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Handbook for Improving the Production and Use of Migration Data for Development

Global Migration Group (GMG)



This is product of the Global Knowledge Partnership on Migration and Development (KNOMAD). A global hub of knowledge and policy expertise on migration and development, KNOMAD aims to create and synthesize multidisciplinary knowledge and evidence; generate a menu of policy options for migration policy makers; and provide technical assistance and capacity building for pilot projects, evaluation of policies, and data collection.

KNOMAD is supported by a multidonor trust fund established by the World Bank. Germany's Federal Ministry of Economic Cooperation and Development (BMZ), Sweden's Ministry of Justice, Migration and Asylum Policy, and the Swiss Agency for Development and Cooperation (SDC) are the contributors to the trust fund.

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All queries should be addressed to KNOMAD@worldbank.org. KNOMAD working papers and a host of other resources on migration are available at www.KNOMAD.org.

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FOREWORD

Why this guide?

The Global Migration Group (GMG) has produced this publication in order to provide guidance to producers and users of international migration data. This project has been conducted within the framework of the World Bank's KNOMAD initiative.¹ Its publication follows the adoption by the United Nations General Assembly of the 2030 Agenda for Sustainable Development and the development of an accompanying indicator framework. The Handbook is intended to support Member States in the collection, tabulation, analysis, dissemination and use of migration data and is thus expected to contribute directly to monitoring the implementation of the Sustainable Development Goals (SDGs). By assisting countries in collecting accurate, up-to-date and relevant data on the stocks, flows and on the contributions of migrants and migration to development, it is hoped that the guide will facilitate the integration of migration in national development planning and strategies. This publication includes contributions from 16 members of the Global Migration Group (GMG). As a tool for capacity development at country level, the guide shall form part of a comprehensive strategy to strengthen the production and use of migration for development, particularly in developing countries.

The Challenge: Improving migration data

For many years, the GMG agencies have undertaken efforts to improve the availability, quality and the comparability of migration data by publishing guidelines for their compilation. (Examples include the 1998 United Nations Recommendations on International Migration Statistics and the 2007 IOM guide "Sharing Data: Where to Start", and by collecting and disseminating migration statistics. This guide is an effort to facilitate the implementation of these and other relevant standards and guidelines for the collection of migration statistics rather than producing new standards. By taking primarily a user perspective, the handbook seeks to provide guidance and assistance in operationalizing existing statistical definitions.

¹ The Global Knowledge Partnership on Migration and Development (KNOMAD) is a global hub of knowledge and policy expertise on migration and development issue. KNOMAD draws on experts from all parts of the world to synthesize existing knowledge and generate new knowledge for use by policy makers in sending and receiving countries. KNOMAD works in close coordination with the Global Forum on Migration and Development (GFMD) and the Global Migration Group (GMG). The World Bank has established a multi-donor trust fund to implement the KNOMAD. The Swiss Agency for Development and Cooperation (SDC) and the Federal Ministry of Economic Cooperation and Development (BMZ) are the largest contributors to the trust fund. Within the World Bank, KNOMAD is located in the Development Prospects Group of the Development Economics Vice-Presidency (DEC).

KNOMAD is led by Dilip Ratha.

The paucity in international migration data has long been recognized. The 2006 High-level Dialogue on International Migration and Development, with its emphasis on leveraging the benefits of international migration for development and on addressing its negative consequences, highlighted the absence of globally comparable data on the impact of international migration on countries of origin, transit and destination. The Declaration of the 2013 High-level Dialogue on International Migration and Development emphasized “the need for reliable statistical data on international migration, including when possible on the contributions of migrants to development in both origin and destination countries”. Further, the Declaration noted that migration data “could facilitate the design of evidence-based policy and decision-making in all relevant aspects of sustainable development”. Other resolutions of the United Nations General Assembly and of the Economic and Social Council have also called for improvements in the production of accurate, relevant and timely international migration statistics, disaggregated by gender, age and other relevant characteristics.

The Global Forum on Migration and Development (GFMD), since it first met in 2007, has also repeatedly emphasized the need for accurate, policy-relevant and timely data on migration and its impacts on economic, social and sustainable development in countries of origin, destination and transit. Indeed, the lack of evidence on the development impacts of migration has hindered the efforts, especially of developing countries, to integrate migration into national development plans and strategies and to track the contribution of migration to the implementation of the Millennium Development Goals (MDGs) and other internationally agreed development goals.

The SDGs: Integrating migration in the UN development agenda

The inclusion of migration in the 2030 Agenda for Sustainable Development has far reaching implications for the collection of migration data. Improving migration statistics, once the exclusive domain of statisticians, has now become a priority for policy makers and planners at the national, regional and global level. The SDGs include one migration specific target (10.7) which calls on countries to “Facilitate orderly, safe, regular and responsible migration and mobility of people, including through implementation of well-planned migration policies”. In addition, there are several migration-related targets, including target 3c (retention of health workers in developing countries), target 4b (provision of scholarships for study abroad), targets 5.2, 8.7 and 16.2 (combating human trafficking), target 8.8 (respecting labour standards for migrant workers), target 10c (lowering the costs of transmitting remittances) and target 17.18 (disaggregating data by migratory status). A third group of targets are those that, although they do not refer to migration per se, nevertheless have an impact on migration or migrants, not least due to the target to disaggregate data by migratory status. Examples include targets that relate to poverty reduction, education health, and peaceful societies.

The commitment of the 2030 Agenda to “leave no one behind” has significant implications for data collection: policy makers and statisticians will no longer be able to “hide behind averages”. The ambition of the 2030 Agenda is that through disaggregation by migratory status, policy makers, civil society and the general public are able to monitor the outcomes of the sustainable development goals and targets for both migrants and non-migrants, thus allowing for assessment of the relative success of national development policies. By April 2016, the United Nations Statistical Commission is expected to adopt the indicator framework for the SDGs, as developed by the Inter-Agency and Expert Group on Sustainable Development Goals. Following the

endorsement of this indicator framework by the United Nations Economic and Social Council and the General Assembly, there may be a need to revise or update this Handbook.

Non-traditional data sources: The data revolution

This handbook is especially timely given growing calls for a “Development Data Revolution” which have accompanied the formulation of the SDGs. Many argue that it will not be possible to meet the demand for data that is required to measure progress towards new development goals, targets, and indicators unless the quality, availability and timeliness of data improves markedly. In 2013, the High Level Panel of Eminent Persons on the post-2015 development agenda first called for a “development data revolution”. Subsequently, in 2014, the UN Secretary General’s Independent Expert Advisory Group on a “Data Revolution for Sustainable Development”, published the report “A World That Counts: Mobilizing the Data Revolution for Sustainable Development”. Specifically, the report calls for more diverse, integrated, timely and trustworthy information on development. The report also laments that entire groups of people are not being counted and that important aspects of people’s lives are not measured. The report recommends a “significant increase in funds to support this data revolution, following an assessment of capacity development needs”.

Aims of this Guide

One of the key objectives identified in the multi-annual work plan of the GMG is to provide guidance and support to Member States in collecting and analysing data on migration and development. The aim of this publication is to provide practical guidance to policymakers and practitioners on the measurement of international migration and its impact on development, and to present good practices and lessons learned from recent initiatives undertaken by the GMG members. Over recent years, GMG entities have undertaken a broad range of initiatives to help countries around the world to improve data on migration, remittances and development. The aim of this handbook is to make this information more accessible by producing a synthesis of the work that has been conducted by various GMG entities.

The handbook summarizes existing standards and definitions for the collection and dissemination of migration statistics. It provides an overview of the main sources for migration statistics and includes an inventory of the availability of data. It showcases the main international datasets on international migrants and international migration and indicates how they can be used for policy-making. The guide provides examples of good practices for the collection of migration data and their use in policy-making. It assesses the progress that has been made in implementing global standards and guidelines on migration statistics and identifies remaining gaps and challenges. The guide concludes by summarizing key recommendations that countries may wish to follow when producing and using migration data for development.

Scope and outline of the Guide

While it is unlikely that one single handbook can cover all possible data needs at the national, regional and global level, it is hoped that this Guide will nevertheless address minimum data requirements for a wide range of policy areas.

The guide is divided into four parts. In the first part, an overview is provided of main criteria for measuring international migration as well as of the main sources for migration data, including both traditional and non-traditional sources. The second part focuses on the importance of data in relation to some of the reasons for migration. These are examples of some elements of often complex influences on migratory movements and related decision-making processes. Here, data sources are presented from the perspective of work (labour migration), study (migration for educational purposes) and asylum (the arrival of refugees and asylum-seekers). The third part discusses migration data from the perspective of some key developmental outcomes, including remittances, labour market, trade, intellectual property, health, education and the environment. Lastly, the fourth part provides guidance on the collection and use of migration data for the purpose of improving the enjoyment of human rights for migrants, by focusing on the human rights of migrants, migrant women, migrant girls and victims of human trafficking, respectively.

In total, the four parts contain 16 concise chapters, using a common framework. Each of the 16 chapters provides a brief overview of key policy issues. This is followed by a section describing the main data need to analyse these policies. The third section comprises an overview of existing sources and standards for data collection. Fourth, data gaps and challenges are provided. Fifth, each chapter provides some tools and good practices to address these gaps. Finally, each chapter concludes with a set of recommendations and key messages.

Using this guide

It is the hope of the authors that this guide will be used and tested in the field as part of capacity development activities. In particular, relevant sections of this handbook could be used as background reading for participants in regional and national workshops. Reference lists for each chapter provide guidance to further reading and Annex 1 includes online links to examples of good practice, training materials and handbooks and further guidance on international standards. The handbook may inspire the development of specific online or offline training modules, tools and exercises. UN entities that have not yet contributed to the handbook may wish to add a section. There may thus be a need to update, revise or extend the handbook in due course.

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Abbreviations and acronyms

AfDB	African Development Bank
AIA	Leahy-Smith America Invent Act
AML-CFT	Anti-Money Laundering and Counter Financing of Terrorism
BPM6	Sixth Edition of the IMF's Balance of Payments and International Investment Position Manual
CCCM	Camp Coordination and Camp Management
CDC	United States Centre for Disease Control and Prevention
CDH	Careers of Doctorate Holders (UIS project)
CDR	Call Detail Records
CEB	United Nations System Chief Executives Board for Coordination
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CELADE	Latin American and Caribbean Demographic Centre [Centro Latinoamericano y Caribeño de Demografía]
CEFTA	Central European Free Trade Agreement
CES	Conference of European Statisticians
CESCR	Committee on Economic, Social and Cultural Rights
CPC	Central Product Classification
CRC	Committee on the Rights of the Child
DHS	Demographic and Health Survey
DIOC	Database on Immigrants in OECD Countries
DTM	Displacement Tracking Matrix
EACH-FOR	Environmental Change and Forced Migration
EBOPS	Extended Balance of Payments Services Classification
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ECPAT	End Child Prostitution, Child Pornography and Trafficking of Children for Sexual Purpose
EEA	European Economic Area
EFA	Education for All
EFTA	European Free Trade Association
EPO	European Patent Office

ESCWA	Economic and Social Commission for Western Asia
EU	European Union
EU-MIDIS	European Union Minorities and Discrimination Survey
Eurostat	European Union Statistical Office
FATS	Foreign Affiliates Statistics
FCS	Fragile and conflict situations
FDI	Foreign direct investment
FRA	European Agency for Fundamental Rights
GATS	General Agreement on Trade in Services
GDP	Gross domestic product
GED	Gender Educational Development
GMDAC	Global Migration Data Analysis Centre, International Organization for Migration
GMG	Global Migration Group
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICIMOD	International Centre for Integrated Mountain Development
ICLS	International Conference of Labour Statisticians
IDMC	Internal Displacement Monitoring Centre
IESALC	Institute for Higher Education in Latin America and the Caribbean
ILO	International Labour Organization
ILOSTAT	ILOSTAT Database (ILO)
IMF	International Monetary Fund
IOM	International Organization for Migration
IP	Intellectual property
IPCC	Intergovernmental Panel on Climate Change
ISCO	International standard classification of occupations
ISIC	International standard classification of all economic activities
ITU	International Telecommunication Union
ITUC	International Trade Union Confederation
KILM	Key Indicators of the Labour Market (ILO)
KNOMAD	Knowledge Partnership on Migration and Development

LDC	Least developed countries
LFS	Labour Force Survey
LLECE	Latin American Laboratory for Assessment of the Quality of Education
MDGs	Millennium Development Goals
MECLEP	Migration, Environment and Climate Change: Evidence for Policy
MFA	Migrant Forum in Asia
MIPEX	Migrant Integration Policy Index
MOOC	Massive Open Online Courses
MSITS	Manual on Statistics of International Trade
NDMA	National Disaster Management Authorities
NGO	Non-governmental organization
OECD	Organization for Economic Cooperation and Development
OHCHR	Office of the United Nations High Commissioner for Human Rights
OSCE	Organization for Security and Cooperation in Europe
PASEC	Programme to strengthen the education sector in the Comoros
PCT	Patent Cooperation Treaty
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PMT	Population Movement Tracking
RPW	Remittance Prices Worldwide
RSIM	Recommendations on Statistics of International Migration
S&E	Scientists and engineers
SACMEQ	Southern and Eastern Consortium for Monitoring Educational Quality
SDG	Sustainable Development Goal
SISCOSERV	Integrated System of Foreign Trade in Services and Intangibles
SPR	Service Policy Review
TIMMS	Trends in International Mathematics and Science Study
UAV	Unmanned Aerial Vehicles
UIS	UNESCO Institute for Statistics
UN	United Nations

UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNECE	United Nations Economic Commission for Europe
UNEAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	UN Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNICMW	International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families
UNODC	United Nations Office on Drugs and Crime
UNSD	United Nations Statistics Division
UNU	United Nations University
UNU-EHS	United Nations University, Institute for Environment and Human Security
UN-Women	United Nations Entity for Gender Equality and the Empowerment of Women
UNWTO	World Tourism Organization
UPR-INFO	Universal Periodic Review
USPTO	US Patent and Trademark Office
VAW	Violence against Women
WBG	World Bank Group
WDI	World Development Indicators (World Bank)
WHA	World Health Assembly
WHO	World Health Organization
WIPO	World Intellectual Property Organization
WRL	World reference levels
WTO	World Trade Organization

CHAPTER 1 – KEY CONCEPTS, DEFINITIONS AND SOURCES

Introduction

This Chapter, in three sections, aims to guide data providers and users by setting out the core concepts and definitions and the criteria which are essential for migration data and the main types of traditional sources of data. Finally it presents a discussion of the potential of innovative sources of data.

The first step towards creating comparable international migration statistics is the consistent implementation of common terms and definitions. However, consistency and comparability is often not achieved because differing national practices and legal definitions mean that data are collected according to different categories. Even within countries, data comparability issues exist, as many systems from which migration data are derived are set up to respond to specific administrative objectives, not specifically for the accurate measurement of international migration. Thus, tackling these challenges by adhering to internationally agreed definitions is necessary to improve migration data at the national, regional and global levels.

Chapter 1a Key concepts and definitions: the essential criteria for migration

The core concept for the purposes of this Handbook is that of an ‘international migrant’.

The United Nations has, since 1953, issued a series of Recommendations on International Migration Statistics to support efforts to achieve comparability. The most recent are the United Nations Recommendations on Statistics of International Migration, Revision 1² (hereafter “the Recommendations”).

The Recommendations have all dedicated a significant amount of discussion to the harmonization of the concept and definition of an international migrant for statistical purposes.

The definition of an international migrant which is used for statistical purposes is:

A “Long-term migrant is a person who moves to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country of usual residence.”

The Recommendations include the concept of country of usual residence, therefore an immigrant must have not been a usual resident and will establish usual residence of the country he or she has entered. An emigrant should have been a usual resident of the country from which he or she is departing and is establishing usual residence in another country. Use of this definition allows for the collection of internationally comparable data on international migration.

Wherever possible, national data systems should adopt this definition and it should not be confused with the various administrative or legal definitions used in each country.

² United Nations (1998) *Recommendations on Statistics of International Migration, Rev. 1*, United Nations, New York, 1998. Sales No. E.98.XVII.14, Para. 32.

Box 1. Summary of the definitions set out in the UN Recommendations

Key Concepts and Definitions

International Migrant: any person who changes his or her country of usual residence.

Usual Residence: the place at which the person has lived continuously for **most of the last 12 months** (that is, for **at least six months and one day**) or for **at least the last 12 months**, not including temporary absences for holidays or work assignments, or intends to live for at least six months.

Stock: the total number of international migrants present in a given country at a particular point in time.

Flow: international migrant flow refers to the number of migrants entering or leaving a given country during a given period of time, usually one **calendar year**.

Difference between migration stocks and flows:

“Stocks” refers to total migrants present in a given country.

“Flows” refers to movement (both of migrants entering and of those leaving a country in a given year).

Definition of Different Types of Stocks

Immigrant Stocks: among usual residents of the country, all native-born persons, whether citizens or foreigners, who emigrated and returned thereafter; plus all foreign-born persons, including citizens born abroad who immigrated, together constitute the totality of immigrant stock.

Stock of Foreign-born persons: refers to the stock of population born abroad. They were not part of the country at the beginning of their lives.

Stock of Foreigners: the stock of population who do not have the citizenship of the country of enumeration. Stock of foreigners is also widely used in countries to represent the stock of immigrants. Whereas by definition virtually all foreign-born persons qualify as immigrants, many foreigners are not.

Stock of returned migrants: citizens of the country of enumeration who emigrated and subsequently came back to live in the country.

Stock of citizens living abroad: citizens who are not usual residents of the country they have citizenship with

Description of Key inflows and outflows based on usual residence and citizenship

Immigrating Citizens: include citizens who are returning after having been abroad for at least 12 months as well as foreign-born citizens entering for the first time.

Immigrating Foreigners: non-resident foreigners entering the country. Are usually subject to the most administrative control in the country receiving these immigrants.

Emigrating Citizens: citizen residents leaving the country. Important to note purpose of leaving.

Emigrating Foreigners: foreigner leaving the country of their usual residence.

Discussion of key associated concepts and definitions for the measurement of migration

Migration, both internal and international, is often studied by looking at its size, the characteristics of migrants, direction of movement and the impact migration has on both migrants themselves and on host and origin societies. At its most basic level, migration consists of two primary units of analysis, the person (who moves) and geography (where the person moved from and where the person moved to). There is no single legal definition of a migrant so migrants are normally defined as persons who have changed their place of usual residence, according to the UN Handbook on Measuring International Migration through Population Censuses (UN Statistics Division, forthcoming 2016) or persons who live outside the country of which they are a citizen or national (OHCHR 2014). For the purposes of international migration, a person's country of usual residence is that in which a person lives, that is to say, the country in which the person has a place to live where the person normally spends the daily period of rest (UN 2016).

Migration stocks and flows

Statistics on the size of the migrant population are normally collected on the basis of stocks and flows of international migrants. Simply put, the stock of international migrants is the total number of international migrants living in a country at a particular point in time, while the flow of international migrants is the number of migrants entering or leaving a country over the course of a specific time period (e.g. one year). Country of birth and citizenship are the main criteria used for categorizing different types of population stocks and flows, with duration of stay providing a further element for statistics on migration flows.

Measurement of migrant stock

According to the Recommendations, a country's stock of international migrant population can be measured as all persons who have that country as their country of usual residence (see Box 1 for the definition of usual residence) and who are citizens of another country (foreign population) or whose place of birth is located in another country (foreign-born population). Thus, the **foreign born** are persons who were born in a country other than the country of enumeration where they currently reside. This group corresponds to the stock of international migrants that migrated at least once in their life and reside outside their country of birth. Persons born in the country are defined as **native born**. Together, the concepts of the foreign-born and native-born population are referred to as nativity status. Regarding measurement of the foreign born, national boundaries at the time of data collection should be used.

Foreigners are the group of persons who do not have citizenship of the country they reside in. Foreigners can be foreign born or native born. Persons having citizenship of the country of residence are defined as **citizens**, and can also be foreign born or native born. Persons who do not have the citizenship of any country are referred to as stateless. Together, the concepts of citizens and foreigners are referred to as citizenship status.

Both concepts for measuring migration have advantages and disadvantages. The advantage of using the criterion of citizenship status to measure migration is its policy relevance and wide availability across countries. Disadvantages of using citizenship to measure migration are that citizenship can change over time, that persons can have citizenship of more than one country, or, being a stateless person, not have any citizenship, and that foreigners are not necessarily international migrants.

The advantage of using country of birth as a measure is that, except for cases when country borders have been re-drawn, the country of birth does not change. Further, it is an objective measure, although some countries use the measurement of the mother's place of usual residence at time of birth, rather than actual place of birth, and it directly measures whether or not a change of residence has taken place over one's lifetime. As with the citizenship method, the information on foreign born populations is widely available across countries. However, a disadvantage is that where a country's borders change over time, persons who have never made an international move may be misclassified as international migrants. Assessing the proportion of foreign born within a population can be complicated by people who previously moved within a country (and who were not considered foreign born at the time of the move) but are later considered foreign born when borders change. One such example would be Ukraine-born people who moved within the USSR later being counted as foreign born after the USSR's collapse. This would lead to problems when comparing the proportion of foreign born over time within Russia.

Given the relative strengths and weaknesses of each indicator, the United Nations recommends that countries collect information on both country of citizenship and country of birth.

On the basis of both nativity and citizenship status, the following typology can be identified:

- Foreign-born foreigners: persons born abroad without the citizenship of the country of residence. This group will in large part be formed by foreign-born immigrants who did not acquire citizenship of the host country.
- Native-born foreigners: persons born in the country of residence without having the citizenship of the country. This group will in large part be formed by descendants of the foreign born who did not receive citizenship of the host country at birth.
- Foreign-born citizens: persons born abroad and having the citizenship of the country of residence. This group will in large part be formed of foreign-born immigrants who have received citizenship of the host country as well as persons with the citizenship of the host country who were born abroad.
- Native-born citizens: persons born in the country of residence, with the citizenship of the country of residence. This group will be in large part formed of the native born who are citizens of the country. It will also include descendants of the foreign born who were born in the country and received citizenship of the country of birth, at the time of birth or later.

The advantage of using this typology is that it combines the advantages of both methods, while avoiding the disadvantages associated with one single method. However, it makes tabulation of migration data more complicated than simply using the native/foreign born or citizen/foreigner dichotomies. In short, while collecting information on both country of birth and citizenship may be costly and complex, doing so can result in more comprehensive evidence base for understanding international migration, for comparing migration statistics between countries, and for shedding light on potential inequalities experienced by migrants.

Duration of stay and measurement of migration flows

Duration of stay, whether actual or intended, is a critical criterion for the measurement of international migration flows. According to the Recommendations, for the purposes of measuring migration flows, an international migrant is defined as "any person who changes his or her country of usual residence." As shown earlier, a person's country of usual residence is that in which the person lives, that is to say, the country in which the person has a place to live where he or she

normally spends the daily period of rest. Temporary travel abroad for purposes of recreation, holiday, business, medical treatment or religious pilgrimage does not entail a change in country of usual residence (UN 1998).

The Recommendations further define two types of international migrants by the criterion of duration of stay. Long-term international migrants are defined as those who move to a country other than their country of usual residence for a period of at least one year, while short-term international migrants are people who move to a country for a period of at least 3 months but less than one year. (See Box 1 for the definition of usual residence).

In practice, most countries that compile migration flow data collect data on a yearly (12-month) basis, although some surveys and censuses use a five-year period. However, most countries in the world do not collect data on migration flows. International migration flow data are more often collected and available for foreigners than for citizens or the foreign born. Likewise, data on the inflow of international migrants are much more common than information on the outflow of international migrants.

In reporting international migration flow data, many of the countries that collect such data comply with the Recommendations by collecting information on the country of previous residence for arriving migrants and next residence for departing migrants

Long-term and short-term migrants and data considerations

In practice, the distinction between short- and long-term migrants is often difficult to make, particularly given different data collection systems used by different countries. It can be difficult to collect accurate information to meet the recommendations using existing data collection systems, whether they are administrative or survey based. Not only does the country of usual residence need to be determined, but so does the migrant's duration of stay. However, the difficulties can often be overcome. According to the Recommendations "the act of being inscribed in a population register or country other than their own, being granted a permit to reside in country, or declaring intention of staying for at least one year, are all ways of making the concept of change of usual residence measurable." This means countries can use different methods to determine duration of stay, which further complicates data comparability at the international level.

The duration of stay criterion for a long-term migrant is determined by either an actual or an intended duration of stay of at least 12 months, subject to the practices used by different national data collection systems. For example, different countries have different time criteria and practices for entering migrants into their population registers (e.g. 3 months, 6 months, 12 months), which complicates the international comparison of migration data. Further, self-declaration by the migrant of her intended length of stay upon entry may not necessarily correspond to her actual time spent in the country.

Duration of stay is often inferred from visa types or permit lengths with various work and residence permits having varying lengths of duration. Data derived from such administrative sources, while essential in understanding the main purpose of stay, often include inaccuracies as some foreigners may not be subject to these regimes because of freedom of movement agreements. Undocumented migration is, by definition, not included. Moreover, both undercounts and overcounts occur because the number of permits issued does not equal the number of persons who have migrated, while persons may be counted more than once in case they change their visa

status. Lastly, the intended duration of stay of the person to whom the document has been issued may not coincide with the length of the permit.

The UN recommends using both actual and intended duration of stay. (Intended duration of stay was used by the UN Principles and Recommendations for Population and Housing Censuses (2015). Often, intended duration of stay will not match reality (either determined at 12 months and leaving earlier, or determined at less than 12 months, and staying longer), thus it is recommended that migration figures be retroactively adjusted (using a lag of 1 ½ years to produce migration flow statistics). However, such adjustments are not only complex to compute, but also difficult to explain to policy makers and the public at large. Such retroactive changes would adjust for short-term migrants who stay longer than one year, and vice versa, for foreigners who were originally admitted as non-migrants but who changed their country of residence, and for asylum seekers who became residents following the approval of their refugee claim.

The difficulty of determining change of usual residence and duration of stay is even greater when measuring the flow of short-term migrants. Short-term migrants are presumed to be a rapidly growing and increasingly important group of migrants, particularly for labour migration, coinciding with increased globalization and frequent repeated moves back and forth across international borders (e.g. circular migration). Technically, short-term migrants do not normally change their country of usual residence (which remains their country of origin) but for the purposes of international migration statistics the country of usual residence of short-term migrants is considered to be the country of destination during the period they spend it in.

In addition, the Recommendations make an effort to distinguish short-term migrants from tourists, which may sometimes be misinterpreted to mean that short-term migrants only include those who move for work or study-related reasons. In fact, asylum seekers or other humanitarian migrants, those moving for family reunification or formation, or even climate-related migrants, would be counted as short-term migrants if the duration of their moves were greater than 3 and less than 12 months. It should be noted that these definitions exclude temporary migrant workers, including seasonal migrants, who move to a country for a period of less than 3 months. The above considerations not only apply to the entry, but also to the departure of international migrants, in particular citizens moving abroad with the purpose of working or establishment in another country.

Another related group of interest, but who are generally not considered migrants, are cross-border, or frontier, workers. These are foreigners who have been granted permission to be employed on a continuous basis in a receiving country provided they depart at regular or short intervals, daily or weekly, from that country. This group could also include those without formal permission (informal) to work in another country, but nonetheless commute across borders to work on a regular basis. Information on both citizens and foreigners working under these arrangements are of interest to many countries.

Purpose of stay

There is general agreement that the reasons for people migrating are complex and multi-faceted. An individual's reasons to leave a country of origin could differ from their reasons to come to a country of destination. Although the reasons people move will be discussed in more detail in the next chapter, it is important to consider it here, given the importance of reasons for migration for defining international migration and the relationship of purpose of stay and the sources of migration data. Some basic groups defined by purpose of stay are those moving for work-related,

family-related, education-related, and for humanitarian reasons. As such, in addition to distinguishing between short- and long-term migration, flow statistics are also often disaggregated by purpose of stay.

Employment-related migration is an important and diverse category for defining migrants and includes foreigners admitted or allowed to remain in the country for employment reasons. This group includes migrant workers (either seasonal, contract workers, project tied workers, or temporary) as well as those with the right to free establishment (e.g. citizens of the EU), long-term settlement based on high-skilled qualifications or intra-company transferees. As noted before, people may move for temporary work for a period of less than 3 months, thus are not counted as migrants.

Another category of migrants is those admitted for education or training, including students, trainees, and interns.

A third major group of migrants are those who move for the purposes of family reunification or formation. This group includes foreigners admitted because they are relatives of citizens or other foreigners already residing in the receiving country.

The fourth major group of migrants are those admitted for humanitarian reasons, which include refugees, asylum seekers, foreigners granted temporary protected status, and persons admitted for humanitarian reasons.

Further, migrants may be granted legal permission to stay in a country on the basis of criteria such as ancestral ties, retirement, entrepreneurship, or by having their irregular migration status regularized.

It should also be noted that categories classifying migrants by purpose of stay are not mutually exclusive, which can create challenges when determining these groups. As people often move for many reasons, determining a single reason for moving can be difficult. In addition, attributing migration to a single reason can lead to misunderstanding of appropriate policy needs. However, purpose of move can be gleaned from a number of different data sources, including both administrative and self-reported. As noted above, one of the most common methods to determine a migrant's purpose of stay is to use visa or resident permit information which includes the legal reason for a migrant's stay in the country. Another method is to ask migrants themselves as to their reason for move, either through a household survey or population census. Although the results of these two different methods can vary greatly, under a rights-based approach to data, self-identification is the preferred method to collect and disaggregate data as it should not create or reinforce existing discrimination, bias or stereotypes exercised against population groups, including by denying their identity(ies) (OHCHR 2016).

Key messages and recommendations

Measurement of the size of the migrant population is dependent on a number of concepts, definitions and criteria, which are often difficult for countries to measure. However, adherence to internationally recognized definitions will improve the comparability of international data. Change of usual residence and duration of stay are critical components for defining migrants, particularly for the measurement of migration flows. Lastly, purpose of stay is an essential variable piece for understanding international migration, as will be discussed in Chapter Two on reasons for migration.

Chapter 1b Sources of migration statistics

UNSD

Introduction

Sources for international migration statistics can be broadly grouped into three categories, namely, (a) population census; (b) administrative records including border collection and (c) sample surveys.

A. Population census

The population census is a major source of data on the international migrant stock, which can be enumerated either as the foreign-born population or as the foreign population, that is, the number of foreign citizens, in a country. It is also possible for the population census to capture information on place of residence of people at a specific date, typically one or five years before enumeration, thus allowing the possibility of obtaining the number of international migrants who arrived during the period considered and remained in the country until the time of enumeration.

Three core topics that are recommended by the United Nations to be included in the population censuses to identify international migrants are³:

- a. Country of birth
- b. Country of citizenship
- c. Year or period of arrival in the country for foreign-born person

It should be noted that much work needs to be done, in particular with regard to the inclusion of year of arrival in the census.

The information on “country of birth” is usually collected by questions on place of birth. These questions capture the district or province (or other geographic division detail) if the person is born in the country, or the country of birth if the person is born abroad. Figure 1 gives two examples of how country/place of birth was asked in censuses.

Figure 1. Examples of questions on country/place of birth in national population censuses

The figure displays two examples of census questions regarding the place of birth. The left example is from a French census, titled "Lieu de naissance" (Place of birth). It asks "Où est né ... ?" (Where was born ...?). For those born in Albania, it provides a grid for "District code" and "Town/Village". For those born abroad, it lists six options: Italy, Greece, USA, Canada, Turkey, and Other (specify), with a corresponding grid for the "Country". The right example is from a Cambodian census, titled "Birth Place". It asks for the "Place of Birth of the person" and provides instructions: "if in this village, enter code 1. If in another village, give name of the district of that village and write name of province within brackets. If outside Cambodia, write name of the country."

³ United Nations (2016), *Principles and Recommendations for Population and Housing Censuses*, Revision 3, forthcoming.

Source: National population censuses, United Nations Statistics Division national census questionnaires
 (<http://unstats.un.org/unsd/demographic/sources/census/censusquest.htm>)

The information on “citizenship” has been gathered by various ways of asking the questions. Some censuses only ask whether a person is a citizen of the country or not (a foreigner). Many asked what country of citizenship a person has and sometimes also how the citizenship was acquired such as whether by birth or naturalisation, and/or whether a person has multiple citizenships.

Figure 2. Examples of questions on citizenship in national population censuses

3 **Quelle est votre nationalité ?**

- Française
 - Vous êtes **né(e) français(e)** 1
 - Vous êtes **devenu(e) français(e)** (par exemple : par naturalisation, par déclaration, à votre majorité) 2
 - ↳ Indiquez votre nationalité à la naissance :
- Étrangère 3
 - ↳ Indiquez votre nationalité :

P03 NATIONALITY
 What is [NAME]'s Nationality?

01 Ghanaian by birth	11 Other ECOWAS National
02 Dual Nationality	12 African, other than ECOWAS
03 Ghanaian by naturalisation	13 European
04 Nigerian	14 American (North, South/Caribbean)
05 Liberian	15 Asian
06 Sierra Leonean	16 Oceanian (incl. Australian and New Zealander)
07 Gambian	
08 Togolese	
09 Burkinabe	
10 Ivorian	

11 **Is the person an Australian citizen?**

- Remember to mark box like this:

<input type="checkbox"/> Yes, Australian citizen	<input type="checkbox"/> Yes, Australian citizen
<input type="checkbox"/> No	<input type="checkbox"/> No

Source: National population censuses, United Nations Statistics Division national census questionnaires
 (<http://unstats.un.org/unsd/demographic/sources/census/censusquest.htm>)

The third topic that is recommended is “the year or period of arrival in the country” for foreign-born persons. Information derived from this topic can be used to distinguish between migrants who recently arrived from those who arrived a long time ago, which is important to analyse the integration of migrants. In national censuses, the question may be asked to foreign-born persons only or to persons who have lived abroad regardless of their country of birth if returned migrants are also of policy interest. Whether the year or period refers to the most recent or the first arrival is left for countries to choose.

Figure 3. Example of questions on year of arrival in national population censuses

P13. Have you ever lived in another country for at least six months?

1 Yes 2 No (Skip to P16)

P14. In which country did you last reside?

Name of country

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

0 1 2 3 4 5 6 7 8 9

P15. In what year did you last come to The Bahamas to live?

Year

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

0 1 2 3 4 5 6 7 8 9

Source: National population censuses, United Nations Statistics Division national census questionnaires (<http://unstats.un.org/unsd/demographic/sources/census/censusquest.htm>)

There are other questions relevant to international migration that are not considered core topics by the United Nations, but have been included in some national population censuses. They include emigration of former household members; returned migrants; country of births of parents and previous residence abroad⁴.

Population censuses are widely recognized as the major source of statistics for **international migrant stock** (stock of foreign-born and stock of foreigners, for example). However, certain data collected in population censuses can also be exploited to produce **rough estimates of international migration flow for specific periods** ending with the time of the census. Together with population data from a previous census, net migration flow for the period between the two censuses can be estimated. Net migration may be estimated for a series of successive census pairs to examine trends of net migration over the decades.

For more recent indicators of immigration flow, the census uses a question on place of residence at a specified time in the past. This allows the possibility of obtaining the number of international migrants who arrived during the period considered and remained in the country until the time of enumeration. The most common time frames used in recent censuses are five years and one year prior to the census.

Advantages of using censuses to measure international migration are associated with the nature of population censuses. The principle of universal coverage by censuses ensures better coverage of the migrant population. Relative uniformity in question formulations ensures better data comparability across countries. Censuses collecting a variety of socio-demographic information

⁴ More information on how questions are formulated in national censuses is available in the United Nations *Handbook on the Use of Censuses and Surveys to Measure International Migration* (forthcoming, 2016).

offer potential for characterizing international migrants in terms of certain basic demographic and socio-economic characteristics included in the census questionnaire. For instance, censuses allow for a comparison of access to housing, employment and social services between migrants and non-migrants.

On the other hand, censuses have a number of limitations in measuring international migration. First, data are not frequently available, usually only once in ten years. Second, because censuses can accommodate only a limited number of questions related to migration, they cannot provide the detailed information needed for a meaningful analysis of either the causes or the consequences of international migration. Third, because censuses capture only people in the country at the time of the census, they cannot provide complete or detailed characterization of international flows of people.

Last, population census, by its very nature, cannot provide reliable information on emigration from a country. In addition, estimates of net immigration can be derived for the inter-censal period by using census data on the total population, taking into account births and deaths occurred during the same period.

B. Administrative records

Administrative records that can be used for the study of international migration can be grouped into three major categories: (a) administrative registers; (b) collection of information at the border; and (c) other administrative sources.

