

MOVING OUT OF POVERTY: Migration Insights from Rural Afghanistan

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Abstract

Using household-level data collected during 2003 in rural Afghanistan, this paper presents a first quantitative look into the role of migration as a poverty reduction strategy for rural households. With widespread poverty in rural Afghanistan and scarce income generating opportunities, migration is a key risk management and income diversification instrument for rural households. The analysis suggests a number of insights: (i) migration is used less as an ex-post response to risks and shocks and more as a vital part of households' limited ex-ante risk management strategies; (ii) there is a strong correlation between poverty and migration destination, with less poor households more likely to migrate abroad while poorer households are more likely to migrate internally to rural or urban areas; (iii) simulations indicate that economic growth via strengthening of the local context in terms of employment generation will have a large influence on migration patterns. While such findings suggest that as rural growth expands migration is likely to become less important for households' income strategies, in the medium term, policies could also focus on how to facilitate the flow of remittances and promote their productive use locally as a strategy of enhancing rural growth and poverty reduction.

Key words: Migration, income diversification, poverty, South Asia, Afghanistan.

1. Introduction

Migration is one of many strategies households utilize to manage risk and uncertainty. For example, households can send a member to migrate as part of a diversified (ex-ante) income portfolio strategy. Migration can also be an ex-post coping response to a particular shock (e.g. drought). Indeed, more than 175 million people – roughly three percent of the world population – are estimated to live and work outside the country of their birth alone.¹ Similarly, internal permanent or seasonal migration is common practice in many countries, contributing to more than 40 percent of urban population growth, with individuals migrating to rural and urban localities for part or all of the year in search of income opportunities.²

In the case of Afghanistan, migration has always been a key strategy to help Afghan families manage risk. As a result of civil war, conflicts and security concerns, Afghans have had to move internally and externally to stay safe and search for employment opportunities. As such, Afghanistan has had a population in movement for most of the last few decades.

With the overall security situation improved, the prospects for economic development towards a peaceful, politically stable and economically strong Afghanistan are significantly better. Over the last two years, the Afghan economy expanded by 50 percent and is expected to keep growing at two-digit rates in the near-term future.³ Still, the country is and will be in transition as the various conflicts have seriously affected the capacity of the economy to absorb labor. In this context, lack of income opportunities, seasonal unemployment and low wages have replaced security as the main reason for migration.

Recent household data from rural Afghanistan reveal that almost 1 in 5 rural households have a member who has migrated over the previous year (2004) in search of income opportunities.⁴ This includes both internal migration as well as cross-border migration into neighboring Iran and Pakistan, and more distant locations in the Gulf region, Europe, and North America. This pattern is true irrespective of welfare status, suggesting that migration is a key income strategy and part of a limited set of income and risk management strategies available to rural households. Such a large incidence of widespread migration among rural households suggests that a better understanding of the migration process and its relation to poverty reduction needs to be further explored. Still, this is a very little studied issue in Afghanistan due to the extreme data gaps and limitations that exist.

This paper aims to fill some of these analytical gaps by using recent household data from rural Afghanistan collected in the summer of 2003. The principal objectives of the paper are to: (i) expand the understanding and knowledge of rural migration patterns in Afghanistan and its importance for rural livelihoods and income diversification; and (ii) explore the role of migration as an ex-ante and ex-post risk management strategy. Given the nature of the data and the lack of previous quantitative information on migration in Afghanistan, the paper does not aim to provide normative insights and policy recommendations but rather provide empirical insights that could enhance the policy dialogue with quantitative information about

¹ United Nations.

² United Nations.

³ World Bank (2004a and 2004b).

⁴ World Bank (2004b).

migration and the potential direction of policy interventions related to migration, risk management and rural poverty reduction.

The next section discusses the data sources as well as the typology used to define migrant households for the analysis. Section three presents a profile of migrant households, while section four analyses the migration decision process. Section five concludes with a brief discussion of how these data might affect future policy and programming.

2. Data and Migration Typology

Data

Although qualitative literature on migration trends in Afghanistan exists, quantitative data on migration patterns have not been available until recently. The National Risk and Vulnerability Assessment (NRVA) data, collected in the summer of 2003, includes a variety of community and household related information from 11,227 rural households across all but a few districts in Afghanistan. In fact, the NRVA is the first household-level dataset from Afghanistan that measures consumption expenditures and poverty and explores various issues related to the many dimensions of rural poverty and welfare. The data also include information that can be used to identify households with both internal and external migrants and as such, it can provide a number of useful insights in terms of migration and risk management.⁵

Migration typology using the NRVA

In order to understand migration patterns, a number of definitions are used to define how a household relates with migration. While various choices exist, this paper uses the household as the unit of analysis as opposed to individuals, with the underlying assumption being that migration (as an income strategy) is mainly a household strategy in Afghanistan (see Box 1).

