganize & Economic Productivity	A community with a high supply of work force and thus high productive capacity can better reorganize after a disaster and is thus more resilient (Birkmann et al. 2013a; Kellenberg & Mobarak 2011).	+ increases disaster risk	Households which use financial remittances available to hire (skilled) labor might compensate for the loss of work force due to emigration (Deshingkar & Grimm 2005) and might therefore also alleviate emigration impacts on related variables such as e.g. economic productivity.	- alleviates risk variable	No impact expected.	/	-				
		(Low) Availability of Skilled Labor > (Low) Institutional/ Community Functionality	A high availability of skilled labor contributes to the resilience of a community, as it increases its capacity to cope with and to recover from hazards (e.g. by increasing the institutional capacity concerning health care services) (IDEA 2005; Krause 2016).	+ increases disaster risk	Households which use financial remittances available to hire (skilled) labor might compensate for the loss of (skilled) work force due to emigration (Deshingkar & Grimm 2005) and might therefore also alleviate emigration impacts on related variables such as e.g. erosion of innovative capacity etc.	- alleviates risk variable	No impact expected.	/	-				
<b>Socio-Cultural Processes</b>													
27	Sustainment of Social Contacts During Migration Processes	(Few) Translocal Social Contacts	Translocal contacts can help people to cope and thus increase their resilience (Gänsbauer et al. 2017; Scheffran et al. 2012; Rockenbauch & Sakdapolrak 2017; Sakdapolrak 2014; Sakdapolrak et al. 2015).	+ increases disaster risk	By the means of migration, social networks are expanded and spread across locales, building so-called translocal networks (Scheffran et al. 2012; Sakdapolrak 2014, Sakdapolrak et al. 2016).				- alleviates risk variable	-	The conceptual link is clear: The better contacts are sustained during migration processes and over distances, the larger the translocal networks, that people can draw on when coping with hazards, become.		
28	Separation of Families Due to Translocal Livelihood Strategies	(Low) Mental Health Status	A low mental health status can be an attribute of susceptibility (Birkmann et al. 2013a).	+ increases disaster risk	Migration spatially separates families, which can have an impact on the mental health status of all actors (Julca 2011; Virupaksha et al. 2014; IOM 2017b; Ratha et al. 2010).				+ intensifies risk variable	+	Even though the general, theoretical link is clear, the mental health implications of a migration process probably are very individual.	Besides families also other local social networks at the community of origin, which are separated by migration processes, can have the same impact.	
29	Migration-Based Socio-Cultural Exchange Impact on Gender Equity	(Low) Gender Equity > (Low) Social Cohesion, (High Degree of) Marginalization & Discrimination of Social Groups	Higher gender equity decreases the vulnerability of women in a community (Krause 2016; UNISDR et al. 2009).	+ increases disaster risk	Migration fosters socio-cultural exchange which can lead to an increase or decrease of gender equity (Ratha et al. 2010; Adger et al. 2002; Lucas 2005; Levitt 2001; UNDP 2009). This impacts the marginalization/discrimination of mostly women in a community.				+/- unclear	+/- unclear	The impact and specific processes of migration-based socio-cultural exchange as such are not very clear in the literature. If it is possible to measure the specific impact of migration-based socio-cultural exchange on gender equity, this could be clearly interpreted as increasing (decrease of gender equity) or decreasing (increase of gender equity) disaster risk through marginalization and constrained access to assets.		
		(Low) General Access to Assets/ Livelihood Opportunities	A high level of access to assets and livelihood opportunities is a sign of resilience, as it enables people to replace assets and livelihood strategies better when these are harmed by disasters (DFID 1999).	+ increases disaster risk	Migration fosters socio-cultural exchange which can lead to an increase or decrease of gender equity (Ratha et al. 2010; Adger et al. 2002; Lucas 2005; Levitt 2001; UNDP 2009). This impacts the access of mostly women to assets and livelihood opportunities.				+/- unclear				



	Migration Impacts	Variable	Conceptual Validity							Overall Impact on Risk (all Risk Variables Related to This Migration Impact)	Overall Impact on specific Risk Variable	Overall Impact on Risk (all Risk Variables Related to This Migration Impact)	Conceptual/ Empirical Clarity: Is it clear if this migration impact intensifies/alleviates the risk variable(s) and how this impacts disaster risk overall?	Comment
			Risk Impact Hypotheses	Impact of Variable on Disaster Risk	Migration Impact Hypotheses				Overall Impact on specific Risk Variable					
					Emigration Area	Impact on Risk Variable (in Emigration Area)	Immigration Area (incl. Migrants)	Impact on Risk Variable (in Immigration Area)						
30	Migration-Based Socio-Cultural Exchange Impact on Xenophobia	(High Prevalence of) Xenophobia > (Low) Social Cohesion, (High Degree of) Marginalization & Discrimination of Social Groups	Less xenophobia decreases the vulnerability and marginalization of migrants in a community (Guadagno et al. 2017), which tends to make these groups particularly vulnerable.	+ increases disaster risk	Migration fosters socio-cultural exchange which can lead to an increase or decrease of xenophobia (Ratha et al. 2010; Adger et al. 2002; Lucas 2005; Levitt 2001; UNDP 2009).				+/- unclear	+/- unclear	The impact and specific processes of migration-based socio-cultural exchange as such is not very clear. If it is possible to measure the specific impact of migration-based socio-cultural exchange on xenophobia, this could be clearly interpreted as increasing (increase of xenophobia) or decreasing (decrease of xenophobia) disaster risk through marginalization and constrained access to assets, information and local contacts.			