- a) Administrative registers include population registers, registers of foreigners and other special types of registers covering particular groups of persons, such as asylum-seekers. Administrative registers have the potential of producing information on certain groups of persons who change their country of usual residence and thus qualify as international migrants.
- b) Collection of information at the border, or “border collection”, gathers information at ports of entry into and departure from a country, regardless of whether they are actually located at the border. They usually include airports and other sites at which persons formally enter or leave a national territory. Statistics derived from border collection have the advantage of reflecting actual moves with a high degree of accuracy in terms of timing, mode of transport and port of entry or departure. However, the task of gathering information from all persons arriving in and departing from a national territory is beyond the means at the disposal of many countries. In practice, statistics derived from border collection rarely provide the best measures of international migration flows because of the difficulties involved in gathering reliable information from a large volume of people subject to different degrees of control depending on their citizenship, mode of transport and port of entry. Passenger surveys of international migrants cover a very small percentage of arrivals and many may enter for other purposes without declaring migration intention.
- c) In addition to registers, there are other administrative sources producing data that are indicative of either inflows or outflows of particular groups of international migrants. For

example, statistics derived from the issuance of residence permits may refer to inflows of foreigners to a country; those derived from the issuance of work permits can refer to inflows of foreign migrant workers; and those derived from the official clearance of departing citizens to work abroad can be a proxy of labour out-migration.

All of those administrative sources share a common trait: statistics derived from them usually refer to administrative records rather than people. Thus the number of residence permits issued over a year may not be equivalent to the number of persons admitted over that year, if a person receives more than one residence permit in a year or if the permit granted to the head of a family covers his or her dependants. Similarly, the number of deportations carried out over a period may be higher than the number of persons involved if those deported keep on returning and are sent back several times during the period; or the number of asylum applications filed can understate the number of asylum-seekers involved when a single application can be filed on behalf of a family.

Another drawback of using the administrative sources is that sometimes permits are issued not only to new arriving foreigners in a country, but also to those who have resided in the country for a period of time for either renewal or change of visa types. Therefore the statistics generated from those administrative records may not reflect the actual influx of migrants.

C. Sample Surveys

Two types of sample surveys are currently being used to measure or study international migration: (a) household sample surveys and (b) passenger surveys administered at the border. The two surveys serve very different purposes.

Household sample surveys include both specialized international migration surveys and household surveys which may not necessarily focus on, but include questions on, international migration, such as the Labour Force Survey (LFS), Demographic and Health Survey (DHS), Living Standards Measurement Study (LSMS). The strength of household sample surveys in studying international migration is the wealth of information they collect compared to other data sources, which allows for in-depth analysis of the likely causes of international migration or of its consequences for the persons involved. Another advantage of household survey in comparison to other sources is its flexibility to capture the group of migrants of most interest to the study. It should be noted, however, because of the low percentage of international migrants present in most countries, the sample size of the survey needs to be reasonably large to identify enough migrants for meaningful analysis.

Passenger surveys directly target persons who cross or are about to cross national borders. They are carried out by face-to-face interviews with a sample of passengers as they enter or leave the country. The survey design involves sampling a route or a port on a given day and within a given period. And within each period certain passengers passing an interview line are systematically chosen for interview. A few countries such as the United Kingdom, Sri Lanka and the Republic of Korea have been successful in using passenger surveys to identify international migrants. Such data collection mechanism seems to be most successful for island countries that do not have land borders with other countries. A major challenge in obtaining data at border crossing points is the sheer volume of movements that take place, the vast majority for purposes other than to change

residence. Hence, it is difficult to distinguish migrants from travellers. The passenger surveys also confront the problem of the lack of an appropriate sampling frame.

Data gaps and challenges: undocumented migrants

With both statistical and administrative sources, undocumented migrants may be partly or totally excluded from data collection. Administrative registrations, e.g. conducted as part of regularisation programmes or the registration of irregular migrant worker apprehensions by police or - administrative records with the Ministries of Labour or Ministries of Employment have been used to estimate the total number of “irregular” migrants however the numbers based on such registrations may be more indicative of overall positive or negative trends or of the authorities’ efforts and priorities than of (variations in) their actual numbers.⁵

With regards to administrative sources, unlike statistical sources, administrative sources are designed to collect information and generate data for administrative functions and are often not designed to support research or statistical analysis explaining the reasons for migration. As with statistical sources, users of administrative data sources should take into consideration the purpose and quality of data collection before making use of the data.

The responsible government body and the types, quality and regularity of administrative information collected vary widely. One advantage of administrative sources is their ongoing coverage; they are often updated on a continuous basis. However, in developing countries, the advantages of administrative sources can be diminished due to limited official collection and reporting owing to a lack of funding and insufficient human resources.

Good practice

With regards to “irregular migrant workers”, surveys and qualitative (ethnographic) fieldwork focused on this hard-to-reach population can elicit information about how irregular migrant workers enter and participate in the labour markets in destination countries. These methods could also be used to study return migrants and how they re-integrate in their domestic labour markets. Additional examples of good practice are included in Chapter 4a.

Key messages and recommendations to address gaps

This Handbook presents methods and practices to improve the data and evidence base for each of the key policy areas addressed. In each Chapter, the section on key messages and recommendations presents suggestions for improvements.

⁵ The reports from the Clandestino project provide a comprehensive overview and evaluation of the different methods for estimating the number of undocumented migrants present in a number of European countries. They are available from http://irregular-migration.net/Working_papers.6113.0.html.

Chapter 1c Innovative Data Sources

IOM's GMDAC

Introduction

This chapter focuses on the potential of innovative migration data sources, such as mobile phones or social media, for measuring migration and its impact on development. While the availability of migration statistics from traditional data sources (described in the previous chapter) is not as poor as is often claimed and countries' ability to regularly collect migration figures has improved, significant gaps remain in terms of quantity, accuracy, timeliness, disaggregation, comparability (over time and across countries) and accessibility of migration-related data. For instance, a third of African countries have not conducted a national census in the past 10 years, 5 of them in 20 years⁶. Where national censuses are regularly carried out, the time-lag between data collection and actual availability for analysis is such that data cannot inform policies in a timely manner. The same is true for household surveys (which are also very costly) and administrative sources of data. This implies that, on the one hand, there is a need to further build countries' capacity in collecting, processing, analyzing and disseminating migration data from traditional sources; on the other hand, countries should look into the vast and underexplored potential of innovative sources of data. Both aspects will be relevant in strengthening the migration evidence base, as called for at the 2013 UN High-Level Dialogue on Migration and Development, and therefore contributing to a better understanding of the impact of mobility on development – all the more relevant given the likely inclusion of migration in the UN post-2015 Sustainable Development Goals (SDGs).

Innovative data sources: what they are and why they are relevant

Mobile phones, online tools and platforms such as social media or online payment services, and digital sensors and meters such as satellite imagery represent potential innovative, "big data" sources of migration data. Rapid technological advancement coupled with emerging socio-economic trends has contributed to generating an unprecedentedly large, detailed and complex data flow from these sources, which keeps being fed at an unprecedented pace (Reimsbach-Kounatze, 2015).

There are now 7 billion mobile phone subscriptions globally, at least 5 billion of which are in developing countries. Mobile phone penetration reached 69% in Africa and 89% in Asia and the Pacific by the end of 2014, and the growth in mobile phones in these regions is the highest globally (ITU, 2014)⁷. The number of internet users worldwide approached 3 billion by the end of 2014, two-thirds of which were in developing countries (Ibid.). The number of Internet users through mobile phones in Africa is predicted to increase 20-fold by 2020, and voice-call traffic to double by then (Ericsson, 2014). Use of social media is also growing rapidly in the developing world. Mobile money transfer systems for domestic remittances have risen exponentially, particularly in some African countries (notably the M-Pesa mobile money service in Kenya), thanks to mobile technology diffusion and the low costs associated to such transfers (relative to

⁶ Source: Africa Survey 2014, available at <http://gga.org/africa-survey>.

⁷ Mobile phone penetration in OECD countries is above 100% (ITU).

alternative money transfer services). The use of mobile technology for international remittance transfers accounted for less than 2% of global remittance flows in 2013 (10 billion out of 542 USD), and there are still significant challenges related to the wider diffusion of digital remittance payments (World Bank, 2014); however, their use is also likely to increase in the coming years. Over 30 million physical sensors and meters, such as satellite and infrared imagery, or devices to record electricity consumption and carbon dioxide emissions are used today in a variety of areas including transport systems, security and the environment. All these patterns point to the relevance of innovative sources of data for improving migration statistics.

Although there is no commonly accepted definition of “big data”, this can be broadly described as anonymized data inadvertently created and stored – usually in private companies’ databases – every time a mobile phone call is made, a text message sent, an Internet search run, or a social media update posted (a phenomenon commonly referred to as “data exhaust”; Latouzé, 2012). The main characteristics of big data are usually referred to as the three “Vs”: the first is the “volume” of data available which is of unprecedented size due to the diffusion of mobile devices, web-based tools and social media worldwide; the second characteristic is the “velocity” at which such data is generated, basically in real time; “variety” or complexity is its third characteristic, since big data is made up of both structured data (e.g. online payment records), and unstructured data (e.g. social media content). The analytical capacity required to process the large amount of data coming from these sources is also unprecedented; advanced computational methods are needed to extract meaning from such data and capacity is unequally distributed across countries – the so-called “digital divide”.

The types of big data sources that can be most relevant to the analysis of migration-related phenomena can be classified under two broad categories:

- 1) **Cellular calls, texts and transfers** activity: namely, communication services (calls and text messages) and financial services (mobile money transfers).
- 2) **Internet-based** activity (including from cell phones): in particular, information services (use of search engines, repeated logins to a website), communication services (use of e-mails and social media), and financial services (online money transfers).

Judging from existing migration studies based on big data (described below), these sources can potentially inform migration statistics in various areas included in this handbook, such as:

- Forced displacement due to **environmental** disasters, conflict and post-conflict situations;
- **Remittances**, or patterns of mobile money transfers;
- More generally, the estimation and prediction of **migration trends** (flows and rates), notably patterns of internal migration which are usually harder to track through traditional data sources;

- **Human trafficking**, as the information collected from phone calls or text and e-mail messages exchanged with victims can be used to understand trafficking trends as well as to provide targeted and timely assistance to victims.

Big data sources such as social media content can contribute to the analysis of **transnational networks** as well as of **public discourse** on migration in destination countries, which are useful for understanding the social determinants and social impact of migration in recipient communities. The following section describes existing studies in these areas to learn from, expand and build upon for migration data collection in the future.

Existing sources and standards for data collection

a. Mobile-phone-based sources

The most advanced existing studies using big data in the field of migration are based on Call Detail Records (CDRs). CDRs are anonymized digital records passively collected by mobile network operators every time a network subscriber makes a call. Importantly, such records include information about the location of the calling and receiving end, approximated by the location of the cell tower to which the SIM card connects during a mobile phone call (the one in closest proximity). Location information is more precise in urban areas, where the distance between cell towers is smaller, while it becomes relatively less accurate in rural areas where cell tower concentration is lower. Apart from location, CDRs contain information on the time and duration of the call as well as the calling and receiving number, allowing for anonymous identification of the caller and receiver.

Call Detail Records could help to fill knowledge gaps in areas where data collected through traditional sources is porous, namely internal and temporary or circular migration. In a study by Blumenstock (2012), CDRs were used to estimate internal migration patterns in Rwanda, while in Eagle et al. (2009) call records informed an analysis of the differences in mobility patterns between of rural and urban residents.

CDRs can potentially allow for tracking post-disaster displacement in a timely fashion, and therefore inform prompt and specifically targeted assistance operations, given people move rapidly and in an uncontrolled way in the aftermath of natural disasters. This was demonstrated in a pioneering study by Bengtsson et al. (2011), where population outflows from Port-au-Prince following the 2010 earthquake were estimated using anonymized records of 2.8 million cell phone owners who made at least one call before or after the earthquake struck. The location information contained in the call records made it possible to track the magnitude of people's movements quite accurately, as the estimates provided by the study came close to data collected retrospectively.

Given the potential of innovative data in these contexts, institutions such as Georgetown University and the United Nations University are looking into ways of using big data sources to create early-warning systems for conflict- or disaster-induced population displacement⁸.

Other types of cell phone usage records have been used, for instance, to track modalities and determinants of mobile money transfers in post-disaster situations (Blumenstock et al., 2013). Beyond call logs, anonymized records of text messages and money transfers between 1.5 million subscribers to a Rwandan network operator in the four-year period following the 2008 earthquake allowed recognizing risk-sharing patterns for a significant section of the population. Finally, an anti-human trafficking organization based in the US (Polaris Project 2014) operating a hotline for trafficking victims uses information obtained from phone calls and texts or e-mails with victims, to identify trafficking trends and provide an immediate and targeted response, as its database contains information on age, immigration status, language needs and shelter requirements⁹.

b. Internet-based sources

Studies based on big data from these sources, though still less advanced, are rapidly growing. Anonymized search query records of certain terms can be used for various purposes such as estimating the number of foreign nationals in a country. By looking, for example, at the Google “search volume index” (the volume of searches of the term of interest relative to all searches run within a specific region in a time period) of the term “Polski” in England over the period 2004-2010, Williams and Ralphs (2013) obtained a trend of the number of Polish nationals in the UK which was similar to that from official statistics. Results for Lithuanian and Romanian nationals were also quite close to official figures. In spite of the current methodological limitations and concerns over data quality, this approach has the potential to predict sudden changes in migratory patterns to a specific area.

Records of repeated logins to the same website over a time period can help infer migration flows in the short to medium term, and identify circular or temporary migration patterns in certain settings. For instance, in Zagheni and Weber (2014), IP-addresses from repeated user access to the Yahoo! Services website of over 100 million users over one year allowed the authors to infer global mobility patterns and estimate the likelihood of a user moving to another country. By looking at the mobility patterns of Yahoo! users, the authors formulated a statistical model to infer migration rates at the population level, adjusting estimates to correct for different Internet penetration rates in different countries, and choosing parameters that maximize the likelihood of observing official data on emigration rates for a certain number of countries. This is technically made possible by the fact that IP-addresses mostly correspond to a physical location, and data cleaning protocols can be used to reduce the inaccuracy of IP-based location information.

The same could be done by mapping the IP-addresses from which e-mails are sent. Moreover, users’ self-reported information allows disaggregation of anonymized records by age and gender, and therefore estimating age- and gender-specific migration rates (Ibid.). However, one needs to

⁸ See <http://www.georgetown.edu/research/news/isim-forced-migration-warning-system.html> and <http://www.ehs.unu.edu/mdeep>.

⁹ <http://www.polarisproject.org/>.

assume that a user's country of ordinary residence is the one from which she or he sends the highest number of e-mails. Other methodological issues such as self-selection due to the sample being only composed of internet users need to be corrected for; however, the speed of data generation and the short time lag between collection and availability of data for analysis provide a potential for migration studies which is worth further exploring.

Social media are a potentially rich source of migration data too, given their widespread usage and some specific features, such as the geo-location of users' activity. The number of monthly active users of Facebook is now about 1.4 billion; that of Twitter is approximately 284 million¹⁰. In Africa, where internet penetration is lowest, Facebook users reached 100 million in 2014, and 11.5 million geo-located Tweets originated across the continent in the last 3 months of 2013¹¹. The fact that users' activity on social media is geo-located, and that users often voluntarily provide geographical information means it is possible to use it to infer migration trends, as well as to compare patterns of internal and international migration (Zagheni et al., 2014; Facebook, 2013¹²). The self-selection bias inherent in the use of such sources of data which refer to solely to the part of the population regularly using social media, needs to be addressed to extrapolate meaningful results from these studies.

Some innovative analyses of migration-related phenomena have also been carried out on the basis of unstructured and publicly available social media content. Interactions on social media contribute to the formation of virtual transnational networks of migrants and can help to understand how such networks are formed and what their role is in incentivizing further migration (Nedelcu, 2012).

Finally, social media content may be a source of information on public attitudes towards immigrants and immigration¹³, although there are issues with the quality of self-provided data and difficulties in the processing of vast quantities of unstructured information.

Data gaps and challenges

This chapter has shown how innovative data sources can become important, comprehensive, relatively cheap and timely complementary sources of data for the analysis of migration-related phenomena. However, big data do not come without limitations. First of all, serious privacy and ethical issues derive from the fact that the types of big data described above are mostly generated inadvertently by users. There are also civil liberties concerns related to the potential use of big data for surveillance of people, for instance by government agencies, which could seriously affect people's freedoms. With specific regard to the field of migration, big data offer unprecedented possibilities to observe and surveil population movement, posing significant risks of violation of people's fundamental human rights, as well as personal safety concerns. Use of such information for the purpose of research and policy therefore needs to be matched by guarantees of confidentiality and respect for individual privacy. Policymakers, researchers and practitioners

¹⁰ Figures available on the Facebook Inc. and Twitter websites.

¹¹ See <http://www.portland-communications.com/publications/how-africa-tweets-2014/>.

¹² See <http://www.unglobalpulse.org/big-data-migration>.

¹³ See www.uniteeurope.org

urgently need to come together to establish the appropriate methods to meet international standards within an adequate regulatory and legislative framework for collection, analysis and sharing of data coming from innovative sources¹⁴.

More generally, the use of innovative sources of data raises concerns over the potential widening of the gap between information-rich and information-poor countries. There is a risk that the use of big data could exacerbate global inequalities instead of enhancing evidence-based policymaking for development. In spite of the exponential growth of new technologies in all regions of the world, some areas are still lagging behind. African countries' investments in internet services are less than one third of those in advanced economies, equaling 1% of GDP¹⁵. On the other hand, although only 7% of local households in Africa, mostly found in South Africa, have access to the internet in the home it has been estimated that 48.9% of South Africans and 38% of Nigerians have access to the internet, mostly via cell phones (Internet Society <http://www.internetsociety.org/map/global-internet-report/#global-internet-penetration>). .

There are technical and analytical challenges in the effective use of data from innovative sources. Big data are sometimes not easily accessible or shared between the repositories of data (mostly private companies) and those with the technical capabilities and willingness to process and analyze the data, not least because of inappropriate infrastructure, data management and security systems. On an analytical level, big data can be of poor quality or not easy to “clean” and therefore extracting meaningful insights (due also to their enormous volume and complex nature) can be difficult. Good quality big data are not automatically meaningful either. First of all, a large sample is not necessarily representative of the entire population due to the inherent self-selection bias of the data source. Biased data can generate biased analyses and may lead to the formulation of inappropriate or potentially harmful policies. Careful processing and analysis of big data requires specific skills and technical capabilities which need to be developed.

Key messages and recommendations to address gaps

In order to make systematic and effective use of innovative data sources possible in the field of migration and development, more work at technical, analytical, ethical and institutional levels is required. However, this does not diminish the value added of big data to complement existing data sources and fill current gaps in the migration knowledge base, tapping into the opportunities offered by technological progress. Acknowledging the potential of big data (particularly for better matching between the “data production cycle” and the “policy decision cycle”¹⁶ due to its timeliness, level of detail and frequency) as well as its shortcomings (including confidentiality, quality and partiality) is the first step towards finding ways to make better use of big data sources in the field of migration. Interest is growing among businesses, governments, international organizations and academics, as demonstrated by increased investments and initiatives in this area. Further international dialogue and knowledge exchange between all these actors is needed

¹⁴ See “A World That Counts: Mobilizing the Data Revolution for Sustainable Development” by the UNSG Independent Expert Advisory Group on a Data Revolution for Sustainable Development (2014), available at <http://www.undatarevolution.org/report/>.

¹⁵ Ibid.

¹⁶ See note 8

to establish frameworks and practices to systematize the use of innovative sources for migration statistics. This is particularly crucial in light of the likely inclusion of migration-related targets and indicators in the 2030 Agenda for Sustainable Development, and the need to monitor progress towards achievement of migration-related targets.

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CHAPTER 2 REASONS FOR MIGRATION

Chapter 2a Work

Key policy issues

One of the key motivations behind international migration is moving for jobs, with people migrating internationally due to economic inequality and/or in search of work. Combined with vulnerability to economic, political and environmental crises and shifting demographics, these push and pull factors will continue to drive labour migration for decades to come. These contemporary realities have led to:

- Increased numbers of women migrating, where women currently represent almost half of all migrants, an increasing number of whom are migrating on their own account (or independently) for the purpose of employment;
- A significant young labour migrant population (between 15 and 24 years old) representing one in eight migrant workers;
- Greater intra-regional movement where more migrants seek work within their own developing region (South-South labour migration); and
- A shift from simple origin-destination dichotomies to one where a country may be a simultaneous destination, transit and origin country. (ILO, Labour Migration and Development: Setting a course for the future, 2013, UN, 2013)

The key policy issues resulting from people migrating for work go beyond labour migration policies and relate to demographic, social and economic, labour market and education/training policies. Two noteworthy policy issues regarding labour migration are: (i) what and how does the structure of national, regional and local economies drive migration for employment and (ii) how does labour migration fit within current economic and development policy decision-making?

The ability to adequately answer these policy questions depends on the availability and quality of key statistics on migrant workers and labour migration.

Data needed to analyse the topic

Though data collection capabilities vary at times significantly across different institutions and countries, several key statistics should be considered at the national level as “priority data” to improve the understanding of labour migration as well as to promote comparability of results and their analysis across both origin and destination countries.

Data collection and analysis prioritisation should answer two basic questions:

- (1) What type of information (e.g. data variables) is needed to understand levels of and reasons behind labour migration?
- (2) Which data collection methods (e.g. cross-sectional or longitudinal) and methodologies (including concepts and definitions) are needed to meet common national, regional and international standards and definitions?

Key statistics for understanding the socio-economic profile of migrant workers include:

- Age
- Sex
- Occupation
- Educational attainment
- Economic activity¹⁷
- Labour force status (as per the 19th ICLS Resolution concerning statistics of work, employment and labour underutilization)
- Working conditions (e.g. formal or informal; working hours; wages)
- Reason(s) for migration

Additional information can further facilitate comparative data analyses across migrant worker groups and the assessment of differences in labour market profiles and geographic differences (urban/rural areas, countries and regions). Such additional information includes:

- Geographic location (e.g. region) of current employment
- Time of (most recent) migration for employment
- Recruitment mechanisms (e.g. private recruitment agency or public employment service, personal networks)
- Work status (including migrant workers in irregular situations¹⁸)
- Citizenship/nationality
- Residence status (e.g. possession of a valid residence permit)
- Country of birth, origin or most recent residence before migrating for work
- Ethnicity, religion, language or other relevant terms of identity, where available
- Family/household situation (e.g. civil status; household composition)

Occasionally, data collection and statistical reporting require sensitivity in how questions are asked and how data are released. For guidance on handling sensitive topics and vulnerable populations, data collection offices are encouraged to consult available academic and government research reporting on these issues in general (Fowler, 1995) and in the field of migration in particular (Düvell et al, 2010; McAuliffe, 2013). Unless restricted by law, omitting questions deemed “sensitive” from data collection is one possible, but limited, solution. As an example, “resident

¹⁷ The United Nations (2008) provides the international reference classification of all productive activities through its report International standard industrial classification of all economic activities (ISIC), Rev4 (ST/ESA/STAT/SER.M/4/Rev.4) (p. 307). New York.

¹⁸ A migrant worker in an irregular situation refers to any person not “authorised to enter, to stay and to engage in a remunerated activity in the State of employment pursuant to the law of that State and to international agreements to which that State is a party”. (Derived from article 5 of the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, cf. UN, 1990).

status” may be a sensitive topic for persons in an irregular situation in a country. However, formulating policy responses to adequately address the needs of this population are more likely to be effective if based on quality data which include knowing the size of the targeted population (and, if possible, its characteristics).

Existing sources and standards for data collection

The International Labour Organization (ILO) supports the development and improvement of data collection instruments, such as household-based labour force surveys, according to international standards and common methodologies. The ILO encourages the adoption of such standards on labour migration as put forward in Resolution I: Resolution concerning statistics of work, employment and labour underutilization to the 19th International Conference of Labour Statisticians (ICLS, October 2013).

Moreover, policymakers and practitioners seeking the adoption of or further adherence to common standards in the measurement of labour migration can find additional guidance from international sources including:

- International Migration Statistics: Guidelines for improving data collection systems (p. 453). International Labour Office, 1997.
- Recommendations on Statistics of International Migration, Revision 1 (p. 113). United Nations, 1998.

Further, although internationally recognized legal definitions exist of an international 'migrant for employment' (C.97, Article 11) or 'migrant worker' (C.143, Article 11, UN ICMW, Article 2), there is no internationally accepted statistical definition for data collection. Therefore, the ILO recommends that for the purposes of data collection, the term 'migrant worker' also encompass persons who may not currently be employed or economically active at the time of their migration.

Data gaps and challenges

To adequately address key policy issues on labour migration, timely and quality information must be collected, reported and made available for analysis and debate. Generally speaking, gaps and challenges in the collection, use and availability of official statistics result from a range of sometimes overlapping technical, political and financial reasons including:

- Lack of quality data relevant to the analysis of labour migration including missing populations of interest, inconsistent periods of data collection or key characteristics not being collected;
- Limited data comparability due to use of different concepts, definitions and measurement methods;
- Lack of infrastructure to process data in national data collection institutions or at border crossing points;
- Poor data quality assurance policies or programmes concerning data collection, security and confidentiality;
- Insufficient expertise among staff collecting or analysing data;

- Lack of infrastructure to publish key characteristics, populations or places of interest; and
- Labour migration given insufficient priority in national policy agendas and related budget allocations.

These issues need to be understood for each data source in light of national circumstances and the overall statistical and administrative capacity of the country.

For statistics on international labour migration, countries are likely to be located at different points along a continuum between the following situations: (i) the country's government may have limited resources and statistical capacity, there are numerous entry/exit ports through which a large number of international travellers pass, which are difficult to monitor adequately; and (ii) the country's government may have ample resources and experience as well as a strong statistical capacity; the country may have a limited number of ports through which a limited number of travellers pass. It is reasonable to expect better statistics on international migrant workers from countries close to type (ii) than from countries close to type (i).¹⁹

¹⁹ See Hoffmann & Lawrence (1996) for more discussion of these situations.

Good Practice Example

Labour Migration Modules (Labour Force Survey)—A Baseline for Measuring Ukraine’s and Moldova’s Migrant Workers at Home and Abroad

With the goal of improving the collection and production of internationally comparable labour migration statistics, the ILO created the Labour Migration Module as a series of questions on labour migration which can be added to existing household surveys, including the Labour Force Survey (LFS), in countries of origin and countries of destination.

The module was piloted in 2006–2007 in four countries (Armenia, Ecuador, Egypt and Thailand) and then implemented as part of Labour Force Surveys (LFS) in Ukraine and Moldova in 2012. The survey covers:

- The scale, scope and geographic coverage of labour migration
- The socio-demographic composition of labour migrants, including their educational attainment, areas of training before departure abroad
- Economic activities, working conditions, frequency and duration of trips.

Conducted among all regions of Ukraine (population 45.5 million) and Moldova — except Transnistria — (population 3.5 million), over 23,000 Ukrainian households responded and about 6,000 Moldovan households participated in the Labour Migration modules. Over 45,000 people in Ukraine and more than 11,000 people in Moldova were interviewed about labour migration issues and how they personally affected their lives. The survey sought answers about where Ukrainian and Moldovan workers migrate for employment, their education and qualifications, their economic activities at home and abroad, the frequency and duration of their journeys and many other aspects relevant to governing labour migration flows.

The labour migration module offers many benefits to the collection of data on labour migrants. The module provides a rich source of data including social and economic characteristics of labour migrants. Assessments to date show that the module promotes greater protection of and respect for migrant workers' rights by providing governments with a tool for collecting reliable data on the number of migrant workers, their working and living conditions and on remittance flows and their use. Furthermore, by using existing data collection instruments and infrastructure it employs a cost-effective implementation strategy and minimises any additional burden on national statistical offices.

A better understanding of labour migration and the choices migrants make can help governments to formulate effective and coherent policies, as well as improve the global knowledge base on labour migration and the challenges and opportunities it presents. The work in Ukraine and Moldova was implemented by the ILO in cooperation with Moldovan and Ukrainian tripartite partners, the IOM and the World Bank, and was funded in the framework of the European Commission’s thematic programme of cooperation with third countries in the areas of migration and asylum. The overall objective was to strengthen Moldova’s and Ukraine’s capacity to regulate migrant labour and promote sustainable return, with a particular focus on enhancing human resources and preventing skills waste.

Sources: 1. Report on the Methodology, Organization and Results of a Modular Sample Survey on Labour Migration in Ukraine. Budapest: ILO, 2013; 2. Measuring Labour Force Migration in Moldova. (A report of the project “Effective Governance of Labour Migration and its Skill Dimensions”, November) Geneva: ILO, 2013.

Key messages and recommendations

Evidence-based policies on migration and development derive from the collection and reporting of accurate, up-to-date and relevant data on international migration, and on the contributions of migrants and migration to the global labour force and to origin and destination countries' sustainable, inclusive and equitable development. Moreover, the regular collection of quality data on the magnitude of and reasons leading to labour migration are essential to developing appropriate policy responses to understand the impact of labour migration on both sending and receiving countries.

In this area, priority actions are two-fold: **close the data gaps** and **raise the profile of (labour) migration**:

- Support and build quality data collection capacities (including infrastructure, staffing and data instruments, such as household-based surveys) that provide evidence-based responses to the key policy questions of: (i) what and how do structural realities drive labour migration and (ii) how does labour migration fit within current economic and development policy decision-making?
- Identify international migration (and labour migration in particular) as a priority issue not only for immigration, but also for sustainable, inclusive and equitable development.

The lack of sufficient financial resources and technical capacities associated with the gathering of migration data, especially in low- and middle-income countries, poses a formidable challenge. Inclusion of an additional set of questions has an impact on the survey costs and given tight public budgets this might hamper implementation. In addition, national statistical offices have an agreed long-term data collection plan with the government and it is difficult to include new surveys, even in cases where international funding is available. The inaccessibility of donor funding poses a challenge in terms of ensuring sustainability for data collection in the future.

At the international level, having reliable data on labour migration could strengthen policy coordination and development efforts among origin and destination countries, leading to the design of effective and efficient migration frameworks based on strong evidence. Thus efforts to increase the comparability of existing migration data should be enhanced, e.g. through regular fora/meetings of statistical entities. International organisations, such as the United Nations family, have an important role to play in building capacity and facilitating this process. The 1998 United Nations Recommendations on Statistics of International Migration is an important, internationally agreed instrument to be promoted and complied with to the greatest extent possible.

Adopted in 1985, ILO Convention 160 sets out minimum guidelines encompassing the collection, compilation and publication of basic labour statistics. Countries ratifying Convention 160 report annually on their application of the convention which is then followed by a technical evaluation carried out by the ILO's Department of Statistics.

Finally, adherence to international standards contributes to the standardisation of terminology and definitions of statistical concepts such as "work", where its various interpretations by countries may lead to inconsistent or incorrect understandings and policy responses concerning labour migration. The 2013 ICLS Resolution concerning statistics of work, employment and labour underutilization aims to set standards for work statistics (and is described above in section v., "Good Practice

Example”). In particular, paragraphs 60 and 61 of the Resolution recommend that “statistics of work should cover ... all persons who are usual residents of the country” including those who work outside the country, such as cross-border and seasonal workers and be supplemented with “information about the employment characteristics of non-usual residents working in the national territory” (ICLS, 2013).

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* The complete list of cited references on labour migration and its data collection can be found at the end of Chapter 3b, “Migration and development—Labour markets”.

“Knowledge and information are critical to formulate, implement and evaluate labour migration policy and practice and therefore its collection and application should be given priority (Principle III-Global Knowledge base)”.

Source: ILO Multilateral Framework on Labour Migration (2006)

The international community supports more “...evidence-based, policy-oriented research and data development on how workers’ rights, wages and other working and living conditions impact on development outcomes for migrant workers and countries of origin and destination.”-para.3 (v).

Source: ILO Tripartite Technical Meeting (2013)

DRAFT

Chapter 2b Study

UNESCO

Key policy issues

Increasing numbers of people are migrating for educational reasons. This is evident in the share of internationally mobile students (or mobile students)²⁰ in the student population across all destination countries, but also in the significant increase in the number of internationally mobile students worldwide and the differing patterns of such mobility. According to the UNESCO Institute for Statistics (UIS) the population of internationally mobile students at the tertiary level has almost quadrupled from about 1.1 million in 1980 to over 4.1 million by 2013.²¹ The phenomenon of student mobility will most likely grow in magnitude for a number of reasons, including the search for high-quality education, internationally recognized qualifications and better employment opportunities worldwide.²²

At the policy level, student mobility raises additional challenges that are specific to the education process. Developing adequate responses to these challenges should be an exercise entrenched in a human rights framework and, hence, shaped by relevant human rights standards and principles. The commitment to 'leaving no one behind' as well as to the realization of all human rights enshrined in the 2030 Agenda for Sustainable Development adds enormous political weight to specific legal obligations deriving from relevant international instruments.²³

A first set of issues relates to the accessibility of education.²⁴ Policy and regulatory frameworks should be creating equal opportunities for all and focusing on removing all discriminatory practices and other related obstacles preventing students, who originate from abroad and are members of disadvantaged groups, from receiving the education of their choice according to their capabilities. For instance, equal access should be ensured for female and male mobile students or for mobile students belonging to specific national, ethnic, religious or linguistic groups. Also, special measures (through scholarships, student loans, special accommodation and/or related subsidies, health insurance, etc.) should be adopted to eliminate economic barriers and alleviate indirect

²⁰ The UNESCO Institute for Statistics defines 'internationally mobile students' (or mobile students) as students who have crossed a national border and moved to another country with the objective of studying.

²¹ Detailed information on international flows of mobile students is available at: <http://www.uis.unesco.org/Education/Pages/international-student-flow-viz.aspx>. It should be noted that the data include only students who pursue a tertiary education degree or diploma outside their country of residence (so-called "degree mobility") and exclude students who are under short-term, for-credit study and exchange programmes that last less than a full school year (so-called "credit mobility").

²² For a brief discussion on international student mobility see Migration and Tertiary Education, in Migration and Youth: Challenges and Opportunities published by the Global Migration Group, available at: http://www.globalmigrationgroup.org/sites/default/files/14._Chapter_11.pdf

²³ The 2030 states inter alia: "We envisage a world of universal respect for human rights and human dignity", paragraph 8, and "This is an Agenda which seeks to respect, protect and fulfil all human rights." The full text of the UN General Assembly Resolution 70/1 entitled *Transforming our world: the 2030 Agenda for Sustainable Development* is available at:

http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

²⁴ See inter alia Article 13 of the International Covenant on Economic, Social and Cultural Rights and the General Comment N°13 of the Committee on Economic, Social and Cultural Rights on the interpretation of this provision at: <http://www.ohchr.org/en/hrbodies/cescr/pages/cescrindex.aspx>.

costs so as to enable the participation of mobile students from marginalized communities and poor population segments. Likewise, opportunities should be created for learners with special needs.

The recognition of qualifications and diplomas is another key determinant for admission to tertiary level education, as well as to Technical and Vocational Education and Training (TVET) programmes, in destination countries. Given the marked variation across countries with respect to the governance of foreign credential recognition, a main policy objective should be the establishment of a set of rules and procedures at the national level that are transparent and coherent. Policy frameworks should also address other issues relevant in this process, such as language and communication skills. Although the main responsibility lies with the authorities in the country of destination, those of the country of origin can greatly facilitate the process by removing eventual barriers on their side of the border. At the international level, the accession of countries to multilateral arrangements on foreign credential recognition, such as the six regional conventions under the auspices of UNESCO,²⁵ facilitates mobility by promoting quality assurance, as well as by reducing ambiguity and complexity, which often open the door to fraudulent practices.

Currently, UNESCO is leading two major initiatives on the cross-border recognition of qualifications. Firstly, UNESCO leads the process of preparing a global convention on the recognition of higher education qualifications. A drafting committee has been established to work on a preliminary draft. In addition to other benefits, the adoption of a universal instrument would have a positive impact on regions where there is not an active regulatory framework.²⁶ A rapidly emerging complement to international legally-binding instruments is the adoption of regional qualifications' frameworks. These describe qualifications in terms of workload, level, learning outcomes, competencies and profiles. Adherence to such regimes is meant to promote comparability of qualifications, transparency, and thus facilitate the movement of learners and improve employability.²⁷

Secondly, pursuant to a recommendation of the Third International Congress on TVET²⁸, UNESCO spearheads the process of development of a set of world reference levels (WRLs). By providing a neutral and independent reference point against which a level of learning can be assessed, WRLs have the potential of facilitating the international recognition of TVET qualifications thereby supporting the mobility of learners and workers, participation in labour market and lifelong learning. Drawing upon the findings of a global study on the use of level descriptors for defining learning outcomes²⁹, UNESCO launched a bottom-up process with the establishment of an Expert Group in order to connect key regional and international organizations³⁰ working in the field of recognition of qualifications, as well as to develop common guidelines in this area. The initiative also includes a monitoring function to the WRLs

²⁵ Namely in Africa (1981), Arab States (1978), Arab and European States bordering on the Mediterranean (1976), Asia and the Pacific (2011), Europe (1997), and Latin America and the Caribbean (1974).