Box 1: The Afghan migration decision process: family matters

The decision to migrate in Afghanistan must be seen in the family context. An Afghan family usually consists of the parents, their unmarried daughters and their sons with their wives and children. In general, the decision to migrate is a collective one between various family members, for the most part the father and brothers.¹ The decision is typically related to the migrant's status within the family. Traditionally, the first-born son works on the family's land, while the second works in the non-farm sector. As such, younger men tend to be the ones that are more likely to migrate. If the migrant is married, he usually has to make provisions so one of his brothers can take care of his family while he is away, as migrant workers usually do not take their family along. The initial costs of migration are usually shared with the family. While personal savings or the proceeds from asset sales like land and livestock are used, borrowing within the family helps to mobilize funds for the migration through extended family or community lending and support. This also explains the fact that many migrants tend to go in places with existing family networks, which can facilitate the job search process but also serve as informal risk management instruments. It is therefore not surprising that remittances are also shared with the whole household and in fact are an important source of income. In this sense, migration is a crucial risk management strategy for the family as a whole.

¹ See Stigter (2004b).

⁵ Absence of census population estimates and a sampling frame prevented the NRVA from being designed in a way that it can be used to calculate statistically representative estimates of rural Afghanistan. Still, despite the fact that statistics reported in the paper are not representative of rural Afghanistan per se, the data offer invaluable insights into the lives of rural Afghans for the first time in the post-Taliban era. A similar data effort is currently underway for urban areas, thereby providing a complementary level of understanding of urban livelihoods.

To facilitate the analysis, a distinction is made among migrant households based on the member's destination, the migration reason and how long ago it happened. These choices of migration definitions were also constrained by the existing information in the NRVA. For example, specific questions to identify refugee households, internally displaced households or seasonal migration were not included in the NRVA. Given the above, the paper focuses on the following household migration categories:

1. Migration based on timing
 - a. At least one member of the household living away for parts or all of last year
 - b. At least one member of the household living away for parts or all of the last 5 years
2. Migration based on destination
 - a. Internal: households whose migrant member went to other rural or urban parts of Afghanistan
 - b. External: households whose migrant member went outside of Afghanistan
3. Migration based on reason
 - a. Income: migration for income generation
 - b. Security: migration due to lack of security
 - c. Other: migration for reasons such as schooling, marriage, health

Based on the first category, the NRVA indicates that out of the 11,227 households in the survey, 2332 households had at least one member who migrated over the previous 12 months of the survey (Tables 1 and 2). In addition, 3317 households had a migrant member in the last 5 five years.

Table 1: Migration typology and sample sizes

Definitions	Last year	Last 5 years
1 - Household with any migrating member	2,332	3317
2- Regional migration last year		
Internal	591	1249
External	939	1471
Both	46	54
Unknown - Missing	756	597
Total	2,332	3317
3 - Reason for migration		
Income	1,540	1,494
Security	78	287
Other	228	155
Unknown - Missing	486	1,381
Total	2,332	3,317
Non-migrant households	8,895	7,910
Total NRVA sample	11,227	11,227

Source: NRVA 2003

It is important to note that the NRVA did not code a large number of households in terms of the destination and reason of migration (Table 2). Out of the 2332 households that had a migrant member, the NRVA did not code the subsequent

questions on destination and reason for a significant number of households (Table 1). Yet since this paper's objective is to better understand the socio-economic profile of migrant households as opposed to calculate migration incidences this is not as critical to the analysis. Nonetheless, the analysis' use of various migration definitions also serves as robustness checks to the findings. Finally, while the next section presents some general patterns of migration, for the most part, the paper focuses on migration for income generation and highlights the differences between internal and external migration.

Table 2: Migration typology and sample sizes (last year)

Migration, regional	Migration, by reason				Total
	Income	Security	Other	Unknown	
Internal	251	23	54	263	591
External	731	27	41	140	939
Both	37	1	7	1	46
Unknown - Missing	521	27	126	82	756
Total	1540	78	228	486	2332

3. A Profile of Rural Migrants

Over the course of the year prior to the NRVA survey, 22 percent of the rural households in the survey had at least one migrant member (Table 3). In addition, one in every three rural households in the survey had at least a migrant member in the last five years. The high level of migration reinforces the huge role that migration still plays in rural livelihoods.