		(Low) General Access to Assets/ Livelihood Opportunities	A high level of access to assets and livelihood opportunities is a sign of resilience, as it enables people to replace assets and livelihood strategies better when these are harmed by disasters (DFID 1999).	+ increases disaster risk	Migration fosters socio-cultural exchange which can lead to an increase or decrease of xenophobia (Ratha et al. 2010; Adger et al. 2002; Lucas 2005; Levitt 2001; UNDP 2009). This impacts the access of e.g. ethnic minorities to assets and livelihood opportunities.				+/- unclear					
		(Few) Local Social Contacts >> (Low) Institutional Information	Lower institutional information makes individuals more vulnerable as it reduces their capacity to cope with hazards by using institutional disaster risk assistance (Wisner et al. 2004).	+ increases disaster risk	Migration fosters socio-cultural exchange which can lead to an increase or decrease of xenophobia (Ratha et al. 2010; Adger et al. 2002; Lucas 2005; Levitt 2001; UNDP 2009). This impacts the access of e.g. ethnic minorities to local social contacts which can be essential for the reception of institutional information (Wisner et al. 2004; Beesey et al. 2016).				+/- unclear					
	Diversity of Livelihood Assets and Strategies/ Agency													
31	Implementation of Translocal Livelihood Strategies & Translocality of Livelihood Asset Portfolios	(Low) Diversity of Resources/ Livelihood Opportunities	Translocal livelihood strategies and asset portfolios diversify risks and opportunities related to livelihood generation over two or more locales, which increases the resilience of these, as hazards are less likely to destroy whole livelihoods when these are diversified over risk contexts (De Haas 2008; Guadagno 2017; Sakdapolrak 2014).	+ increases disaster risk	Migration leads to translocally diversified livelihood strategies and asset portfolios (Guadagno 2017).				- alleviate s risk variable	-	The conceptual link between migration leading to more translocally diversified livelihood strategies and asset portfolios and these leading to more resilience is clear.			
32	Ability to Migrate	(Low) General Access to Assets/ Livelihood Opportunities	Being able to migrate can mean being able cope with or anticipate local risks, making it an important attribute of resilience (Guadagno 2017).	+ increases disaster risk	The option to migrate includes the possibility to reduce exposure to localized hazards, but also to reduce vulnerability/ increase resilience by overcoming socio-cultural patterns that make an individual vulnerable or by accessing new/diversifying livelihood assets and strategies (Guadagno 2017).				- alleviate s risk variable	-	The conceptual link is clear, rendering the ability to migrate an important sign of resilience.			
33	Obligation to Support Household Members Living at a Different Place (Both Ways: Send Financial Remittances/ Support Migrants in Initial State)	(Low) Income Security	The obligation to support household members who cannot sustain their livelihoods self-reliantly, increases the pressure on the livelihood strategy of a household, making it more vulnerable (Hammond 2010).	+ increases disaster risk	In the initial phase of a migration process, households of origin often have to support their migrating members (Guadagno 2017).	+ intensifies risk variable	Migrants often face the obligation to send back financial remittances, supporting their households of origin (Hammond 2010).	+ intensifies risk variable	+	+	The conceptual link is clear, as migration possibly has an impact on dependency patterns within households, which have an impact on the vulnerability of its members.			
	Knowledge/Experience Transfer													
34	Migration-Based Knowledge and Experience Transfer Impact on Knowledge and Skills	(Low) Education/ Skills	A higher level of skills and knowledge indicates higher resilience, as it unlocks new livelihoods and thus livelihood assets (Kellenberg & Mobarak 2011; Krause 2016).	+ increases disaster risk	Migration initiates knowledge and experience transfer, which can increase the knowledge and skills of all stakeholders in the transfer process (De Moor 2011; IOM 2014; Deshingkar & Grimm 2005; Barnett & Webber 2010).				- alleviate s risk variable	-	As long as a migration-based knowledge and experience transfer increases knowledge and skills, it contributes to an increase of resilience.			