²⁶ See inter alia the records of the 38th General Conference of UNESCO and the resolution on the preliminary report concerning the preparation of a global convention on the recognition of higher education qualifications. Document 38 C/Resolution 12, accessible at: <http://unesdoc.unesco.org/images/0024/002433/243325e.pdf>

²⁷ For information on frameworks of qualifications in the Europe and North America region: <http://www.enic-naric.net/framework-of-qualifications-in-the-europe-and-north-america-region-new.aspx>

²⁸ <http://www.unesco.org/new/en/education/themes/education-building-blocks/technical-vocational-education-and-training-tvet/third-international-congress-on-tvet/>

²⁹ <http://unesdoc.unesco.org/images/0024/002428/242887e.pdf>

³⁰ These include the Association of Southeast Asian Nations, the Caribbean Community, the Commonwealth of Learning, the European Commission, the Gulf Cooperation Council, the Pacific Community, and the Southern African Development Community.

through the periodic production of a global inventory of regional and national qualification frameworks.³¹

The issue of credential recognition as a necessary requirement for enrollment in an education programme should be distinguished from the assessment of professional standards and related criteria for the purpose of registration or permission to practice a profession once the study cycle has been completed. However, there is an inherent correlation between the choice of an education programme and the resulting patterns of study mobility on the one hand and the transferability of skills obtained by that programme and access to labour market on the other.

A further challenge derives from the fact that monitoring the flow of internationally mobile students is a responsibility shared between education policy-makers and tertiary education institutions, foreign affairs and interior ministries, as well as immigration officials, which may result in divergences on core issues. Hence, the need for policy frameworks that set unequivocal targets, establish a clear division of labour and promote coordination and interaction among actors across the board, with emphasis on the elimination of inequalities and discrimination.

Finally, an additional enabler for increasing the accessibility of national education systems to mobile students is the availability of adequate information, including on what the study visa requirements are, the conditions of admissions and how the foreign credential recognition regime is constructed and what support is available for such students.

Data needed to analyse the topic

A starting point for preparing national education systems for the arrival of international students and for adapting the corresponding policy frameworks is the development of a good understanding of the global and regional trends of international student mobility. Statistics show that cross-border education patterns have shifted over recent years (e.g. internationally mobile students have a wider choice in destinations and are more likely to study in other countries within their region of origin) and are likely to continue mutating under the influence of a host of factors. These include but are not limited to: demographics; economic growth and decline; the expansion of local tertiary education systems; immigration policies and regulatory environments of competing host countries; funding schemes for study abroad, level of tuition fees, etc.; and the emergence of technology-enabled alternatives like Massive Open Online Courses (MOOCs).

Furthermore, education planners should make available information on the profile of mobile students and its correlation with the probability of admission to the national education system and the grant of study visas. Data disaggregated by gender, migration status, national or ethnic origin and socio-economic status will be required. This will allow assessment of the accessibility of the system, bringing to the forefront eventual patterns of discrimination and exclusion at any stage of the process. For instance, it would be extremely useful in shedding light on cases where students admitted to a study programme by a tertiary education institution failed to obtain a study visa. However, one needs to acknowledge the difficulty of collecting such data as these are not necessarily compiled in an accessible way.

³¹ <http://uil.unesco.org/fileadmin/keydocuments/LifelongLearning/en/NQFInventoryVol1.pdf>

Additionally, data should be provided on the number and profile (including country of origin) of internationally mobile students receiving financial (e.g. allowances, loans and study grants) or other support with the aim of ensuring social protection and decent living conditions (for example housing services, health insurance, etc.). This will help ascertain the effectiveness of the assistance schemes on offer and any eventual shortcomings. Recognizing precisely the importance of scholarships programmes in internationalizing tertiary education and enhancing education opportunities for young people and adults, target 4.b of the Sustainable Development Goals calls for the significant expansion of scholarships to developing countries for enrolment in higher education in developed countries and other developing countries.³²

More specifically, in terms of improving foreign credential recognition systems, data should be made available to shed light on the policy priorities that drive foreign credential recognition processes (e.g. skill migration selection purposes, work in regulated fields, etc.) and also to what extent those considerations affect the recognition process and its outcomes.³³ This can be done, for instance, through the operation of relevant national information centres. It is also important to establish the range and level of functionality of bilateral/multilateral agreements related to migrants, as well as the scope of global foreign credential recognition partnerships and their effectiveness for origin and destination countries. Furthermore, to determine the degree of adaptability of education programmes to labour market requirements, it would be useful to have information on transferability of skills and recognition of foreign qualifications and diplomas not only in the country of origin but also in third countries.

Crucial information for furthering student mobility across countries includes data on governance-related questions. This would allow an assessment of the interaction, coordination and coherence amongst different institutions having responsibilities in this domain and their effect on the accessibility of a country's education system to internationally mobile students. Opinion polls and surveys would be invaluable in highlighting the perspectives of students on these matters. Such instruments would also be helpful in evaluating the availability and effectiveness of foreign credential recognition processes, student support schemes and visa requirements.

Existing sources and standards for data collection

UIS in partnership with Eurostat and the Organization for Economic Cooperation and Development (OECD) gather data on mobility of tertiary-level international students and doctorate holders to track trends in the mobility of these populations. The procedure for recording data on internationally mobile students involves destination countries collecting data on how many internationally mobile students study in their countries and where these students come from.

³² Target 4.b of SDG 4, stipulates: "By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries". See at:

http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

³³ See in Migration and Education: Quality Assurance and Mutual Recognition of Qualifications, Summary of Expert Group Meeting (Nine Country Audit) at:

<http://unesdoc.unesco.org/images/0017/001798/179851e.pdf>

These data are then compiled by the UIS who uses them to estimate the number of students from a given country who study abroad. UIS databases provide information about the distribution of mobile students by sex, destination and origin countries, and the type of programme that students are enrolled and graduate from.³⁴ Additionally, the UIS has developed a set of eight indicators at the country level to assess student mobility, both outbound and inbound, and to highlight global and regional student flows. Furthermore, UIS produces the Mobility Dispersion Index, which reflects the extent to which mobile students from a given country are either concentrated in a few destination countries or distributed among a larger group of countries. Finally, the project on the Careers of Doctorate Holders (CDH), developed by UIS, OECD and Eurostat, focuses on the transition to the job market of doctorate-holders, and is designed to guide governments in their national data collections by producing a 'toolkit' consisting of methodological guidelines, a core model questionnaire, output tabulations and supporting documents.³⁵

On foreign credential recognition, information is generated in relation to the implementation of the relevant regional normative instruments promoted by UNESCO. For instance, the European Network of National Information Centre (established by the Council of Europe and UNESCO) and the National Academic Recognition Information Centres in the European Union provide, in a joint website, up-to-date information on current issues in international academic and professional mobility, and on procedures for the recognition of foreign qualifications, supplied and maintained by the competent bodies in each member country and by each member organisation.³⁶ For Latin America and the Caribbean, a leadership role is assumed by the UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC) through initiatives such as the project ENLACES³⁷ and the Observatory on Academic and Scientific Mobility, among many others.³⁸ Finally, useful information on the same issue is produced as part of the regular monitoring of the 1993 UNESCO Recommendation on the Recognition of Studies and Qualifications in Higher Education.³⁹

Administrative records compiled typically by the ministry of finance, ministry of education or national statistical office provide information on subsidies to students either from government or other private entities, but these data are not necessarily disaggregated by mobile and non-mobile students.

Data gaps and challenges

An area where concerted efforts are needed is the detailed mapping of international student mobility. Currently, not all countries collect information about international students' country of origin, and a lack of such information results in underreporting the number of students from a

³⁴ <http://www.uis.unesco.org/Education/Pages/international-student-flow-viz.aspx>

³⁵ See the relevant UIS webpage at: <http://www.uis.unesco.org/ScienceTechnology/Pages/doctorate-degree-holders.aspx>

³⁶ <http://www.enic-naric.net/>

³⁷ http://www.iesalc.unesco.org.ve/index.php?option=com_content&view=article&id=334&Itemid=292

³⁸ http://www.iesalc.unesco.org.ve/index.php?option=com_content&view=article&id=2478&Itemid=643

³⁹ The implementation of the recommendation is entrusted upon the Committee on Conventions and Recommendations, which is a subsidiary of UNESCO's Executive Board. The most recent report of August 2014 is available at: <http://unesdoc.unesco.org/images/0022/002292/229207e.pdf>

given country studying abroad.⁴⁰ Moreover, available data do not always document students who are under short-term, for-credit, exchange programmes that last less than a full school year (so-called “credit mobility”). Important data gaps are observed on different aspects of accessibility to education programmes outside one’s country of origin.

Although data on internationally mobile students are often disaggregated by sex, additional information would be required so as to establish to what extent a national system grants equal opportunities to students coming from abroad in order to identify potential patterns of discrimination and exclusion. Data on fees payable and available scholarships would be helpful in implementing Target 4.b (calling for the expansion of scholarships available to students from developing countries). However, the accessibility of such programmes to disadvantaged groups (particularly women and girls, members of national, ethnic, religious and linguistic minorities and people living in relative poverty) seem to remain outside the purview of the proposed indicator linked to the monitoring of this target.⁴¹

There is a shortage of transparent, reliable and up-to-date data that could be the basis of comprehensive and coherent recognition regimes for foreign credentials. The availability of data on such regimes varies markedly by country (including the degree of access to national, regional, and regulatory body data to facilitate assessment of foreign credential recognition applications and outcomes), and by differences in candidate results by variables, including country of training, age, gender, the results of first compared to subsequent attempts, and overall outcomes in different fields. Similar data challenges affect the recognition of qualifications and competencies and the related national or regional frameworks of qualifications.

Sources of information covering a large array of matters related to the effectiveness of existing policy frameworks on student mobility that could be further exploited are surveys and opinion polls recording the perceptions of internationally mobile students. Among other issues, and in the absence of systematized information from other sources on financial support provided to mobile students, surveys could generate data on the type and amount of aid received by such students.

Good practice

Only a few countries gather data on both inbound international students and outbound national students despite the fact that most governments maintain data on inbound international students. Malaysia’s data collection serves as an example of good practice. Like many countries, the Malaysian government compiles data on inbound international students (country of origin and type of programmes) from individual universities’ (both public and private) and institutions’ records of enrolment and graduation.

For Malaysian students who study abroad (both government-sponsored and self-financed), the Ministry of Education gathers data mainly from two sources. First, the Education Malaysia Division in individual destination countries compiles information about Malaysian students enrolled in that

⁴⁰ See inter alia the following UIS webpage: <http://www.uis.unesco.org/Education/Pages/FAQ.aspx#theme5>

⁴¹ The indicator proposed for Target 4.b the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, which was agreed as a practical starting point subject to future technical refinement by the Statistical Commission at its 47th session in March 2016, is: “Volume of official development assistance flows for scholarships by sector and type of study”. See at: <http://unstats.un.org/unsd/statcom/47th-session/documents/Report-on-the-47th-session-of-the-statistical-commission-E.pdf> and <http://unstats.un.org/unsd/statcom/47th-session/documents/2016-2-IAEG-SDGs-Rev1-E.pdf>

particular country and reports to its Ministry of Education. In countries where there are no representatives from the Education Malaysia Division, enrolment data are gathered from the Malaysian Embassy. The Embassies in each host country maintain their own database on Malaysian students who study abroad to monitor the health and safety of national students. The Ministry of Education in Malaysia then compiles and disseminates the data in its annual education statistics.

At the international and regional levels, the UNESCO/OECD/Eurostat education data collections, introduced in section 3, yields a unique dataset designed to examine mobility trends from the perspective of countries sending and receiving students at the tertiary level. As most countries do not gather data on where their national students go to study, this dataset is useful to trace where and in what kind of programmes national students obtain their tertiary education degrees or certificates abroad. In addition to degree mobility, Eurostat collects data on credit mobile students, as a tool to evaluate student mobility, which is high on the agenda of the European Higher Education Area.

Finally, it is worth mentioning the Groningen declaration initiative⁴² which seeks to connect digital student data depositories worldwide (with signatories in 19 countries thus far) and create a relevant ecosystem that would ensure the portability of student data and thereby foster academic and professional mobility.

Key messages and recommendations to address gaps

In view of the above considerations, a number of shorter and longer term actions could be undertaken by associated agencies at both national and international levels in different, but connected, fields such as education and immigration. These actions could be carried out by other key stakeholders, such as schools/universities and research institutions, to fill data gaps and adequately address key policy issues:

- Support (through the development of appropriate measurement tools, capacity-building and advocacy) the establishment of comprehensive data collection mechanisms in destination and origin countries to track mobile students and identify their profile through an appropriate disaggregation of data (Specific target: National agencies in charge of education statistics in origin and destination countries);
- Systematize the collection of data, in both destination and origin countries as appropriate, on the financial support as well as any assistance (for instance social security and health coverage, counselling, etc.), provided to internationally mobile students, and the profile of recipients (Specific target: National agencies in charge of student mobility in origin and destination countries and national agencies in charge of education statistics in origin and destination countries);
- Build on available mechanisms, including national censuses (already a number of countries obtain information about mobile students through that means), and use such instruments as surveys and opinion polls to generate information on the perceptions of internationally mobile students on a number of accounts, with emphasis on the accessibility of the

⁴² See the text at: <http://www.groningendeclaration.org/>

education system of the destination country and the adequateness of the support provided to the most disadvantaged;

- Advocate for origin countries to establish data collection mechanisms on their citizens that study abroad, using, as some countries already do, their network of embassies and consulates in destination countries, wherever available;
- Invest in the collection of reliable data on approaches and good practices concerning foreign credential recognition regimes, including in the area of TVET⁴³, particularly regarding the implementation of relevant bilateral/multilateral arrangements, while exploring learners' records databases⁴⁴ (Specific target: Education and labour ministries across the world); and
- Contribute to the development and global sharing of comprehensive databases related to migration-relevant country education systems (covering structure, framework, governance, quality assurance procedures, etc.).⁴⁵

⁴³ An important role could be played in this regard by the UNESCO-UNEVOC Network, a worldwide network of TVET institutions. See at: <http://www.unevoc.unesco.org/go.php?q=UNEVOC+Network+-+Home>

⁴⁴ For instance, by building on such initiatives as the Groningen Declaration. See supra note 26.

⁴⁵ See supra note 15, page 22.

Chapter 2c Humanitarian (Refugees, Asylum-seekers and Stateless persons)

UNHCR

1. Key policy issues

The 17 Sustainable Development Goals (SDGs) and 169 targets were agreed to on the premise that 'no one is left behind' in their implementation. The Declaration accompanying the SDGs makes specific reference to migrants, refugees and displaced persons as their beneficiaries. The SDGs therefore reinforce the State's responsibilities to provide protection and extend a full range of social and economic rights to those found to be in need of international protection, as enshrined in the 1951 Refugee Convention. It will be the aim of this chapter to provide guidance on the collection, analysis and use of data on key issues related to refugee's access to asylum and protection.

Considerations related to refugee's access to protection

The vast majority of refugees, asylum-seekers and stateless people escaping conflict and persecution seek safety in neighbouring countries, while some travel further afield to find asylum and protection. Irrespective of where they move, refugees require specific protection and safeguards, for which an established legal framework exists in the form of the 1951 Refugee Convention and its 1967 Protocol. The consequences of refugees not receiving that protection can be life-threatening.

Increasingly, situations of large scale refugee movements alongside migrants are presenting new challenges for refugees and for states. Responses to refugee and migrant movements have included border closures, carrier sanctions, and interception and "pushbacks" of people at border points. The complexity of the refugee situation increases the need for timely and accurate information and data at all stages of the movement.

Text box 1: Refugee

Refugees flee due to compelling reasons related to conflict or persecution.

The United Nations Convention relating to the Status of Refugees, adopted in 1951, and its 1967 Protocol define the term "refugee" to apply to any person who:

"owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it."

The 1951 Convention and the 1967 Protocol are further complemented by national and regional refugee and subsidiary protection regimes.⁴⁶ Under international law, a person is considered a

⁴⁶ See Organization of African Unity (now African Union) Convention governing the Specific Aspects of Refugee Problems in Africa 1969, adopted in Addis Ababa, 10 September 1969 which extends the compelling reasons of flight to external aggression, occupation, foreign domination, or events seriously disturbing public order; the European Union Council Directive 2004/83/EC of 29 April 2004 on minimum standards for the qualification and status of third country nationals or stateless persons as refugees or as persons who otherwise need international protection and the content of the protection granted, Official Journal L 304 , 30/09/2004 P. 0012 – 0023; The Cartagena Declaration on Refugees, adopted at a colloquium held at Cartagena, Colombia, 19-22 November 1984. While non-binding, it also sets out regional standards for refugees in Central America, Mexico and Panama.

refugee (and so entitled to certain protections) as soon as they meet the relevant criteria, regardless of whether or not they have received formal recognition as a refugee. A person does not become a refugee because of recognition, but rather is recognised *because* they are a refugee.

Text box 2: Asylum-seeker

An asylum-seeker is someone whose claim has not yet been finally decided by UNHCR or the authorities of the country in which s/he has sought refugee status. Not every asylum-seeker may ultimately be recognized as a refugee. All asylum-seekers and refugees are protected by the 'Principle of Non-refoulement', i.e. protection against return to a country where a person has reason to fear persecution.⁴⁷

Text box 3: Stateless person

A stateless person is an individual who is "not considered as a national by any State under the operation of its law" and consequently lacks the protections flowing from citizenship.⁴⁸ This definition describes a particular type of statelessness known as *de jure* statelessness, characterised by the formal, legal lack of a nationality. The problem of statelessness however also extends to persons who formally hold a nationality, but are nonetheless in a situation similar to statelessness because that nationality is ineffective. Such individuals are commonly referred to as *de facto* stateless.⁴⁹

Statelessness often impinges the enjoyment of rights and alienates the persons from full contribution to the development of the society. Most stateless persons in a migratory context face acute challenges in obtaining travel and civil documentation and are therefore particularly vulnerable including to detention in transit and in receiving countries.

Statelessness may also be an underlying cause of migration and at the same time migration itself can result in statelessness. Sometimes statelessness is also linked to persecution, which means that the persons concerned are simultaneously refugees.

Considerations related to refugee's access to development opportunities

Data collection and its analysis are essential to understand, assess the extent of, and develop appropriate and timely responses to the physical and legal protection concern of refugees and asylum-seekers, as well as to identify sustainable solutions. The need for solutions for the

⁴⁷ The most essential component of refugee status and of asylum is protection against return to a country where a person has reason to fear persecution. This protection has found expression in the principle of non-refoulement, which has been defined in a number of international instruments relating to refugees, both at the universal and regional levels. The 1951 United Nations Convention relating to the Status of refugees provides in Article 33(1) that: "No Contracting State shall expel or return ("refouler") a refugee in any manner whatsoever to the frontiers of territories where his life or freedom would be threatened on account of his race, religion, nationality, membership of a particular social group or political opinion."

⁴⁸ Article 1 of the 1954 Convention relating to the Status of Stateless Persons sets out the criteria for statelessness in international law. See UN High Commissioner for Refugees (UNHCR), Guidelines on Statelessness No. 1: The definition of "Stateless Person" in Article 1(1) of the 1954 Convention relating to the Status of Stateless Persons, 20 February 2012, HCR/GS/12/01, available at: <http://www.refworld.org/docid/4f4371b82.html>

⁴⁹ UN High Commissioner for Refugees (UNHCR), Statelessness: An Analytical Framework for Prevention, Reduction and Protection, 2008, available at: <http://www.refworld.org/docid/49a28afb2.html>

increasing number of refugees living in protracted displacement situations is more critical than ever. This includes the provision of opportunities for self-reliance and integration during forced displacement, as well as successful identification of durable solutions.⁵⁰

Refugee displacement impacts growth, employment and public spending for countries of both origin and destination. Finding solutions to protracted displacement requires rethinking and can be addressed to some extent through the recognition that refugees are people with skills, potential, interests and aspirations. Livelihood activities help refugees to transition away from dependency towards increased resilience and self-reliance, which can alleviate pressure on countries of asylum. Lack of livelihood opportunities can inversely heighten threats to personal security such as exploitation and abuse, development of negative coping strategies, child labour and marginalization of older persons or persons with disabilities.

Refugees can have positive development impacts on host countries. Recent studies point to the contribution of refugees to the national economy in countries where they have significant freedom of movement and right to work.⁵¹ This access is especially important in the context of increasingly protracted refugee situations. Access of forcibly displaced persons to labour mobility opportunities can lead to significant gains⁵². Refugees are better prepared for solutions to their situation when they maintain their independence, develop their skills and are not required to rely solely on humanitarian assistance. Commercial organisations in refugee-hosting countries can improve their competitiveness by sourcing required skills from a larger pool, while economies can alleviate human capital shortages and benefit from innovation and skills transfer. As with migrant groups, remittances sent back play an important role in securing the livelihoods of those left behind, and can play an important role in the recovery.

Evidence suggests that providing refugees with opportunities to use their skills and potential is not only in the interest of the individuals concerned, but also of governments. Labour mobility, however, does not replace refugee protection through migration, though it can be a component of a protection and solutions strategy. Further research on the development impact of forced displacement from the point of view of the individual, host and country of origin would assist in gathering best practices in devising a response to forced displacement situations in a global context where forced displacement is at an all-time high.

Data needed to analyse the topic

1. Monitoring refugees' access to protection

⁵⁰ The three classic durable solutions in refugee situations are local integration in place of asylum; voluntary repatriation to country of origin; and in some instances, third country resettlement.

⁵¹ Refugee Studies Centre, *Refugee Economies: Rethinking Popular Assumptions*, 14 August 2014, available at: <http://www.refworld.org/docid/53ecb10b4.html>. A literature review on existing case studies for displacement due to conflict and widespread human rights violations as well as "Guidelines for Assessing the Impacts and Costs of Forced Displacement" were developed in 2012 by Roger Zetter and his team for the World Bank.

⁵² Labour mobility for the purposes of this guidance includes both the authorized onward movement of refugees from countries of asylum to third countries to pursue employment, as well as, employment opportunities for refugees in asylum countries on the basis of labour migration schemes.

Refugee protection begins with access to asylum. In tangible terms, this is assessed through the ability of asylum-seekers and refugees to obtain safe access to territory. Access to asylum processes and mechanisms form part of the process of delivery of refugee protection.

Individual registration is a fundamental component of international refugee protection, and identifies refugees and asylum-seekers as an individual of concern to UNHCR and to the asylum state. In addition, registration information is useful for planning, timely delivery of adequate assistance, as well as the identification of appropriate durable solutions. As a data management activity, registration consists of a number of interrelated activities, including identification, identity management, as well as data management and exchange. The collection of refugee data through registration including its storage, update and management, is a continuing process.

Text Box 4: *Non-refoulement*

The most essential component of refugee status and of asylum is protection against return to a country where a person has reason to fear persecution. This protection has found expression in the legal principle of *non-refoulement*, which is widely accepted by States and defined in a number of international instruments relating to refugees, both at the universal and regional levels. On the universal level, the 1951 United Nations Convention relating to the Status of Refugees prohibits refugees and asylum-seekers from being expelled or returned in any manner whatsoever “to the frontiers of territories where [their] life or freedom would be threatened on account of [their] race, religion, nationality, membership of a particular social group or political opinion” (Article 33(1)). This refers not only to the country from which a person has fled, but also includes any other territory where they would face such a threat.

In practice, registration helps to protect against *refoulement*, arbitrary arrest and detention by identifying the individuals and making them known to the host government, UNHCR and other stakeholders, as persons of concern. This helps individuals and families gain access to basic rights and services. Accurate registration - including of children - helps provide an identity, gain access to education, food and health services, ensure family unity, and facilitate tracing the families of unaccompanied and separated children. Registration can thus foster freedom of movement and minimize dependence. Regular updating of registration records helps reconciliation of records on changes in the refugee population and also ensures that registers are updated with information about progress towards the achievement of solutions.

Information on refugees, their locations, demographics and even education and skills helps to design, implement and evaluate policy responses and programmatic interventions. It is important to understand that the nature of programmatic interventions and policy responses will have a direct impact on the protection of refugees, asylum-seekers and stateless persons. The collection of both qualitative and quantitative data can be helpful in understanding the complexities of refugee and asylum-seeker movements.

Accurate, up-to-date data can assist in assessing the scale of and trends within refugee movements. Data on protection risks faced by refugees and stateless persons en route to safety is also considered an important protection tool. If such information is collected in a timely and appropriate manner, it can facilitate interventions aimed at minimising the risks faced by persons in need of international protection. Risks of trafficking in human beings, abuse, exploitation and violence from smugglers and other criminal networks can be significantly reduced through active

collaboration among states and other stakeholders complemented by real-time and accurate data and analysis on trends.

2. Monitoring refugees' access to development opportunities

Information obtained through registration assists in analysing possibilities for refugees to access labour mobility opportunities. Research on such opportunities should include, inter alia, an inventory and analysis of existing State practices and employment-related movements of refugees, current obstacles for refugees to access existing labour schemes, as well as research on labour market needs. This includes analysis of national and regional laws, regulations and procedures on refugees' freedom of movement, stay and residence, right to work; onward movement and local integration including naturalisation. Furthermore, research on possibilities to enhance self-reliance implies looking not only at the vulnerabilities, but also at ways to enable individuals to make the most of their education, skills and resources.

Several emerging questions that need to be addressed in particular contexts include:

- Assessing the costs and benefits of refugees living in camps as opposed to taking up residence within host communities to live with greater dignity, independence and normality;
- How new partnerships for self-reliance between refugees and host communities can be leveraged and fostered;
- The scope for global and regional responsibility-sharing when there are gaps in protection and humanitarian assistance for those forcibly displaced; and
- Ways to bridge the gap between humanitarian assistance and development cooperation and integrate the forcibly displaced more systematically into development planning.

Existing sources and standards for data collection

In October 2001, UNHCR's Executive Committee issued Conclusion No. 91 on Refugee Registration. The Conclusion reaffirms the importance of registration as a protection tool and sets certain basic guidelines for all registration processes:⁵³

- Registration should be a continuing process that records essential information both at the time of initial displacement, and as changes in the refugee population (such as births, deaths, new arrivals, and departures) occur;
- Registration processes should adhere to the fundamental principles of confidentiality;
- Registration should be easily accessible and take place in a safe and secure location;
- Registration should be conducted in a non-threatening and impartial manner, with respect for the safety and dignity of refugees;
- Personnel conducting the registration should be adequately trained and registration teams should include an adequate number of female staff; and
- Whenever possible, refugees should be registered individually and the following information should be recorded: identity document and number, photograph, name, sex, date of birth (or age), marital status, special protection and assistance needs, level of education, occupation (skills), household (family) size and composition, date of arrival, current location and place of origin.

Translating that policy into practice, a "unified approach" to registration was developed. The UNHCR Handbook for Registration,⁵⁴ released in 2003, offers detailed and accessible information

⁵³ UN High Commissioner for Refugees (UNHCR), Conclusion on Registration of Refugees and Asylum-seekers, 5 October 2001, No. 91 (LII) - 2001, available at: <http://www.refworld.org/docid/3bd3e1d44.html>

on how to set up registration activities, what data should be collected, and how to manage and protect the information gathered. The Operational Standards for Registration and Documentation,⁵⁵ published in December 2007, summarize this core methodology applicable in most of the situations in which refugees and other persons of UNHCR's concern are assisted. Instead of using different approaches to registration in camp and urban situations, it describes a common set of standards and data that varies only in its level of detail from one scenario to another, as well as how to achieve a living profile of the population, which remains an effective tool for protection. This unified approach to registration helps to ensure better protection and identify appropriate durable solutions for refugees and stateless persons.

Information on existing State practices and employment-related movements of refugees may be obtained i.e. through migrant rights mechanisms and labour protection bodies in the countries; national employment agencies or a national agency that deals with small and medium-size enterprises; and government, regional organizations and NGOs. However, within the boundaries of established data protection principles and with the consent of the refugee concerned, only non-identifying information regarding refugee population profiles may be shared.⁵⁶

Data on refugees, asylum-seekers and stateless persons may also be available from sources such as screening, national census, administrative data sources maintained by immigration and asylum authorities (e.g. residence permit statistics), surveys, or population registers. However, the option for stateless persons to identify themselves as such in national censuses is often not available and reasons for migration, including the option to select international protection or displacement-related reasons, tend to be rather limited. National authorities who, in the majority of countries, are involved in refugee registration, possess ample primary and secondary data which may be available and ready for analysis. Qualitative data that captures feelings, motivations, personal experiences, attitudes and intentions, can be obtained from sources such as focus group discussions, interviews, narrative texts and reports. The collection of data using a range of different methodologies (i.e. primary, secondary, qualitative and quantitative) ensures that accurate and comprehensive information is obtained about a particular situation, and that the response to that displacement situation is appropriate. This is the usual methodology adopted by UNHCR field offices around the world.

Data gaps and challenges

Forced displacement impacts human and social capital, income, employment, assets, and access to natural resources, health, security, and gender relations. Only fairly recently have studies started to look at refugees as economic agents and more literature on the development impact of forced displacement is needed. While it is increasingly recognized that human mobility provides an important means for people to contribute to the economic and social life of their countries of origin and destination, solutions to forced displacement often focus on containing or reversing such mobility.

⁵⁴ UN High Commissioner for Refugees (UNHCR), UNHCR Handbook for Registration, September 2003, available at: <http://www.refworld.org/docid/3f967dc14.html>

⁵⁵ UN High Commissioner for Refugees (UNHCR), Operational Standards for Registration and Documentation, December 2007, available at: <http://www.refworld.org/docid/4ae9ac8f0.html>

⁵⁶ In order to mitigate data protection and confidentiality risks, UNHCR recently issued a new Data Protection policy which UNHCR operations must respect (*Policy on the Protection of Personal Data of Persons of Concern to UNHCR*, May 2015, available at: <http://www.refworld.org/docid/55643c1d4.html>). The processing of other data, e.g. aggregated or anonymized, does not fall within the scope of this policy, but is covered, inter alia, by UNHCR's Information Classification, Handling and Disclosure Policy.

Although about 86% of the world's refugees are hosted in fragile or low income countries where they have only limited opportunities to meet their own essential needs, mobility is generally incorporated into response strategies to forced displacement situations in the form of organised third country resettlement. However, there are very limited available places falling far below the existing needs. Nonetheless, mobility leading to voluntary return to country of origin or habitual residence, upon cessation of the conflict or persecution that led to flight, is another important option and is often demonstrated by refugees 'voting with their feet' in their effort to voluntarily and spontaneously return home when they feel safe to do so.

The collection of data on forced or mixed movements where refugees move alongside migrants can be challenging. Travel is often clandestine, and even data on regular movements may be scarce. Modern migratory patterns can render the identification of individuals who require international protection difficult, as they often travel alongside migrants moving for work or other reasons. Some of the practical challenges in registration are related to security and confidentiality, maintaining the registration data up to date, and recognising the possible limitations of registration data. The use of mobile teams to register persons of concern who, for different reasons (e.g. where individuals are hospitalized, arrested or are elderly persons) cannot attend the registration centre(s) is effective, this is a highly resource intensive approach. Therefore, centralized registration systems which include mobile registration for particular groups are more sustainable. Mixed movements of refugees and migrants due to differing motivations further complicate the efforts to gather data.

The collection of data on refugees in complex mixed migration flows with new and shifting routes poses a particular challenge. Irregular displacement routes change rapidly, and are often directly related to the changing policies of transit/ receiving countries. The lack of information on irregular movements, and the political economy around smuggling and trafficking, leads to gaps in the understanding of overall displacement dynamics. Joint initiatives between different agencies, such as the Regional Mixed Migration Secretariat in Africa and the Regional Mixed Maritime Migration Unit in South East Asia, have been established to enhance coordination and the compilation of data and information from different sources to enable trend analysis and inform programmatic responses.

The various international, national and non-governmental organizations that gather data on migratory movements often do so independently in order to meet their own objectives. They may use varying definitions, criteria and parameters, making it difficult to disaggregate, share or compare data without distorted results. Collecting comparable data and establishing agreements on data collection and analysis in collaboration with different actors can address these challenges.

Refugee emergencies are characterized by a mobile population, often with rapidly fluctuating numbers. It may be difficult to collect exact information on the total number and composition of the population, reducing registration of people into approximate headcount or by household. Given the difficulties in estimating the size and characteristics of an irregular population, using a combination of information sources can assist in obtaining reasonably accurate estimates.

A case in point is the widely reported trend of refugee and migrant movements across the Mediterranean. While those who make it across through the arduous journeys may have the opportunity to be registered, there are many others who embark on these risky journeys and never make it ashore. There is limited data on such embarkations and casualties, especially in the context of sea movements. This important gap in data collection is prevalent across the world including in the Asia-Pacific region, Southeast Asia, Caribbean and the Gulf of Aden. A related gap is the limited availability of information of the basic protection challenges faced by the men,

women, girls and boys in the context of onward movements. Inadequate information hinders appropriate response strategies which could be adopted to address protection risks.

Similarly, an accurate global count of stateless persons remains unachieved. The widely different interpretations of the definition of 'stateless person' further hamper the identification of stateless individuals, and contribute to statelessness remaining a hidden problem.

In view of the dynamic character of forced displacement and the fluid nature of onward movements, continuous and extensive data gathering is required throughout the displacement cycle to ensure an appropriate response. Any operational system must be structured as an integrated population information management tool, covering the full "refugee cycle", from initial displacement to durable solutions. Where data exists, gaps remain, notably in disaggregation of existing data on the movements of refugees, asylum-seekers and stateless persons in terms of gender, age and nationality.

Good practice

Thematic tools include:

UNHCR, UNHCR Handbook for Registration, September 2003, available at: <http://www.refworld.org/docid/3f967dc14.html>.

UNHCR, Operational Standards for Registration and Documentation, December 2007, available at: <http://www.refworld.org/docid/4ae9ac8f0.html>.

UNHCR, Registration Checklist in Refugee Emergency Operations, January 2015, available at: <http://data.unhcr.org/imtoolkit/chapters/view/registration-in-emergencies/lang:eng>.

UNHCR Emergency Handbook – Emergency Registration, May 2015, available at: <https://emergency.unhcr.org/entry/52547/emergency-registration#2,1436179772306>.

UNHCR, Measuring Statelessness through Population Census. Note by the Secretariat of the United Nations High Commissioner for Refugees, 13 May 2008, ECE/CES/AC.6/2008/SP/5, available at: <http://www.refworld.org/docid/4a705e4b2.html>.

UNHCR, Policy on the Protection of Personal Data of Persons of Concern to UNHCR, May 2015, available at: <http://www.refworld.org/docid/55643c1d4.html>.

Chapter 2 in UNHCR, Refugee Protection and International Migration: The 10-Point Plan in Action, February 2011, available at: <http://www.refworld.org/docid/4d9430ea2.html> provides examples of positive data collection experiences worldwide, including an example of good practice in Somalia through Population Movement Tracking (PMT) Initiative since 2006.

Good practice for operationalizing data collection and analysis in refugee-related contexts includes:

- Planning the purpose and scope of the data collection exercise, developing necessary tools and guidelines, and clearly defining objectives, methodology, confidentiality and data protection safeguards before the data collection exercise commences;
- Identifying the categories of data to be collected to include all components relevant to mixed movements, including refugee-related questions;
- Develop databases to systematically store data;
- Compile other relevant primary or secondary data, including by collating data from various institutions at the national level (e.g. population censuses, surveys, and interviews);

- Ensure that the data is accurate, relevant and up-to-date;
- Analyse data and cross-tabulate key variables to anticipate travel routes, entry and transit points, onward movements, and potential protection needs;
- Improve communication channels between relevant stakeholders for data sharing, exchange of statistical non-personal data, and establish data-sharing agreements;
- Develop mechanisms to ensure that the data collected by different stakeholders is comparable;
- Before a data collection exercise commences, its objectives, scope, methodology and data protection safeguards need to be clearly established. Confidentiality of refugee and asylum-seeker data is paramount as it can have a direct impact on their protection;
- Factors such as the national and regional context, as well as existing research and data on migration and refugee-related issues, will be relevant. International migration data can be used to extrapolate the number of persons in need of international protection in a given country, or the data on refugees can serve as a baseline to estimate the global number of persons on the move⁵⁷; and
- Safeguards are necessary in data collection and data sharing in order to preserve the privacy, confidentiality and security of personal information in accordance with data collection standards.

Data on mixed movements of refugees and migrants may be collected through individual interviews, census, registers, administrative records and surveys. Given the difficulties in estimating the size and characteristics of an irregular population, using a combination of information sources can assist to obtain reasonably accurate estimates.

⁵⁷ For instance, the UN Population Division (DESA) uses UNHCR's refugee flow data as a proxy to estimate the global stock of migrants in countries where national migration data sources are weak or non-existent (in Africa in particular).