Table 3: Migration incidences, Rural Afghanistan (%)

	Last year	Past 5 years
Any migration last year	22	32
Regional migration last year		
Internal	22	33
External	43	46
Both	2	2
Unknown	32	19
Total	100	100
Reason for migration		
Income	66	50
Security	3	9
Other	11	6
Unknown	20	38
Total	100	100

Source: NRVA 2003

There is also a concentration in terms of the regional origin of migrant households. Almost one-third of the migrant households in the NRVA survey originated from the southern region while other regions closer to either Pakistan or Iran also have higher incidences (Table 4). In fact, while rural households from the East are twice as likely to migrate internally, the reverse is true in the South. These trends are for the most part driving the large incidences of external migration overall.

Table 4: Income migration distribution by poverty and origin (%)

	Income migrants last year		
	Internal	External	All
Consumption Quintiles			
Q1 (lowest)	19	18	19
Q2	24	21	19
Q3	28	22	23
Q4	21	19	21
Q5 (highest)	8	21	18
Total	100	100	100
Region			
Central	15	15	15
East	25	11	17
North	8	6	9
Northeast	15	6	8
South	22	38	28
Southwest	7	8	7
West	7	14	14
West-central	2	2	2
Total	100	100	100

Source: NRVA 2003

In terms of destination, rural migrant households are twice as likely to send members abroad rather than internally (Table 3). Specifically, 43 percent migrated into neighboring Iran and Pakistan or more distant locations in the Gulf region, Europe, and North America (Table 3).⁶ This compares with only 22 percent of migrants who stayed within Afghanistan. As seen below, an important fact is the observation that poorer households are more likely to migrate internally while less poor households migrate externally (Table 4).

Migration, poverty reduction and risk management

Is migration an ex-ante income generation strategy to address poverty, risks and lack of local employment opportunities or an ex-post response to a specific shock (e.g. drought, loss of job)? This distinction is important as it implies different directions in terms of policy formulation.

The data suggest that migrant households are more likely to use migration as an ex-ante risk management strategy and not as an ex-post response to a shock. By far, the principal reason for migration is to search for income opportunities. Specifically, 66 percent of the migrant households reported having done so to look for employment due to insufficient income and employment opportunities at home (Table 3).⁷ Interestingly, this is also true for migration in the previous five years, which suggests that even at times of high insecurity, income generation played an important reason for migration (also see Box 2).

⁶ Note that this and subsequent figures are likely to be underestimated as there are some migrant households whose destination and reason for migrating were not coded.

⁷ Ibid.

By contrast, practically no household reported that migration was used as a response to cope with these shocks. Despite the fact that the incidence of shocks is high for both migrant and non-migrant households (Table 5) less than two percent of all the households in the survey have used migration over the last year to cope with shocks like drought or employment loss (Table 6). Instead, rural households used other mechanisms to address such shocks like decreasing overall expenses, depending on informal networks or selling assets.

Table 5: Shocks by Migration Definition, Afghanistan 2003

	Income migrants last year			Non-migrants
	Internal	External	All	
Incidence of covariate shocks (%)				
Drought	63	67	63	53
Farming shocks	52	57	54	44
Natural shocks	39	44	43	37
Epidemics	29	33	34	28
Food price increase	20	30	29	25
Farmgate price decrease	4	7	6	5
Violence	3	8	6	4
High influx of returnees	1	4	3	4
Incidence of Idiosyncratic shocks (%)				
Employment Shocks	23	18	17	9
Serious health shock of working member	16	14	14	12
Death in family	10	7	7	8
Violence	2	1	2	2

Source: NRVA 2003

Table 6: Impact, coping mechanisms and recovery from selected shocks, by income migration categories

	Drought			Employment shock				
	Income migrants last year			Non-migrants	Income migrants last year			Non-migrants
	Internal	External	All		Internal	External	All	
Main impact of shock (%)								
Decrease or loss of income or assets	98	95	93	94	99	97	96	97
None	2	5	7	6	1	3	4	3
Total	100	100	100	100	100	100	100	100
Coping mechanism (%)								
Decrease in food consumption	49	48	46	44	58	50	46	44
Decrease expenditures	28	22	24	25	18	30	24	22
Use informal networks	8	6	8	8	8	8	9	9
Formal borrowing	1	0	1	0	0	1	1	1
Asset dissavings	10	13	12	14	10	6	11	14
Migration	0.2	2	2	0	0.2	0.2	0.2	0
Other	1	2	2	3	6	2	5	6
None	4	7	7	7	0	3	4	3
Total	100	100	100	100	100	100	100	100
Recovered from idiosyncratic shock (%)								
Not at all	76	68	71	72	86	78	80	80
Partially	22	28	26	25	14	20	19	19
Completely	2	4	3	3	0	2	1	1
Total	100	100	100	100	100	100	100	100

Source: NRVA 2003

Such patterns do support the hypotheses that migration is less about responding to shocks ex-post per se, and more about enhancing the income diversification potential of rural households ex-ante. In this sense, migration is a response to the lack of local employment opportunities and as such, focusing on the local context and rural growth may be a more worthwhile policy direction to consider vis-à-vis poverty reduction.

