CES Recommendations on the Role of Official Statistics in Measuring Hazardous Events and Disasters

In June 2019, the Conference of European Statisticians (CES) adopted the CES Recommendations on the Role of Official Statistics in Measuring Hazardous Events and Disasters, which:

- Clarify the role of national statistical offices (NSOs) and other members of national statistical systems (NSSs) in providing information related to hazardous events and disasters, and
- Identify practical steps to better support disaster risk management efforts in coordination with national agencies responsible for disaster risk management.

Chapter 5 of the CES Recommendations provides a list of potential contributions of NSS to each phase of disaster risk management, including the phases of disaster response and recovery. This provides NSOs with guidance to address the current emergency situation (disaster response phase) with official statistics (e.g. on the geographical distribution of population at risk) and to plan specific activities that will be needed at the end of the crisis (for example specific surveys to measure disaster impacts). This chapter also recommends a set of basic statistics ("emergency data kit") which should be kept up-to-date and easily accessible in case of a disaster. The emergency data kit requires clarified procedures regarding the handling of data confidentiality, small scale-analysis, integration with other information etc. to be used in emergency situations without delay.

In the CES Recommendations, you will also find practical examples for:

- Using official statistics available in disaster-risk management while maintaining statistical confidentiality
- How NSOs could contribute to data analysis and communication with policymakers, media and public, etc.
Activities

Ongoing:

• UNECE Task Force on Measuring Hazardous Events and Disasters, which developed the Recommendations, is working under a renewed mandate to support NSOs in contributing to managing the current emergency situation
• The Task Force is collecting the practical experience of NSOs in addressing the current and anticipated information demand, and how they deal with major challenges.

Upcoming:

During the 68th plenary session of the Conference of European Statisticians (CES) (22-24 June 2020), the chief statisticians of all CES member countries, will discuss:

• Impact of COVID-19 crisis on official statistics - jointly with the OECD Committee for Statistics and Statistical Policy (OECD CSSP):
  • Data stewardship – new roles of NSOs in the changing world (organized by UNECE)
  • Impact of Covid-19 crises on business continuity of official statistics (organized by OECD)
• Sharing experience in implementing the CES Recommendations and Using geospatial data and tools for measuring COVID-19 impact - jointly with UN-GGIM:Europe

The Task Force will publish case studies on how NSOs respond to COVID-19 and develop core indicators on hazardous events and disasters.

Country practices

In addition to continuing their normal operations under very difficult circumstances, NSOs carry out new or unusual activities that help the government and the public to deal with the crisis. This collection of practices aims to help NSOs learn from each other, prepare for the recovery phase and improve the use of official statistics in disaster risk management in the future.

The following table includes examples of NSOs of Australia, Canada, Colombia, Estonia, Finland, France, Germany, Ghana, Ireland, Italy, Lithuania, Mexico, Netherlands, New Zealand, Romania, State of Palestine, Sweden, Turkey and the United Kingdom.

Challenges related to the regular production of official statistics, e.g. because staff working from home, difficulties to carry out interview-type surveys etc., can be found in other sections of this platform.

Please use the filter tool to select countries or categories that are of interest for you. The information can be downloaded in various formats.

The main sources of information are: (1) a special survey carried out by the UNECE Task Force on Measuring Hazardous Events and Disasters (and follow-up communication with NSOs), (2) the UNSD COVID-19 response website, (3) NSOs' websites and (4) information provided directly by NSO. For updates and adding of information please contact Michael Nagy.