CHAPTER 3 MIGRATION AND DEVELOPMENT

Chapter 3a: Remittances

World Bank

Key policy issues

Migration and remittances have had a transformative impact on the world, with about 247 million people living outside of their countries of birth, and over \$583 billion being sent globally in officially recorded remittances in 2014. The \$436 billion received by developing countries in that year in many instances represents a lifeline to people living in poverty, and is about three times larger than official development assistance. For those fragile and conflict situations (FCS) countries where data is available, the dependence on remittances is even greater. In addition to the volume of remittance flows, there are key policy issues around the cost of making remittances and the impact of remittances at the household level.

In many cases, the cost to consumers of these remittance transactions is expensive relative to the incomes of migrant workers, the amounts sent, and the incomes of remittance recipients. Therefore, any reduction in remittance transfer prices would result in more money remaining in the pockets of migrants and their families, and would have a significant effect on the income levels of remittance-dependent families. Indeed, if the cost of sending remittances could be reduced by 5 percentage points relative to the value sent (the goal set by the G20's '5 X 5' initiative), remittance recipients in developing countries would receive over \$16 billion more each year than they do now. This added income could then enable remittance recipients to consume, save, and invest more in local economies. Remittance prices are high for many reasons, including lack of transparency in the remittance market, underdeveloped financial infrastructure in some countries, limited competition, regulatory obstacles, inadequate access to the banking sector by remittance senders and/or receivers, and difficulties for migrants to obtain the necessary identification documentation to enter the financial mainstream.⁵⁸

There is a growing recognition of the huge impact remittances have had in helping poor countries meet the Millennium Development Goals, supporting small and medium enterprise growth, and driving development more broadly. Households that receive remittances fare better on a range of indicators, including infant mortality, primary and secondary school completion, and access to safe water and sanitation.

Each of these three areas – volume of remittances, cost of making remittances, and impact of remittances on development – present data challenges, which are needed in order to help stakeholders in international forums and at the country level address key questions such as:

- What is the magnitude of remittances?
- What are the prospects for remittance flows?

⁵⁸ World Bank, 2012.

- How do they respond to shocks, either in the receiving country, or in the countries from where they are sent?
- Can remittances be used to stimulate financial inclusion, micro-insurance, and other financial products central to fostering development?
- What are the costs of making remittances and what are the main determinants?
- What legal and regulatory systems are appropriate for remittance markets (especially regarding Anti-Money Laundering and Counter Financing of Terrorism (AML-CFT)?
- What policies can be pursued by recipient countries to encourage larger and more stable flows, with low risk and minimal or negligible transactions costs?
- What policies in sending countries would be most helpful, such as fostering competition?

In order to address these questions, reliable data are needed that are consistent and up-to-date, and can support deeper analysis in support of policies and initiatives that would most effectively leverage remittances for development. One of the most significant, but under-recognised gaps in the data, concerns the impact of remittances on rural development, a policy field which will become more significant as countries monitor the implementation of their activities to implement the Sustainable Development Goals. Box 1 sets out some of the key issues for consideration and makes suggestions for improvements in data collection activities.

BOX1: Remittances and rural development: key policy and data collection issues

Remittances play an important role in rural areas, supplementing households' income, reducing liquidity constraints and providing insurance in case of shocks and stresses. It is estimated that up to 40 percent of international remittances are sent to rural areas⁵⁹. Income from remittances can contribute to reduce poverty and improve food security. By adding to the household livelihoods, they enable poor households to access more, higher quality and nutritious food. Remittances invested in productive activities in agriculture (buying physical capital, fertilizers or improving the qualities of cultivated land) or elsewhere (education of children or paying for health services) can increase current and future incomes, enhance nutritional status and thus contribute to improve rural livelihoods⁶⁰. Remittances can also be a driver of social change. Increased female migration and control over resources by women who receive remittances can lead to important changes in gender power relations.

There are significant evidence gaps in analysing the rural dimensions of remittances, as these aspects are usually overlooked in surveys and assessments. Each of the three areas highlighted in the chapter (volume of remittances, cost of making remittances, and impact of remittances on development) entail specific challenges for data collection and analysis when dealing with (remote) rural areas. Considering the limited coverage of financial services in rural areas, countries should aim at analysing not only official remittance flows, but also, to the extent possible, remittances sent through unrecorded channels. Efforts to improve the financial inclusion of migrants and their families will contribute to increase households' saving capacity, and raise their awareness about available options to send remittances and opportunities to invest into sustainable livelihoods strategies.

⁵⁹ http://siteresources.worldbank.org/EXTFINANCIALSECTOR/Resources/282884-1400093105293/GPFI_Remittances_Report_Final072014.pdf

⁶⁰ <http://www.fao.org/3/a-i4983e.pdf>

In order to understand the magnitude and the impacts of remittance on agriculture and rural areas, it is important to address the following policy questions:

- + What is the share of rural households receiving remittances? What is the magnitude of remittances sent to rural areas? What is the proportion of international remittances compared to money transferred by internal migrants to rural areas?
- + What are the prospects for remittance flows to rural areas? How do they respond to shocks, either in the receiving country, or in the countries from where they are sent?
- + What are the costs and the main channels to transfer remittances to rural areas? How can financial products and services be tailored to the needs of rural households and agricultural activities?
- + How are remittances invested in rural areas? Can remittances be used to stimulate financial inclusion, micro-insurance, agriculture activities and off-farm businesses in rural areas of origin?
- + What policies can be pursued by recipient countries to reduce transactions costs? What are the mechanisms to encourage the productive investments of remittances in the rural farm and non-farm economy?

To address these questions, reliable and comparable data are needed. Better evidence is crucial to inform policies and initiatives to leverage remittances for agriculture and rural development. This will require support to countries and statistical offices to improve data collection mechanisms and ensure best practices and procedures are shared and adopted.

Adding specific questions or modules to existing household surveys or running ad hoc migration and remittances surveys and diagnostics to complement existing information is important to generate data on some of those dimensions. However, this is not always possible. Exploring alternative data sources, including administrative data, may help in collecting the required information. It is also crucial to have sample frames that enable disaggregation by gender and age, as well as the location (rural/urban) from which the migrant is coming from and is remitting money to. This will enable to better estimate: the magnitude of remittances sent to rural areas; understand the behaviours of those sending and receiving remittances; document the ways remittances are used by families and who in the household decides upon their use; analyse the impacts on the local economy; and finally make the necessary recommendations to increase their investment in productive activities both on- and off-farm.

Data needed to analyse the topic

In addition to continually improving data on migrant stocks around the world, good data are needed on aggregate remittance flows, the magnitude of flows by corridor, the cost of making remittances, and the amounts sent at each price. Further survey data would also be invaluable in illuminating questions around the impact of remittances at the household and enterprise levels. Some of these are available, but significant gaps remain. For example, estimates of bilateral remittances provide a good indication along most corridors of the magnitude of these flows, but in some instances it is less clear, and remains controversial among directly affected policy makers and stakeholders. Similarly, remittance prices have found a prominent place on the international agenda at the highest level (the G20 and other forums) and data on the cost of sending remittances continue to expand through the Remittance Prices Worldwide (RPW) databases, as well as regional and national databases.⁶¹ Still, information on how much is sent at each price is limited, and it would be useful to gather data on how changes in remittance prices affect various groups of migrants, depending on their income levels and propensities to send remittances.

⁶¹ The Remittance Prices Worldwide database is available at: <http://remittanceprices.worldbank.org/en>.

Efforts to make progress in these areas form a broad agenda for improving the evidence base on the critical issue of remittances and development.

Existing sources and standards for data collection

Aggregate remittance flows

The primary source of data on remittances comes from the Balance of Payments, estimated by central banks at the national level and compiled by the International Monetary Fund (IMF). A new notion of remittances was introduced in the Sixth Edition of the IMF Balance of Payments and International Investment Position Manual (BPM6).⁶² It was released in 2009, and its application is widening steadily across countries. According to the new definition, personal remittances are the sum of two main components: “compensation of employees” and “personal transfers” (figure 1). Personal remittances also consist of a third item: “capital transfers between households,” but data on this item are difficult to obtain and hence reported as missing for almost all countries.

Figure 1. Mapping Remittances from BPM5 into BPM6

Total remittances: a+b+c+d			
Personal remittances: a+b+c			D
a	b	c	
Personal transfers (part of current transfers)	Compensation of employees less taxes, social contributions, transport, and travel	Capital transfers between households	Social benefits

Source: IMF, 2009a.

The definition of “personal transfers” is broader than the previous category of “worker remittances” – it comprises “all current transfers in cash or in kind made or received by resident households to or from non-resident households.”⁶³ According to the IMF’s remittance data compilation guide, unlike worker remittances, “personal transfers are defined independently of the source of income of the sending household, the relationship between the households, and the purpose for which the transfer is made.” This approach “simplifies the definition and brings it in line with compilation

⁶² IMF, 2009a.

⁶³ Under BPM5, remittances were made up of 3 components:

- Compensation of employees comprises wages, salaries, and other benefits earned by individuals—in economies other than those in which they are residents—for work performed for and paid for by residents of those economies.
- Workers’ remittances cover current transfers by migrants who are employed in new economies and considered residents there. A migrant is a person who comes to an economy and stays there, or is expected to stay, for a year or more. Workers’ remittances often involve related persons.
- Migrants’ transfers are contra-entries to the flow of goods and changes in financial items that arise from the migration of individuals from one economy to another.

These spanned different parts of the balance of payments, prompting a revision in BPM6.

practices applied in many economies (which did not take account of factors such as source of income and purpose).” Therefore, “although it is recognized that personal transfers will often originate from migrants sending resources to support their relatives in their economy of origin, personal transfers as defined in this Manual are not limited to such activity.”

Box 1. Examples of what is, and what is not, classified as personal transfers

The money sent to the family at the country of the origin for the family current needs such as food clothing education expenditures, as well as other current needs, are classified as remittances.

Personal transfers: In some cases, investment transactions by migrants may be vehicles for the provision of remittances, notably when relatives enjoy access to resources or benefit from the use of fixed assets. When migrants deposit funds in their accounts in their country of origin and relatives have access to these funds, their withdrawals are personal transfers. For joint accounts, as a statistical convention, a transfer can be recorded when the funds move across borders rather than when they are withdrawn.

Not personal transfers: Migrants frequently invest in their country of origin, whether they intend to eventually return or have left permanently. Such investments can take numerous forms, but financial investments (notably bank deposits and portfolio investments) and investments in real estate are probably most common. Small enterprises, located in the country of origin and sometimes managed by relatives, are another form of investment. These transfers are not considered remittances.

Turning to the category “compensation of employees,” this is unchanged from BPM5. Such compensation “represents remuneration in return for the labour input to the production process contributed by an individual in an employer-employee relationship with the enterprise.”

Box 2. Examples of what is, and what is not, classified as compensation of employees

A person may move from one economy to another for the purpose of short-term employment (less than one year) basis. Short-term workers and migrants supporting relatives in their country of origin are a major source of cross-border remittance flows.

Compensation of employees: The gross income of border, seasonal, and other short-term workers who are not resident in the economy where they work, is recorded as “compensation of employees.” Non-resident employers, which include embassies, other diplomatic missions, and international organizations, may have a substantial impact on remittances data. When resident workers work for non-resident employers, their wages and other benefits are also recorded as “compensation of employees.”

Not compensation of employees: The earnings of non-resident workers who sell services to another economy but who are not employees of a non-resident company are not included in compensation of employees.

To ensure consistency of the time series, the IMF continues to publish workers’ remittances as a supplementary item. Central banks of some countries, such as India, have also been publishing data in both the new and the old formats. More countries will begin reporting BoP data in BPM6

format. For now, reported data on personal transfers seem to be the same as that of worker remittances for most countries. However, this is expected to change in the future.

For most countries, the historical data are not impacted by this change. There are some major exceptions, however, and in Brazil, for example, the use of BPM6 resulted in a downward revision of remittances inflows from \$4.5 billion to \$2.6 billion in 2012. The net effect of the move from BPM5 to BPM6 was a reduction of \$2.2 billion in remittance flows to developing countries in 2012, out of a total estimated at \$400.4 billion.

Cost of making remittances

The primary source for data on the cost of sending and receiving small amounts of money from one country to another is the World Bank Group's RPW database, covering 226 "country corridors." To date, these corridors include 32 major remittance sending countries and 89 receiving countries.

Prices for remittances are frequently made up of a fee charged for sending a certain amount, a margin taken on the exchange rate when remittances are paid and received in different currencies, and, at times, a fee charged to the recipient of the funds. These fee components may also vary according to how the receiver is paid (cash or by crediting an account), the speed of the transfer, and the ability of the sender to provide information about the recipient (such as the bank account number). The RPW collects information on all of these elements directly from remittance service providers, and aggregates them into corridor averages to provide an indication of the cost of making remittances (among other indicators compiled and published by the RPW). A key challenge is that the volume of remittances sent at each price is not known, and some providers charge a fixed fee that is high when compared to a small transaction, but could be low if the average transaction size using these providers is large.

Data gaps and challenges

There are numerous challenges in compiling remittance related data and making it more usable to underpin analysis. These include:

- Implementing BPM6 and building the needed capacity in central banks in many poorer countries;
- Harmonizing data on inflows and outflows of remittances (at present, global summed inflows far exceed globally summed outflows);
- Strengthening the methodology for estimating bilateral remittance flows, including implementing more in-depth studies in countries with good capacity on the sources of inflows;
- Analysing the scale of remittances flowing through unrecorded channels;
- Estimating the volume of remittances sent at each price (or market share of various providers), in order to get a better sense of how well simple averages indicate actual amounts spent by migrants in making remittances;
- Disaggregating data by gender, to help inform particular policy issues related to gender;

- Building consistent databases of household survey data in order to document more explicitly the impact of remittances on development; and
- Generating micro data on remittance sending behaviours, informing policy on how to strengthen these flows.

Good practice

a. Aggregate remittance flows

In addition to the BPM6, the key resource on compiling remittances remains the International Transactions in Remittances: Guide for Compilers and Users (2009). It was prepared by the Luxembourg Group on Remittances, involving members from the International Monetary Fund, the Organization for Economic Co-operation and Development, the Statistical Office of the European Communities, and the World Bank, as well as representatives from national statistical offices and central banks from around the world. The guide details good practice in compiling data related to remittances in the balance of payments, provides clarifications of concepts, and notes data sources and methods for estimation. Various capacity building initiatives are being implemented with the support of international organizations.

b. Cost of sending remittances

Transparency and data are essential to lowering the cost of making remittances. In addition to the World Bank's RPW, a number of countries have introduced national databases on the cost of sending remittances.⁶⁴ Such databases provide updated and more granular information to migrants, and they represent one of the most efficient means to improve transparency in the market. Many of these national and regional databases have adopted the WBG methodological standards and provide information that is consistent and easily understandable by users.

More recently, the World Bank created the "Pick Remit" application for smart phones that allows comparisons of the cost of sending remittances in real time, and provides an array of useful data to users, such as geo-locations and contact information of the agents of different remittances service providers, lists of products and services with the exact cost of each. Pick Remit also enables migrants to share reviews on the service received, the consistency of the information made available by the provider, and the actual conditions of the transaction.

c. Impact of remittances at the household level

There are several examples of good practice in implementing surveys to better understand the impacts of migration and remittances at the household level. For example, in the Indian state of Kerala, migration and remittances surveys have been undertaken every year since 1998 and included data on household expenditures by various categories and by migrant and non-migrant households. Unlike the national level surveys, the Kerala effort asked detailed questions on migrant destinations (countries, states and districts), education levels, employment status and activity, and access to water supply and sanitation. These data enable analyses of migration and remittances, helping underpin policies that maximize positive development impacts. Other examples of strong data gathering efforts at the national level include Mexico and the Philippines.

⁶⁴ See a non-exhaustive list at <https://remittanceprices.worldbank.org/en/national-and-regional-databases-certified-by-the-world-bank>.

Household surveys undertaken in many countries around the world indicate that a substantial share of income comes from remittances, helping to finance health and education services, as well as other basic needs. Numerous studies document that the likelihood of attaining the MDGs is substantially enhanced by remittances. These data provide many insights on the impact of remittances on development, but more effort is needed to compile these findings systematically, and make the data available more widely. Consistency of survey instrument will also be essential in this regard.

Key messages and recommendations to address gaps

a. Aggregate remittance flows

Full implementation of the BPM6 by all countries is the foundation of data on remittances. The guidelines on existing or new remittance channels, on relations between settlements and information flows, and on possible data sources for the compilation of remittances data bring more clarity and enhance understanding. It is worth noting that the BPM6 also urges the country level authorities to estimate and publish of the sources of remittance receipts. While such data are published by a growing number of countries, they are in the minority, and systematic estimates through a bilateral remittance matrix are estimated at present mainly by the WBG using an econometric model.⁶⁵

Efforts to improve remittances data would be helped by greater coordination, both at the regional level, and bilaterally between countries. For example, a regional coordination mechanism could be established in order to encourage engagement and sharing of information on various regional efforts to improve the measurement of remittances.⁶⁶ This would help promote best international practices from the regions, and help countries to improve and/or implement better procedures for statistical measurement of remittances.

Greater coordination is also needed among bilateral partner countries sharing data, metadata, household survey results, and information on the geographical distribution of inflows and outflows between the bilateral compiler's countries. Analysis of asymmetries could be another useful complementary tool to enhance data collection systems and quality.

b. Cost of sending remittances

Authorities should strengthen efforts to monitor the cost of receiving remittances, requesting appropriate transparency from remittance service providers and establishing effective tools to monitor the market. The creation of a consumer remittance price database is an effective means to provide consumers with comparative information on both prices and other service features of specific remittance providers. If developed and presented appropriately, with detailed and comparable information on the cost of remitting money by various service providers, the database can enable remitters to compare how much their beneficiaries will actually receive while enhancing transparency in the remittances market.

⁶⁵ World Bank, 2007.

⁶⁶ The Center for Latin American Monetary Studies (CEMLA), the IMF's Middle East Regional Technical Assistance Center (METAC), and the statistical office of the European Union, Eurostat, have been active in this area.

Efforts are needed to raise awareness among both the remittances service providers and migrant communities on the availability of applications like “Pick Remit.” The spread and increasing use of such tools is having a transformative impact on remittance sending options available to migrants, boosting transparency and competition, while also helping generate useful data.

c. Impact of remittances at the household level

Getting the most out of migration and remittances will require better data on household level impacts. Expanded surveys using consistent instruments will be essential. Where they have been implemented effectively and consistently, such as in the Philippines, they have generated extensive data and strong evidence for generally positive impacts of migration on various indicators of well-being of migrant sending households. These data have then been used by policy makers to design policy interventions, like boosting pre-departure training and establishment of bank accounts to enable lower cost sending of remittances. Implementing surveys among migrants would also help expand the evidence base for improved policy. Finally, it is worth noting that household surveys also play an important role in estimating personal transfers, a core element of remittances data.

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Chapter 3b: Labour markets

ILO

Key policy issues

Labour migration impacts on the labour supply of both the country of origin and the country of destination. Various individual, household and structural factors influence the decision to migrate (See Chapter 2a). The ability to measure the magnitude and types of international migration as well as the number and characteristics of those who migrate determines how well the impact on origin and destination countries can be understood. Further, labour market impacts involve not only the entry or departure of workers, but the context in which they work, including market demands, wages, skill-matching, working conditions and terms of employment.

Three key policy questions regarding migration related to the labour market and development are:

- (i) What is the impact of labour migration on origin countries?
- (ii) What is the impact of labour migration on countries of destination?
- (iii) What are the impacts of migration on labour markets and the economic effects of labour migration on development in countries of origin and destination?

The ability to convincingly answer these policy questions depends greatly on the availability and quality of key statistics on migrant workers and labour migration.

Workers' entry and exit into and out of the labour market affect local, national and regional development. In regional and global labour market systems, a country can experience an influx of immigrant, emigrant and return migrant workers. The magnitude and composition of entering and departing workers impacts not only on the labour market (disproportionately in some sectors compared to others), but also the country's development prospects. The extent of the impact and the appropriate policy response require data.

Current household-based surveys do not usually or consistently include questions related to skill or occupational qualification, surplus or obsolescence. Alternative measurement methods, including direct methods, like skills surveys, as well as indirect estimation and projection methods, could be conducted to assess the size, characteristics and (future) impacts of skill mismatch on the labour market. Indirect methods include: (i) using information gained from other survey questions to approximate for information not directly collected (e.g. using educational attainment or occupation as a proxy skill level), (ii) comparing available data from multiple sources which do not alone collect the breadth of information needed (e.g. comparing and combining findings from census, survey and administrative data sources).

To address the lack of data on skills mismatch and labour underutilisation—the “mismatches between labour supply and demand, which translate into an unmet need for employment among the population” (Para 40, Resolution I., 19th ICLS, 2013)—ILO’s Labour Migration module serves as a source wherein answers to current data and policy needs can be made available within the same data set (CEDEFOP, 2010). By using existing data collection instruments and infrastructure the module employs a cost-effective implementation strategy and minimises any additional burden on national statistical offices.

BOX 2: Rural labour markets: key policy and data collection issues

Migration has significant impacts on the rural labour market in countries of origin.⁶⁷ Migration can reduce pressures on local labour markets, land and natural resources, translating not only into more employment opportunities and higher wages for those who remain, but also in matching labour demands during the peaks in the agricultural season. Remittances invested in rural areas can generate positive impacts on agricultural production, by enabling farmers to buy inputs, improved seeds, and improve the quality of cultivated land, and in stimulating farm and off-farm businesses. The increased financial capacity and entrepreneurial inclination of many migrants may gradually change the nature of peasant agriculture, moving from subsistence to more commercial farming. Migrant households are more likely to use new farming technologies and improve agricultural productivity, and to undertake riskier but higher-return agricultural activities.

However, if not adequately managed, migration might pose serious challenges to agriculture and rural areas. In countries of origin, migration can hinder agricultural production and overall domestic economic development due to losses in human capital and agricultural labour, especially when the youngest and most productive workers migrate. Migration of young men may cause ageing and feminization of rural populations, with the risk of additional work burdens for those left behind, especially women and children.

To inform policy-making and design appropriate and evidence-based policy responses, the following questions need to be addressed:

- ✚ What are the drivers of labour migration from rural areas? What are the main migratory patterns for workers (disaggregated by sex/age) moving out of rural areas?
- ✚ What are the impacts of migration and remittances on rural labour markets? What are the impacts on local wages, skills, labour allocation, status of employment, working conditions for those who live in rural areas?
- ✚ What are the positive impacts and the possible downsides for agriculture and rural households (e.g. changes in labour allocation, increased work burdens for women, child labour, working conditions etc.), and how to mitigate them?
- ✚ What policies can be pursued to reap the benefits of migration for rural areas, create new employment and entrepreneurship opportunities and improve the quality of jobs?
- ✚ What are the impacts of the reintegration of returnees and the engagement of diaspora groups on rural labour markets?

Existing household surveys do not usually or consistently include questions related to the impacts of migration in rural areas, and migration and labour force surveys may not adequately cover rural areas and agricultural-based livelihoods. Adding specific questions or modules to current surveys, but also exploring alternative data sources, could help collecting the required breadth of information and closing evidence gaps. While the global debate concentrates on international migratory flows, the large majority of migrants, about 762 million, moves internally within countries. Attention should therefore be given also to internal migration (rural-rural and rural-urban), and to circular and seasonal migration schemes that are typically linked to agricultural activities and often overlooked in assessments and diagnostics. Data collected in different points in time may also enable to generate evidence about migration trajectories which include internal moves followed by

⁶⁷ <http://www.fao.org/3/a-i4983e.pdf>

international migration. It is also crucial to have sample frames that enable disaggregation by gender and age, and allow to capture the drivers of migration (e.g. economic activity, status of employment, working conditions, access to social protection, etc.) and its patterns. Indeed, different drivers and types of migration (temporary, circular, seasonal migration versus long-term migration; internal/regional versus international migration) may have different impacts on rural areas of origin.

Countries should also be supported in setting up Labour Market Information Systems that can effectively collect, process and disseminate data on rural labour markets. These should cover both the quantitative and the qualitative aspects of employment, as defined by the ILO Decent Work framework. Labour market needs assessments should cover more adequately rural areas and their specificities, monitoring changes in labour supply and demand, and needed skills and jobs matching. This will enable countries to design policies and mechanisms to better manage labour mobility, including by improving skills development systems in rural areas, as well as replacing and/or reintegrating workers, thus addressing the possible “brain-drain” and “brain-waste” effects.

Data needed for analysis

Economic policies and programmes targeted at matching migrant skills to labour market demands benefit from quality data and statistics on the labour market and on migrant workers. Furthermore, a mismatch between an economy’s needed skills and the qualifications of its available labour force has implications for local, national and regional development. Therefore, common terms and definitions and the analysis of quality data are needed to assess the changing demand and availability of qualified migrant workers and to understand the needs of a changing labour market.

Moreover, quality data are also needed to assess how well the skills and qualifications of migrant workers match the duties and responsibilities of their current work.

Although data collection capabilities vary significantly at times across ministries and countries, several key statistics should be considered at the country level as being essential to improve the understanding of the impacts of migration on labour markets and development.

Linked to the three policy issues mentioned above, data collection and analysis prioritisation should answer at least four basic questions:

- (1) What type of information (i.e., data) is needed to understand the size and composition of labour migration in countries of origin, transit and destination?
- (2) What data collection methods (surveys or administrative records) and methodologies (including terms and definitions) are needed to meet common national, regional and international standards and definitions?
- (3) How (and how well) does the current labour market meet the economic needs of the country? What policies and measures exist to (re)place and (re)integrate workers into the labour force?
- (4) What are the legal frameworks, demographic impacts and political and historical contexts within which the labour market has evolved?

Moreover, the accurate measurement of international migration flows is dependent not only on quality counts at border crossings and within the country via household-based surveys, but also on

the accurate measurement of internal (domestic) migration—population movements within the country. As more people migrate through countries that are neither their country of origin nor their intended destination, there is a growing need to collect data to study the phenomena of transition and to be in a position to develop evidence-based policies. Collecting reliable information on persons in transit can be problematic for reasons including: the duration of time in transit (at what point is a person no longer in transit?); consistent recording of arrivals; and departures across origin, destination and transit countries.⁶⁸

Several key statistics provide information which can begin to answer these four questions. The measurement of migration flows and their types provide the first indication of potential impact: how many workers are entering, leaving or returning to the country and the labour market?

Building on the socio-economic profile of migrant workers (Chapter 2a), the following information links workers, including migrant workers, to the labour market and development:

- Number and characteristics of:
 - Immigrants (residing in the country for one year or more⁶⁹)
 - Emigrants (left the country for one year or more)
 - Returning and transit migrants
- Number and characteristics of:
 - Migrant workers in the labour force of destination countries (as % of all workers)
 - Migrant workers leaving the labour market (by reason for departure, such as emigration, retirement or death)
 - Work status of returned and transit migrants
- Share of migrant workers by economic activity⁷⁰
- Share of migrant workers in the informal sector and informal employment⁷¹
- Type and duration of available employment contracts by migrant/non-migrant workers
- Labour market structure (i.e., sector and industry distributions)
- Job creation and termination (including job displacement) mechanisms
- Training and skill development programmes
- Educational attainment

⁶⁸ In Table 1 of their report on international migration statistics the United Nations (1998) provides a recommended taxonomy on migration flows of citizens and foreigners including those in transit.

⁶⁹ The United Nations (1998) recommends the use of “one year or more” regarding international migration statistics on time in and away from the country of destination and origin, respectively.

⁷⁰ The United Nations (2008) provides the international reference classification of all productive activities through its report International standard industrial classification of all economic activities (ISIC), Rev4 (ST/ESA/STAT/SER.M/4/Rev.4) (p. 307). New York.

⁷¹ For definitions of informal sector and informal employment see ILO (2004):

<http://natlex.ilo.ch/public/english/bureau/stat/download/papers/wp53.pdf>.

- Migrant contribution to macroeconomic dynamics (e.g. GDP, foreign trade)
- Migrant contribution to national tax system
- Percentage of migrants covered by social security system

Combined with the basic statistics on migration for work outlined in Chapter 2a and with the adherence to quality statistical standards discussed in the next section, these key statistics provide a baseline for understanding the impacts on employment and labour markets in both source and destination countries, on poverty and development and for the protection of workers, including migrant workers. Moreover, these statistics are intended to provide policymakers and practitioners with the tools to develop evidence-based employment, labour migration and development policies and programmes.

Ideally, these data should be collected in and available from both origin and destination countries. In both origin and destination countries longer term development may also be influenced by temporary labour migration, e.g. through migrant workers returning to their country of origin after having acquired important skills in their country of destination and then migrating again.

The total medium and longer term fiscal impacts in a migrant's country of destination will depend on his/her contribution to that country's sustainable, inclusive and equitable growth, their employment history and whether they are entitled to social security benefits in the country of destination when not employed.⁷²

Existing standards and sources for data collection

The first step in exploring the collection of new data is to establish what relevant data are already being collected, by whom, for what purpose and with what degree of quality. Further, we should ask the questions of whether the data collection methods and the data themselves adhere to existing statistical standards?

Existing Standards

There are significant national, regional and international efforts that provide guidance for supporting and building data collection infrastructures (e.g. national statistical offices) or instruments (e.g. household-based surveys) that adhere to agreed-upon standards and definitions.

The International Labour Organization (ILO) supports the development and improvement of data collection instruments (as suggested in Chapter 1.), such as household-based labour force surveys, according to international standards and common methodologies and encourages the adoption of such standards.

Further, developed by the ILO, the International Standard Classification of Occupations (ISCO) serves as an international reference for the design and collection of comparable statistics related to occupation. Though related to ISIC—the UN's industrial standard classification system—ISCO serves to “organize jobs into a clearly defined set of groups according to the tasks and duties undertaken” and measures different aspects of the economy, including the recruitment and admission of migrant workers. Through grouping jobs based on tasks and duties undertaken, ISCO is a useful tool for comparing across statistical and administrative data sources and as a

⁷² See Brochmann et al (2011) and OECD (2013).

model for the development or standardisation of national occupational classification systems. Further, ISCO is not only useful in statistical applications—such as defining or grouping occupations or jobs for analysis and reporting—but also in a variety of client oriented applications including in assisting pairing job seekers with job vacancies, managing short or long term international migration of workers and developing vocational training programmes and guidance (ILO, 2008; UN, 2008).

This section highlights data sources and measurement methods on the impact of migration on the labour market as well as on the overall economic impacts of migration in both origin and destination countries including (i) assessing the effectiveness of job supply and demand (labour market) matching, (ii) skill matching (a person's skills suitability for the job they hold or hope to hold) and (iii) recognising informal and non-formal learning.

As the ILO (2013) and the World Economic Forum (2014) have noted, one fundamental policy issue involving labour market matching involves migrant skills, their composition and matching them to available and future jobs. "Knowledge of the skills composition of migration flows of both potential outbound and returning migrants is extremely important for the design of legal labour migration schemes."⁷³

Other possible methods and sources include national-level quantitative, model-based projections, sector and occupation-based studies and employer and job vacancy surveys which can "provide insights into how labour markets develop in response to various external influences".⁷⁴

Additionally, an important issue in regulating labour migration is the systematic recognition of qualifications, including informal and non-formal learning⁷⁵. Migrants develop skills, knowledge and competencies through work in countries of origin and destination, not necessarily having a certification. Recognising such forms of learning is important to understanding the impact of migration on the labour market including the labour market integration of return migrants. The CEDEFOP provides European guidelines for validating non-formal and informal learning (CEDEFOP, 2009).

Chapter 2a describes additional statistical and administrative sources of data on labour migration including population censuses, household surveys, establishment censuses and surveys, border surveys and population registers. To understand the impact of migration on origin and destination countries, population censuses should ask for the date of a movement to/from the country. To understand the size and characteristics of these movements, multiple years of census data should be analysed or census data ought to be compared with household-based surveys or administrative sources.

⁷³ See: Research and Analysis of Vacancies and Skills Needs in the European Union, in the Republic of Moldova and Ukraine, ILO (2013) and Matching Skills and Labour Market Needs Building Social Partnerships for Better Skills and Better Jobs (p. 28). Geneva: World Economic Forum (2014).

⁷⁴ Research and Analysis of Vacancies and Skills Needs in the European Union, in the Republic of Moldova and Ukraine, Geneva: ILO, 2013)

⁷⁵ Less understood than learning from formal education and training, informal and non-formal learning are gained outside the formal learning system. Unlike formal learning which is "always organised and structured", informal learning is "never organised, has no set [learning] objectives" and can be called "learning by experience"—where the act of existing exposes an individual to learning. Though without a universally-recognised definition, non-formal learning can be described as an "intermediate concept" between formal and informal learning with some elements of both formal and informal learning (OECD.org, 2014).

Data gaps and challenges

Data gaps and challenges, including the lack of comparability of concept definitions and methods, may limit the analysis and understanding of the causes and consequences of migration.

According to the ILO, the lack of sound labour market needs assessments prevents policymakers from ensuring appropriate skills and jobs matching for migrant workers which results in large numbers of migrant workers being employed in lower-level jobs. This can lead to de-skilling and “brain waste”. Such needs assessments should help to explain the unique industrial, occupational and geographic factors that generate jobs that can be filled by national workers, or if not, by migrants. (ILO Labour Migration and Development: Setting a course for the future, 2013)

Further, although there are many methods for identifying and analysing important labour market and economic impact issues, the use of such methods is limited by the lack of quality and timely data. Policy-relevant data analyses are further complicated by the lack of consistent definitions and uses of terms like “employment” and “work” (though some guidance does exist, e.g. ICLS Resolution 1. See the “Good Practice Example” in section v below.)

Finally, little is known about irregular migrant workers who are difficult to reach both by statistical and the administrative data collections. Their absence from regular data collection translates to a gap in understanding how such a population impacts the structure, performance and conditions of the labour market and may lead to the development of policy and programmatic responses that are unable to address actual labour market impacts.

Good Practice Example:

Commitment to International Standards and Common Definitions

On 11th October 2013 the International Conference of Labour Statisticians adopted Resolution 1: Resolution concerning statistics of work, employment and labour underutilization to set standards for work statistics to guide countries in updating and integrating their existing statistical programmes in this field. This resolution defines the concept of work and provides guidelines for countries on issues such as how to classify populations according to labour force status and on how to distinguish among distinct forms of work.

Through promoting common concepts and definitions, this resolution facilitates comparisons of labour force statistics across data sources, countries and regions.

In terms of improving the current understanding of the impact of migration on the labour market and development, the resolution is intended to help countries achieve several objectives including:

- a) Monitoring labour markets for the design, implementation and evaluation of economic and social policies and programmes related to employment creation, income generation, skills development including vocational education and training and related decent work policies;
- b) Providing comprehensive measurement of participation in all forms of work and the contribution of all forms of work to economic development, to household livelihoods and to the well-being of individuals and society; and
- c) Assessing participation in different forms of work among population groups including migrants; and study the relationships between different forms of work and their economic and social outcomes.

Source: ICLS, Resolution I: Resolution concerning statistics of work, employment and labour underutilization (2013)

Key messages and recommendations

Effective labour migration policies are needed to respond to labour market needs in origin and destination countries. Assessing the impact of migration on labour markets and on development depends on quality empirical evidence. An ideal policy approach on the role and labour force integration of migrants should place high value on evidence-based decision-making and public support for comprehensive statistics of quality, such as the regular collection of relevant data from household-based surveys. Efforts to increase the quality and comparability of existing statistics on migrant workers can be aided through direct consultation with ministries, national government counterparts, international organisations and civil society as well as making commitments to national, regional and international standards and methods of data collection and reporting.

Understanding the role of migration in the labour market is also essential to reap the developmental benefits of migration. Good data are essential for policymakers and practitioners to develop informed, evidence-based responses to current and future challenges posed by shifting labour market demands and the movement of people in search of decent work.

To this end, the following priority areas for action should be given consideration by policymakers and practitioners:

1. Support continued data collection and research to fill evidence gaps on labour migration and its impacts;
2. Build and support the capacities of countries to gather, analyse and use data for policy formulation and programme planning to understand the changing impact of migration on labour markets;
3. Improve coordination between users and producers of labour migration information, involving social partners; and
4. Support and build efforts which balance labour market efficiency with equity, based on up-to-date, quality data.

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Chapter 3c Trade, Migration and Development

ILO

Key policy issues

There is now wide recognition that migration is a driver of sustainable development, and that migrants are agents of development. The effects of migration may go beyond the impact on migrants' lives, to encompass economic and social development axes on both host and home countries. This includes the contribution of migration to international trade, which in turn is itself an important enabler of development.

Importance of migration to trade

The existence of an important migrant population in a country is often correlated to an increasing amount of trade between the migrants' host and home countries. This is highly related to what is sometimes referred to as "nostalgia trade", which involves such things as trade in tourism services, when the migrants go back home to visit, or trade in home country goods.