Box 2: Push and pull factors for migration in rural Afghanistan

A number of qualitative studies suggest that in the post-Taliban era, continued poverty and lack of employment opportunities in Afghanistan are the main push factors for migration. Related to this, seasonal unemployment and low wages are also noted as additional push factors.¹ The recent five-year drought of the late nineties considerably aggravated the situation. Nonetheless, there are exceptions: during poppy harvest season, labor shortages are often reported and the wages can reach up to \$15 per day.

Perhaps not surprisingly, the major pull factors for Afghan migration are employment opportunities and wages in other rural and urban areas or abroad. The relatively high wage levels of Iran, Pakistan and the Gulf region are main attractors for Afghan migrant workers. In addition, cultural, religious, linguistic, and ethnical affinity seems to play an important role in an Afghan migrant's choice about where to migrate. For example, Afghan Shi'a prefer to migrate to Iran while Sunnis prefer the Gulf region as their destination.² In addition, family ties are also important. Social networks—the extended family and community network—play a crucial role in Afghan society and as such can also play a decisive factor in the selection of a location of where to migrates.

¹ Stigter (2004a) and Stigter (2004b).

² Monsutti (2004).

Nonetheless, migration is not an income strategy just for poorer households. Indeed, the distribution of migrant households across consumption quintiles remains fairly constant (Table 4).⁸ Nonetheless, distinguishing between internal and external migration, poorer households are more likely to migrate internally while less poor households are more likely to migrate externally. The next section explores these patterns further.

Finally, one interesting finding is that security during the reference period of the survey did not seem to be the most important reason for migration among the households in the NRVA. Even when considering the reasons for migrating among households who had a migrant member during the past five years (that would cover parts of the Taliban period as well as the military intervention of 2001), only nine percent migrated for security reasons (Table 3). The incidence is even lower for the previous year, with only three percent reporting security as the main reason for migration.⁹ One potential explanation is that as security and stability in Afghanistan has improved in the past few years, income generation is the main motivation for migration.

A profile of migrant households

Focusing on households with members that migrate for income generation reveals a number of interesting correlations and patterns. First, households that have migrants abroad are less likely to be poor than those who have migrants internally or non-migrant households. For example, households with external migrants have the lowest poverty rates (46 percent), compared to the average 49 percent for rural

⁸ Consumption expenditure quintiles are used to distinguish between poor and less poor households.

⁹ In fact, despite the higher incidence of external migration as discussed below, qualitative evidence also suggests that during the last couple of years, migration to Afghanistan's neighbouring countries has decreased in favour of internal migration, which could also be explained as a result of the increased local employment opportunities and improved security.

Afghanistan and 53 percent among internal migrants (Table 7). This is also reflected in the level of the annual expenditures of food consumption per capita.

Table 7: Socioeconomic Characteristics, by type of migration

	Income migrants last year			Non-migrants
	Internal	External	All	
Poverty rate (%)	53	46	47	49
Annual food consumption per capita (Af.)	4669	5488	5317	5408
Household size (average #)	8	8	8	7
Number of children <6	1	1	1	1
Number of children 7-16	3	3	3	3
Number of adults 17-60	4	4	4	3
Number of seniors >60	0.3	0.4	0.4	0.3
Number of men in household	4	4	4	4
Number of women in household	4	4	4	3
Household head illiteracy rate (%)	79	65	67	75
Household head age	46	46	46	44
Female headed households (%)	7	3	5	9

Source: NRVA 2003

Similarly, other socioeconomic characteristics of migrants and non-migrants suggest the same pattern such as human capital and asset characteristics. For example, almost 80 percent of internal migrant households have illiterate household heads compared with 75 percent of non-migrant households and only 64 percent among external migrant households (Table 7). Similar patterns emerge with regards to land and house ownership or other assets like livestock (Table 8) as well as access to basic services like electricity or drinking water (Table 9).