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<tr>
<th>#</th>
<th>Country</th>
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<tr>
<td>1</td>
<td>Canada</td>
<td>Dissemination</td>
<td>COVID-19 portal</td>
<td>Latest information products that helps to shed light on the key economic trends and social challenges related to the COVID-19 crisis.</td>
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<td>Canada</td>
<td>Dissemination</td>
<td>Interactive tool: Canadian Economic Dashboard and COVID-19</td>
<td>The dashboard includes 16 indicators from a range of monthly data programs—real gross domestic product, consumer prices, the employment rate, merchandise exports and imports, retail sales, hours worked, manufacturing sales, air and railway transportation, and travel. The dashboard will be updated as new data and analysis become available. These will include short explanatory texts that summarize and highlight effects specific to provinces and industries. More indicators may be added to the dashboard to provide additional timely measures and a more comprehensive picture of the rapidly evolving situation.</td>
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<td>3</td>
<td>Canada</td>
<td>Dissemination</td>
<td>Canada COVID-19 Situational Awareness Dashboard</td>
<td>Dashboard of Covid-19 cases in Canada. Statistics Canada is providing its considerable geo-spatial expertise to respond to pressing information requests for geo-enabled data coming from various federal partners and first responders monitoring and intervening directly in the field during the COVID-19 crisis. This work will facilitate access to geo coding and mapping of relevant socioeconomic information. This work involves working with Natural Resources Canada, Public Health Agency of Canada (PHAC) and Public Safety Canada, to build dashboards and portals for PHAC to help them disseminate socio-economic and health data, and information from their epidemiologists to other federal departments, and health agencies at the provincial, territorial, and local levels. <strong>See also Daily press release:</strong> <a href="http://www150.statcan.gc.ca/n1/daily-quotidien/200330/dq200330b-eng.htm">http://www150.statcan.gc.ca/n1/daily-quotidien/200330/dq200330b-eng.htm</a></td>
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<td>5</td>
<td>Canada</td>
<td>Data collection</td>
<td>Crowdsourcing: Impacts of COVID-19 on Canadians</td>
<td>The crowd-sourcing online questionnaire collects data on the current economic and social situation, as well as on people’s physical and mental health, to effectively assess the needs of communities and implement suitable support measures during and after the pandemic. In order to implement this survey rapidly, the survey is conducted online only. Respondents are also asked if they would like to volunteer to participate in the Canadian Perspectives Survey Series (CPSS).</td>
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<td>6</td>
<td>Canada</td>
<td>Data collection</td>
<td>Canadian Perspectives Survey Series 1: Impacts of COVID-19</td>
<td>Report and infographic of results for the period between 29 March and 3 April. More than 4,600 people in the 10 provinces responded to this survey between March 29 and April 3. The CPSS involves creating a pool of people who agree to complete about six very short online surveys over a period of one year (about one every two months). The CPSS aims at understanding social issues more rapidly, while reducing the cost of collecting data.</td>
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<td>7</td>
<td>Canada</td>
<td>Data collection</td>
<td>Web panel survey on the impacts of COVID-19</td>
<td>Statistics Canada launched a web panel survey from 29 March to 3 April 2020 and covered topics on the impacts of COVID-19 on Canadians with a reference period that covered 22—26 March 2020. Participants consisted of a web panel of Canadians living in all 10 provinces. The first release from the web panel survey was on April 8 and can be found here. Other iterations of this survey will take place as necessary.</td>
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<td>8</td>
<td>Canada</td>
<td>Analytical work</td>
<td>Modelling and surveillance support</td>
<td>Statistics Canada will respond to pressing information requests mostly coming from Public Health Agency of Canada (PHAC) by providing expertise and consultative services in the area of modeling and microsimulation to support PHAC work in the area of projections. PHAC has already been engaged on this front and are considering options. Numerous projects utilizing Statistics Canada microsimulation capacity and its data science expertise are under consideration.</td>
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Colombia Dissemination

Set up in the context of the pandemic to present in form of an interactive map, to show where the population is, which, due to its demographic characteristics and health condition, may have more complications if catching COVID-19. It also shows the location of health centers.

Finland Dissemination

Statistics Finland aims to accelerate the release schedule of statistics important from the viewpoint of emergency conditions and to publish information supplementing normal statistics production in the form needed by users.