Diaspora tourism may include medical, business-related, heritage, education and other forms of tourism.⁷⁶ Some tourism services may be pursued as part of a public policy to build stronger links between migrants and their home country. Notably, tourism from migrants tends to be more focused on local products and services, such as locally owned accommodation and restaurants. These stronger links to the local economy are also likely to occur in migrant consumption of home country goods, particularly foodstuffs or other items associated with the culture of origin. These nostalgia goods tend to be more traditional, sometimes artisanal, and often with more local value-added than other comparable items.

Migration can also boost trade flows between countries by leveraging diaspora networks that can transmit remittances, skills, technology, know-how and information on work, business and education opportunities. This may provide business leads, financing, the circumvention of trade barriers and the reduction of trade-related transaction costs. This mechanism can be harnessed by diaspora engagement policies. Empirical evidence has shown that both permanent and temporary migration promote bilateral trade flows. And while permanent migrants may be more integrated in the host country it has been demonstrated that temporary migration tends to have a stronger and more significant effect on imports and exports than permanent migration. One key factor which may explain this is the fact that more recent migrants will have a more up-to-date knowledge of the home country.⁷⁷

Importance of trade to migration

Economic integration, and cooperation and trade agreements, at bilateral, regional and international levels, provide a platform through which measures can be put in place to facilitate migration. Trade agreements such as the General Agreement on Trade in Services (GATS), and some regional and bilateral trade agreements include the temporary movement of natural persons

⁷⁶ The other modes are Mode 1 (cross-border supply), Mode 2 (consumption abroad), and Mode 3 (commercial establishment).

⁷⁹ Mode 4 does not apply to measures regarding citizenship, residence or permanent employment. arding citizenship, residence or permanent employment.

to supply services as one of the means to trade in services. Mode 4⁷⁸, as it is referred to in the GATS and other agreements, can therefore be considered a sub-set of regional and international migration⁷⁹ and these agreements as one of the tools to remove barriers to the movement of people. Trade negotiations also address multiple issues which go beyond market access and that facilitate mobility, including recognition of qualifications, streamlining of recruitment criteria and search for related common international standards.

Multilateral commitments in this regard have generally been qualified as limited, whether in the Uruguay Round or the Post-Uruguay Round Mode 4 negotiations or the current Doha round.⁸⁰ Countries have generally taken commitments at the horizontal level (i.e. applicable to all the services sectors included in the liberalization commitments) and for categories of persons moving either as intra-corporate transferees or business visitors. Even in liberalization commitments of countries which later acceded to the World Trade Organization (WTO) this trend is maintained. The commercial significance of these commitments is also diminished by the conditions and limitations often included by Members in their schedules and which relate to measures such as economic needs tests, quotas or pre-employment requirements.⁸¹ It is notable that of the 90 economic integration agreements that have been concluded between 2000 and October 2012, which cover services trade, all cover Mode 4 and a few include a separate chapter dealing with the “temporary entry of business persons”. Still, when compared to current GATS offers, advances in commitments are not very significant.⁸²

Many negotiators, particularly among developing countries and least developed countries (LDCs) which have long stated a keen interest for more commercially meaningful Mode 4 liberalization, feel that the offers on the table were far from satisfactory. To address this, countries have put forward proposals (individual country proposals as well as group proposals and a plurilateral proposal of fifteen developing to nine developed countries) which sought to improve the number and quality of Mode 4 commitments. The collective request from the LDC members of the WTO for preferential market access to their services and services suppliers also included a strong focus on barriers to Mode 4 (see Box 1). In these proposals, members have suggested inter alia that the number of sectors with Mode 4 commitments be increased, that mutual recognition agreement be encouraged, that commitments relating to individual professionals be extended, that the scope of categories covered be extended to include middle and lower level professionals and non-professional categories, that the prevalence of economic needs test and labour market tests for Mode 4 be reduced, that facilitated administrative procedures relating to visas, work and residence permits be put in place, and that social security requirements be implemented in a manner that they do not erode the competitiveness of service suppliers.

Box 1: LDC preferences

⁷⁶ The other modes are Mode 1 (cross-border supply), Mode 2 (consumption abroad), and Mode 3 (commercial establishment).

⁷⁹ Mode 4 does not apply to measures regarding citizenship, residence or permanent employment.

⁷⁹ Mode 4 does not apply to measures regarding citizenship, residence or permanent employment.

⁸⁰ Carzaniga, Antonia (2014), Negotiating mode 4 access, presentation made at the CEFTA-World Bank Dialogue, Brussels, 29 April.

⁸¹ http://www.wto.org/english/tratop_e/serv_e/mouvement_persons_e/mouvement_persons_e.htm (consulted 27.08.2014).

⁸² Carzaniga, Antonia (2014), op. cit.

WTO members recognise that LDCs need special treatment and assistance to achieve their development objectives. In this regard, multilateral agreements include provisions to increase their trade opportunities and allowing flexibility in implementing rules. On the current Doha Round, Bali outcomes include decisions to further implement duty-free and quota-free market access and preferential rules of origin for LDCs, and a monitoring mechanism on special and differentiated treatment.

Members have also agreed on a waiver allowing non-LDCs to deviate from most-favoured nation's obligations under the GATS to provide market access preferences to services and services suppliers of LDCs. Although the waiver was adopted in 2011, WTO members had not yet introduced preferences until recently. The Bali decision provided a road map for the operationalization of the waiver, resting largely on the formulation by LDCs of a collective request identifying barriers and to request their elimination on a preferential basis. This request was submitted in July 2014 and now members in a position to do so are notifying services preferences for LDCs.

Considering also non-official interventions communicating intentions, mentions regarding preferences in mode 4 include: facilitation of procedures regarding domestic regulation, encouragement for the recognition of qualifications by professional associations, extended periods of stay for business visitors, trainees, and intercompany transfers, and waiver of visa fees and quotas.

Trade, migration and remittances

There is a clear case for the benefits that countries would gain from promoting the temporary movement of persons to supply services through commitments in the WTO Doha Round on GATS, Mode 4, including by generating remittance flows. In 2013 there were 232 million international migrants (a significant 3.2 per cent of the world population) up from 175 million in 2000⁸³ and rising to an estimated 405 million by 2050.⁸⁴ In 2013, global remittances of international migrants reached \$542 billion, of which \$375 billion were to developing countries. This reflects a growth rate in 2013 of 3.9 per cent of global remittances and of 2.5 per cent for developing countries.⁸⁵ These values are considered an underestimation, since they accounts only for formal channels.⁸⁶ Remittances grew more between 2003 and 2013 than Foreign Direct Investment (FDI), both globally (with a 10.1 per cent annual growth rate) and in LDCs (12.2 per cent).⁸⁷ In the later, remittances have contributed more to Gross Domestic Product (GDP) than FDI, with around 4 per cent in 2013.

Migration-facilitating policies, including enabling trade policies, impact the level of remittances and their development potential. A 10 per cent rise in remittances led to 3.1 per cent in poverty reduction.⁸⁸ Such efforts should encompass the coordination of several policies envisaging market strengthening and financial inclusion. Important policies include competition promotion, cost

⁸³ United Nations, Department of Economic and Social Affairs (2013). Trends in International Migrant Stock: The 2013 revision (United Nations database, POP/DB/MIG/Stock/Rev.2013).

⁸⁴ IOM, World Migration Report 2010.

⁸⁵ UNCTADStat.

⁸⁶ UNCTAD (2014), Report of the Expert Meeting on the Impact of Access to Financial Services, including by Highlighting Remittances on Development: Economic Empowerment of Women and Youth.

⁸⁷ UNCTADStat.

⁸⁸ UNCTAD (2011), Impact of remittances on poverty in developing countries (UNCTAD/DITC/TNCD/2010/8)

reduction in the financial transfer process, more accessible and affordable transfer channels, combining for instance banking, telecommunication, postal and agent networks, and addressing irregular channels. Improving transparency and information on these costs will enable senders to choose the most cost-efficient options. It is also central to attend to recruitment costs through effective governmental regulatory monitoring frameworks.

Moreover, it is highly relevant to maximize the development impact of remittances. Providing options to enable people to use these private resources to leverage development investments, including infrastructure and productive capacity, is central. Financial counselling can be instrumental in this regard. Adequate investment products for remittances may include diaspora bonds, community projects or investment opportunities related to nostalgia products.⁸⁹ Yet, these inflows do not replace the development role of public provision of social services, industrial development and investment in export sectors.⁹⁰

Trade considerations for concerns on migration

In spite of the recognition of migration's positive impact on development, sensitivities remain high vis-à-vis labour movements when compared to trade and capital flows. The concerns regarding the impact of persons temporarily moving to a destination country are largely similar to those regarding permanent migrants and revolve around issues pertaining to perceived adverse impacts on the domestic labour market, expected job losses and lower wages for some locals.

These concerns often do not consider that migration may attend to demographic needs or labour shortage thus enabling market expansion rather than lowering employment. Moreover, and as previously detailed in the links between trade and migration, migration will possibly be related to increased trade opportunities. In this case, gains from trade need to be taken into account when analysing eventual negative impacts of migration on host country wages to reach meaningful conclusions on the overall effect of openness policies.

There are also some migration-related concerns in countries of origin. In this regard, remittances matter and in some cases they will possibly outweigh possible negative impacts on lost tax income in home countries, in particular considering that the factors that drove migration could include scarce employment opportunities. Brain drain needs to be taken into account, although brain circulation also needs to be factored in. Furthermore, where movement involves high-skilled persons, there is an incentive to invest in human capital and education, a key feature for overall social and economic development.

Data needed to analyse the topic

Trade issues often intersect across several policy issues and thus data required to analyse the aforementioned topics could be very broad. This section will focus on data directly related to trade.

Regarding the importance of migration to trade, it is relevant to have data regarding nostalgia trade, including diaspora tourism services and home country products trade flows. Ideally, this data would be comprehensive and sufficiently disaggregated to facilitate specific policy-oriented

⁸⁹ UNCTAD (2013), Maximizing the development impact of remittances (UNCTAD/DITC/TNCD/2011/8).

⁹⁰ Nurse, Keith, Diaspora, Migration and Development in the Caribbean, FOCAL Policy Paper.

actions. It would also be relevant to have information on the countries of destination and on the policies that are put in place to engage with diaspora and to foster their networks.

To analyse issues mentioned under the importance of trade to migration, it would be necessary to have information on regional integration initiatives, cooperation schemes and trade agreements commitments that have the potential to affect mobility. It is relevant to have information on dispositions regarding market access and related conditions and limitations. It is also important to have data on Mode 4-enabling factors such as the number of agreements which provide for mutual recognition of qualifications and/or experience, facilitated visa procedures, or streamlining recruitment criteria.

To analyse the specific trade through movement of service suppliers, data is needed to measure contractual services provided by natural persons (service suppliers) from one country in the territory of another country, whether as employees of a foreign services supplier or as self-employed providers.⁹¹ This implies measuring both the number of persons moving (flows) and temporarily present (stocks) abroad in the context of the supply of services.

Existing sources and standards for data collection

Trade flow data is usually available through several national and international sources and may derive from transactional information or from estimations. The United Nations Conference on Trade and Development (UNCTAD) - as the focal point for the integrated treatment of trade and development and the interrelated issues in the areas of finance, technology, investment and sustainable development - compiles, validates and processes a wide range of trade data collected from national and international sources. Hence, merchandise and services data can be found on UNCTADstat, a free to use dissemination platform.⁹²

Policy data can often be found in government information sources, including in legislation and official reports, or in secondary sources, including in academic research and reports from international organizations as UNCTAD's Services Policy Reviews (SPRs).⁹³ Intelligence on regional integration initiatives, cooperation schemes and trade agreements commitments exists on documents and commitment lists from such initiatives, schemes and agreements or, alternatively, on secondary sources. The WTO has consolidated and made available information on trade, market access, trade agreements (for example, the Regional Trade Agreements Information

⁹¹ Mode 4 also covers movement of intra-corporate transferees and foreign employees directly recruited by the foreign affiliate, as well as service sellers and persons responsible for setting up commercial presence. However, data relating to these Mode 4 categories are not necessary as in the case of intra-corporate transferees. The services trade should be captured by data relating to the commercial presence itself and in the case of service seller and persons responsible for setting up commercial presence they do not directly engage in services trade per se.

⁹² For more information, please see <http://unctadstat.unctad.org>

⁹³ SPRs are systematic reviews of the economic, trade policy, regulatory and institutional frameworks characterizing a country's services sectors as to better harness the development benefits of the services sector and of international trade in services. Reviews have been conducted for Bangladesh, Kyrgyzstan, Lesotho, Nepal, Nicaragua, Paraguay, Peru, Rwanda and Uganda. Sectoral analyses include professional services, tourism, construction and infrastructure services as information and technology, transport, energy and financial services. For more information, please see <http://unctad.org/en/Pages/DITC/Services/Services-Policy-Review-Series.aspx>

System and the Database on Preferential Trade Agreements), and trade policy measures, including tariffs and non-tariff measures for both merchandise and services.⁹⁴

The Interagency Task Force on Statistics of International Trade in Services⁹⁵ has compiled a Manual on Statistics of International Trade in Services (MSITS) which was first published in 2002, then revised in 2010 before being published in 2011.⁹⁶ The MSITS 2010 sets out an internationally agreed framework for the expanded compilation, structuring and reporting of comparable statistics of international trade in services. The MSITS 2010 conforms with and explicitly relates to other statistical frameworks including the System of National Accounts 2008 and the sixth edition of the Balance of Payments and International Investment Position Manual. The Manual also develops a new framework for measuring the activities of foreign affiliates (Foreign Affiliates Statistics – FATS).

In particular, the Manual recommends the breakdown of data by partner economy for services transactions between residents and non-residents to enable reporting partner detail, first at the level of services trade as a whole and then for each of the main types of services. These main types of services should be the ones on the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6) and, as a longer-term goal, of the more detailed and disaggregated Extended Balance of Payments Services Classification (EBOPS). The Manual also recommends the collection of FATS basis variables, including sales and/or output, employment, value-added, exports and imports of goods and services and number of enterprises, and also of complete statistics on FDI, including flows, income and period-end positions, as complements to FATS. Also importantly, the services transactions between residents and non-residents and FATS sales or output of services should be allocated over the GATS modes of supply. Regarding the presence of natural persons, the manual recommends to collect statistics on the number of persons under the GATS framework, both those from the compiling economy present abroad and foreign natural persons present in the compiling economy.⁹⁷ It would also be important to record the origin/destination of persons, their skills and occupations, and the length of stay of the service supplier.

It should also be noted that data collected according to the International Recommendations for Tourism Statistics 2008 and Tourism Satellite Accounts: Recommended Methodological Framework 2008 are useful in relation to Mode 4 as the number of international visitors can be broken down according to the main purpose of the trip. Typical categories used include personal (holidays, leisure and recreation, education and training, health and medical care, etc.) and business and professional purposes. The latter can be seen as a proxy for flows of Mode 4 persons.⁹⁸

⁹⁴ For more information, please see <http://www.wto.org>

⁹⁵ Seven international agencies, namely Eurostat, International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), the UNCTAD, the United Nations Statistics Division (UNSD), the World Tourism Organization (UNWTO) and the WTO have come together to form an Interagency Task Force on Statistics of International Trade in Services. The objectives of the Task Force are to elaborate the statistical requirements of the GATS. <http://unstats.un.org/unsd/tradeserv/TFSITS/default.htm> (consulted 22.08.2014).

⁹⁶ United Nations Department of Economic and Social Affairs, Statistics Division (2010) Manual on Statistics of International Trade in Services 2010, New York, United Nations.

⁹⁷ United Nations Department of Economic and Social Affairs, Statistics Division (2010), op. cit.

⁹⁸ Joscelyn Magdeleine, Andreas Maurer (2008), Measuring GATS Mode 4 Trade Flows, Staff Working Paper ERSD-2008-05, World Trade Organization Economic Research and Statistics Division.

Furthermore, the statistical framework for the compilation of migration statistics in the United Nations Recommendations on Statistics of International Migration, Revision 1 (RSIM, Rev. 1) defines non-migrants and international migrants, of which short-term migrants (more than three months and less than 12) and long-term migrants (12 months or more), has a clear overlap with Mode 4-type movement. More specifically, it can be considered that migration statistics include statistics on Mode 4 flows and stocks of persons under the non-migrant category corresponding to business travellers.⁹⁹

Data gaps and challenges

Trade data often lack the availability and level of disaggregation that is necessary to take specific policy-driven actions. Some home country products that contribute to nostalgia trade, for example, may only be found at a 10-digit-level disaggregation, which means that they are not identifiable in many data sources. Diaspora tourism services face some data challenges that are transversal to the whole services sector, as detailed below.

For tourism services and home country products, data regarding the clients - namely knowing whether they are migrants and where in the diaspora they are from, however challenging it would be to collect - could be useful to take policy actions regarding nostalgia trade.

Beyond the particular data registry and collection challenges associated with their intangibility, services trade data is often not fully available for all countries. Despite important advances, there is still a lack of information regarding partner country data for services trade between developing countries. In some trade flows, mirror data is used but with the risk of some data inconsistencies. Another of the challenges relating to services trade data, including Mode 4 related data, is the fact that several institutions (e.g. the national statistical office, tax authorities, social security agencies, etc.) are involved and need to cooperate to provide relevant statistics.

Also, while a number of countries have started to measure their trade in services according to the GATS modes of supply (i.e. seeking to attribute each international service transaction recorded in the balance of payments to a mode of supply), their example demonstrates that while international transactions can sometimes be allocated to a single mode, a single transaction can also be composed of several modes of supply. For example, a single service contract between an architect and his client may cover several modes of supply, including Mode 1 (for the delivery to the client of the design of the construction project through electronic mail) and Mode 4 (if occasional visits to the location of the client are required).¹⁰⁰ This characteristic increases the difficulty of identifying what is directly associated with Mode 4, and therefore is of particular interest to labour mobility. Finally, as was stated earlier, data relating to market access alone would not be sufficient to explain the migration-promoting capacity of trade agreements but rather data on Mode 4 facilitating measures should also be collected.

Good practice

Several countries have been moving forward in their efforts to deal with services data and information gaps and challenges. In Colombia, beyond the information available through the

⁹⁹ Joscelyn Magdeleine, Andreas Maurer (2008), op. cit.

¹⁰⁰ Joscelyn Magdeleine, Andreas Maurer (2008), op. cit.

balance of payments, the Quarterly Sample of Foreign Trade in Services includes information on the country of origin, country of destination, services classification according to EBOPS, and mode of supply, in line with what is established in the MSITS.

In Brazil, the new industrial policy recognises the importance of the services sector to generate horizontal economic competitiveness and dedicates to it a set of specifically targeted initiatives. This includes the Integrated System of Foreign Trade in Services and Intangibles (SISCOSERV), an important tool for services classification, data collection and policy action.

The system ensures adequate classification of services activities based on the United Nations Central Product Classification (CPC) and with the necessary adaptations to assure the translation of Brazil's economic reality. It covers all services transactions between residents and non-residents. Data collection encompasses the 4 modes of trade in services and the following elements: value, start and end date of services provided, classification code, transaction currency, mode of delivery and data on the foreign seller or buyer.

In turn, SISCOSERV provides information for sectoral diagnosis and for several public institutions, supporting public policy and commercial intelligence. Thereby, it ultimately supports companies' trade efforts. Brazil's objectives were to collect data that provides a wealth of information for trade analysis and policy formulation.

Key messages and recommendations to address gaps

Policies to enhance data availability and quality are crucial for evidence-based policy action and for development efforts. Government acknowledgement of this importance is a relevant step to include related initiatives in national development strategies.

The above mentioned SISCOSERV example illustrates the relevance of assigning a high priority and political support to data availability and quality, as it is necessary to design development policies. The Brazilian system is fed by mandatory reporting from economic agents for all services transactions between residents and non-residents. This is facilitated by a strong institutional setting which derives from a Presidential decree. Another enabling factor is related to the country's experience in e-government and e-platforms. The implementation process also included training and awareness raising initiatives focused on the private sector.

Opportunities for South-South cooperation are relevant in this regard, where some developing countries could benefit from the experience of countries such as Brazil. In particular, international cooperation between national entities dealing with data collection, compilation and analysis are useful means to assist developing countries and least developed countries. Advocacy initiatives towards more and better data are also welcome and could be an important part of strategies to address data gaps and challenges.

List of abbreviations

BPM6 - sixth edition of the Balance of Payments and International Investment Position Manual

CPC - Central Product Classification

EBOPS - Extended Balance of Payments Services Classification

FATS - Foreign Affiliates Statistics

FDI - Foreign Direct Investment

GATS - General Agreement on Trade in Services

GDP - Gross Domestic Product

IMF - International Monetary Fund

LDCs - Least-Developed Countries

OECD - Organisation for Economic Co-operation and Development

RSIM - United Nations Recommendations on Statistics of International Migration

SISCOSERV - Integrated System of Foreign Trade in Services and Intangibles

SPRs - Services Policy Reviews

UNCTAD - United Nations Conference on Trade and Development

UNSD - United Nations Statistics Division

UNWTO - World Tourism Organization

WTO - World Trade Organization

DRAFT

Chapter 3d Intellectual property and the international mobility of skilled workers

World Intellectual Property Organization (WIPO)

Introduction

Skilled migration is an important economic phenomenon. People moving to where their skills can be most effectively used promises economic benefits – not least for the migrant workers but for the economies that host them. At the same time, for developing economies, skilled migration can pose important development challenges. The exit of skilled workers directly reduces an economy's human capital endowment, with consequences for economic development. While there exists the possibility of return, migration or economic contributions of the diaspora, such outcomes are not guaranteed.

The relationship between intellectual property (IP) and skilled migration is twofold. On the one hand, IP protection may affect the decisions of scientists and engineers (S&E) about where to exercise their profession. Vice-versa, outward migration of skilled workers can impact on the effectiveness of the IP system in reaching its goals of promoting innovation and technology transfer. Moreover, the national patent laws and enforcement regimes, joint with international treaties, affect international trade, foreign direct investment (FDI), and multinationals' location decisions. This, in turn, may affect the migration of S&E.

On the other hand, skilled migration and IP relate on a methodological level, by offering a window into skilled worker movements. In particular, bibliographic information disclosed in patent applications has been recently exploited as a source of information to study the international mobility of inventors. Inventor information retrieved from patent data is helping to give answers to several relevant questions within the economics of migration, such as (1) what is the contribution of foreign S&E – of whom inventors are an important subgroup – to the innovation and technological potential of the host countries; (2) whether these high-skilled workers substitute the local labor force or, rather complement each other; (3) whether specific immigration reforms need to be undertaken in order to attract and retain the most skilled workers; or (4) whether challenges and opportunities may arise from high-skilled emigration for low and middle income countries, in the form of knowledge diffusion back to their homelands and possibilities for innovation, technological progress?.

Migrant inventor information from patent data

Economic research has long used patent data to conduct empirical analyses in several fields and sub-fields. This has to a significant extent been due to patent applications data becoming available electronically over the last 30 years.

To obtain a patent right, individuals, firms, or other entities must file an application that discloses the invention to the patent office and eventually to the public. Then a patent office examines the application, evaluating whether the underlying invention is novel, involves an inventive step, and is capable of providing profits (Griliches, 1990). The attraction of patent data for economic research relies on such data being available for a wide range of countries and years, and for detailed technology classes (Hall, 2007). Among many other things, patent documents contain information on the applicants and inventors, including their complete names and their residence at the time of

application –to the level of detail to obtaining the street addresses. Use of such data, should be subject to ethical considerations and the usual rigorous statistical standards.

Lately, inventors' information from patent application has also been used for migration research.¹⁰¹ Inventors are both a representative sample of highly skilled workers, and a special category among the latter. Focusing on inventor migration captures one specific class of workers that is bound to be more homogenous than the group of tertiary educated workers as a whole. In addition, inventors arguably have special economic importance, as they create knowledge that is the genesis of technological and industrial transformation.

Existing approaches to migration using patent data

Migration information can be extracted from patent data in three ways. A basic approach consists of tracking inventors' international mobility by following their patenting histories across different countries (Oettl and Agrawal, 2008). This approach holds promise when applied to certain countries (e.g., the US), although it is not the most appropriate methodology to depict the whole picture of inventor migration flows across several countries. For example, one could observe many inventors migrating from the US to China or India, when it turned out they were returnee inventors who applied for their first patent while studying or working in the US, and subsequent patents after having come back to their home countries.

A second approach consists of combining inventor-based data with extensive information on the ethnic origin of names and surnames from official registers – i.e., “ethnic matching”. A pioneering strategy in this direction is provided by Kerr (2007), who combines inventor data (name and surname) from the US Patent and Trademark Office (USPTO) with the Melissa ethnic-name database, a commercial repository of names and surnames of US residents, classified by likely country of origin. Names and surnames from the two sources are matched in order to assign an “ethnic affiliation” to each inventor – based on linguistic or cultural affinities. After the matching, nine ethnic groups are identified: English (including US natives), European (except Russia and Spain), Russian (former Russian-speaking USSR countries), Hispanic-Filipino (all Spanish-speaking countries), Chinese (including Singaporean), Indian (including Pakistani and Bengali), Japanese, Korean, and Vietnamese.

Using this approach, Kerr (2007) finds that:

1. The ethnic inventors' share of all US-resident inventors grows remarkably over time, from around 17% in the late 1970s to 29% in the early 2000s.
2. The fastest growing ethnic inventor groups are Chinese and Indian
3. Ethnic inventors appear to disproportionately cluster in metropolitan areas

More recently, Breschi et al. (2014) have built on the same approach by experimenting with the IBM-GNR system, a commercial product which associates a list of names and surnames to a likely country of origin. Different from Kerr (2007), Breschi et al. (2014) make use of European Patent Office (EPO) data and exploit a different name-and-surname database, containing finer-grained information on countries of origin. Their work broadens the research frontier beyond the US as receiving country and looks at a broader set of sending countries, beyond the main providers of

¹⁰¹ Examples of this burgeoning literature include Agrawal et al. (2011), Breschi et al. (2014), Foley and Kerr (2013), and Miguélez (2014).

talent to the US – i.e., China, India, and other South-East Asian countries. Some of Breschi et al.'s (2014) results can be summarized as follow:

1. Beyond the US, other OECD countries stand out in attracting foreign inventors, as witnessed by their share of resident foreign inventors for the period 1995-2005 – i.e., Switzerland, the Netherlands, Belgium, Sweden and the United Kingdom (UK).
2. On the other side of the spectrum, the Republic of Korea, Japan and Italy lag behind in attracting talent among the countries analyzed.
3. Econometric analysis on citations to patents received reveals that, in general, the immigrant inventor contribution exceeds that of locals.

The “ethnic matching” approach has produced important insights. However, a ‘health warning’ is necessary regarding such data. The cultural origin of inventor names may not always indicate recent migratory background. There are significant limitations and implications of categorising people by name – this may not necessarily indicate recent migratory patterns, but could just be plucking out people with “ethnic” names, even if they are citizens of the relevant country and have parents who are too . For example, the migration history of certain ethnicities spans more than one generation – think of Indian and Chinese immigrants in the US or Turkish immigrants in Germany. Conversely, one may overlook immigrant inventors with names sharing the same cultural origins as the host country – think of Australian or British immigrants in the US.

A third approach consists of collecting information on the nationality of the inventors. WIPO has recently sponsored this endeavor by releasing a dataset of inventors listed in Patent Cooperation Treaty (PCT) applications containing, not only the inventors’ country of residence, but also their nationality.¹⁰² Section 5 illustrates this approach in detail. We turn next to discussing some of the main challenges associated with using patent data for migration research.

Data gaps and challenges

All the approaches mentioned using inventors’ names for migration analysis share the problem that there might be homonyms among inventors’ names that may (or may not) refer to the same inventor. Meanwhile, two differently spelled inventor names may refer to the same person. Unfortunately, inventor databases do not provide for a single identifier for each inventor and anyone else. Therefore, disambiguating the names of the inventors – assigning a unique identifier to each real inventor and anyone else – is required.

Disambiguation consists in the identification of two or more inventors listed on several patents as the same person, based on their homonymy or quasi-homonymy (identity or similarity of names and surnames), using related information contained in patent documents (postal address, common co-inventors, common citations, technological class, etc.). While performing this operation, type I errors (false positives) are generated whenever two inventors are presumed to be the same person, when in fact they are not; while type II errors (false negatives) are generated whenever two inventors who are indeed the same person are not identified as such.¹⁰³

When conducting this non-trivial task, several heuristics exist and no ex ante name disambiguation effort can produce an entirely satisfactory result. The collective effort of the scientific community is

¹⁰² See http://www.wipo.int/econ_stat/en/economics/studies/ to access all the materials produced by WIPO as part of the Project “IP and brain drain” (accessed 27th October 2014).

¹⁰³ On name disambiguation, see Raffo and Lhuillery (2009).

needed, together with the support of the relevant institutions. Although some attempts in this direction have been made, this journey is far from completed.

Examples of such efforts are those of Lee Fleming and co-authors (Li et al., 2014), who made publicly available several generations of disambiguated inventor data from the USPTO. Similar efforts have been conducted by Pezzoni et al. (2012) based on EPO data (the EPO-INV project).: **The international migration of PCT inventors**

Different from the “ethnic matching” methods documented in section 3, WIPO has recently released a dataset of inventors listed in PCT applications containing not only the inventors’ country of residence but also their nationality. The PCT-WIPO dataset has the advantage of not needing complicated, and necessarily imperfect, algorithms in order to ascertain the likely origin of inventors, since it relies on migratory background information revealed by inventors.¹⁰⁴

The PCT is an international treaty administered by WIPO offering patent applicants an advantageous route for seeking patent protection internationally. The treaty came into force in 1978 and it currently has 148 contracting states.

Similar to other patent documents, PCT patent applications contain information on the names and addresses of the patent applicant(s) (the owner), but also the names and addresses of the inventor(s) listed in the patent application. What is unique about PCT applications is that in the majority of cases they record information on the nationality of inventors as well as their country of residence at the time of application. This has to do with the requirement under the PCT that only nationals or residents of a PCT contracting state can file PCT applications. To verify that applicants meet at least one of the two eligibility criteria, the PCT application form asks for both nationality and residence of applicants. Moreover, it turns out that, until 2012, US patent application procedures required all inventors in PCT applications to be also listed as applicants. Thus, if a given PCT application included the US as a country in which the applicant considered pursuing a patent, all inventors were listed as applicants and ensured that their residence and nationality information were available.

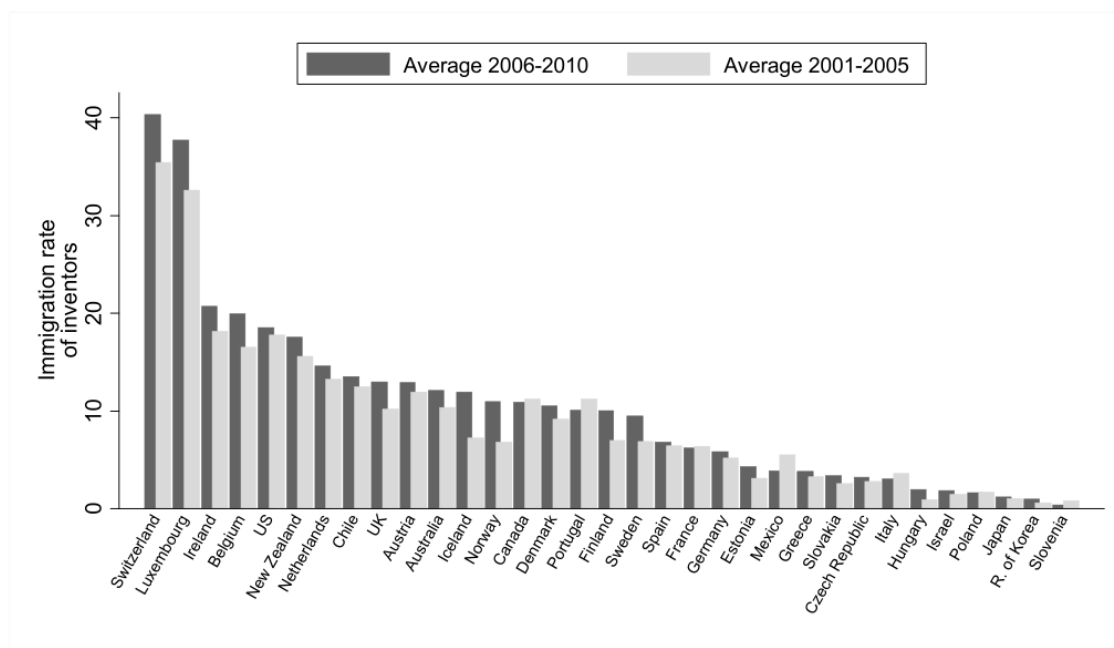
The share of inventors’ names in the PCT-WIPO dataset for which one can retrieve nationality and residence information is high, standing at around 80% of the cases from 1990 to 2010, although this coverage is unevenly distributed over time as well as across countries. Figures computed using the nationality information of inventors reveals that the overall pattern of inventor mobility resembles other high-skilled migration pattern, and in particular, conforms to what we know about the migration of S&E from anecdotal evidence, scattered surveys and the media.

By and large, the large majority of immigrant inventors concentrate in the US – more than 50%. European countries follow next, though with a substantial gap. The US attracts not only the largest absolute number of immigrant inventors (bearing in mind that it is the country with the highest number of resident inventors too), but also stands out as one of the primary receiving countries relative to its population of inventors (18.5%) among OECD countries – Figure 1. However, relatively small, open economies see even larger immigration rates than the US; namely, Belgium (19.9%), Ireland (20.7%), Luxemburg (37.7%) and Switzerland (40.3%).

¹⁰⁴ See Miguelez and Fink (2013), for a detailed description of the dataset.

Highly innovative countries such as Germany, France, and especially, Italy, Japan and the Republic of Korea, lag behind in attracting foreign talent with respect to their local stock of inventors.

Figure 1. Immigration rate of inventors, average 2001-2005 & 2006-2010



In order to investigate the contribution of immigrants to their host country economies, it is insightful to explore the number of citations received by PCT applications with and without migrating inventors. Table 1 presents the share of all patents with at least one listed inventor with migratory background and compares it with the share of inventors with migratory background listed in breakthrough patents – defined as the top 5% of patents in terms of citations received in the following 5 years after application. As can be seen in figure 1 above, the proportion of immigrants is systematically larger – and statistically significant – among breakthrough inventions than among the whole universe of PCT patents. This supports the idea that immigrants disproportionately contribute to their host country productivity – measured here by citations received.

Table 1: Share of immigrants in all patents & in highly-cited patents, 1990-2010

	% foreigners in all patents	% foreigners in 5% most-cited patents	t-statistic
Australia	16.28	24.81	9.11***
Austria	12.07	13.88	1.51
Belgium	22.89	35.61	8.17***
Canada	19.49	25.09	6.68***

Denmark	14.33	23.24	7.91***
Finland	15.67	17.61	2.05**
France	11.45	17.56	13.57***
Germany	12.18	19.9	27.65***
Ireland	30.97	33.7	0.95
Italy	4.45	7.82	7.74***
Japan	3.25	4.46	9.89***
Netherlands	18.4	18.95	0.87
R. of Korea	2.56	2.68	0.48
Spain	10.1	15.74	5.32***
Sweden	11.08	18.29	12.42***
Switzerland	35.27	44.06	9.38***
UK	14.74	21.16	13.11***
US	18.17	22.53	24.55***

Note: ***, **, and * indicates significance at 1, 5, and 10 percent levels, respectively.

Conclusions and recommendations

This chapter described how inventor data retrieved from patent applications can be used for migration research. Arguably, by using migrant inventor data to measure high-skilled migration one can overcome some of the limitations faced by existing migration datasets. In particular, this database covers a long time period, provides information on an annual basis, and includes a large number of sending and receiving countries. Moreover, inventors constitute a group of high-skilled workers of special economic importance.

Among the different possibilities of using patent data for migration research, a promising dataset has been recently released by WIPO, including the residence as well as the nationality of the inventors. However, using the PCT-WIPO dataset does not come without limitations. One of them is the fact that the numbers do not include immigrant inventors who became citizens of the host countries – thereby underestimating migration figures. Other methods such as “ethnic matching” could complement the use of the nationality information and mitigate this problem. Institutional support to scholars pursuing this avenue of research is critical.

More important caveats of the PCT-WIPO dataset are as follows: in 2012, the US enacted changes to its patent laws under the Leahy-Smith America Invents Act (AIA) that effectively removed the requirement that inventors be also named as applicants. Thus, PCT applicants (automatically) designating the US became free to list inventors without facing the requirement of indicating their nationality and residence. Although nationality information of inventors is abundant and will allow scholars to carry out a large number of studies, the impossibility to update it to the

most recent times will impede the analysis of some promising avenues of research. Therefore, future research will need to rely more prominently on “ethnic matching” methods.

An under-investigated area is the impact on ‘sending’ countries, for which emigration rates can be inferred from the data. The numbers involved may be comparatively low, but could represent the loss of the majority of inventors from a country. Assessment of the impact of this will also require future research efforts.