Table 8: Assets, by type of migration

	Income migrants last year			Non- migrants
	Internal	External	All	
Own house (%)	87	90	89	84
Irrigated land size owned (<i>jeribs</i>)	4	5	4	5
Rain-fed land size owned (<i>jeribs</i>)	18	11	11	8
Landless (%)	27	20	21	24
Number of cows owned	0.7	0.7	0.7	0.8

Source: NRVA 2003

Table 9: Access to services, by type of migration (%)

	Income migrants last year			Non-migrants
	Internal	External	All	
Access to electricity	17	26	24	17
No sanitation facilities	38	26	26	26
Drink water from an open source	44	43	44	42
Access to services at the community:				
Adequate drinking water	91	93	90	88
Permanent food market	3	4	3	5
Public transportation	38	37	34	33
Primary school	43	45	44	47
Secondary school	13	11	12	12
Health facility	6	7	6	10

Source: NRVA 2003

Reflecting these trends, external migrant households are more likely to have perceived improvements in their overall welfare. In particular, 37 percent of external migrants reported that they were better off compared to 12 months earlier (Table 10). This compares to only 25 percent among internal migrants. The exact reverse patterns are true in terms of the situation getting worse. In addition, while half of the households with external migrants never had problems meeting food needs over the previous year, almost half of the internal migrant households reported not being able to meet these needs often or always. Interestingly, external migrant households were more likely to have perceived improvements even compared to non-migrant households.

Table 10: Welfare perceptions, by type of migration (%)

	Income migrants last year			Non- migrants
	Internal	External	All	
Household situation compared to last year				
Better	25	37	36	40
Same	37	39	39	35
Worse	38	24	25	25
Total	100	100	100	100
Average (worse=-1, same=0, better=1)	-0.12	0.12	0.10	0.14
Had problems satisfy food needs last year				
Never/seldom	28	43	37	38
Sometimes	26	33	33	32
Often/always	46	24	30	30
Total	100	100	100	100
Average (worse=-1, same=0, better=1)	-0.17	0.18	0.06	-0.03

Source: NRVA 2003

Finally, in terms of employment portfolios, internal migrant households are more likely to engage in lower paying jobs compared to external migrant ones. For example, while 60 percent of rural household employment comes from agriculture, internal migrant households are more likely to work as agricultural labourers as opposed to farmers, compared to external migrant households (Table 11).

Table 11: Employment structure, by type of migration (%)

	Income migrants last year			Non- migrants
	Internal	External	All	
Household head occupation				
Non-agriculture wage	37	39	34	34
Non-agriculture self employed	9	8	8	10
Agriculture wage	25	17	20	20
Agriculture self employed	29	37	38	36
Total	100	100	100	100
Diversification: household employment distribution				
Non-agriculture wage	36	37	36	32
Non- agriculture self employed	7	8	8	10
Agriculture wage	24	18	21	21
Agriculture self employed	33	38	35	38
Total	100	100	100	100
Produces poppy	3	5	5	5
Lives in municipality where poppy is produced	6	7	8	10

Source: NRVA 2003

In addition, while information on poppy production is limited, the NRVA suggests that migrant households are less likely to be residing in a municipality where poppy is produced. Furthermore, external migrant households are twice as likely to produce poppy compared to internal migrant households. While these estimates are not representative of more recent poppy trends, they do highlight the potential importance of access to income opportunities on migration patterns.

Remittances

No reliable estimates are available about the magnitude of remittance flows into Afghanistan. Even if the data situation improved in the near-term future it is questionable if official remittances will adequately represent the real scope of remittances, as a great part of remittances seem to flow through the paperless, but highly effective, *hawala* system (Box 3). As such, household survey data like the NRVA might give more accurate information.

According to the NRVA data, rural Afghan households with migrants received on average \$165 in remittances in 2003 (Table 12). With an average rural household size of 7, this corresponds to about \$24 per capita per year. Using Afghanistan's estimated GDP per capita of about \$310 (including opium) per year during 2003 suggests that remittances represent about eight percent of migrant households' income.¹⁰ Interestingly, while the poorest households in the NRVA sample had average remittances of \$26 per year, remittances averaged more than \$265 among the less poor households. This suggests that while the migration incidences are similar between poor and less poor migrant households, the remittance differences are capturing the vast heterogeneity of strategies vis-à-vis migration as well as jobs that may be available to migrants.

¹⁰ The World Bank (2004a).

Table 12: Average remittances by wealth groups (2002-2003)

	Better off	Poor	Poorest	All rural
Remittances per household (\$)	265	111	26	165
Remittances per capita (\$)	38	16	4	24

Source: NRVA 2003

Finally, while the NRVA does not include information about the use of remittances per se, qualitative data do indicate that remittances are mainly used for basic needs like food, clothing and medication as opposed to productivity enhancing investments (Box 3). This is not surprising in the context of rural Afghanistan and the earlier findings that migration serves as a consumption smoothing mechanism, that is, households use migration to sustain and complement their level of well being.