Germany Dissemination

The effects of the COVID-19 pandemic are directly visible in many economic indicators over the following month, possibly years. Besides the economic indicators, other statistics can give further relevant structural information in reference to the COVID-19 pandemic (especially health statistics). For January and February 2020, effects of the COVID-19 pandemic are seen, if at all, only with regard to individual countries (e.g. exports to China). However, first disruptions caused by the COVID-19 pandemic are expected for March and April 2020.

Germany Planned activities

The effects of the COVID-19 pandemic in official statistics, the Federal Statistical Office of Germany has initiated the following measures as a first step:

1. Special page on the effects of the COVID-19 pandemic

Starting from 6 April 2020, the relevant short-term economic indicators are presented on a special page. Furthermore, these are continuously updated. However, many effects will not be visible until mid-April/Mai at the earliest.

2. Press work on the effects of the COVID-19 pandemic

From now on, all standard press releases for the first dissemination of statistics are checked on whether effects of the COVID-19 pandemic are visible and in case a paragraph will be added. Special focus is placed on relations with particularly affected countries (e.g. foreign trade, tourism, transport). Many statistics provide structural information that form an important basis for political decisions in connection with the COVID-19 pandemic. The Federal Statistical Office of Germany monitors the media coverage. It will provide contextual information wherever possible in order to objectify discussion.


3. Press conference on the effects of the COVID-19 pandemic

A press conference on the economic impact of the COVID-19 pandemic is planned for early/mid-May. Currently, it is being assessed whether a press conference can be organised via livestream.

Germany Lessons learned

- Close data gaps and provide information important for the crisis
- Strengthen Digitalisation
- Rebalance timeliness and accuracy
- Transparent communication
- Be quicker: extension of Newcasts / Flash estimates

Ghana Dissemination

Dashboard with COVID-19 cases and data on vulnerable population groups, access to sanitation and health facilities

Ghana Data collection

How Ghana Statistical Services (GSS), Vodafone Ghana, and the Flowminder Foundation are using innovative data science techniques to support the government’s response against COVID-19.

Ghana Analytical work

Initial insights into the effect of mobility restrictions in Ghana using anonymised and aggregated mobile phone data

Ireland Dissemination

The Office of the Chief Medical Officer (CMO), has formed the Irish Epidemiological Modelling Action Group (IEMAG), chaired by Prof Philip Nolan of Maynooth University, to monitor and model the outbreak of COVID-19 in Ireland. The IEMAG report directly to the National Public Health Emergency Team (NPHET). In response to the Coronavirus disease (COVID-19) outbreak, the Central Statistics Office (CSO) in collaboration with Ordnance Survey Ireland (OSI), the Department of Housing, Planning & Local Government (DHPLG) and the All Island Research Observatory (AIRO) in Maynooth University, along with Esri Ireland as technical partners, rapidly developed a National Covid-19 Data Hub on the GeoHive platform. GeoHive was identified as the State’s geospatial data platform in the Public Service Data Strategy 2019 – 2023.

For this particular action this work has been designated as the GeoHive Covid19 Response Coordination Group, (GH-COVID19-RCG). The Group is part of the IEMAG. The National Covid-19 project partners use best practice methodologies and governance structures to ensure the appropriate overall management of the project and its data.

Lithuania Dissemination

A set of interactive maps with virus-relevant information on hospitals, doctors, population by age and sex and region and integrated UN and LT monitoring of the virus information

New Zealand Analytical work

New Zealand’s daily trade from 1 February to 25 March 2020, comparing 2020 values with those from previous years to show the potential impacts of COVID-19 since its outbreak in late 2019.
State of Palestine
Analytical work
Press Release of Corona Crises losses
Economic forecasts for 2020 in light of the current outbreak of the Coronavirus
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State of Palestine
Dissemination
Summary of consultation on effects of the COVID-19 on women in Palestine
A Summary of Statistical Indicators on Women in Palestine during the COVID-19 crisis
2
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Sweden
Dissemination
Coronavirus (COVID-19) portal
Dedicated portal with news and statistics on the spread and effects of COVID-19, including (1) News and statistics on how the spread of the corona virus affects society; (2) information to respondents of surveys.
2
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United Kingdom
Dissemination
Coronavirus (COVID-19) portal
All COVID-19 related statistics and a blog on the latest work, for example:

- Estimates of deaths from COVID-19 – weekly, monthly, excess deaths (project with DHSC), risk factors, pre-existing health conditions
- New online social and opinion survey – on wave 3, results published every Thursday; analysis on disability, young people, vulnerable people, other groups
- New online business survey – onto wave 2, results published every Thursday; rates of furloughing, impacts on business turnover, etc.
- New online Labour Market Survey to supplement the Labour Force Survey, including COVID-19 questions
- Exploring potential of high frequency consumer spending data
- Weekly price index and stock availability for high demand items
- Considering implications/risk to data collection and fieldwork (including International Passenger Survey)
- Data Science Campus working with data from telecoms providers to assess trends in movement and football
- Working with HMRC on earlier indications of employment and earnings trends, using PAYE Real Time Information
- Characteristics of workers and impacts on the labour market – key workers, self-employment, home-working, technology, risk of infection, etc.

Over half of all traffic to the ONS website is searching for the statistics on deaths due to coronavirus. We’ve published new analysis about this in the past week, showing that in March over 90% of deaths involving COVID-19 had an underlying health condition.

The weekly Faster Indicators included results from the new weekly Opinions and Lifestyle Survey, with questions about the impact of coronavirus on people’s lives. Just over half of adults said the coronavirus was affecting their well being

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United Kingdom
Dissemination
Counting deaths involving the coronavirus (COVID-19)
Introduction to the provisional figures published on 31 March, explaining why the different ways of counting used across the government gives different answers.
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United Kingdom
Analytical work
Coronavirus (COVID-19) roundup
Latest data and analysis related to the coronavirus (COVID-19) pandemic and its impact on the UK’s economy and society.
2
17-Apr-20

United Kingdom
Analytical work
Coronavirus and the social impacts on Great Britain Statistical bulletins
New indicators from the ONS Opinions and Lifestyle Survey to understand the impacts of the coronavirus (COVID-19) pandemic on people, households and communities in Great Britain.
2
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United Kingdom
Improving data fitness
Ensuring the best possible information during COVID-19 through safe data collection
Note discussing ONS response to the COVID-19 crisis and its approach to ensure the government has the information it needs to manage the UK’s response to the pandemic.
2
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United Kingdom
Improving data fitness
Top tips for quality assurance of ad hoc analyses of official statistical data, with a quick turn-around, to answer specific questions in situations when time and resources are limited.
2
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United Kingdom
Challenges
Biggest challenges at the moment
Some key challenges include:
- Access to and dissemination/sharing of new data sources
- Coordination of statistical outputs within government
- The pressure placed on human resources to deliver analysis at pace while working remotely
1
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Turkey
Dissemination
Main focus of current NSO work to support managing the pandemic
TurkStat is not involved in managing the pandemic directly, but it meets the data requests of public institutions and universities related to pandemic. Population statistics with very detailed geographic breakdown (detailed quarters or even streets) are provided to public institutions (Ministry of Health, local governments, etc.) without suppression.
Requested social data is mostly on elderly and child population which are under curfew except for some special cases because of pandemic. Data are provided on both person and household level for requested geographic level. Moreover, works are ongoing to prepare a report which covers every kind of statistics related to COVID-19
1
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Turkey
Data collection
Questions added to the Labour Force Survey
To determine the possible impacts on the labour market, a few modular questions were added to the Labour Force Survey (LFS) as of April 2020. Together with these questions added to the LFS, it is planned to estimate the size of people who are employed but who are on paid or unpaid leave, started working from home, changed working hours, quitted the job due to the epidemic or not looking for a job due to the epidemic
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Turkey
Dissemination
Statistical tables to be prepared for publishing at the NSO webpage
Statistical analysis on COVID-19 pandemic are prepared to be published on TurkStat's webpage focusing on statistics that could be beneficial for decision makers, researchers and general public, for example:
- Proportion of child population and elderly population in selected countries
- Number of households with individuals aged 65 and over by provinces
- Average size of households by provinces, time distribution in household and family care by sex and employment status
- Persons responsible for the day care of kids by SR Level 1 and three major provinces
- Persons responsible for household chores by SR Level 1 and three major provinces
- Time distribution in household and family care by sex and employment status
- Values and persons as source of happiness of elderly people
- The number of elderly people living alone (in order to make social aids)
- The number of households with children under a specific age and working in public sector (in order to create a working structure (work from abroad etc.) that ensures society's health as well as performing current works
- Age structure of the country (to determine part of the risk groups)
- Type of the households (to determine expansion capacity of the infection)
1
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Mexico
Dissemination
Providing data to Government for crisis management
INEGI has been working together with the Federal Government and the National General Health Council to provide data required from different government offices and keeping in mind the health of its personnel.
1
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INEGI data has been used to implement contingency plans for the outbreak of the disease:
- National database of private hospitals and clinics - for the Government to contact them and invite to join the National Hospital Reconversion Plan.
- Data on elderly people (over 60), so that local Governments will be prepared.
35 Mexican Challenges