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Chapter 3e: Health

WHO/IOM

Key policy issues

The conditions in which migrants travel, live and work often carry exceptional risks to their physical and mental well-being, and migration can therefore be regarded as a social determinant of health for migrants. This link has been acknowledged by the World Health Assembly (WHA), which adopted Resolution 61.17 on the “Health of Migrants” in 2008, in which Member States “recognized that health outcomes can be influenced by the multiple dimensions of migration”. These include restrictive immigration, employment, social protection and housing policies, namely the reasons for which migrants often have to travel, live and work in unsafe and unhealthy conditions.

This was also acknowledged by the Committee on Economic, Social and Cultural Rights (CESCR) who interpreted that the right to health is not confined to the right to health care. While it recognizes the right to available, accessible, acceptable and quality health services, it also acknowledges that the right to health embraces a wide range of socio-economic factors that promote conditions in which people can lead a healthy life, and extends to underlying determinants of health, also often referred to as social determinants of health.

Therefore, policy responses should address both the underlying social determinants of migrants’ health outside the health sector and the barriers that prevent migrants from accessing, quality health care services. This requires a multi-sectoral approach as many of the solutions to improving migrants’ health lie not only in the health sector but in other sectors, such as labour and immigration. For example, social protection in health for migrant workers, such as health insurance and a safe and healthy working environment are part of labour laws and policies. Access to health care for migrants, especially undocumented migrants are often regulated and/or influenced by immigration laws and policies. In addition, many countries’ immigration laws require migrants to pass a medical exam to obtain residency status or a work permit. Testing positive for Tuberculosis, HIV, a sexually transmitted infection or even pregnancy can exclude migrants from obtaining a work permit or can lead to deportation if the migrant is already in the country of destination.

Policies, developed by the ministries of health or other line ministries, should follow the four basic principles for a public health approach to address the health of migrants and host communities (WHO, 2008):

Avoid disparities in health status and access to health services between migrants and the host population.

Ensure migrants’ health rights. This entails limiting discrimination or stigmatization, and removing impediments to migrants’ access to preventive and curative interventions, which are the basic health entitlements of the host population.

Put in place lifesaving interventions so as to reduce excess mortality and morbidity among migrant populations. This is of particular relevance in situations of forced migration resulting from disasters or conflict.

Minimize the negative health outcomes of the migration process on migrants' health outcomes. Migration generally renders migrants more vulnerable to health risks and exposes them to potential hazards and greater stress arising from displacement, and adaptation to new environments.

What are the key policy questions with regard to migration and health for which data and evidence are needed? To answer this question, we need to review the operational framework of the aforementioned WHO Resolution on the health of migrants. The Global Consultation on the Health of Migrants, organized by WHO, IOM, and the Government of Spain in 2010 identified priorities and key actions along the following four pillars of the WHO resolution:

- Monitoring migrant health
- Developing and implementing migrant-sensitive policies and legal frameworks
- Promoting migrant-sensitive health systems
- Ensuring partnerships, networks and multi-country frameworks

The key policy questions for which data and evidence should be collected (by migrant type/status) cut across these four pillars, and include:

- What are the health outcomes of migrants in comparison with the host population?
- Are migrants and/or migration variables integrated in national health information systems, health surveillance surveys and demographic health studies?
- Are health services accessible, available, acceptable and of high quality for migrants?
- Do migrant workers have access to health insurance and other social protection measures related to their health and well-being?
- Are migrants discriminated based on their health status?
- Do migrants have the right to health care in law and policy?
- Are data collected in different countries based in harmonized, standardised indicators?
- Are health policies, protocols and strategies aligned across borders to ensure continuity of care for migrants?
- Are migrants and migration factors integrated in national health and disease strategies and policies?
- Are health policies developed and informed by a wide range of actors including non-health ministries and non-governmental actors from civil society?
- Are policies that impact on migrants' health coherent across the different sectors?
- Is there a department or unit within the Ministry of Health that facilitates multi-sectoral coordination on migration and health issues between the different ministries and non-governmental actors?

Data needed to analyse the topic

To answer these identified policy questions, qualitative and quantitative data needs to be routinely collected, analysed and disseminated. However, caution is advised regarding how data on migrants' health is collected and disseminated as data can be used to stigmatize and discriminate against migrants, especially related to communicable diseases.

Most countries gather data on diseases, which is associated with public health efforts to control imported or transported illness and disease. As the nature and diversity of migration evolves, migration-related economic and social factors, biological and genetic determinants of health, entitlements, and provider attitudes need to be measured to develop policies to improve health of migrants.

Different data collection methodologies should be used, and advocacy efforts will be needed to ensure the integration of migration variables into existing data collection mechanisms. A few recommendations are:

- Identify and promote key standardized indicators on migrant health that are acceptable and usable across countries.
- Promote the inclusion of migration variables in existing census, national statistics, targeted health surveys and routine health information systems, as well as in statistics from sectors such as housing, education, labour and immigration.
- Use innovative approaches to collect data on migrants' health beyond traditional instruments such as vital statistics and routine health information systems. Often migrants will avoid accessing health care services so pro-active health promotion and health screening among migrants should be done through migrant-friendly outreach activities
- Raise awareness about data collection methods, uses, and data sharing related to migrant health among governments, civil society, and international organizations.
- Produce a standardized global report on the status of migrants' health including country-by-country progress reports.

Considering the characteristic of contemporary migration dynamics, monitoring migrants' health should be expanded. Social determinants of health should be considered in the analysis of migrants' health. Social and economic factors influence the health of migrants; where they come from, how they travel, work, or where they reside and settle, have implications for their health. Also the definition of migrants varies from country to country and the lack of an agreed universal definition can limit the cross-country comparability of health information. The use of standardized instruments to measure the health of migrants could contribute to define policies at the country, regional and global level.

Existing sources and standards for data collection

Collecting and analysing data is a priority to monitor migrant health and develop migration policies that protect migrants' right to health. The lack of clarity about what constitutes a migrant as well how many immigrants are in a given country conditions the access to clear data on migrants' health. The collection of health data and the identification of key indicators that are useable across countries have been recognized as a challenge in the Global consultation on the Migrant Health.

The thematic paper “Monitoring migrant health” presented in the Global consultation in Spain, states that information about migrants varies by country and type of data, and also by mechanism to collect this information. In some countries health assessments have been a routine component of the immigration process, while in other countries, country of birth or migration status are elements of disease surveillance and reporting. Place of origin and length of residence have been recognized as important to identify problems and improve health outcomes.

The system of collecting information also varies. Some countries with national health insurance systems collect information regarding citizenship or nationality without including the immigration status of the individual, while other countries may collect and record health information on the basis of ethnicity.¹⁰⁵

Most countries gather information on diseases, these experiences being which associated with public health efforts to control imported or transported illness and disease. As the nature and diversity of migration evolve, migration-related economic and social factors, biological and genetic determinants of health, entitlements, and provider attitudes need to be measured to develop policies to improve health of migrants.

Data gaps and challenges

The Operational Framework on Migrant Health outlined in the Global Consultation highlights the priorities to be addressed in relation to monitoring of migrants’ health:

- Ensure the standardization and comparability of data on migrant health;
- Increase the better understanding of trends and outcomes through the appropriate disaggregation and analysis of migrant health information in ways that account for the diversity of migrant populations;
- Improve the monitoring of migrants’ health-seeking behaviours, access to and utilization of health services;
- Increase the collection of data related to health status and outcomes for migrants; and
- Identify and map: 1) good practices in monitoring migrant health; 2) policy models that facilitate equitable access to health for migrants; and 3) migrant-inclusive health systems models and practices.

Good practice

Migrant Integration Policy Index (MIPEX)

MIPEX (www.mipex.eu/) is an interactive tool and reference guide for assessing, comparing and improving integration policy. The MIPEX project is led by the British Council and the Migration Policy Group. MIPEX has covered 8 policy areas since 2014: health, labour mobility, family reunion, education, political participation, long term residence, access to nationality and anti-discrimination. Using 148 policy indicators MIPEX creates a rich, multi-dimensional picture of migrants’ opportunities to participate in society by assessing governments’ commitment to

¹⁰⁵ Gushulak, Brian; “Monitoring migrant health”, thematic paper presented in the Global Consultation on the Health of Migrant, Spain, 2010.

integration. By measuring policies and their implementation, it reveals whether all residents are guaranteed equal rights, responsibilities and opportunities. The index is widely used by policymakers in Europe, and increasingly in the rest of the world.

The health strand for MIPEX was developed in 2014, based on the Council of Europe recommendation (2011) on mobility, migration and access to health care. The MIPEX health strand measures 4 elements:

- entitlement to health services
- policies to facilitate access
- responsive health services
- measures to achieve change

MIPEX measures integration policies in most countries in Europe, North America, Australia, Japan (34 countries total). The audit is done by independent scholars based on the country's publicly available documents

BioMosaic

Partners: CDC, Harvard University, University of Toronto

The United States' Center for Disease Control and Prevention's (CDC) Division of Global Migration and Quarantine has a migration, demographics, and health information initiative in collaboration with Harvard University and the University of Toronto. BioMosaic is a software application that allows combining and visualizing immigration statistics, and health and demographic data. BioMosaic shows foreign-born populations, census demographic data, and health-data indicators to the US county level. Targeted health communications, or public-health interventions, can be developed with the application by identifying foreign-born populations clustered in specific areas, or link census data on social determinants of health, such as income, education, language proficiency, and access to healthcare. BioMosaic allows routine surveillance to include migration data, as well as data collected in disasters. This practice emphasises the importance of monitoring migrants' health and ensuring accurate data is available to government, health staff, and planners.

Key messages and recommendation to address gaps

WHO Secretariat report 2007 proposed possible strategies for improving the health of migrants. One of the key areas is related to the importance of assessment, research, and information dissemination. This area includes:

- Assessing the health of migrants and trends in migrants' health;
- Identifying and filling gaps in service delivery to meet migrants' health needs;
- Disaggregating health information by gender, age and origin and by socioeconomic and migratory status; and
- Encouraging health and migration knowledge production, including both quantitative and qualitative studies.

In this regard, during the Global Consultation on Migration key actions were identified to address gaps in information for migrant's health:

- Identify key indicators that are acceptable and useable across countries;
- Promote the inclusion of migration variables in existing census, national statistics, targeted health surveys and routine health information systems, as well as in statistics from sectors such as housing, education, labour and migration;
- Use innovative approaches to collect data on migrants beyond traditional instruments such as vital statistics and routine health information systems, and develop useful data that can be linked to decision-making and the monitoring of the impact of policies and programmes.

To address migrant health needs an integrated approach is needed. This includes the analysis of determinants of health as well the impact of the migration process, considering that migration process can increase migrant's vulnerability to ill health. Inequality in access to quality health services requires data that cannot be provided by the health sector alone but through the contribution and involvement of other sectors such as education, employment, and housing, among others, to develop integral policies to respond to migrant health needs.

DRAFT

Chapter 3f. Education

UNESCO

Key policy issues

Migration and its effect on the education of both migrant and non-migrant children¹⁰⁶ is a topic which deserves considerable research attention. Understanding the effects of migration on education is important firstly because of the key role of education in the “full development of the human personality and the sense of its dignity” and in the promotion of “understanding, tolerance and friendship among all nations and all racial, ethnic or religious groups”.¹⁰⁷ Secondly, there is a strong correlation between education, professional ascent and quality of life, hence, the consequent high rank of education among the reasons for migration. Thirdly, there is an ever-growing number of migrant children enrolled in different levels of education, including in non-formal settings, with increasing mobility patterns, involving North-South-South migration flows.

The educational development of migrant children , girls and boys, (as well as of non-migrant children), in both destination and origin countries can be both positively and negatively affected by migration. A starting point for analysis is the entrenchment of migration in a human rights framework, to ensure that relevant human rights standards and principles will shape its outcomes. In addition to being a legal obligation by virtue of a country’s ratification of a relevant international convention, such an approach is consonant with the commitment to further the realization of human rights embodied in the 2030 Agenda for Sustainable Development.¹⁰⁸

With this in mind, a key policy objective in destination countries is to promote the accessibility of the national education system (formal and non-formal, including technical and vocational education and training) to migrant learners, as well as the accessibility to all forms of training that leads to certification.¹⁰⁹ Accordingly, policy frameworks should place emphasis on eliminating discrimination and exclusion factors, such as gender, national or ethnic origin and migration status¹¹⁰, from all levels and forms of education. An integral part of those efforts is the setting of legal and other frameworks and mechanisms to protect against infringements on access to education for migrant learners, including by securing recognition and validation of prior learning, and to promote tolerance and respect for diversity.

¹⁰⁶ The key dimension here is the country of birth of the child as well as that of her/his parents.

¹⁰⁷ See Article 13 paragraph 1 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) at <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx>.

¹⁰⁸ Inter alia: “We envisage a world of universal respect for human rights and human dignity”, paragraph 8, and “This is an Agenda which seeks to respect, protect and fulfil all human rights.” The full text of the UN General Assembly Resolution 70/1 entitled *Transforming our world: the 2030 Agenda for Sustainable Development* is available at: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

¹⁰⁹ See on the interpretation of the ICESCR provision the General Comment N°13 of the Committee on Economic, Social and Cultural Rights at: http://tbinternet.ohchr.org/_layouts/treatybodyexternal/TBSearch.aspx?Lang=en&TreatyID=9&DocTypeID=11

¹¹⁰ According to Article 30 of the International Convention on the Rights of All Migrant Workers and Members of their Families access to public preschool educational institutions or schools shall be without prejudice to the migration status of the child concerned or parents of the child. See General Comment N°2 of the relevant Committee at:

http://tbinternet.ohchr.org/_layouts/treatybodyexternal/TBSearch.aspx?Lang=en&TreatyID=7&DocTypeID=11

A key parameter meriting attention is the organization (i.e. tracked approach where students are allocated to schools with different focuses, as opposed to a comprehensive approach) and performance of the education system and how it affects the learning outcomes of migrant children as an integral part of the learners' community, disaggregated by gender, migration status, national or ethnic origin and socio-economic status.

Destination countries should also invest in developing capacities within their education systems to intake and retain migrant learners and to provide them with quality education in a sustained manner. Specifically regarding the educational attainment of migrants, policies and programmes should address the impact on learning outcomes of such key factors as migration status¹¹¹ (undocumented, refugee, and asylum seeker), type of migration (immigration, emigration, permanent and temporary), ethnicity, gender, family background and home environment, cultural identity, socio-economic status, as well as the divergences between children of first and second generation migrants and migrant and non-migrant children.

Responses to such factors would encompass adaptation of the structural features of the system (including such parameters as funding, availability of school infrastructure, teaching personnel and materials, teacher training, mapping of capacities and knowledge gaps, etc.), as well as the corresponding school-level configuration.

Disadvantages relating to migration, gender or socio-economic status are often exacerbated by the lower-quality resources available at the school level (for instance lack of qualified teachers, equipment shortages, etc.). A determining factor for the successful integration of all migrants, boys and girls alike, in the education system and consequently for their educational development is the extent to which its curricula, teaching personnel and methodology capture the diversity of the classroom and show sensitivity and respect to different cultural, ethnic or national identities.

A further necessary ingredient of such interventions is the provision for special support to migrant children and their families, particularly in the form of assistance for language acquisition (with a heritage language that is different from the language of instruction) or special care within schools where appropriate for their psychological well-being (for instance in relation to phenomena of bullying etc.).

At the level of origin countries, emphasis should be placed on capitalizing on the positive impact of factors such as financial and social remittances for the educational outcomes of non-migrant boys and girls and also on minimizing the consequences of negative factors like the prolonged family separation.

Data needed to analyse the topic

Developing appropriate policies to promote the educational development of migrant children and migrant learners more broadly can only be built on a good understanding of migration patterns, the profile and size of these groups, and how these factors interrelate with their respective learning opportunities and outcomes. To this end, ideally, disaggregated data (by migrant status, gender, age, parental education and occupation, family type, ethnicity and religious or linguistic identity, socio-economic status of both students and schools, location) will be needed.

¹¹¹ This is in line with Target 17.18 on Data, monitoring and accountability of Goal 17 of the 2030 Agenda for Sustainable Development at: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

It is unrealistic to expect that all variables will be available, so it will be necessary to identify which are essential and which are desirable for a host of different contexts and aspects, including: enrolment by level of education, drop-out rates, number of years at school, learning outcomes per level of education, discriminatory attitudes, racist incidents and bullying at school. Comparing such data to that on the population of the receiving country will help build understanding of patterns of discrimination and inequalities that are the cause of low access to school, high drop-out rates and poor learning outcomes. It will also help design and implement appropriate corrective measures.

The response by competent State authorities to the challenges faced by its migrant population should be the subject of particular analysis. Information would be needed to help assess the responsiveness (showing the extent to which specific issues have been addressed) and the effectiveness of measures taken. Amongst others, it would be necessary to document and monitor:

- Policies and programmes promoting respect for diversity, such as the design of school curricula, the development of appropriate teaching methods and the provision of special training for teachers in general and notably for those serving in schools with high levels of diversity;
- Support and assistance to migrant children, and to their families when necessary, to facilitate their integration in the school environment and to improve their learning outcomes (for example through funding allotments for language learning, scholarships, student loans, etc.);¹¹² and
- The impact of the overall organization of the education system on migrants' learning opportunities and outcomes.

Surveys and opinion polls covering both migrant learners and their families, as well as the population of the receiving country, may prove an invaluable source of information on the effectiveness of the education system's response. A further indicator of effectiveness in promoting migrants' inclusion is the successful transition and access to the labour market.

Turning to origin countries, it would be useful to capture the impact of the migration of parents or siblings on the learning opportunities and outcomes of children who are "left behind" comparing to other native-born children.

Existing sources and standards for data collection

Education is a policy area that ranks highly in many countries' list of priorities, thereby explaining the wealth of available data, ranging from national level public databases (including national censuses, information gathered by education ministries, administrative data generated at the school level, etc.), to international data collection instruments, both regional and global, and non-governmental sources.

A considerable part of that information refers to the performance of migrant learners. For instance, at the regional level, Eurostat presented in 2011 a very interesting tool to evaluate integration policies of European Union countries in four domains, including education. The indicators matrix

¹¹² The further internationalization of tertiary education and research systems through the expansion of scholarships in favour of developing countries, in particular least developed countries, Small Island Developing States and African countries, is the focus of Target 4.b of Goal 4 of the SDGs.

and available data publicized in *Indicators of immigrant integration – A pilot study*¹¹³ cover such issues as the highest educational attainment, while exploring further the profile of low-achieving 15-year-olds in reading, mathematics and science and that of early leavers from education and training. The information is organized by groups of country of birth (including a comparative view of EU and Non-EU citizens), age groups and sex. A similar approach is followed in a brief published in June 2016.¹¹⁴

Another international source on learning outcomes of migrants is the OECD Programme for International Student Assessment (PISA).¹¹⁵ This three-yearly survey assesses the extent to which 15-year-olds have acquired the knowledge and skills essential in everyday life, while also taking into account the organization of schools. The 2012 survey, conducted in 34 OECD member countries and 31 partner countries and economies (from Africa, Asia, the Middle East and Latin America), examined, inter alia, student performance in mathematics, science and reading in relation to migrant background and also in conjunction with factors such as socio-economic status, the language spoken at home, and first- and second-generation status.¹¹⁶ Useful conclusions for migrants can be drawn, despite inherent limitations, from the OECD's Programme for International Assessment of Adult Competencies (PIAAC) which generates data on the competencies of adults (aged 16-64 years old) in literacy, numeracy, and problem-solving in technology-rich environment.¹¹⁷ The educational attainment of migrants is also reviewed in the context of specialized migration-related OECD databases.¹¹⁸ UNESCO publishes relevant information, collected through UIS¹¹⁹ and other sources on the situation in countries across the world, in the Global Education Monitoring (GEM) Report.¹²⁰

At the national level, countries collect information on educational performance of students and in many cases attention is paid to that of migrants, though data disaggregation on several key features differs significantly from one country to another. Turning to nongovernmental sources, the Migrant Integration Policy Index assesses integration policies in 38 countries, with education included among the seven policy areas under review.¹²¹

Data gaps and challenges

¹¹³ The full text of the report is accessible at: <http://ec.europa.eu/eurostat/documents/3888793/5849845/KS-RA-11-009-EN.PDF/9dcc3b37-e3b6-4ce5-b910-b59348b7ee0c>

¹¹⁴ An article on Migrant integration statistics – education published on 10 June 2016 is available at: http://ec.europa.eu/eurostat/statistics-explained/index.php/Migrant_integration_statistics_-_education

¹¹⁵ The document containing the key findings of 2012 PISA is available at: <http://www.oecd.org/pisa/keyfindings/PISA-2012-results-volume-vi.pdf>

¹¹⁶ An interesting publication was released in 2012 within the context of PISA entitled *Untapped Skills - Realising the Potential of Immigrant Students* and accessible at: http://www.keepeek.com/Digital-Asset-Management/oecd/education/untapped-skills_9789264172470-en#page41

¹¹⁷ Main limitations to the conclusions relating to migrants derive from the size and/or the representativeness of the migrant sample base, as well as from the difficulty to make a clear distinction between language and “general” literacy skills. See the PIAAC's dedicated website at: <http://www.oecd.org/site/piaac/>

An example of how PIAAC findings could be used for deepening analysis on migrants' educational attainment is a relevant study by the Migration Policy Institute at: <http://www.migrationpolicy.org/research/through-immigrant-lens-piaac-assessment-competencies-adults-united-states>

¹¹⁸ <http://www.oecd.org/migration/mig/oecdmigrationdatabases.htm>

¹¹⁹ UNESCO Institute for Statistics online Data Centre can be accessed at <http://www.uis.unesco.org/datacentre>

¹²⁰ The annual Global Education Monitoring (GEM) Report (formerly known as the Education for All (EFA) Global Monitoring Report published until 2015) focuses on progress towards the education targets in the new Sustainable Development Goals. See more on GEM at: <http://en.unesco.org/gem-report/> The 2015 EFA Global Monitoring Report on achievements and challenges of the 2000-2015 period is available at:

<http://unesdoc.unesco.org/images/0023/002322/232205e.pdf> ; The text of all reports published since 2002 is available at: <http://en.unesco.org/gem-report/reports>

¹²¹ For more information about MIPEX, consult: <http://www.mipex.eu/education>

A first set of challenges in the effort to assess the impact of migration on education outcomes relates to the complexity of the issue.¹²² Establishing causal links explaining a specific failure of the system is particularly difficult due to a number of parameters such as endogeneity, selectivity, and omitted variable problems. That difficulty is further strengthened by the fact that educational outcomes can be explained by factors which are unobservable or difficult to isolate. Another manifestation of that complexity pertains to the presence of indirect socio-economic effects, such as the extra burden imposed by migration on members in the origin household; the transfer of knowledge, information, and values between migrants and their families; and the emotional stress on children of family separation. Assessing their influence over the overall impact of migration on education outcomes is a challenging task.

Further to these challenges, the task is rendered more difficult by the limited availability of quality data, especially with regards to migrant characteristics. A careful look at the data sources mentioned in the previous section shows that even in countries and regions with a considerable amount of information, the scope of analysis could be further expanded so as to more accurately capture the situation of the whole array of different migrant learners. This expansion should happen in two directions. First of all, the level of data disaggregation should be further strengthened. For instance, databases such as those generated by the OECD PISA surveys or the Eurostat Migrant Integration Index focus on the combined effect of only a selected few of the following important factors: sex, country of citizenship (though restricted to a comparison between EU and non-EU citizens), socio-economic status, language spoken at home, and first- versus second-generation status. Thus, they omit from their consideration parameters such as migrant status, national or ethnic origin, religious identity and school location. While the UNESCO World Inequality Database on Education (WIDE),¹²³ which is connected to the GEM, covers a host of disparity factors, including gender, wealth, ethnicity, religion and location, migration status is not part thereof. A second expansion concerns the key domains where student performance is measured. The assessment of educational attainments of students should become more holistic so as to align to the core objectives of education, as established by international human rights conventions; the understanding of universal human rights values and respect for people from different civilizations, cultures and religions being a prerequisite for inclusion.¹²⁴ This vision was endorsed by the 2030 Agenda for Sustainable Development, that embodies a commitment to ensure "...that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development".¹²⁵

These observations apply a fortiori to other regional and international assessment mechanisms, such as the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ),¹²⁶ the Latin American Laboratory for Assessment of the Quality of Education

¹²² For a brief discussion on data and methodological challenges see Human Development Research Paper 2009/57, Migration and Educational Outcomes of Children by K. A. Schapiro, page 1, at: http://hdr.undp.org/sites/default/files/hdrp_2009_57.pdf

¹²³ For more information on WIDE see at: <http://www.education-inequalities.org/>

¹²⁴ See on this issue the report of the Special Rapporteur on the right to education to the 26th session of the Human Rights Council entitled Assessment of the educational attainment of students and the implementation of the right to education (Document A/HRC/26/27), available at:

http://www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session26/Documents/A_HRC_26_27_ENG.DOC.

¹²⁵ See Target 4.7 of Sustainable Development Goal 4, at:

http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

¹²⁶ For more information on SACMEQ see: <http://www.sacmeq.org/>

LLECE)¹²⁷ and the Programme d'analyse des systèmes éducatifs des pays de la Conférence des Ministres de l'Éducation des États et gouvernements de la Francophonie¹²⁸, where migrant educational outcomes are insufficiently captured.

Furthermore, scarce information is available on the amount of migrant children and learners benefiting from different support schemes conceived to increase their school attendance and improve their performance. On the specific issue of scholarships for enrolment in cross-border higher education programmes, with emphasis on developing and least developed countries, a boost in data availability is expected owing to the dedicated Target 4.b of the SDGs – within this context particular attention would need to be paid to access by disadvantaged groups. Likewise, existing instruments do not cover issues relating to the cultural appropriateness of the school environment for students with a different identity - ethnic, cultural or other.

Good practice

Collecting data on student enrolment and performance with student and school characteristics makes it possible to identify various gaps in access, participation and educational achievements between immigrant and native-born students. In this respect, the OECD's Review of Migrant Education with six country studies (Austria, Denmark, Ireland, the Netherlands, Norway and Sweden) serves as a quick reference guide for policy-makers in the process of policy design and implementation in different settings for immigrant students.¹²⁹ The Review indicates that governments typically use eight tools to steer migrant education policy at the national and regional/local level. These include: a) setting explicit policy goals for immigrant students within broader education policy goals; b) adopting regulations and legislation; c) designing effective funding strategies; d) establishing standards, qualifications and qualifications framework; e) establishing curricula, guidelines and pedagogy; f) building capacity (especially training and teacher support); g) raising awareness, communication and dissemination; and h) monitoring, research, evaluation and feedback. Among these tools, collecting information about migrant students is the key to monitor progress and advance research on migrant education.

The case of the Netherlands offers good examples of data collection that provide useful evidence for migrant education policy-making. In particular, educational assessment data are available by individual students with due account of their belonging to different ethnic groups. This allows evaluation of their performance, establishing certain patterns by student profile, and their performance with that of native Dutch students. The assessments include comparison of the national longitudinal study COOL (formerly PRIMA), the national standard assessment at the end of primary education (the CITO test), periodic subject-specific assessments (Periodic Assessment of Educational Achievement [PPON]), and international surveys (PISA, PIRLS, and TIMSS). The data generated through these different sources serve as a basis, inter alia, for school level responses, taking the form of teacher training and inspection. Accordingly, the Netherlands Education Inspectorate assesses schooling quality for both native students and migrant students through periodic quality assessments of each school and identifies under-performing schools. The

¹²⁷ For more information on LLECE see: <http://www.unesco.org/new/en/santiago/education/education-assessment-llece/>

¹²⁸ For more information on PASEC see: <http://www.confemen.org/le-pasec/>

¹²⁹ OECD (2010a). OECD Reviews of Migrant Education. Closing the Gap for Immigrant Students: Policies, Practices and Performance. Paris: OECD. Available at: <http://www.oecd.org/edu/school/oecdreviewsofmigranteducation-closingthegapforimmigrantstudentspoliciespracticeandperformance.htm>

The executive summary and key figures of the publication are accessible at:

Inspectorate works with the school graded as “insufficient quality” to develop plans for improvement, and then follows up to verify whether improvements are actually made.¹³⁰

At the international level, the PISA, introduced in the previous section, is an example of good practice in testing the skills and knowledge of 15-year-old students, both native-born and migrant students, on a cross-country comparable basis.

Recommendations

With due consideration of the preceding information and analysis, the following recommendations could be put forward to address existing data gaps and challenges:

- Increase the disaggregation of data to cover such factors as gender, migration status, ethnicity, first- and second-generation status, type of migration, country of origin, socio-economic status, language spoken at home, etc. and render its collection systematic in order to capture the divergent opportunities and outcomes of respective migrant profiles with regard to education. In this respect, build also upon good practices on data collection concerning the economic, social and cultural determinants of migrants’ access to and performance in the education system, expanding it to countries where such data is not available and make optimal use of opportunities created by the focus of SDGs, including on availability of scholarships to developing countries for enrolment in higher education (Target 4.b);
- Expand existing platforms and instruments for data collection to include information on migrants’ educational attainment, such as the Global Education Monitoring Report, the UIS databases on a number of issues (i.e. learning outcomes, out-of-school children, education finance, etc.), the OECD PISA, OECD migration databases, as well as PIAAC, the Eurostat index, the SACMEQ, LLECE and PASEC instruments and methodologies, etc.;
- Collect information, notably by using such tools as surveys and opinion polls, on the cultural appropriateness of the school environment and teaching methodologies for all learners;
- Make better use of available data on labour market integration by immigrants as an indicator of educational attainment;
- Exploit data generated by non-official/governmental sources, including MIPEX¹³¹ and the European NGO Platform on Asylum and Migration;¹³²
- Build the capacities of countries so as to improve and expand data collection with regard to migrants’ educational attainment. This will increase the comparability of information and thus will help identify viable context-specific solutions; and
- Learn from the experience of countries with large immigrant populations (like Australia, Canada, France, Germany, Sweden, UK, USA etc.) on how to adapt education systems to accommodate immigration and to put in place education information systems to monitor performance school pathways of students, including those from migration background.

Chapter 3g: The environment, climate change and disasters: Mainstreaming migration into climate change adaptation, disaster risk reduction and development plans

IOM, GMDAC

¹³⁰ The full text of the report OECD Reviews of Migrant Education: Netherlands is accessible at: <http://www.oecd.org/netherlands/44612239.pdf>.

¹³¹ <http://www.mipex.eu/>

¹³² <http://www.ngo-platform-asylum-migration.eu/>

Environmental features and dynamics underpin the economic, cultural and social development of communities and societies. In parallel with the intensification of the impacts of human activities on natural resources and ecosystems, the world is currently undergoing abrupt change in a number of key environmental features (e.g. biodiversity rate, concentration of pollutants, soil fertility, and temperature of oceans and the atmosphere, Rockström et al., 2009). This is likely to progressively redefine the characteristics of ecosystems at the global level, and therefore the (pre)conditions of human practices, including human mobility.

While documented examples exist of pollution or man-made environmental degradation directly leading to migration (e.g. Pripjat next to Chernobyl Nuclear Power Plant, Aral Sea, see for instance Brummond, 2000; McLeman, 2011), climate change has been most often singled out for its potential to influence mobility patterns. The Intergovernmental Panel on Climate Change (IPCC, 1990) has already recognized in its first report in 1990 that climate change is likely to impact human mobility. This has been consistently confirmed in subsequent reports, as the exacerbating effects of global warming on environmental degradation and frequency and intensity of climate and weather-related hazards became clearer. At the same time, migration in the context of environmental factors can also be linked to slow onset disasters and events, such as sea level rise, desertification and droughts. This sub-section focuses on human mobility in the context of environmental degradation and climate change. It not only covers international but also internal migration as it is believed to represent the largest share of movements linked to the environmental causes, including disasters.

Key policy issues

With the rising importance of climate change on the international agenda, estimates of 200 million and 1 billion people moving due to environmental factors have sprung up. However, those numbers seem inflated and represent more guesstimates with a weak evidence base (IPCC, 2007; Foresight, 2011; Laczko and Piguet, 2014).

A key challenge is the lack of uniform application of the UN definitions of international migration. This confusion has led to many contested terms such as “climate refugee” being used in the media. The reference to refugees is inadequate as this status is linked to concrete grounds of the Geneva Refugee Convention and the environment is not among them.

IOM has proposed the following working definition:

“Environmental migrants are persons or groups of persons who, predominantly for reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move within their country or abroad.” (IOM, 2011: 33)

This definition encompasses both internal and cross-border movements, as most environmental migration takes place within countries. It also reflects the range of movements, from voluntary on the one side to forced migration on the other (as in the case of displacements), as well as

temporary and permanent movements. Internal migration is often not on the agenda of policymakers, who tend to focus on international movements into countries which are the portfolio of Ministries of Interior at destination.

While the positive links between migration and development have been increasingly recognized over the past decade, in the context of the environment and climate change, human mobility is often considered a failure rather than an opportunity. Potential risks of human mobility have been thoroughly explored, but its beneficial effects are still largely left out from policy and practice.

However, the Intergovernmental Panel on Climate Change has recently recognized that migration is an adaptation strategy to a changing climate and already occurring worldwide (IPCC, 2014). Migration allows modifying exposure and vulnerability to climate and environmental stressors, including through temporary and circular labour migration schemes, internal and international remittances and planned relocation (IOM, 2014). It can also lead to higher vulnerability in the case where migrants move into hazardous areas prone to landslides and flooding. Remittances are often the first financial support sent by family members in the aftermath of disasters. However, hardly any data exist to measure the impacts of remittances on resilience to environmental and climate change, and the impacts, such as land degradation, soil and coastal erosion, sea level rise and salinization to name a few.

The links between movements within countries and across borders and environmental factors and disasters have not received enough attention so far, including in terms of preparedness and increasing resilience before moving becomes the only option. At the international level, the Parties of the UN Framework Convention on Climate Change (UNFCCC) decided in the 2010 Cancún Agreement that the following was needed:

Measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at the national, regional and international levels. (Article 14 f, Section II, Cancún Agreement)

Similar information was requested in 2012 in the context of loss and damage linked to climate change. In the 2015 Paris Agreement, migration is referred to in the introduction and establishes the Warsaw International Mechanism to address displacement in the context of climate change in the agreement's section on loss and damage.

Mobility can reduce pressures on ecosystems in origin areas. Yet not all movements are away from hazards and can actually lead to greater vulnerability and exposure to risk, if people end up settling in degraded or hazardous destination areas. In the context of urbanization, for instance, many poorer internal and international migrants may move into marginal, at-risk locations in the outskirts of large urban agglomerations. Institutional and market failures in planning land use and development, providing adequate housing, lack of adequate infrastructure for large populations, access to social services and information can mean that those persons settle in areas prone to land and mud slides, floods and sea level rise, thus further increasing their vulnerability (Foresight,

2011). These matters relate to general issues of urbanization, development and disaster risk reduction, not just environmental migration.

Population flows into informal settlements, like other large-scale movements, also have impacts on the environment. Environmental migration is thus not unidirectional in that the environment can influence the decision to move, but at the same time mobility can impact on the environment in turn. This reflects the interlinkages between migration and development.

In other cases, people may not be able to or want to use mobility as a coping or adaptation strategy (due to e.g. lack of financial resources, knowledge and information, social networks, alternatives elsewhere), and might therefore be “trapped” in affected areas (Foresight, 2011: 25). These groups present specific vulnerabilities in the face of disasters and environmental change and need to be integrated in comprehensive policy and operational responses.

While international protection and durable solution frameworks and institutions exist for people displaced internally by disasters (through the UN Guiding Principles on Internal Displacement and the Camp Coordination and Camp Management (CCCM) cluster of the Inter-Agency Standing Committee) protection issues arise when movements occur across borders. Cross-border displacement has been approached bilaterally or unilaterally. 109 country delegations adopted the Agenda on the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change in October 2015, which is an outcome of the Nansen Initiative led by Norway and Switzerland.

Data needed to analyse the topic

Most research focuses on the links between migration and the environment as a driver and is qualitative in nature. In particular, comparable quantitative, longitudinal data is needed to assess how mobility itself - encompassing migration, displacement and planned relocation - can be a beneficial adaptation strategy and what potential risks need to be minimized.

The IOM has developed concrete indicators for the implementation of the UN Plan of Action on Disaster Risk Reduction for Resilience (2013). Under target 1 of “Reducing exposure to hazard and to lessen the impact of crises on development, including by facilitating mobility that enhances resilience”, collection of the following data is necessary:

- Migration as an indicator of exposure in areas prone to disasters and environmental degradation:
 - Relative percentage of outmigration from affected areas (including permanent, temporary, partial and circular migrations, internal and international)
 - Demographic trends in the number of people living in high risk areas taking into account migrants moving to these high risk areas (esp. in urban areas) – methodology should also measure the impact of incentive and coercive actions for planned relocation out of high risk areas
- Migration as an indicator of resilience:

- Percentage of households at risk having access to outsourced resources
- Flow of migrant resources (both financial and human, internal and diaspora remittances) channeled in recovery
- Percentage of spontaneous, sustainable returns over the number of displaced.