Box 3: Remittances and external migration: insights from the Kabul bus stand

A recent set of interviews that took place at a bus station in Kabul asked travelers going to Iran and Pakistan various questions related to external migration and remittances.¹ A number of interesting qualitative insights emerge. First, the majority of the migrants indicated that the savings from working abroad are intended for the family. In fact, only one out of the 137 participants intended to use the money for himself. Second, remittances are typically used to buy food, clothes, and medicines. Another common use for remittances is for the mahr, the money that is paid to the bride's father at the day of the wedding. Interestingly, very few individuals intended to spend their savings on other productive activities, such as a business, buying land or livestock.

In order to send money back home, Afghan migrant workers use the informal hawala system. This elaborate system based on the tight family and tribal networks of Afghan society. Migrant workers give the money or the goods they want to remit to an Afghan trader or businessman. The businessman then arranges that the migrant worker's family receives the equivalent amount less a small fee from someone in the community. In other cases the businessman invests the money he collects in short term import/export contracts, making sure that the migrant's family receives the money either from him or one of his business partners in time.² The highly effective hawala system therefore acts as a substitute for the lack of financial institutions in the country and is an effective way to avoid the Islamic prohibition of interest rates. Given the nature of the hawala system - based on tight social networks and mutual trust - it reinforces the prominent role of the larger family and village and tribal community networks in Afghan daily life.

¹ Stigter (2004b).

² Monsutti (2004).

To summarize, the patterns in this section suggest a number of hypotheses: (i) migration in itself is likely to be related to lack of local employment opportunities as opposed to an ex-post response to shocks and as such, they are part of a well defined ex-ante risk management strategy; (ii) households that send members abroad are wealthier and are therefore more likely to be able to afford the monetary costs related with sending a member abroad; and (iii) internal migration is an income strategy of last resort in the form of potentially temporary or seasonal employment and is a response to a complete absence of local alternatives. The next section explores these issues further.

4. A Reduced Form Model of Migration Decisions

A simple household migration decision model can be thought of as the decision by which a household compares the benefits and costs of migration to those of non-migration. For example, the household will take into account the employment opportunities at both the current residence as well as the migration destination, the

potential income earned by the migrant and related travel costs. In this simple framework, a household will choose to send a migrant if the net benefit of migration is greater than that of staying. This section uses a reduced form model of migration by using a multivariate probit to explore the correlates of the decision to migrate as well as whether to go abroad or internally. These estimations are discussed below.

The decision to migrate revisited

The regression analysis exploring the decision to migrate reveals a number of insights. First, households with more adults or children of working age are more likely to migrate (Table 13), indicating the importance of household demographics and the fact that the opportunity cost of migration decreases with household size. Second, wealthier households are more likely to migrate. This is true in terms of the consumption level and various asset ownership and it captures the fact that as the cost of migration is considerable, wealthier households will be more likely to afford to send a member away (especially abroad). In addition, the probability to migrate among households whose household head is literate is significantly higher than those with illiterate heads, indicating the importance of human capital.

Table 13: Migration decisions: the probability to migrate for income generation

	Migrants (vs non-migrants)		External (vs Internal)	
	Marginal Effect	p-value	Marginal Effect	p-value
Household characteristic				
Number of children (7-16)	5.4	[0.02]	0.7	[0.94]
Number of adults (>60)	33.1	[0.00]	44.2	[0.00]
Female household head (yes=1)	-1.7	[0.90]	-61.5	[0.32]
Household head age (years)	0.1	[0.74]	-2.9	[0.03]
Household head literate (yes=1)	18.7	[0.01]	43.3	[0.13]
Annual food consumption (Af.)	0.0	[0.00]	0.0	[0.00]
Own house (yes=1)	37.0	[0.00]	-10.0	[0.80]
Owens land (yes=1)	4.4	[0.59]	53.2	[0.11]
Access to services				
Electricity (yes=1)	26.6	[0.00]	13.9	[0.68]
Water (no=1)	23.2	[0.00]	67.4	[0.01]
Affect by shocks (yes=1)				
Drought	26.1	[0.00]	-3.1	[0.91]
Other farm shocks	10.4	[0.15]	45.6	[0.12]
Employment loss	92.6	[0.00]	26.6	[0.44]
Major illness of working member	17.0	[0.10]	23.7	[0.51]
Community and regional characteristics				
Community population (#)	0.0	[0.03]	-0.1	[0.19]
Poppy produced in district (yes=1)	-21.1	[0.02]	16.5	[0.70]
Agro-ecological zone where household resides				
Both irrigated and rainfed	-9.2	[0.22]	-2.2	[0.94]
Rainfed only	6.3	[0.64]	-83.4	[0.23]
Grazing only	-38.9	[0.03]	28.7	[0.70]
Facilities and services in community (yes=1)				
Market	-40.3	[0.01]	33.3	[0.66]
Drinking water supply	9.0	[0.39]	20.3	[0.68]
Pubic transportation	-12.6	[0.09]	14.9	[0.64]
Primary school	2.6	[0.73]	47.6	[0.10]
Secondary school	-4.8	[0.67]	-56.1	[0.23]
Health facility	-32.0	[0.01]	36.3	[0.50]