Biggest challenges at the moment

Currently, the biggest challenge faced by INEGI is its ability to collect high-quality and comparable statistics useful for monitoring the economic, health, and public safety situation in the country.

Considering that most data collection efforts are based on face-to-face interviews, current public health measures have imposed additional difficulties within the data production cycle. This situation is expected to last a few years. For INEGI, the moment is over, given the fact that institutions will devote human and financial resources to solve unavoidable economic and social problems. It is expected to have a slowdown in public administration that will last for the rest of the year. Consequently, INEGI is seeking alternative methods for data collection: it is necessary to implement protocols that allow information to be collected without the need to risk the health of interviewers and informants.

Yet this shift may cause comparability and precision issues. In other words, whilst disseminating statistics in a moment like this is crucial for decision-making purposes, field and government agencies will have to work with new and untested government conditions that may impact the quality and comparability of the data provided. For the next stage, one of the main challenges is to ensure that information is collected in the historical series of statistical information. Due to this situation, there will have to be included in the results reports the effects of altering information collection periods, and altering the design of probabilistic survey samples. Thus, INEGI needs to communicate in the most transparent and understandable way possible, the limitations and drawbacks of the data provided.

In particular, in the case of Sociodemographic Statistics, the challenges we face now in order to give continuity to the work of the Directorate are:

- **Designing tools to assign work to people at home**. This includes, for example, surveys that require questionnaire data that can be collected through a computer or phone. Editing procedures have been developed to work remotely, including data entry, a revision of addresses for sending invitation letters, self-enumeration via internet or by telephone, and telephone interviews in those dwellings with non-response status for the Census 2020.
- **Redesign and planning of verification processes** and the stages of the Census 2020 that were canceled, however, the task is complicated by the uncertainty of the dates to return to normal activities.
- **Self-registration via the Internet** has been promoted in those dwellings that maintain non-response status for the Census 2020; however, the response rate has been low, remaining below 10 percent. A similar scenario is expected for the Labour Force Survey sample, where a telephone number is available, and for telephone telephone interviews by means of invitation letters in those dwellings where a telephone number is not yet available.

36 Mexico Challenges

Biggest challenges anticipated for the next phase

- To soften the impact on the results of the statistical information; it is not only a question of the non-existence of information during the period that the confinement is maintained, but also a possible aspect is foreseen as a consequence of a higher non-response rate, the alteration of historical comparability, or the loss of coverage and accuracy.
- **Generate the necessary and historic indicators during the confinement phase**.

37 Mexico Planned activities

Specific activities planned for the recovery phase

There are activities that have already been developed from this phase and will need to be maintained in the next phase. In order to make the transition back to traditional means of information gathering, to ensure that the information currently being collected maintains the necessary quality and reflects the effects of COVID-19 on population and economy. Normal activities for the generation of statistics will take even longer after the end of the confinement. It will take a while to regain the confidence of the population to establish face-to-face interaction with enumerators so a staggered return to regular activities is calculated.