The next step would be to operationalize this data.

Existing sources and standards for data collection

From the data types described above, the following are available data sources currently being used:

- The University of Neuchatel developed a database called “CLIMIG” on existing studies (qualitative and quantitative) on the topic: <http://climig.omeka.net/>
- The thematic working group on “Environmental change and migration” of the Global Knowledge Partnership on Migration and Development (KNOMAD) has put together an annotated bibliography on the topic which is also available in an online compendium on the “Environmental migration portal”: www.environmentalmigration.iom.int
- The Internal Displacement Monitoring Centre (IDMC) publishes annual reports on people displaced by disasters, building, among other sources, on IOM’s country and DTM data: <http://www.internal-displacement.org/>
- IOM and Sciences Po Paris produced the first “Atlas on Environmental Migration” (Ionesco, Mokhnacheva and Gemenne, 2016)
- Big data generated by mobile phone users after disasters, such as in Haiti and the Philippines, to indicate where displaced persons moved to in order to target assistance; or on internal movements. This can be a means to collect better data in the future (Laczko and Rango, 2014)
- Predictive analytics are used to inform action. Examples include the HELIX (High-End cLimate Impacts and eXtremes) project providing research on climate impacts in relation to varying global warming scenarios (2, 4 and 6 degrees Celsius): <http://helixclimate.eu/home>. IOM’s Displacement Tracking Matrix data is used to forecast displacement and address it as well as identifying protection risks through analysing data patterns, revealing insights such as tensions with host communities and irregular food distributions in the Philippines increasing incidents of sexual violence after typhoon Haiyan in 2013.

Existing standards that are available to guide countries in developing relevant data sources are the following:

- “First generation”: For qualitative approaches, the Environmental Change and Forced Migration (EACH-FOR) project development questionnaires
- “Second generation”: Household surveys have been developed among others by the “Where the Rain Falls” project by the UN University’s Institute for Human Security (UNU-EHS) and Care International: <http://wheretherainfalls.org/>; ICIMOD; ETH Zurich; Columbia University and Princeton University

- “Third generation”: A research consortium of 6 universities led by IOM developed a survey approach focusing on how different forms of mobility, such as migration, displacement and planned relocation, can benefit or pose challenges to adaptation to environmental and climate change: www.environmentalmigration.iom.int
- IOM developed standards for its Displacement Tracking Matrix of internally displaced people that can be used by any country (see point 5). In addition, Unmanned Aerial Vehicles (UAVs) have been used in Haiti and South Sudan to depict areas that have been affected by natural disasters. The small drones take pictures which are compared to pre-existing ones, such as Google earth images, to identify affected areas and populations for disaster relief. UAVs can be used in the humanitarian response, but also preparedness such as in Nepal where aerial images were used in 2011 to identify open spaces that were later used in the humanitarian response in 2015
- For disaster risk reduction and planned relocation, census data and other available survey, disaster risk and loss data at the national and local levels can be used. Civil protection agencies also collect data on displacement
- Assessments on displacement, vulnerability and durable solutions, such as by IOM and the Brookings Institute for Haiti and the Philippines
- Evaluation of post-disaster shelter interventions in Pakistan and their effect on local coping strategies and resilience by IOM through the shelter cluster of the UN.

Data gaps and challenges

While qualitative studies exist, comparative surveys across countries are lacking. To date only a few countries are covered by existing research, which is not representative and applies different methodologies and underlying definitions. To address this gap, the “Migration, Environment and Climate Change: Evidence for Policy” (MECLEP), an EU-funded project, has developed a cross-country comparative analysis of 5 pilot countries. The questionnaire is available for replication elsewhere.

Environmental migration is difficult to quantify. The environment is hardly ever the sole driver of migration, with socio-economic, political, demographic and cultural factors playing a driving or impeding role (Laczko and Aghazarm, 2009; Foresight, 2011). For this reason, IOM’s definition of environmental migration refers to people moving “predominantly for environmental reasons”. Definitions used for “displacement” may also vary across countries, compromising comparisons.

Key tools: Migration & environment country assessments, the Displacement Tracking Matrix (DTM) and Drought-induced displacement modelling

An example of current best practice is to prepare a national assessment on migration and the environment. In this stock-taking exercise, existing data, studies and policy frameworks on human mobility and the environment are reviewed and analysed. The document brings all relevant data together in one document and identifies knowledge gaps and vulnerable populations residing in areas at high risk of environmental hazards. The report furthermore builds on discussions with

policymakers from different ministries, civil society and academics. A first example is “Assessing the Evidence: Environment, Climate Change and Migration in Bangladesh” (IOM, 2010) and similar assessments conducted in six countries of the MECLEP project.

The Displacement Tracking Matrix (DTM) is an information management mechanism developed by IOM to collect baseline information on internally displaced persons (IDPs) and their conditions in the location in which they have temporarily settled in the aftermath of natural disasters. DTM collects and shares information relevant to all sectors of assistance (such as water and sanitation, food, individual documentation, etc.), making the resultant DTM data targeted and useful to all humanitarian actors involved in the response when data collection may not be a priority, despite its importance. The system acts as a referral mechanism by flagging urgent concerns to relevant sectorial coordination focal points or National Disaster Management Authorities (NDMA) for follow up. The aim is to ensure displaced populations are living in conditions which meet minimum requirements as defined by internationally agreed standards.

Continually tracking and understanding changes in mobility is pivotal to civil protection – it empowers national authorities to both better respond to current crises and enhance preparedness for future displacement situations. It is DTM’s adaptability and continuous information collection that makes it suited to the long-term assessment needs of national authorities and humanitarian partners, including impacts on host communities, durable solutions, resilience and vulnerability. It could potentially be expanded to analyse resilience, such as in the hybrid displacement and household survey database used in Afghanistan. The concept of the DTM originated in 2004 during the response to large displacement in Iraq and has since been deployed and refined in other countries, including Haiti, Pakistan, Mali, the Philippines and South Sudan.

The IDMC has developed a model to simulate drought-induced displacement in the Horn of Africa. This policy tool tested in Northern Kenya can help both taking stock of existing data and showing how different environmental and climatic changes, demographic developments, policy options (development, adaptation, humanitarian policies) yield different results and impacts for target populations in the next 5 to 50 years. A key challenge is to access reliable data to be able to make robust forecasts.

Key messages and recommendations to address gaps

Given the importance of movements already taking place due to soil erosion, droughts, desertification, floods and other slow processes and rapid onset events, human mobility needs to be systematically integrated into existing and future plans on climate change adaptation and development, on disaster risk reduction, land policies as well as humanitarian protection and response.

The first step needs to be an assessment phase of what data and information exists, mapping the legal and policy frameworks and identifying vulnerable populations and resulting institutional and planning gaps. Based on this stock taking, the necessary data needs to be collected according to

the identified needs (Melde and Lee, 2014). The Glossary on environmental migration provides a reference for existing definitions.

At the same time environmental and climatic factors need to be integrated into migration policies. Those factors include DRR and reduction, early warning measures, and mitigation and adaptation policies.

Recommendations include to link census data with climatic information to identify environmental and climate hotspots in areas of high population density, to add an environment component to existing population and migration surveys, such as censuses, living standard measurement and housing surveys, as well as the use of innovative means of data collection, such as Unmanned Aerial Vehicles to produce images of settlements affected by disasters.

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Chapter 4 - Protection of migrants

Chapter 4a Human Rights of Migrants

OHCHR

Key policy issues

States have the duty to respect, protect and fulfil the human rights of all individuals within their territory and subject to their jurisdiction, including migrants, regardless of their legal status or circumstances, and without distinction of any kind. These human rights obligations should underlie laws, policies and practices in countries of origin, transit and destination.

Under a human rights-based approach, migration and development-related laws, policies and practices should be anchored in this system of rights and corresponding State obligations. Such an approach is normatively based on international human rights standards and operationally aimed at promoting and protecting human rights.¹³³ In that sense, human rights standards and benchmarks should be an integral dimension of the design, implementation, monitoring and evaluation of such policies and programmes, and States should strive to ensure that they are responsive to the human rights of all migrants, with a particular focus on the most marginalized and excluded.

In order to develop and implement evidence- and human rights-based migration and development policies and programmes (as well as other related policies such as on education, health, and social protection) it is essential to have valid, relevant and disaggregated data on the conditions in which migrants and their families live and work. This includes, inter alia, quantitative and qualitative information on their access to adequate housing, nutritious food, quality education, clean water and sanitation, justice, health facilities, goods and services in a non-discriminatory and participatory way. This data, which should be disaggregated on the basis of sex, age, nationality and migration status, is similarly of crucial relevance to measure progress in the effective protection, promotion and fulfilment of the human rights of all migrants and their families.

The use of human rights indicators¹³⁴ relevant to migrants and their families can address a number of purposes, including:

- Informing and assessing migration and related public policies on matters such as: access to education, health care, social security and work, among others.
- Comparing the level of human rights realization between:
 - Migrants in different countries of transit and destination, in order to better understand the impact of public policies in migrants' living conditions;
 - Migrants and native born nationals who live in the same country;

¹³³ For an analysis on how a human rights perspective can enhance the design and implementation of international migration and development policies see: Report of the Secretary-General to the UN General Assembly on the Protection of Migrants, A/68/292

¹³⁴ A human rights indicator is "specific information on the state or condition of an object, event, activity or outcome that can be related to human rights norms and standards; that addresses and reflects human rights principles and concerns; and that can be used to assess and monitor the promotion and implementation of human rights". See: Office of the United Nations High Commissioner for Human Rights, Human Rights Indicators: A Guide to Measurement and Implementation, 2012, p. 16. Available at:

<http://www.ohchr.org/EN/Issues/Indicators/Pages/HRIndicatorsIndex.aspx>

- Different groups of migrants, according to their sex, age, ethnic origin, national origin, status or other social conditions;
- Identifying legal or practical barriers in regard to the enjoyment of human rights of migrants, with a focus on the most often marginalized and excluded, such as the low- and middle-skilled workers in specific sectors (e.g. agriculture, construction, fisheries, mining, domestic work), temporary or migrants in an irregular situation.
- Monitoring the implementation of States' obligations regarding migrants' human rights by UN bodies and other international and regional human rights mechanisms.

However, while data collection and analysis in the field of migration and development has improved considerably in recent years, migration-related policy is often made in a glaring absence of data, frequently in direct reaction to hostile or even xenophobic public discourse. In addition, when data is available, it is often incomplete. Data on stock and flows of migration population seldom provides detail of the human rights circumstances of migrants and their families, including their access to health, education, social protection or standard of living. Moreover, most official data systems also fail to capture the number of migrants who are in an irregular situation, as well as their living and working conditions.¹³⁵

Furthermore, a critical lack of data collection on the rights of migrants and disaggregation by migration status often conceals exclusion and inequalities, and makes it difficult to measure progress and dismantle patterns of discrimination, leading to further inequalities and increased vulnerability. At the same time, accurate data collection on migrant's enjoyment of their rights and their contribution to development can also enhance a more accurate understanding of migration and the situation of migrants, and thus address negative public perception of migrants.

Data needed to analyse the topic

In order to monitor and assess the effective promotion, protection and fulfilment of human rights, the Office of the United Nations High Commissioner for Human Rights (OHCHR) developed a methodological framework to identify human rights indicators. 'Human Rights Indicators: A Guide to Measurement and Implementation.'¹³⁶ The Guide translates universal human rights standards into qualitative and quantitative indicators. They are offered as practical tools to operationalize human rights obligations into law, policy, programs, budget allocations, and their results to monitor implementation.

Following the above-mentioned methodology, OHCHR, UNICEF, the ILO and Migrant Forum in Asia (MFA), under the umbrella of the Global Knowledge Partnership on Migration and Development (KNOMAD), developed a set of human rights indicators relevant to migrants and their families, with an initial focus on the rights to health, education and decent work. The document "Human rights indicators for migrants and their families"¹³⁷ spells-out the essential attributes of the rights enshrined in international instruments and translate these rights into contextually relevant indicators for implementing and measuring the enjoyment of human rights by

¹³⁵ For more information see Committee on Migrant Workers, Day of General Discussion on the role of migration statistics for treaty reporting and migration policies April 2013, available at:

<http://www.ohchr.org/EN/HRBodies/CMW/Pages/DGD2013.aspx>

¹³⁶ Available at: <http://www.ohchr.org/EN/Issues/Indicators/Pages/documents.aspx>

¹³⁷ KNOMAD's Working Paper No. 4, Human Rights Indicators for Migrants and their Families, 2015. Available at: http://www.knomad.org/docs/migrant_rights/KNOMAD%20Working%20Paper%205%20Human%20Rights%20Indicators%20for%20Migrants.pdf

migrants, particularly at the national level.¹³⁸ This initiative also aims to promote improvements in data collection and analysis, as well as collaboration within different stakeholders, recognising the complementary roles of governmental bodies, public services, statistical offices, national human rights institutions, and academic and non-governmental organisations.

The existence of reliable and valid quantitative and qualitative data is critical for human rights indicators to be effective. At the same time, the development of human rights indicators can also help identify the type of data that needs to be collected.

To illustrate, some of the human rights indicators that track the degree to which states ensure the right of migrants to education include:

- Laws explicitly establishing the right to compulsory education for all migrants, regardless of migration or residence status, equal to nationals;
- Proportion of migrants enrolled in education centres, disaggregated by migration or residence status, gender, sex, ethnic origin, nationality, nationality of parents, place of residence, length of residence and socio-economic status;
- Percentage of children and adolescent migrants who attend and finish compulsory education, disaggregated by migration or residence status, age, gender, ethnic origin, nationality, nationality of parents, place of residence and length of residence.

Other illustrative indicators on the right of migrants to the enjoyment of the highest attainable standard of physical and mental health include:

- Recognition of migrants' right to health in law, including its scope based on type of health service (e.g. emergency only) and migration or residence status;
- Proportion of migrants with health insurance, disaggregated by sex, national and ethnic origin, migration or residence status, place of residence;
- Rate of a) mortality, b) morbidity, c) life expectancy, and d) prevalence of diseases; disaggregated by migration or residence status, age, gender, sex, ethnic origin, nationality, nationality of parents, place of residence, length of residence and specific disease.

Existing sources and standards for data collection

i. Data sources

Some of the data generating mechanisms currently being used for human rights assessments, and that could be used in relation to migrant's human rights, include¹³⁹:

- a) Socioeconomic and administrative statistics, such as administrative data, statistical surveys and censuses, including:
 - Country-based labour force and household surveys and censuses
 - Country-based population registries¹⁴⁰

¹³⁸ The second phase of this project aims to refine and assess the relevance of the human rights indicators at the national level, and to identify gaps and data sources, through two pilot national consultations in Mexico and Tunisia. More for information see: <http://www.ohchr.org/EN/Issues/Migration/Pages/ConsultationIndicators.aspx>

¹³⁹ See: OHCHR, Human Rights Indicators: A guide to measurement and implementation, 2012, pp. 51-69

¹⁴⁰ For example Spain's Municipal Population Register at http://www.ine.es/en/prensa/padron_prensa_en.htm

- Administrative records (e.g. on numbers of migrants in immigration detention, deaths at borders, return figures)
 - Regional statistical bodies, such as the Eurostat¹⁴¹
 - The United Nations Population Division ‘Global Migration Database’¹⁴²
 - The United Nations High Commissioner for Refugees (UNHCR) Statistical Online Population Database¹⁴³
 - The Organisation for Economic Cooperation and Development (OECD) Database on Immigrants in OECD countries (DIOC)¹⁴⁴
- b) Events-based data on human rights violations and abuses (e.g. denial of primary education to migrant children, arbitrary or indefinite detention of migrants, labour exploitation of migrant domestic workers, failure to provide essential or emergency medical care to migrants in an irregular situation, collective expulsion of migrants), such as information provided by the media and reports of States, civil society organisations, national human rights institutions and international human rights monitoring mechanisms. The events-based data provided by the international human rights monitoring mechanisms can be found in:
- OHCHR Universal Human Rights Index which provides human rights information emanating from international human rights mechanisms in the United Nations system¹⁴⁵
 - Reports by human rights experts of the special procedures of the Human Rights Council, including the Special Rapporteur on the Human Rights of Migrants¹⁴⁶
 - Concluding observations of the treaty-based bodies, including of the Committee on Migrant Workers on the implementation of the International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families by state parties¹⁴⁷
 - UPR-Info NGO’s database on the Universal Periodic Review’s recommendations and voluntary pledges¹⁴⁸
- c) Perception and opinion surveys, such as:
- The European Union Agency for Fundamental Rights (FRA) European Union Minorities and Discrimination Survey (EU-MIDIS)¹⁴⁹. In 2008, the FRA carried out a large-scale survey interviewing more than 23,500 migrants and ethnic minorities in EU Member States covering a number of topics, including experiences of discrimination, victimisation and

¹⁴¹ As an example, the forced migration questionnaire includes a question on difficulties confronted during the migration journey (arrest/detention, refoulement, maltreatment including rape, extortion by border officials, smuggling and trafficking, other.

http://epp.eurostat.ec.europa.eu/portal/page/portal/product_results/search_results?mo=containsall&ms=migration&sa_a=&p_action=SUBMIT&l=us&co=equal&ci=,&po=equal&pi=,&gisco=exclude

¹⁴² <http://esa.un.org/unmigration/>

¹⁴³ <http://www.unhcr.org/pages/4a013eb06.html>

¹⁴⁴ <http://www.oecd.org/migration/mig/databaseonimmigrantsinoecdountriesdioc.htm>

¹⁴⁵ <http://uhri.ohchr.org/en>

¹⁴⁶ For the reports of the Special Rapporteur on the Human Rights of Migrants see:

<http://www.ohchr.org/EN/Issues/Migration/SRMigrants/Pages/AnnualReports.aspx>

¹⁴⁷ For the CMW concluding observations see: <http://www.ohchr.org/EN/HRBodies/CMW/Pages/CMWIndex.aspx>

¹⁴⁸ <http://www.upr-info.org/database/>. All case law issued by the UN human rights expert committees, the Treaty Bodies, is available at: <http://juris.ohchr.org/>

¹⁴⁹ More information and the survey questionnaire available at: <http://fra.europa.eu/en/survey/2012/eu-midis-european-union-minorities-and-discrimination-survey>. A

police stops. The results have been presented in a series of reports. The FRA has launched the second phase of this survey.

- d) Expert judgments, such as
- Migration Integration Policy Index (MIPEX)¹⁵⁰. MIPEX covers integration policies related to labour market mobility, family reunion, education, political participation, long term residence, access to nationality and anti-discrimination. It contains data from EU Member States, Norway, Switzerland, Canada, United States, Australia, Japan and Serbia.

Disaggregated data is particularly important for measuring discrimination on prohibited grounds, including sex, age, nationality, and migration status.

ii. Standards for data collection

Some of the existing standards and guidelines available to guide countries in developing relevant data sources include:

- The international human rights treaties and the general comments and recommendations adopted by the bodies monitoring their implementation, which provide the legal basis for the development of human rights indicators, as well as practical guidance and common definitions required for the compilation and consolidation of relevant data
- The United Nations Recommendations on Statistics of International Migration (1998) and Principles and Recommendations for Population and Housing Censuses (2008)¹⁵¹
- Regulation (EC) No 862/2007 of the European Parliament and of the Council of the EU on Community statistics on migration and international protection (2007)¹⁵²

Data gaps and challenges

Despite some positive examples of active data compilation and analysis, most countries still do not undertake the consistent collection and dissemination of data relevant for the analysis of the enjoyment of human rights by migrants and their families, notably regarding migrants in an irregular situation.

Most official data systems fail to capture either the number of migrants or their level of human rights enjoyment, and much international data on migration does not accurately account for irregular migrants. Some data on migrants in an irregular situation is often available, such as the number of those who are detained or otherwise subject to state action – e.g. arrests at border control points, people in immigration detention, and return figures - but this is rarely indicative of the total irregular migrant population and their human rights circumstances.

It is usually not possible to identify in population censuses (the main statistical sources of information about migrant populations) which migrants are in an irregular situation. A key challenge in data gathering is that migrants in irregular situations are not willing to be included in censuses or registries, for fear of detection and deportation. They are also unlikely to contact local authorities to report the abuses they may be experiencing, or to access public services such as

¹⁵⁰ <http://www.mipex.eu/>

¹⁵¹ <http://unstats.un.org/UNSD/Demographic/sconcerns/migration/migr3.htm>

¹⁵² <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32007R0862>

health and education for the same fears or just because of lack of information about the rights they are entitled to.

In this regard, the Committee on Migrant Workers (CMW), which monitors implementation of the International Convention on the Protection of the Rights of All Migrant Workers and their Families, has also expressed concern at the lack of this kind of data, such as on rates of school enrolment. Such a lack in data may, for example, prevent States from assessing and addressing the situation of migrant children effectively.¹⁵³

In addition, the Committee on the Rights of the Child (CRC) has noted that lack of data on children in the context of migration hinders the design, implementation and monitoring of public policies that protect migrant children's economic and social rights. In relation to migrants in an irregular situation, the Committee has recommended that addressing the absence of national figures and estimates on irregular migrants, particularly irregular migrant children, should be made a higher priority by all pertinent duty-bearers including with regards to:

- Strengthened disaggregated data collection which include safeguards preventing the abuse of such data;
- Ensuring that households affected by migration are identified in local statistical and data systems as well as nationally-representative living standards, expenditure and labour force surveys; and
- Ensuring that the responsibility for monitoring the situation of migrant children be shared by all countries involved, including transition and destination countries in addition to origin countries.¹⁵⁴

Good practice:¹⁵⁵

Analysing Census Bureau data to gather qualitative information on undocumented migrants in the United States

Research led by the Pew Research Center in the United States, through the Pew Hispanic Centre (now called the Pew Research Center's Hispanic Trends Project), provides a statistical portrait of undocumented migrants living in the US.

The Pew Hispanic Center estimates the stock of undocumented population using a "residual method," (a demographic estimate of the foreign-born population with a regular residence status is subtracted from the total foreign-born population). The statistical findings of the Pew Research Centre are based on the Census Bureau's American Community Survey and feature not only the estimated number, but also detailed characteristics of undocumented migrants living in the US. Topics covered include age, citizenship, origin, language proficiency, living arrangements, marital status, fertility, schooling, health insurance coverage, earnings, poverty and employment.

The research also analyses the work and social conditions faced by undocumented migrant workers and the findings focus on the situation of undocumented migrant children, and in

¹⁵³ CMW, Concluding Observations on the report submitted by Algeria, 10 May 2010, UN Doc. CMW/C/DZA/CO/1, para. 20.

¹⁵⁴ See CRC Report of its 2012 Day of General Discussion on the Rights of All Children in the Context of International Migration, February 2013, paras. 63-67.

¹⁵⁵ For more information and other recent practices see: KNOMAD, OHCHR, UNICEF, ILO, MFA, Human rights indicators for migrants and their families, 2014

particular on: school enrolment, estimates of educational attainment, income, poverty rates and health conditions.¹⁵⁶ The Recent reports estimate the number of undocumented children in the United States and those born to undocumented migrant parents.¹⁵⁷ The Pew Research Center has also published several reports on public opinion about immigration.¹⁵⁸

Census data has also been used to measure the impacts of irregular migration or residence status on human development outcomes, including completion of school education. For example, according to the 2000 Census, only 40 per cent of undocumented Latino males between 18 and 24 who arrived in the United States before the age of 16 completed high school or obtained a General Educational Development (GED) certificate (a high-school equivalent degree).¹⁵⁹

Revealing inequalities in health in Sweden

In Sweden, respondents to the annual survey on living conditions are classified as first-generation migrant, second generation migrant, or not migrant. The data are disaggregated by migrant status in order to determine which groups may face discrimination. Analysing some of the data relating to health outcomes for example, studies have found higher rates of stillbirth, early neonatal mortality and pre-natal mortality among women that are registered refugees than women from Sweden. The data also shows that migrants are at higher risk of contracting HIV and having chronic hepatitis C.¹⁶⁰

Thus disaggregated data can reveal inequalities. However, particularly when collecting data relating to health status (and communicable diseases in particular), there are ethical considerations regarding analysis and dissemination to ensure that discrimination and inequalities are understood and addressed as such, rather than taken out of context to indicate that migrants have poorer health in general, with negative consequences for public health

Key messages and recommendations to address gaps:

- **Enhance the collection of data** in order to develop evidence-based policies and effectively monitor the human rights situation of migrants, ensuring that such data is **disaggregated** including on the basis of sex, age, nationality, and migration status. For instance, States could ensure the inclusion of migrant-households in local statistical and data systems (e.g. registers, census and household surveys), expenditure level of public entities in migration related programmes, as well as living standard measurement and

¹⁵⁶ For more information see J. Passel, D. V. Cohn, "A Portrait of Unauthorized Immigrants in the United States", 14 April 2009, available at: <http://www.pewhispanic.org/files/reports/107.pdf>.

¹⁵⁷ See "Unauthorized Immigrant Population: National and State Trends, 2010", Pew Hispanic Center, 1 February 2011, p. 13, available at: <http://www.pewhispanic.org/files/reports/133.pdf>.

¹⁵⁸ See for example "Immigration Rises on Washington's Agenda, Not the Public's", Pew Research Center, 28 January 2013, available at: <http://www.pewresearch.org/2013/01/28/immigration-rises-on-washingtons-agenda-not-the-publics/> and "Any Court Health Care Decision Unlikely to Please. Immigration: Public Backs AZ Law, But Also Path to Citizenship", Pew Research Center, 18 June 2012, available at: <http://www.people-press.org/2012/06/18/any-court-health-care-decision-unlikely-to-please/>.

¹⁵⁹ R. Sabates-Wheeler "The Impact of Irregular Status on Human Development Outcomes for Migrants", Human Development Research Paper 2009/26, July 2009 c.f. UNICEF, Special Rapporteur on the Human Rights of Migrants François Crépeau, PICUM, National University of Lanús (2013: 34).

¹⁶⁰ Philipa Mladovsky, 'Migrant Health in the EU' (2007) c.f. University of Essex (2013) Disaggregated Data and Human Rights: Law, Policy and Practice, The University of Essex Human Rights Centre Clinic, October 2013, p31-32.

labour force surveys. Broaden the use of administrative sources by compiling and releasing existing data

- Promote the **ethical collection of data**: Ensure that international rules on data protection and the right to privacy are scrupulously respected in the collection, storage, use and dissemination of such data, and that effective firewalls are put in place between public services and immigration authorities to protect migrants from immigration enforcement on the basis on such data. Participation of migrant populations in the design of surveys and other data collection instruments, in the dissemination and analysis of data will improve the relevance and quality of statistics
- Encourage **harmonisation of data** of collection systems to ensure comparability
- Improve **cooperation** among different stakeholders including public services, statistical offices, national human rights institutions, academia and civil society organisations, especially in developing countries.

DRAFT

Chapter 4b Women

UN WOMEN

Key Policy Issues

A gender equality and women's empowerment perspective is essential to optimize the development impact of migration. State parties to the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and the ILO Convention on the Protection of the Rights of All Migrant Workers and Members of their Families are required by international law to promote equality between women and men by, among other measures, mainstreaming a gender perspective in all areas of policy and planning. Although some States have made efforts to do so, progress continues to be slow.

An overarching policy issue relevant to all migrant women is the need for protection against gender discrimination in all phases of the migration process, to ensure women's equal opportunity to participate in and benefit from labour migration. Yet gender stereotypes continue to influence the ways women are considered in relation to migration and development: specifically, they are frequently seen as vulnerable dependents or potential victims in need of protection, rather than as migrant workers contributing to development of countries of origin and destination alike. This misperception is reinforced by migration policies which assume male migrants are breadwinners and female migrants are dependent family members, a model that no longer reflects reality, given the trend of feminization of migration in most corridors worldwide.¹⁶¹ Sex-disaggregated data are required to challenge such stereotypes and to create a more accurate and nuanced understanding of the gender dimensions of migration. Sex-disaggregated data refers to data that provide information separately on females and males in the population or group of interest and that therefore enable the situations of females and males to be compared in order to reveal differences and inequalities.

Care must be taken to avoid characterizing migrant women workers generically as a vulnerable group, and instead focus on identifying specific inequalities and contexts which may place certain sub-groups of migrants in a disproportionately vulnerable position, and therefore, in need of protection. Key policy questions for which data and evidence are needed to enhance protection of migrant women¹⁶² include, but are not limited to:

- Women migrant workers' labour rights, especially in sectors lacking adequate legal protections, such as domestic work, sex work, or entertainment-related services;
- Gender-based violence against migrant women throughout the migration cycle (in transit and in situ), in public, at work, and at home;

¹⁶¹ See Pérez Orozco, Amaia, Denise Paiewonsky and Mar García Domínguez. 2008. *Crossing Borders II: Migration and Development from a Gender Perspective*. UN INSTRAW (now part of UN WOMEN): Santo Domingo, Dominican Republic.

¹⁶² Included among the recommendations of the 2013 United Nations General Assembly "High-Level Dialogue on International Migration and Development" was the need to protect female migrants from gender-based discrimination and violence at each stage of the migration process and at the workplace.

- Gender differences in access to regular migration channels, which may lead greater numbers of women than men to become undocumented, migrate irregularly and/or risk being trafficked; and
- Migrant women's access to social protection including health services, particularly in destination and transit countries.

Data needed to analyse the topic

To address the overarching issue of eliminating gender discrimination in migration processes, sex-disaggregated data must be collected at all levels of analysis. Sex-disaggregated data provide a starting point for in-depth analysis of sub-groups such as women and men migrants in a particular country or labour sector, or women and men undocumented migrants. For example, data on migrants' labour force participation disaggregated by sex may reveal trends whereby women are channeled into certain precarious sectors, which have specific protection needs.

One major impediment is the lack of sex-disaggregated and gender-responsive data reflecting the specific situations, differences, and needs of male and female migrants. To this end, CEDAW General Recommendation No. 26 on women migrant workers¹⁶³ recommends that States parties which are countries of origin and destination "conduct and support quantitative and qualitative research, data collection and analysis to identify the problems and needs faced by women migrant workers in every phase of the migration process in order to promote the rights of women migrant workers and formulate relevant policies" as per CEDAW article 3.

Women migrant workers' labour rights: Data are needed on migrant women workers' participation in the formal and informal economy, including sectors such as paid domestic work and entertainment-related services. This includes not only how many, but also measures of the working conditions therein, such as hours, pay, access to health insurance and social security, etc. Data regarding migrant women's interaction with labour recruiters, such as fees paid, is also of vital importance.

Gender-based violence against migrant women: Data are needed on prevalence of domestic or intimate partner violence that are disaggregated by sex, age, nationality, country of birth, migrant status, with corresponding information on perpetrator, form of violence, and access to justice. Since violence may take place in public spaces and workplaces (formal and informal) as well, data collected on these types of violence should be disaggregated by sex and nationality in order to apprehend such incidents. Finally, data are needed on harmful practices linked to assertion of cultural identity that may be perpetuated in certain migrant communities, such as dowry-related violence, female genital mutilation, early and forced marriage as well as what are often termed "honour" crimes.¹⁶⁴ Trafficking is a form of violence against women that affects many migrant

¹⁶³ In addition to No. 26, earlier CEDAW general recommendations are also relevant to data collection on migration women, including general recommendation No. 9 on the gathering of statistical data on the situation of women, No. 12 on violence against women, No. 13 on equal remuneration for work of equal value, No. 15 on the avoidance of discrimination against women in national strategies for the prevention and control of acquired immunodeficiency syndrome (AIDS), No. 19 on violence against women and No. 24 on women's access to health care, as well as the concluding comments made by the Committee when examining the reports of States parties.

¹⁶⁴ See UN Special Rapporteur on Violence against Women, its Causes and Consequences. 2007. Intersections between Culture and Violence against Women.

http://www2.ohchr.org/english/bodies/chr/special/sp_reportshrc_4th.htm

women and girls, and for which specific data are needed; however, this topic will be addressed in section e. Victims of trafficking.

Gender differences in access to regular migration channels: To assess whether there are gender differences, and then, whether these derive from direct or indirect gender discrimination in migration policies and schemes, data are needed on the sex composition of the population group(s), representation of male and female migrants in labour market sectors, number and percentage of recruited male and female migrant workers, visas issued to men and women by category, numbers of undocumented migrant men and women (for example, those benefiting from regularization schemes, if any).

Migrant women's access to social protection: Indicators of social security reflect the primary elements which make up the social protection floor as outlined by the United Nations Chief Executive Board (UNCEB): health care, education, housing, water and sanitation, pensions and employment insurance.¹⁶⁵ Sex-disaggregated data are particularly needed for migrant workers within temporary labour migration schemes and the informal sector, within transit and destination countries, where important protection gaps may exist.¹⁶⁶ Types of data may respond to criteria established by the UN for evaluating access to public goods,¹⁶⁷ considering, for example, the extent to which individuals are entitled (on paper) to social security schemes and essential services including eligibility criteria; the degree to which they are accessible (in practice); as well as democratic mechanisms that enable participation in determining the form of such protections (e.g. voting, consultation).¹⁶⁸ Particular attention should be paid to labour sectors where women migrant workers are concentrated, such as domestic work¹⁶⁹ and other services.

Existing sources and standards for data collection

Data sources that may be used to analyze the topic of protection of migrant women largely overlap with those identified in the preceding section on the Human Rights of Migrants. To the extent possible these should be disaggregated by sex as well as age, nationality, and migration status. In addition to the international human rights monitoring mechanisms in the preceding section, data sources specific to the protection of migrant women may include the concluding observations of the CEDAW committee¹⁷⁰ and reports of the special rapporteur on violence against women.

¹⁶⁵ International Labour Organization (ILO) and World Health Organization (WHO). 2009. The Social Protection Floor: A Joint Crisis Initiative of the UN Chief's Executive Board for Co-ordination on the Social Protection Floor. Geneva: International Labour Office. Available at: <http://www.un.org/ga/second/64/socialprotection.pdf>

¹⁶⁶ See, for example, Hennebry, Jenna. 2014. "Falling through the cracks? Migrant workers and the Global social Protection floor", Global Social Policy, <http://gsp.sagepub.com/content/early/2014/08/14/1468018114544765> and International Labour Organization (ILO). 2013. Social Protection for Migrant Workers. Geneva: International Labour Office. Available at: <http://www.ilo.org/migrant/areas/social-protection/lang--en/index.htm>

¹⁶⁷ See, for example, Nautilus Institute for Security and Sustainability. 2002. Global public goods. Available at: <http://nautilus.org/gps/applied-gps/global-public-goods/#axzz2rkDWwzO0> and Thoyer, Sophie. 2004. Global public goods. Policy Brief Paper: Trade, Societies and Sustainable Development SUSTRA Network. Available at: http://www.agro-montpellier.fr/sustra/publications/policy_briefs/policy-brief-GPG-eng.pdf

¹⁶⁸ See Hennebry (2014).

¹⁶⁹ See UN Women and ITUC. 2013. "Domestic Workers Count Too: Implementing Protections for Domestic Workers". Available at: <http://asiapacific.unwomen.org/en/publications/2013/3/domestic-workers-count-too-implementing-social-protections-for-domestic-workers#sthash.s2wMLrw8.nwtkgyVg.dpuf>

¹⁷⁰ See, for example, Committee on the Elimination of Discrimination against Women. 2013. Concluding observations on the combined sixth and seventh periodic reports of the Dominican Republic, available at http://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=CEDAW/C/DOM/CO/6-7&. These

Global data sources that can provide some of the information on women migrants and their potential and actual vulnerabilities in different spheres in the household, workplace and community include the following: global data sources such as ILOSTATS, KILM, WDI data, WHO data, Social Protection Data gaps with respect to migrants; regional data sources (e.g. from the EU or the OECD) – which compile aggregated data from household surveys and censuses; and national data sources from government and civil society (e.g. national labour inspection databases, household and employment surveys, micro datasets, census data, data from workers unions etc.).

In terms of the four priority areas for protection of migrant women outlined above, examples of specific data sources and existing standards and guidelines include the following:

Women migrant workers' labour rights: Labour data from inspections, labour force surveys, NGO reports, union reports, and dedicated special surveys are often needed to collect data on respect for, or violations of, labour rights in sectors with high concentrations of women migrant workers, such as such as domestic work or entertainment-related services. Qualitative data and documentation on legal cases, and challenges, grievances, etc. may be available through such sources. Data on prostitution or sex work, which is generally not covered in labour force statistics, can be collected through special surveys focusing on protection-related measures, such as safety, access to health services, work site conditions, and freedom from abuse.