Region				
East	34.2	[0.01]	-183.6	[0.00]
North	-78.8	[0.00]	-9.9	[0.89]
North-east	-47.2	[0.00]	-190.1	[0.01]
South	51.5	[0.00]	64.4	[0.10]
South-western	-47.2	[0.00]	36.8	[0.51]
West	50.4	[0.00]	118.9	[0.01]
West-central	-38.1	[0.05]	92.7	[0.27]
Observations	11227		1019	
Log likelihood	-4699		-517	
Fit (adjusted correct predictions count)	0.86		0.75	

Notes: (1) Dependent variables: Household with at least one migrant; (2) Comparison agro-ecological zone is “irrigated”; (3) Comparison region is Central; (5) Coefficients are multiplied by 1000.

Consistent with the self-reported responses on shocks, the regression analysis suggests that households that experienced shocks are more likely to have migrant members (Table 13). For example, households that experienced a job loss are 9 percent more likely to have a migrant than those which did not.

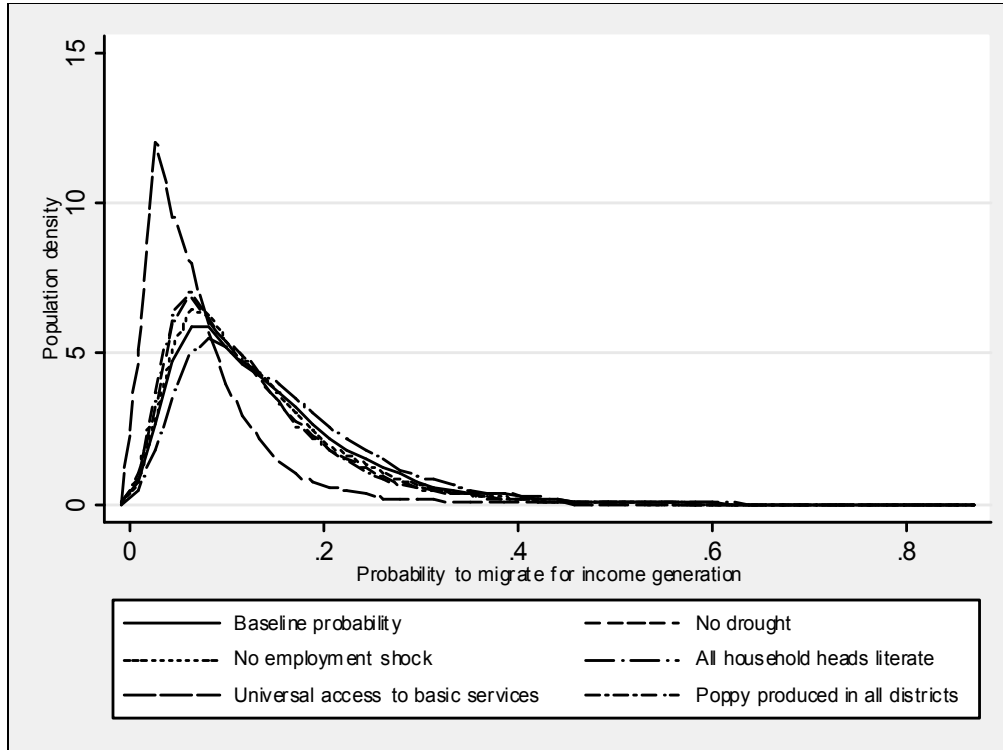
The NRVA survey data revealed that for the year under study, residing in a poppy producing district was correlated with a 21 percent lower probability to migrate (Table 13). As discussed earlier, poppy production in the last three years has been increasing dramatically and it accounts for at least 40 percent of GDP. As the production of poppy is both labor intensive and has high returns one would expect that the existence of a local poppy economy could provide an alternative to migration.

