What is UNHCR’s Nowcasting?

UNHCR publishes official statistics on forced displacement twice a year on the Refugee Data Finder. The statistics are published 4-6 months after the end of the reporting period due to the time needed for data collation, validation and verification. For example, UNHCR’s annual statistics are published in June and reflect the situation as of December in the previous year. However, given the fast-changing nature of many of today’s displacement situations, more timely statistics on forcibly displaced populations are increasingly important.

Nowcasting - predicting the very recent past or the present - helps to estimate numbers in situations where statistics are not sufficiently timely. In humanitarian and development situations, where collecting up-to-date statistics is challenging, nowcasting can be used to overcome reporting delays.

UNHCR has developed nowcasting of refugee and asylum-seeker population statistics, with estimates produced for the previous month on a rolling basis. When new official statistics are released, the nowcasted estimates are realigned. The nowcasting therefore usefully provides an estimate of the changes in the size of refugee and asylum-seeker populations since the last published set of official statistics.

How many refugees and asylum-seekers are there currently?

At the end of December 2023, the nowcasted global refugee population is estimated to have grown to 32.2 million. This represents an increase of 1.7 million or 5 percent compared to the latest official figures from the end of June. The nowcasted global asylum-seeker population stands at 7.1 million (+993,000, 16 per cent) at the end of December.
The figures above refer only to refugees under UNHCR’s mandate. By mid-year 2023, there were an additional 5.9 million Palestine refugees under UNRWA’s mandate, as well as 5.3 million other people in need of international protection. Figures for both of these populations are not included in the nowcasting.

**Key population changes since June 2023**

In Sudan, fighting between the Sudanese Armed Forces and the paramilitary Rapid Reaction Forces commenced in April in Khartoum and quickly spread to other parts of the country. By mid-year, almost a quarter of a million Sudanese, and over 163,000 people of other nationalities – mostly refugees previously living in Sudan – had fled to neighbouring countries. By the end of 2023, refugee populations from Sudan in neighbouring countries – South Sudan, Ethiopia, Chad, Central African Republic and Egypt – witnessed significant increases according to nowcasting estimates for December.

Estimates for refugees fleeing the war in Sudan are sourced from UNHCR’s registration database ProGres, as well as operational estimates of populations that remained unregistered by the end of December. As people are registered as refugees in ProGres, they are periodically removed from the operational estimates. Estimates for refugees of other nationalities, who continue to reside in Sudan, have not been available since mid-year, therefore likely undercounting return movements from Sudan to their countries of origin.
In the last week of September 2023, following renewed hostilities in the South Caucasus region, more than 100,000 refugees have fled to Armenia from Azerbaijan. By the end of the year, the number of refugees in Armenia is nowcasted to have reached almost 140,000. Nowcasting estimates for new refugee arrivals in Armenia are sourced from statistics published by the Government of Armenia.

The United States of America continues to be the largest recipient of new asylum applications between June and December according to nowcasting estimations. As new asylum applications - predominantly by nationals of Latin America and Caribbean countries - outpace decisions on asylum claims, the number of asylum-seekers pending a decision on their claims increased sharply to nearly 2.7 million (+461,000). Nowcasting estimates for new asylum applications and decisions on asylum claims in the United States of America are sourced from monthly data published the USCIS (United States Citizenship and Immigration Services) and the EOIR (Executive Office for Immigration Review).

Methodological improvements

UNHCR strives to further improve the accuracy of the nowcasting estimate. During the last six months of 2023, a number of changes were made in order to improve the accuracy of these estimates.

Data sources with smaller margins of error were identified and included in the nowcasting estimates for refugees and asylum-seekers in Libya, Mexico, Costa Rica and Brazil. These sources include UNHCR’s internal registration database and statistics sourced from government entities. Nowcasting figures for Ukrainian refugees were more closely aligned to reported figures of Ukrainian nationals receiving temporary protection granted by European Union Member States and published by Eurostat.
In addition, the statistical models used in the nowcasting are regularly reviewed and, where possible, further optimized. Improvements were made for estimates derived from the gravity model. This model has been developed by UNHCR and predicts refugee and asylum-seeker stock figures by using historical asylum data along with other factors such as the presence and intensity of conflicts, and violent events, socio-economic variables, political, cultural and historical factors as well as geographic proximity. Improvements have also been made to the models for interpolating quarterly data from Eurostat or the UK.

Limitations

Nowcasted population figures are estimates and should not be considered as official statistics. As with all empirical methods, the estimates have limitations.

During the biannual collation of official statistics, UNHCR conducts a rigorous quality assurance of the available country statistics. During this quality assurance, errors in operational data such as double counting, overestimation or underestimation are identified and, where possible, corrected. For the nowcasting estimates, the emphasis is on timeliness rather than other quality dimensions. This means that errors in source data will propagate into the nowcasting estimates until corrections are made, either by the data source or during the quality assurance in subsequently published official statistics. Primarily for this reason, the nowcasting estimates are aligned every six months with the official statistics as they are released.

Similarly, during the data collation for official statistics, stock estimates may sometimes be adjusted for methodological reasons. These adjustments will only be reflected in the nowcasting when new official statistics are published.

Lastly, given the constraints in the timeliness of the source data for some host countries, it is not always possible to include the latest data prior to the 15th when the nowcasting figures are published. In these instances, data from the previous month is carried forwards.

Contacts

If you have any questions, feedback or suggestions for improving the nowcasting data, please do let us know using the email below.

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