Some activities that were already carried out before the pandemic by the COVID-19 and that have new been strengthened as primary sources for generating information such as the application of small area estimation techniques. This model has some limitations, but it will be useful to generate statistics to know the impact of the pandemic.

In the case of starting with short employment interviews via telephone that allow for capturing the impact of the COVID-19, mainly in the labor market, these should be maintained for a certain period of time to guarantee their quality and planned coverage.

It will probably be necessary to maintain the remote verification of the selected Census dwellings even after the confinement stage, since a higher non-response rate is estimated by the informants due to the persistent fear of contagion.

Regarding government information, given the uncertainty generated by the behavior of the contingency in the country for the near future, various scenarios are being considered in order to conclude the projects that were underway, as well as those scheduled to begin shortly. These scenarios contemplate the postponement of the information collection stages, the reduction of samples and the implementation of telephone interviews that replace those traditionally carried out face-to-face.

INEGI is in touch with government personnel via email, telephone, or other means. Compared to previous data collection cycles, specific Government Censuses will be collected via web-based platforms, allowing multiple users to upload their data simultaneously. An additional action is to analyse and present to the authorities information regarding the institutional capabilities of federal, state, and municipal governments to cope with the pandemic and its aftermath.

38 Mexico Lessons learned

Main lessons learned

For INEGI many lessons have been learned. Mainly, even though protocols have been developed to work remotely in the face of catastrophic events such as earthquakes or fires, they have not been enough, because they do not include the entire chain of information production. Specifically, the protocols developed do not contemplate personnel who are on the streets collecting information.

In the scientific field, the exploration of alternative methodologies has remained stagnant in the experimental field and there has been no opportunity to implement sampling schemes or alternative collection methodologies. As it has already been mentioned, there are some experiments with small area-estimation models, gathering information via telephone or online. However, it will take a few years for these schemes to be formally considered in the generation of statistical information.

In this sense, this pandemic has forced the institution to reflect upon the usual strategies to gather information. It has prompted the need to consider innovative strategies to conduct statistical exercises given the vulnerability of the traditional methods. On the other hand, this crisis has made evident the need to gather specific information regarding the institutional capabilities of governments to deal with major crises. It is an opportunity to deliberate on what information is more relevant to guide public policy decisions at the federal, state and municipal levels.

INEGI needs to be prepared and to foresee atypical data collection environments. Every statistical program will need to devise alternative action plans along with a strong communication strategy. This situation invites us also to reflect on INEGI’s capabilities for quickly responding to data demands as well as to the type of information that are most needed for official and public audiences.

We also think that inter-institutional coordination is needed to deal with requests for information in an emergency of this type. In other words, the information has been requested according to the needs of the institutions and what statistical office itself has considered important to share, but it would be appropriate to establish a protocol for orderly and expeditious attention in these cases.

In summary, we can advise the following actions to be considered from this experience of the pandemic:

- Strengthen the generation of statistics from administrative records.
- To have a sampling frame of telephone numbers so that in case interviews need to be done remotely, they are nationally representative.
- We need to generate geo-referenced information for vulnerable populations such as indigenous people, Afro-Mexicans, the street population and the elderly.
- We need to educate the population in terms of statistical culture in order to strengthen the remote means to generate statistics (Internet, telephone).

39 Estonia Analytical work

Press release: people stay in one location 20 hours per day on average (9 April 2020)

Statistics Estonia is carrying out analysis of how well the #stayhome rule is followed using mobile positioning data (in cooperation with the main mobile operators). A related news release from 9 April is here (people stay in one location 20 hours per day on average). There is also a description of methodology.
Do you have questions or want to share your experience? Let us know in the comments below.

You need to log in to be able to add comments. If you are not a registered user, please click here to register.