		(Low) General Access to Assets/ Livelihood Opportunities	A high level of access to assets and livelihood opportunities is a sign of resilience, as it enables people to replace assets and livelihood strategies better when these are harmed by disasters (DFID 1999).	+ increases disaster risk	Migration initiates knowledge and experience transfer, which can increase the knowledge and skills of all stakeholders in the transfer process (De Moor 2011; IOM 2014; Deshingkar & Grimm 2005; Barnett & Webber 2010), which might in a secondary effect increase these people's access to assets and livelihoods (Kellenberg & Mobarak 2011; Krause 2016).				- alleviate s risk variable					

	Migration Impacts	Variable	Conceptual Validity						Overall Impact on Risk (all Risk Variables Related to This Migration Impact)	Overall Impact on specific Risk Variable	Overall Impact on Risk (all Risk Variables Related to This Migration Impact)	Conceptual/ Empirical Clarity: Is it clear if this migration impact intensifies/alleviates the risk variable(s) and how this impacts disaster risk overall?	Comment
			Risk Impact Hypotheses	Impact of Variable on Disaster Risk	Migration Impact Hypotheses								
					Emigration Area	Impact on Risk Variable (in Emigration Area)	Immigration Area (incl. Migrants)	Impact on Risk Variable (in Immigration Area)					
		(Low) Availability of Skilled Labor	A high availability of skilled labor contributes to the resilience of a community, as it increases its capacity to cope with & recover from hazards (e.g. by increasing the institutional capacity concerning health care services) (IDEA 2005, Krause 2016)	+ increases disaster risk	Migration initiates knowledge and experience transfer, which can increase the knowledge and skills of all stakeholders in the transfer process (De Moor 2011; IOM 2014; Deshingkar & Grimm 2005; Barnett & Webber 2010), which might in a secondary effect increase the community's availability of skilled workers (Ratha et al. 2010; Adger et al. 2002).				- alleviate s risk variable				
		(Low) Innovative Potential	Innovation is a sign for resilience as it helps people to enhance livelihoods in risk-reducing ways and/or to reorganize after a hazardous event (Folke 2006).	+ increases disaster risk	Migration initiates knowledge and experience transfer, which can increase the knowledge and skills of all stakeholders in the transfer process (De Moor 2011; IOM 2014; Deshingkar & Grimm 2005; Barnett & Webber 2010), which might in a secondary effect increase the community's innovative potential (Banerjee et al. 2016; De Moor 2011; De Haas 2006).				- alleviate s risk variable				
35	Migration-Based Knowledge and Experience Transfer as Potential Source of Ideas/ Innovation	(Low) Innovative Potential	Innovation is a sign for resilience as it helps people to enhance livelihoods in risk-reducing ways and/or to reorganize after a hazardous event (Folke 2006).	+ increases disaster risk	Migration initiates knowledge and experience transfer, which can contribute to innovations and fresh ideas, both in the emigration and the immigration area (Banerjee et al. 2016; Ratha et al. 2010; De Moor 2011; De Haas 2006; Marchiori et al. 2013).				- alleviate s risk variable	-		Actually, the link between migration-based knowledge and experience transfer and innovations seems to be clear and its impact on resilience can be interpreted, however innovations remain a very broad and fuzzy concept and do not always imply an increase of resilience (see impact no. 36). It therefore is necessary to differentiate further into what kind of innovations are influenced, and what their individual impact on disaster risk is.	
36	Migration-Based Knowledge and Experience Transfer Impact on Unsustainable/ Sustainable Land Use Change	Unsustainable Land Use Patterns > Environmental Degradation	Unsustainable land use patterns can lead to environmental degradation, which increases the frequency and magnitude of hazards (Adger et al. 2002; IOM 2014).	+ increases disaster risk	Migration initiates knowledge and experience transfer, which can contribute to a change in land use, which can be both more or less sustainable than the former (Adger et al. 2002).				+/- unclear	+/- unclear		The impact of migration-based knowledge and experience transfer on the sustainability of land use patterns can go either way. It would therefore be necessary to know which kind of land use change goes back to which knowledge/experience transfer and to evaluate this land use change's impact on environmental degradation and peoples' access to natural resources.	Can also be seen as a subcategory of impact no. 35.
		(High Degree of) Environmental Degradation >> (Low) Access to Natural Resources	A high level of access to natural assets helps to lower the susceptibility of communities (DFID 1999).	+ increases disaster risk	Migration initiates knowledge and experience transfer, which can contribute to a change in land use, which can be both more or less sustainable than the former (Adger et al. 2002). In case that the impact increases the environmental degradation in the area, this can also decrease peoples' access to natural resources (IOM 2014; DFID 1999).				+/- unclear				