3. Application and uses of MPD in tourism statistics

In ensuring that “no one is left behind”, it has become imperative for NSOs to find ways to fill-in the gap in existing data from traditional sources and explore the use of alternative data such as the mobile phone data (MPD). This section discusses the different application and uses of MPD in tourism, official statistics, analysis/research of mega-events/subregional data, checking other statistics sources, and sampling frame.

Survey elaboration. MPD could be used to support the elaboration of surveys. There is great potential, for example, in exploring the feasibility of using MPD for household listing for some surveys. In the Handbook on the Use of MPD for Dynamic Population (see the Handbook of Dynamic Population, 2022), this potential was observed in the context of rapid telephone surveys where the questionnaire is administered through a telephone or cellular phone.

Sampling frame. The use of MPD to generate sampling frames can be considered in the context of traditional surveys where the interview is conducted face-to-face. In most of the developed world, telephone surveys have been in use for many decades and telephone-based sampling methods are well-established. However, use of mobile phones instead of telephone presents new challenges. In low-income countries, until recently, the penetration rate of cellular phones has not been universal. With increasing penetration rates of cellular phones in low- and middle-income regions, there has been an increased use of phone surveys as opposed to face-to-face interviews for several reasons such as to obtain results faster (see World Bank), or to avoid going into the field in less secure and fragile environments.

Measuring mobility. In modern tourism, the components that are rapidly developing are tourism events. MPD can be used to analyse the mobility and behaviour of the people that visited tourism events, sport events (e.g. Olympics, Games, Cup) and/or meeting events (e.g. G20 meeting, WB-IMF Annual Meeting). MPD can be used to complement or to replace other data sources such as immigration data, accommodation data, and ticket sales. MPD can provide accurate information about people that visit the events. It can also show the mobility of the people before and after the event as well as the origin of the people that visited the event. Wherein the immigration data can only show people that come through the immigration entry check points, not the venue nor the mobility of the people that are visiting the event.