Gender-based violence against migrant women: At the national level data can be compiled from crime and judicial statistics, immigration records, labour inspection records, victim support services and surveys. At the international level, data sources on gender-based violence can be found through UNFPA, UNICEF, WHO, and DHS. A number of documents and guidelines exist for producing statistics on violence against women, such as:

- UN DESA “Guidelines for producing statistics on violence against women”¹⁷¹
- UN Special Rapporteur on Violence against Women “The Next Step: Developing Transnational Indicators on Violence Against Women”¹⁷²
- ECLAC “Data Collection System for Domestic Violence”¹⁷³ These and other guidelines focus mainly on national representative, population-based surveys, but also recommend a process of triangulation using a variety of sources, including data from services, to build a composite picture of violence against women.

Gender differences in access to regular migration channels

Official statistics produced by origin and destination countries on outflows/inflows of migrant workers and transitions from temporary to permanent status by sex, country of origin, skill level,

include explicit references to multiple forms of discrimination against Haitian migrant women and women and girls of Haitian descent regarding their right to education, health, nationality, stereotypes, trafficking and sexual exploitation.

¹⁷¹ UN DESA. 2013. Guidelines for Producing Statistics on Violence against Women: Statistical Surveys. Available at: http://unstats.un.org/unsd/gender/docs/Guidelines_Statistics_VAW.pdf.

¹⁷² UN Special Rapporteur on Violence against Women, its causes and consequences, Yakin Ertürk. 2008. “The Next Step: Developing Transnational Indicators on Violence Against Women”. A/HRC/7/6/Add.5. Available at: <http://www2.ohchr.org/english/bodies/hrcouncil/docs/7session/A.HRC.7.6.Add.5.pdf>

¹⁷³ Economic Commission for Latin America and the Caribbean (ECLAC). 2002. Data Collection System for Domestic Violence. <http://www.cepal.org/mujer/noticias/noticias/7/14217/lccarg691i.pdf>

age, etc. are a starting point. Administrative sources for monitoring women and men's participation in regular migration channels may include:

- New entry or immigration visas (visa applications, visas granted, or newly activated visas) by visa type
- New exit or emigration visas (visa applications, visas granted, or newly activated visas)
- New permission to work in the country (work permits)
- New reports to population registers (where they exist)
- New permission to work abroad (where they exist)

The OSCE has developed a "Guide on Gender-Sensitive Labour Migration Policies" which includes guidance for producing gender-related data, conducting gender impact assessments, and developing indicators for gender-sensitive labour migration policies for countries of origin and destination.¹⁷⁴

Migrant women's access to social protection. Examples of national-level administrative data sources include:

- New members of special insurance schemes (for citizens abroad, where they exist)
- Other social insurance, protection, or service registration data (e.g. New Social Insurance Numbers)
- New reports to tax or social security agencies (e.g., tax income records, out of country pension claims, etc.)

Other sources of data are:

- Provincial, regional or municipal data on social service use, housing and workplace inspections, health care facility usage, hospital/emergency room intake data, patient logs, public health reporting and disease control, coroner's inquests into deaths of migrant workers, etc.
- Micro-datasets and registries kept by NGOs, CSOs and migrant worker support organizations (needs assessment by sector, no. of clients served, resources spent on supporting workers, assistance with filing tax claims, no. of successful benefit claims, etc.)

The ILO has compiled a plethora of statistical resources on its Social Protection page, including global databases, household surveys, statistics and indicators,¹⁷⁵ and other methodological tools. Ratel et al. initiated an evaluative framework of migrants' access to social protection by status groups.¹⁷⁶

Data gaps and challenges

Among the key challenges is that sex is routinely not included in migration data, particularly at the aggregate and global level (e.g., World Bank Migration Database). Data that fail to disaggregate

¹⁷⁴ OSCE. 2009. Guide on Gender-Sensitive Labour Migration Policies. Available at:

<http://www.osce.org/secretariat/37228?download=true>

¹⁷⁵ ILO. Social Protection. <http://www.social-protection.org/gimi/gess/ShowTheme.action?th.themeld=10>

¹⁷⁶ Ratel M-H, Williams K and Williams G. 2013. Inserting migrants into the Global Social Protection Floor. Centre for International Governance Innovation Junior Fellow Policy Brief Series, no.11. Available at:

http://www.cigionline.org/sites/default/files/no11_0.pdf

by sex and migrant status may inadvertently conceal exclusion and inequalities, making it difficult to measure progress and dismantle entrenched patterns of discrimination against migrant women.

Data gaps on women's migration may be attributable to several challenges. The invisibility of women's labour in domestic work or the informal sector; restrictions on their right to work; predominance of women migrating as "dependent spouses", which may mask limitations on their access to regular migration schemes; and involvement in activities that may be deemed criminal offences or against public order (e.g. sex work) mean that a higher proportion of women are statistically invisible and undocumented.¹⁷⁷ The movements of undocumented migrants, a majority of whom are likely to be women¹⁷⁸, are not recorded in official sources and the migrants avoid contact with authorities for fear of arrest and deportation. Data on the many women migrant workers, particularly domestic workers,¹⁷⁹ who are also isolated by their places of work and working conditions, is also unlikely to be captured by conventional surveys. Statistics for measuring violence against migrant women are not compiled in a comprehensive or regular manner by most origin, transit, and destination countries.¹⁸⁰ Data on migrant women's access to social protection can at best be patched together through sources as disparate as the coverage provided to them.

Failure to recognize the different situations of migrant women compromises the validity of many current migration indicators and their use to monitor the achievement of migration and development desired outcomes.¹⁸¹ Technical challenges to the collection of sex-disaggregated migration data are summarized as follows.

¹⁷⁷ Abramovich, Victor et al. 2011. *The Rights of Children, Youth and Women in the Context of Migration: Conceptual Basis and Principles for Effective Policies with a Human Rights and Gender Based Approach*. UNICEF Social and Economic Policy Working Paper. Available at: <http://www.globalmigrationgroup.org/sites/default/files/uploads/gmq-topics/human-rights/The-Rights-of-Children-Youth-and-Women-in-the-Context-of-Migration.pdf>

¹⁷⁸ Petrozziello, A. 2013. *Gender on the Move: Working on the Migration-Development Nexus from a Gender Perspective*. UN Women: Santo Domingo.

¹⁷⁹ Lack of data contributes to a policy vacuum regarding women migrant domestic workers in many countries. Without the statistics needed for an evidence-based case, it is difficult to argue that they are a significant workforce in need of protection. ILO has estimated that there are 53-100 million domestic workers worldwide, but such estimates do not provide the specificity or detail required by policy makers. The 2011 GFMD identified the absence of sex-disaggregated data on migration flows, stocks and remittances as a major reason for the neglect of domestic workers by policy makers. ILO Convention 189 on Decent Work for Domestic Workers recommends that States parties collect data necessary to support effective policy-making regarding domestic work (recommendation 201, Article 25).

¹⁸⁰ Shah, N. and I. Menon. "Violence Against Women Migrant Workers: Issues, data and Partial Solutions", *Asian and Pacific Migration Journal*, 6(1): 5-30.

¹⁸¹ Global Migration Group. 2010. *Mainstreaming Migration into Development Planning. A Handbook for policy-makers and practitioners*. International Organization for Migration (IOM). P. 39

Technical challenges to the collection of sex-disaggregated migration data

- Countries of origin rely on countries of destination for data on migrants after emigration. Cooperation is essential for consistency in recording a move as emigration from the first and immigration into the second. Difficulties arise when only one of the parties can provide sex-disaggregated data.
- Gender-blind methods of collection create gender bias in the ways in which women migrants are classified. Formats and methods of collection are often not comparable across states.
- Within states, data on migration is dispersed among many agencies and sources, each with different definitions of key variables. Some sources may be disaggregated by sex while others are not.
- Administrative data from immigration offices includes short-term visitors, business travellers and tourists. Migration status cannot be reliably determined on entry. Gender stereotypes may lead to

Good practice

Key messages and recommendations to address gaps

- **Ensure that sex is included as a variable in the study design and data are presented in disaggregated fashion at all levels of analysis.** Improve the collection, dissemination and analysis of sex- and age-disaggregated data and information in order to assist in the formulation of migration and labour policies that are gender-sensitive and that protect migrant women's human rights, as per resolution 66/128, article 19.¹⁸² Surveys and questionnaires should also include questions about the 'intention to work' or 'work status' explicitly in data collection so that women not in traditional worker statuses are also counted.
- **Triangulate among various data sources to overcome data gaps.** No single source can or will capture the multiple dimensions of the vulnerabilities that migrant women face in their homes, on the move, and in the workplace. For example, the UN DESA guidelines on producing statistics on VAW recommend a process of triangulation using a variety of sources, including data from services, to build a composite picture of violence against women, which can and should be disaggregated by national origin.
- **Collect specific data on violence against women migrant workers.** As indicated in the 2009 Report of the Secretary-General, specific data on violence against women migrant workers is needed including on the different forms of violence, perpetrators and the context in which the violence takes place, be it the home, workplace or detention facility. Such data would facilitate the development of national policies and programmes, monitor their impact and assess progress in addressing violence against women migrant workers. Data collection and analysis should therefore be accelerated and qualitative research intensified to facilitate improved understanding and more effective responses to violence against women migrant workers.

¹⁸² Resolution adopted by the General Assembly on 19 December 2011, Violence against women migrant workers, A/RES/66/128, article 19.

- **Be creative; identify new potential data sources targeting protection gaps for migrant women in transit and destination countries.** Use qualitative and quantitative data. Take specific measures through, for example, special data collection surveys, paying particular attention to domestic workers, undocumented women migrants, and women migrant workers in the sex and entertainment sectors.

Chapter 4c Migrant Girls

UNFPA

Key policy issues

One of the most significant changes in migration patterns in the last half century has been that more women are migrating than ever before. Today, women and girls are increasingly migrating on their own, not necessarily to accompany husbands or other family members. Females constitute almost half of the international migrant population, and in some countries, as much as 70 or 80 per cent. Female migrants are slightly more numerous than male migrants in developed countries. In developing countries, however, they total slightly less than 45 per cent of all migrants.

While only 15 per cent of all international migrants are under the age of 20 compared to 35 per cent of the total population, this difference is due to the fact that most migrants move when they are between the ages of 20 and 34 years. Further, in many countries, children born to migrants in the countries of destination are not considered international migrants.

Among young migrants under the age of twenty, male migrants outnumber female migrants globally, with 90 female migrants for every 100 male migrants in this age group. (Regional differences exist.)¹⁸³

Despite the increase in female migration, the phenomenon, particularly of migrating girls, is still largely misunderstood, and is not adequately addressed in migration policies. Policymakers have yet to acknowledge the particular challenges and risks faced by migrating girls and bring their issues to the forefront of the migration and development agenda. Among the major issues that need to be addressed with appropriate policies and programmes include protection of the human rights of migrant girls and equal access to education, decent employment and health, legal and social services.

The migration of girls has tremendous potential. It can have an empowering effect for girls, positively influencing gender equality by opening up new opportunities and a chance for greater independence and self-confidence. It can be a vehicle for enhancing the status of girls. Migration can permit girls to escape conflict, personal violence, discrimination, cultural restrictions or oppressive gender roles.

¹⁸³ UN Population Division: Facts and Figures: International Migrant Children and Adolescents

Migration can offer better education opportunities and access to health care, including reproductive health, for girls. The migratory experience can also provide new economic opportunities, increased financial independence and decision-making power.

But the migration of girls can also pose significant challenges. Migrant girls are particularly vulnerable because they experience a double jeopardy – they are young and female. They typically have less access to information about and fewer opportunities to, migrate legally and often have less preparation than their male counterparts to cope with conditions en route and in the countries of destination. Few know their rights and even fewer will demand them. In short, the migration experience for females differs from that of males from the moment they decide to migrate. Moreover, migration of girls can involve a significant amount of tension, especially since it often breaks through established values and practices.

Education and skills enhancement opportunities for girls are typically more limited in sending countries, which means that migrant girls are more likely to find themselves in the lowest-paid and least attractive jobs. As migrant girls frequently end up in low-status, low-wage production and service jobs and often work in gender-segregated and unregulated sectors of the economy, such as domestic work, they are exposed to a much higher risk of exploitation, violence and abuse. Migrant girls are particularly vulnerable to human trafficking for the purposes of sexual exploitation, a multimillion-dollar business. Traffickers often use violence to make girls do what they want, suppress any attempts to escape or seek help from law enforcement, and intimidate other victims. Trafficked girls are more exposed to sexual violence and sexually transmitted infections, including HIV, yet they often have little access or are afraid to seek medical treatment, including reproductive health care or legal services. Many are deprived of food and water, locked up for days, severely beaten or raped. The trafficking experience often involves unwanted pregnancy as well as forced abortion.

A particular challenge for migrant girls is access to appropriate and affordable health-care services. Both short and long-term health risks challenge the well-being of many young migrants who are particularly vulnerable to abuse, violence, and exploitation. Many migrant girls do not access health and social services because of high costs or language or cultural barriers. Many lack information about entitlements. Those who are in an irregular situation may be afraid to seek health-care information and services because of fear of deportation. As a result, untreated minor conditions may worsen into serious illness. Of particular concern are the many girls who fall prey to traffickers and are afraid to seek medical treatment, including reproductive health care. As a result, migrant girls are often disproportionately affected by reproductive ill-health.

The practice of arranged marriages is not uncommon in certain migrant communities. Arranged or forced marriages can be a major source of psychosocial suffering for girls who grow up seeing their non-migrant peers experiencing very different lifestyles. In case of high suicide rates among female adolescent migrants, fear of arranged or forced marriages might be an important factor.

To protect the human rights of migrant girls throughout the entire migration process, it is essential to consider migration from a life cycle approach, examining the situation of girls before they migrate, as they migrate, their situation abroad, and upon return to the country of origin.

While girls continue to migrate, little information and reliable data are available to measure the extent of the phenomenon. A number of human rights instruments exist to protect the rights of

migrants, but they are not uniformly implemented everywhere. There is an urgent need for data and research that would shed light on the situation and protection of migrant girls to appropriately address their specific needs in the context of migration. The impact of migration on girls must be considered in the broader context of poverty and conflict, and within the perspectives of vulnerability and resilience, gender relations and children's rights.

Data needed to analyse the topic

There is a dearth of information on the migration of girls and its impact on development. Girls' migration patterns have not been systematically quantified and important evidence gaps remain.

For many countries, the population and housing census is the only suitable data source that can yield information on the volume and characteristics of international migrant girls, i.e. girls who were born in a country different from where they were enumerated (the foreign-born) or those who are citizens of a country different from the one in which they were enumerated (foreign citizens). In some countries, the census provides information on the number of immigrants who arrived during the last one, five or ten years, which allows for analysis of recent immigration. However, more research is needed that can reflect the diversity of migrant girls' experiences.

Data from censuses and surveys, such as Demographic and Health Surveys and UNICEF's Multiple Indicator Cluster Surveys (MICS) could provide information on sub-populations of migrant girls, the greatest risk they face and where the most vulnerable migrant girls reside.

Longitudinal surveys are very rare, but needed to conduct research on the implications of migration for girls' social, economic, and health outcomes.

Evaluations of policies and programmes could yield important information on their impact by migrant age, origin, and timing of move, as well as the sustainability of benefits over time.

The analysis should include data (levels, trends, characteristics) on migrant girls and give due attention to key variables that affect the integration of migrants and thus their potential contribution to development, including their legal status, country of origin, reasons for migrating, duration of stay, period of arrival, etc.

Not all effects of migration of girls on development can be demonstrated easily and there are methodological difficulties. For example, in the case of information on remittances found in household surveys, one has to be mindful of the fact that remittances are normally underreported and that the analysis of volume by poverty levels can be affected by the fact that the households that benefit most from remittances tend to emerge from poverty. Oftentimes, the data do not specifically tie remittances to the receiver or provide information on the distribution of remittances among household members. Moreover, data on remittances are not always disaggregated by age and sex of the remitter or the person receiving the remittances in country of origin. As a result, it is difficult to quantify the impact of girls' remittances on development.

Existing sources and standards for data collection

Primary Data Sources:

Population and housing censuses and population registers, national administrative sources
Demographic and Health Surveys

UNICEF's Multiple Indicator Cluster Surveys

Labour Force Surveys and other specialized surveys

Various household surveys of the Living Standards Measurement Study type (poverty and social indicator monitoring) contain information about remittances at the level of the households, by characteristics of the recipients (sex, age, etc.), which can be analysed by poverty strata (subject to the restrictions).

Special migration surveys (for example, Mexican Migration Project, Guatemala 2003; Colombia 2005);

Central Banks and Central Statistical Offices (in some countries): National accounts provide information about international remittances (aggregate figures) but these are underestimated because they do not capture money and goods that migrants carry with them;

National accounts for remittances (aggregate figures). However, they do not provide information on the characteristics of the receiver.

Secondary Data Sources:

UN Population Division: Wall Chart: The Age and Sex of Migrants 2011

UN Population Division: Facts and Figures: International Migrant Children and Adolescents (0-19yrs)

UN Population Division: Trends in International Migrant Stock

UN Population Division: International Migration Flows To and From Selected Countries: UN Population Division. United Nations Global Migration Database to analyse the distribution by country of origin (for immigrants) and by country of destination (for emigrants) and to identify the five most common countries of origin and destination. Use information on country of citizenship and country of birth. Prepare cross-tabulations of by age and sex.

University of Sussex. Development Research Center on Migration, Globalization and Poverty: Global Migrant Origin Database;

ESCAP. Online database. Available

at: <http://www.unescap.org/stat/data/swweb/DataExplorer.aspx>;

EUROSTAT. Regional Migration

Statistics: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database;

EUROSTAT. International Migration

Flows: <http://epp.eurostat.ec.europa.eu/portal/page/portal/population/data/database>;

ECLAC / CELADE. International Migration in Latin America – IMILA Available

at: <http://www.eclac.cl/migracion/imila/>;

African Development Bank (AfDB) and the World Bank. Africa Migration

Project <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21681739~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>

Africa Migration Project by the African Development Bank (AfDB) and the World Bank <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21681739~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>;

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World Bank. Monthly Remittance

Data <http://www.worldbank.org/prospects/migrationandremittances>;

World Bank. Global Development Finance;

IMF. World Economic Outlook;

Migration and Remittances Factbook available at: <http://www.worldbank.org/publications>;

World Bank: South-South Migration and Remittances;

World Bank. Migration and Remittances Factbook. Available at: <http://www.worldbank.org/publications>;

World Bank: South-South Migration and Remittances;

<http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1110315015165/SouthSouthMigrationandRemittances.pdf>.

Data gaps and challenges

There is a need for better data on the flows of migrant girls and for more research on the impact of migration on the social, economic and health outcomes for girls.

There are better data in some countries, particularly from countries with a long migration tradition, such as Mexico (censuses; household surveys; sectoral surveys addressing such issues as health, education, social protection; and needs assessments). For example, the Mexican Migration Project (MMP) was created in 1982 by an interdisciplinary team of researchers to further understanding of the complex process of Mexican migration to the United States. Its main focus has been to gather social as well as economic information on Mexican-US migrant populations. The data collected have been compiled in a comprehensive database available to the public free of charge for research and educational purposes. The MMP is a unique source of data that enables researchers to track patterns and processes of contemporary Mexican immigration to the United States.

Good practice

The 2008 publication “Girls Count: A Global Investment and Action Agenda” laid out the case for investing in girls and outlined actions that policymakers, donors, the private sector, and development professionals can and should take to improve the prospects for girls’ wellbeing in the developing world, among them migrant girls.

http://www.cgdev.org/sites/default/files/15154_file_GC_2009_Final_web_0.pdf

The 2013 Population Council’s publication “Girls on the Move: Adolescent Girls and Migration in the Developing World” illuminates girls’ migration to urban areas in pursuit of work, education, and

social opportunities unavailable to them in rural areas. It further calls for filling critical evidence gaps on adolescent girls' migration.

http://www.popcouncil.org/uploads/pdfs/2013PGY_GirlsOnTheMove.pdf

UNFPA's Population Situation Analysis guides users through the links between migration and spatial distribution with poverty at the macro level of analysis, also looking at migrant subpopulations like adolescent girls. It looks at the positive aggregate effects of international migration on the balance of payments and development financing; the positive effects of remittances at the household level; and the negative effects of international migration through mechanisms such as the brain drain.

www.unfpa.org/psa

Key messages and recommendations to address gaps

International migration and development policies must be designed and implemented with a human rights and gender perspective. Respecting and protecting the human rights of migrants, in particular girls, enables them to contribute more fully to development and to share in its benefits. Such policies must also be gender-sensitive since women and girl migrants are especially vulnerable to human rights abuses, exploitation and discrimination. Female migrants, especially young women, are more vulnerable to trafficking and smuggling and need protection. Many female migrants lack access to much-needed health services, legal services and basic social services. It is essential to protect the human rights of female migrants throughout the entire migration process and to consider female migration from a life-course perspective, examining the situation of women and girls before they migrate, as they migrate, their situation abroad, and upon return to the country of origin.

To fully reap the developmental benefits of girls' migration, policies must be comprehensive and inclusive and must be based on the principles of non-discrimination, empowerment and participation.

Recommendations:

- Build capacity of countries to gather, analyse and utilize data for policy formulation and programme planning to ensure protection of migrant girls and support data collection efforts. Data of all types, from health and education statistics to the counts of programme beneficiaries, need to be disaggregated by age and sex to make migrant girls more visible to policymakers and reveal where girls are excluded.
- Support research to fill evidence gaps. Operational research is needed that fosters increased understanding of migration processes of girls and addresses their needs, particularly sexual and reproductive health needs, as well as studies that focus on the relationship between migration and development; the root causes of migration; young people and the gender dimension of migration in a life cycle approach; the impact of migration on gender equality and women's empowerment; labour migration in a globalized economy; the impact of remittances; the role of the diaspora; measures to prevent human trafficking, especially of women and girls; ensuring the human rights of migrants;

addressing the challenges of irregular migration; and the impact of migration on the environment.

- Engage diaspora organizations to help fill evidence gaps and promote migrant girls' access to education, health, employment and social and legal services.
- Promote South-South cooperation and collaboration to ensure equal opportunities for girls to migrate legally and protection of human rights during the migration process and in country of destination.
- Encourage pre-departure training and encourage tailored 'arrival' training for migrant girls to make them aware of their rights.
- Encourage consulates abroad to gather information on migrant girls in the diaspora and to assist in the protection of their rights.
- Include migrant girls in discussion on issues that affect them.
- Include the issues of migrant girls' health, rights and empowerment in dialogues aimed at advancing development.

DRAFT

Chapter 4d Trafficking in persons

UNODC/IOM GMDAC

Key policy issues

Trafficking in persons¹⁸⁴ is conceptually distinct from people smuggling.¹⁸⁵ Trafficking is strongly connected with both migration and development and many trafficking flows are from poor areas towards more affluent ones. Both activities are, by their nature, difficult to measure. However, there are significant differences in patterns and characteristics, between the experiences of adults and of children and according to socioeconomic and historical contexts. For some adult victims, the trafficking route starts as a migration process, when they are recruited with false promises and then subsequently used in exploitative practices in a continuum of constructed vulnerability. The patterns and characteristics of child trafficking are very different. Vulnerability to trafficking is often related to poverty, unemployment, inequality, discrimination gender, being a child and many other situations which have a link to development.¹⁸⁶ It is also the case that many people who are trafficked then find themselves criminalised. Some states, such as European Union member states, have the legal option to protect trafficked people from prosecution in recognition of the fact that the route to becoming, or being defined as, an 'offender' might be connected to the same vulnerabilities that facilitate victimization.¹⁸⁷

Trafficking in persons also has a clear impact on development at different levels, not least to child development and the challenges and ordeals of being separated from families and community (contrary to the UN CRC and the aim that nobody should be left behind). At the individual level, in addition to serious physical and mental impacts, victims lose their expected income and they may suffer from social exclusion and marginalization, not only in the destination country, but also after returning to their country of origin. The economic impact of human trafficking includes the redirection of the profits from legitimate employers to the criminals, as well as reductions in revenue, since trafficking generates no tax revenues, and it can be linked to tax evasion and money-laundering. In addition, trafficking results in a loss of migrant remittances when victims are

¹⁸⁴ "The EU has now adopted a broader definition of what should be considered trafficking in human beings than that under Framework Decision 2002/629/JHA, to include additional forms of exploitation. Within the context of this Directive, forced begging should be understood as a form of forced labour or services as defined in the 1930 ILO Convention No 29 concerning Forced or Compulsory Labour." Directive 2011/36/EU of the European Parliament and of the Council of 5 April 2011 on preventing and combating trafficking in human beings and protecting its victims, and replacing Council Framework Decision 2002/629/JHA

¹⁸⁵ According to the United Nations Convention on Transnational Organized Crime and its protocol against the smuggling of migrants, people smuggling is "the procurement, in order to obtain, directly or indirectly, a financial or other material benefit, of the illegal entry of a person into a State of which the person is not a national or a permanent resident".

¹⁸⁶ See page 44 the UNODC Global Report on Trafficking in Persons 2012.

¹⁸⁷ There is also a useful report by the Working Group on Trafficking in Persons on non-prosecution: CROC/COP/W94/2010/4

not paid salaries. There is also an economic impact of depriving trafficked children of education and training for future legal economic activity

Trafficking in persons can also have an impact on the rule of law when it has linkages to corruption and other crimes which can reduce the accountability of authorities and the possibility of impartial policymaking. In addition, human trafficking may have links to organized crime in the private and public sectors, which not only has significant human rights, economic, social, and political impacts but also endangers human as well as national security¹⁸⁸. (The Council of Europe Convention provides for compensation to victims).

Development is also connected to the responses to trafficking in persons. Lack of national structures such as the National Referral Mechanism, provided for in the Council of Europe Convention on Action against Trafficking in Human Beings, to address trafficking in persons, has an impact on national and international coordination capacities. Lack of resources to support and protect victims has an impact on the rights of the victims. In the same way, lack of adequate criminal justice resources prevents the detection of trafficking cases, as well as efficient prosecution and punishment of offenders, even though most countries have criminalized trafficking in persons. The lack of provision of protective status for victims and special measures for vulnerable witnesses also has an adverse effect on prosecutions as witnesses are not prepared to co-operate.

Despite the internationally accepted legal definition of human trafficking established in the United Nations' Protocol against Trafficking in Persons,¹⁸⁹ in practice a variety of interpretations exist as to what constitutes this crime and serious human rights abuse. The use of different interpretations (e.g. differing interpretations of who the victims are, where they can be found, what trafficking violations are) make it difficult to compare data on an international level. In addition, the fact that some states concentrate on trafficking for purposes of sexual exploitation, means that other forms of exploitation are overlooked. The different quality and documentation of national referral mechanisms (thought by some NGOs to provide useful sources of data) also contributes to the difficulty of estimating the global scope of the problem, with the biggest challenge being the hidden nature of human trafficking.

Trafficking in persons often does not come to the attention of national or local authorities or NGOs dealing with the issue. Victims can be reluctant to report the traffickers due to control, intimidation,

Article 8 of the EU Anti-trafficking Directive which states that Member States in accordance with the basic principles of their legal systems, take the necessary measures that ensure that competent national authorities are entitled not to prosecute or impose penalties on victims of trafficking in human beings for their involvement in criminal activities which they have been compelled to commit as a direct consequence of being subjected to any of the acts referred to in Article 2 – victims should not be equated with criminality in these circumstances. Both the Council of Europe and GRETA have published guidance on this - see also OSCE Policy and legislative recommendations towards the effective implementation of the non-punishment provision with regard to victims of trafficking, 2013

¹⁸⁸ See page 43 the UNODC Global Report on Trafficking in Persons 2014.

¹⁸⁹ UN General Assembly, Resolution 55/25, "Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime," November 15, 2000.

debt bondage, “juju”, threats of violence and fear of being deported or removed to their origin country. Also authorities often have difficulties in detecting the crime. The hidden nature of human trafficking makes the prevalence estimations very challenging. Traditional methods that are used to measure hidden crimes such as general victimization surveys are often not feasible for collecting data on trafficking in persons.

It is also necessary to be very clear about the breadth of “human trafficking” as the optimum methodology for collecting data will vary according to nature of the trafficking.¹⁹⁰

Data needed to analyse the topic

Information concerning both the hidden as well as the known aspects of human trafficking is needed in order to assess the specific policy needs. In addition, the prevalence of trafficking victims, which indicates the severity of trafficking in persons, can only be assessed if both the hidden and known human trafficking is estimated. This estimation may need to include quantitative data which often is based on official statistics as well as qualitative data based different sources of information including field research and work being undertaken by NGOs.

Current data collection is mainly focused on information on detected cases of trafficking in persons. National-level data (quantitative and qualitative) on detected cases can be collected from different sources, particularly from administrative records including criminal justice and other official records such as police, social services, immigration and asylum and border control sources, as well as from the information based on services provided to trafficking victims. While this kind of information about known trafficking cases cannot be used to measure the prevalence of trafficking, it can be used to determine the human trafficking flows, profiles of detected victims and offenders, forms of exploitation and the responses to trafficking in persons and (in some cases), the efficiency of these responses. Because of the differences between practices and recording methods used in different countries, this kind of data is usually not suitable for comparative analysis. However, it can be used to monitor trends at global, regional and national levels. Also, the data on detected cases can be viewed in relation to other indicators that describe socio-economic situations, rule of law, policy decisions and security issues.

The hidden side of trafficking in persons is more difficult to measure. Since traditional methods to assess hidden phenomena such as general household victimization surveys are usually not suitable for human trafficking, more innovative methods are needed. These include specific methods that have been tested to estimate the prevalence of hidden populations such as respondent driven sampling, capture-recapture methodology and the multiplier method, network scale-up method, counting the actual numbers of human trafficking and constructing a sampling

¹⁹⁰ For example in a report “Stolen Future: Trafficking for forced child marriage in the UK” Farhat Bokhari, ECPAT UK, 2009 – the researcher used interviews with professionals, NGOs, police etc. and data held by the FCO’s Forced Marriage Unit.

frame of potential victims by using geographic data¹⁹¹ Other methods are being developed by NGOs, for example the work of the Anti-Trafficking Monitoring Group (ATMG) in the UK.

Existing sources and standards for data collection

- UNODC Global Report on Trafficking in Persons 2009, 2012 and 2014, www.unodc.org/glotip.html
- UNODC Human Trafficking Case Law Database, <http://www.unodc.org/cld/index.jsp>
- International Organization for Migration (IOM) Counter Trafficking Module Database, <http://www.iom.int/cms/countertrafficking>
- International Labour Organization (ILO) Global Estimate of Forced Labour 2012: Results and Methodology, 2012, http://www.ilo.org/global/topics/forced-labour/publications/WCMS_182004/lang--en/index.htm
- ILO Profits and Poverty: The Economics of Forced Labour, http://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_243391/lang-en/index.htm

Data gaps and challenges

- Administrative data on trafficking in persons do not accurately represent the nature or the extent of the underlying activity and it is very difficult to compare between countries.
- Some countries do not have specific legislation on human trafficking or do not criminalize some activities that fall under the definition in the UN Protocol against Trafficking in Persons.
- There is a variety of ways in which trafficking-related behavior is criminalized, which is captured in diverse languages and legal traditions.
- Even countries with the appropriate legislative framework vary tremendously in the resources available for enforcement and the way these resources are targeted.
- Detection of victims and traffickers is difficult; often some forms and some victims are more easily detected than others (with the likely result of overrepresentation of trafficking in women for sexual exploitation and underrepresentation of trafficking in men for forced labour. Children are often invisible in any records or counts.).
- Countries have different capacities to produce administrative data, which means that results for some regions are more reliable than for others
- Regional analyses for Africa and Asia are based on weaker official data than those for Europe or the Americas, due to lower levels of reporting from African countries, as well as lower detection rates. As a consequence of this geographical detection bias, the global results on patterns and flows tend to reflect the patterns and flows of Europe and the Americas to a greater degree than those of Africa and Asia. There is, however, quite a lot of qualitative data from NGOs e.g. Trafficking in Women Forced Labour and Domestic Work in the context of the Middle East and the Gulf Region, Working Paper, Anti-Slavery International, 2006.

¹⁹¹ On methodologies to research hidden populations including trafficking in persons, see Forum on Crime and Society, Volume 8, UNODC (https://www.unodc.org/documents/data-and-analysis/Forum/Forum_2015/15-00463_forum_ebook_E.pdf).

- Data from the service providers gives information related only to those victims that are identified and receive services
- The prevalence of trafficking in persons is hard to estimate reliably because of the hidden nature of crime

Good practice

Forum on Crime and Society, Special Issue: Researching Hidden Populations – Approaches and Methodologies to Generate Data on Trafficking in Persons, Volume 8, UNODC.

The publication aims at presenting a variety of research approaches and findings, hoping to contribute to a discourse on how more sound data on the different aspects of trafficking in persons could be researched and obtained. The articles presented in the Forum issue are dealing with challenges and solutions in collecting research data on trafficking in persons and presenting quantitative and qualitative aspects in reaching hidden populations and how to use them for human trafficking research.

Hard to see, harder to count. Survey guidelines to estimate forced labour of adults and children, International Labour Organization (ILO), 2012

The guidelines share the experiences gained and lessons learned by the ILO between 2008 and 2010 through quantitative surveys of forced labour and human trafficking undertaken at the country level. Designed by the ILO in collaboration with national partners, the tools were tested in ten participating countries: Armenia, Bangladesh, Bolivia, Georgia, Guatemala, Côte d'Ivoire, Mali, Republic of Moldova, Nepal and Niger. Notwithstanding significant differences in the types and mechanisms of forced labour of adults and children prevalent in these countries, a consistent approach was employed in survey design and implementation.

Beneath the surface. Methodological issues in research and data collection with assisted trafficking victims, International Organization for Migration (IOM), 2010

The report considers the methodological and ethical challenges of conducting research and collecting human trafficking data. The analysis contained in this study sheds light on the debate about the current quality and integrity of research and data collection in the trafficking field; and offers recommendations to improve future efforts to produce reliable data and derive an empirically-based understanding about the nature of human trafficking. The authors draw, in particular, upon lessons learned from the use of the IOM human trafficking database as the basis of many current reports about the nature of trafficking in countries around the world. In addition to highlighting some of the limitations of collecting data directly from assisted victims, the report calls for more accurate and in-depth research and data collection on a broader range of topics related to trafficking.

IOM Global Human Trafficking Database

For more than a decade, IOM has developed and maintained a standardized counter-trafficking data management tool, the IOM Global Human Trafficking Database, which is the largest global database with primary data on victims of trafficking.

The Database facilitates the management of all IOM direct assistance, movement and reintegration processes through a centrally managed system, as well as mapping victims' trafficking experiences. In return, the database strengthens research capacity and the understanding of the causes, processes, trends and consequences of trafficking. It serves as a knowledge bank from which statistics and detailed reports can be drawn, and information be provided for research, programme development and policy-making on counter-trafficking.

In all cases, IOM ensures that no information which could compromise the privacy or identity of trafficked individuals is released: strict controls designed to ensure confidentiality and security of all data have been established.

Key messages and recommendations to address gaps

There is a need to collect data on both the known and the hidden dimensions of trafficking in persons.

Recommendations:

- Use data on detected cases of trafficking for trend analysis at national, regional and global levels; administrative data do not usually allow comparisons of trafficking patterns and forms between countries because of differences in definitions, procedures, recording and other factors
- Use innovative methodologies to assess the hidden part of trafficking in persons; data on detected human trafficking victims should not be used to estimate the total prevalence of trafficking in persons but it is useful to assess the characteristics of detected victims of trafficking
- Support national capacities to produce data on trafficking in persons
- Use existing international and national surveys for analysis
- Take advantage of existing data collection vehicles, especially in industrialized countries
- Encourage collection and analysis of data in micro-level settings; do not rely on current estimates
- Carefully define indicators for trafficking with common characteristics to allow for the development of common measures that reflect all international legal frameworks

- Establish a global ‘test bank’ to host various examples of trafficking instruments together with their supporting documents and validation studies

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Annex 1

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Guidelines, training and good practice material thematically arranged

	Guideline	Training	Good Practice
Key definitions & sources Criteria; Data sources; Innovative data sources		UNESCWA 2009; UNDESA, 2012;	EUROSTAT, 1996-2013;
Reasons for migration Work; Study; Humanitarian	UNHCR, 2007;	IOM, 2010; UNHCR, 2015a, b, 2011, 2003;	ILO, 2013a, b; UNESCO, OECD and EUROSTAT; The Groningen Declaration, 2012-2015; UNHCR, 2015, 2008;
Migration and development Remittances; Labour market; Trade; Intellectual property; Health; Education; Environment	ICLS, 2013	IMF, 2009;	World Bank, 2015; MIPEX, 2015; OECD, 2010; IOM, 2010; IOM DTM;

<p>Protection of migrants Human rights; Women; Migrant girls; Trafficking in persons</p>	<p>ILO, 2012;</p>	<p>UNFPA, 2011; UNODC, 2015; IOM, 2010;</p>	<p>Passel, J. S., Cohn, D. V., 2011, 2009; Taylor et al. 2011; Pew Research Center, 2013; UN, 2009; IMRC, 1996-2015; Levine et al., 2009; Temi et al., 2013;</p>
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