Finally, the presence of services in the community (as opposed to household-specific access) or various proxies for local growth in the community is negatively correlated with the migration decision. For example, households residing in larger communities with more irrigated land and where services like markets, public transportation or health facilities exist decrease the probability to migrate (Table 13). Such variables capture the existence of regional and local opportunities and as such, the negative correlation suggests that living in areas where the likelihood of finding local employment is higher reduces the need to migrate. Such patterns are consistent with the argument in favor of increased investment in infrastructure and regional growth.

Migration probability—a simulation

In order to further explore the analysis, a simulation was implemented to compare the impact of various “policy options” on the distribution of the probability to migrate. In particular, this exercise simulates how the probability of migration would change if a particular policy were to be universally adopted. For example, the probability to migrate was re-estimated assuming that no households had been affected by an employment shock, holding all other data constant. Similar exercises were done to re-estimate the probability change from giving universal access to basic services to all households, to simulate that everyone lived in a poppy producing district and so on. Figure 1 presents the baseline distribution of the probability to migrate along with the different predicted distributions from a number of simulations. These simulations are not inferring causality but just provide a qualitative idea of the relative importance and relevance of various “policies” or alternative scenarios on the migration decision.

Figure 1: Simulated changes of the probability to migrate



All of the simulated scenarios reduce the probability to migrate. For example, eliminating drought or employment shocks shifts the distribution of migration probability to the left (vis-à-vis the baseline distribution from the estimated model), suggesting that the probability to migrate would decrease (Figure 1). Similarly, if every household in rural Afghanistan produced poppy the migration distribution would also shift to the left according to this simulation model.

By far, the largest impact of the distribution of migration is the simulation of providing universal access to services like water, electricity or health facilities to all rural households. The large shift of the distribution to the left indicates that migration would significantly decrease with the availability of local services. To the extent that service availability is a proxy of a higher level of local development and as such more employment opportunities, we interpret this as suggesting that local growth is one of the most important policy directions to address rural poverty. While the data and this analysis cannot be used to imply causality, the insights do suggest that migration may be acting as a second best substitute for the lack of local employment opportunities.

Migration destination: external versus internal

In addition to exploring the correlates of the migration decision, the previous section also suggested that households with migrants that go abroad are structurally different than those who migrate internally. As such, a model that considers the decision of where to migrate (conditional on being a migrant household) offers additional insights.

By far, the main correlates of this decision are related to the costs of migration. Specifically, households that are less poor and have more assets are significantly

more likely to migrate externally rather than internally (Table 13). This is consistent with the hypothesis that transaction costs are considerable and while the income generating potential may be greater abroad, the high transport costs may constrain poorer households. In addition, households with literate household heads are more likely to migrate externally, indicating the important role of human capital for employment.

Informal networks play a significant role in the process of decision making for Afghan households. While data do not exist to test this hypothesis, qualitative information seems to suggest that households tend to send migrants to areas where they already have a family member or a friend. With the use of such networks, people can finance their travel easier as well as receive assistance after they arrive at their destination. Less poor households are more likely to have family members living abroad, which decreases their costs of migration and fosters more migration to destinations outside the country.

5. Discussion and Conclusions

Using household-level data from rural Afghanistan, this paper explores the role of migration as a poverty reduction strategy for rural households. More than a fifth of the rural households in the data set had at least one member that migrated in the year prior to the survey, either internally or abroad. In addition, migration is used less as an ex-post response to risks and shocks and more as a vital part of households' limited ex-ante risk management strategies. With widespread poverty in rural Afghanistan, lack of access to financial and insurance markets, and scarce income generating opportunities, migration remains a key risk management and income diversification instrument for rural households.

Furthermore, the strong correlation between poverty and migration location indicates that while less poor households are more likely to migrate abroad, poorer households migrate internally to rural or urban areas. With the overall socio-economic situation of households with external migrants significantly better than the ones with internal migrants, such findings could be partially explained via the high transaction costs related to external migration, the role of social networks as well as the role of human capital in terms of accessing higher paying employment opportunities abroad.

Finally, simulations exploring changes in the probability to migrate indicate that economic growth via strengthening of the local context in terms of employment generation and infrastructure could potentially have a large influence on migration patterns via a substitution effect. While the paper aims at being "positive" as opposed to "normative," these insights do suggest that as growth expands in rural Afghanistan, the role of migration may likely change in terms of households' income strategies. Nonetheless, in the medium term, policies could focus on how to facilitate the flow of remittances and promote their productive use locally as a strategy of enhancing rural growth and poverty reduction.

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