Mitigating the Impact of Natural Hazards on Civil Registration and Vital Statistics Systems: The Case of Vanuatu

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SUMMARY

Sitting at the centre of the Pacific cyclone belt in the South Pacific, Vanuatu, with a population of 272,459 (according to the last census, held in 2016), is considered to be one of the world’s most vulnerable countries to natural hazards. Vanuatu is recovering from the impact of the severe category 5 Tropical Cyclone Harold, which hit the country in April 2020 following Cyclone Tino in January 2020, Cyclone Oma in 2019, and Cyclone Pam in 2015. Vanuatu is also prone to and has experienced volcanic eruptions, earthquakes, storm surges, coastal flooding, and landslides. In addition to the saddening loss of lives, these disasters have had an important and direct impact on people’s livelihoods (including civil registration officials) as well as on the government’s infrastructure (including civil registration offices) and its capacity to maintain important functions during and after the crisis and in response to the crisis.

1 “Vanuatu, country in the southwestern Pacific Ocean, consisting of a chain of 13 principal and many smaller islands located about 500 miles (800 km) west of Fiji and 1,100 miles (1,770 km) east of Australia. The islands extend north-south for some 400 miles (650 km) in an irregular Y shape. The Torres Islands are the northernmost group. Southward from the Torres group, the main islands are Vanua Lava and Santa Maria (Gaua) in the Banks Islands group, Espiritu Santo, Aoba (Ambae), Maewo, Pentecost, Malakula, Ambrym, Epi, Efate, Erromango, Tanna, and Anatom.” britannica.com/place/Vanuatu

2 “The name ‘Vanuatu’ is an important aspect of national identity. Leaders of the Vanua’aku Party, which led the first independent government, invented the term in 1980 to replace the colonial name New Hebrides. Vanua means ‘land’ in many of Vanuatu’s one hundred five languages, and translations of the new name include ‘Our Land’ and ‘Abiding Land.’ everyculture.com/To-Z/Vanuatu.html
This paper draws on Vanuatu’s experiences to discuss the importance of civil registration and vital statistics (CRVS) systems and the challenges faced when these systems are implemented during disasters and emergencies. Measures to mitigate the impact of disasters on CRVS systems are also discussed.

HISTORICAL CONTEXT

Until 1980, Vanuatu (formerly the New Hebrides Condominium) was a joint colony of Britain and France; it was administered through an agreement that the two nations signed in 1906. Under the agreement, the Indigenous population was by default rendered stateless (neither French nor British citizens or subjects) and lacked all forms of citizenship and nationality. A notable discriminatory clause denied their rights to officially register births, deaths, and marriages, rights that other residents of the nation had. In 1945, the Condominium’s British legal adviser, A. H. Egan, listed the discriminatory practices imposed on Indigenous New Hebrideans that resulted when the Condominium was organized.

“He [sic] [the indigenous New Hebridean] is subject to the orders of French as well as British officials. He may be punished administratively without trial. In various circumstances he is liable to be dealt with under four different systems of law—French, British, Condominium and native. His births, deaths and marriages are not officially registered. He is governed by native customs and tribal rules. His movements e.g. at night are restricted. He is not allowed to have or consume alcohol. There is no native civil code, and there is no recognised legal way by which he can dispose of his property inter vivos or after death.”

New Hebrideans who travelled across international borders (mainly as miners in New Caledonia, in ships as merchant mariners, or as public servants for the Condominium governments) also faced difficulties due to the lack of legal identity or travel documents or proof of belonging to a particular nation. New Hebrideans did not hold passports; instead, they each had a certificate of identity. These were treated with suspicion abroad; in some places, they were not recognized as legitimate travel documents.

Upon independence in 1980, the new government of Vanuatu issued the Decentralization Act of 1980, which established local government regions and local government councils. The Act outlined their powers and how they were to be administered; this included responsibilities for registering births, deaths, and marriages. In 1981, an amendment Act of the 1970 Joint Registration of Civil Status of New Hebrideans Regulation and the Joint Control of Marriage Regulation No. 12 of 1966 were enacted. These provided for applying the compulsory registration of births, deaths, and marriages of all persons.

There have been many developments in the organizing of civil registration services over the years. Today, civil registration is part of the Ministry of Internal Affairs, which also oversees the Labour department, immigration services, the Electoral Office, the police force, the Police Service Commission, the Corporate Service Unit, the Land Transport Authority, and the Local Authority.

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3 Each of the administering countries made laws for its own nationals and optants, and together they made laws for Indigenous New Hebrideans and all other residents.

4 Citizenship defines who can lawfully reside in place, travel, vote, own property, and have access to national institutions such as courts, schools, and hospitals.

5 Egan, A.H. 1945.

In Vanuatu today, civil registration of vital events plays a crucial role in providing proof of one’s personal and cultural identity (including in relation to land rights) and important family relationships. A legal identity, which is established at birth registration, creates the first legal relationship between all persons born in Vanuatu and the state. It also provides (through the documents issued) the means for individuals to exercise other crucial human and civil rights and privileges, such as the right to citizenship, health care, school enrolment, movement, vote, and participation in public affairs.

AN OVERVIEW OF VANUATU’S CIVIL REGISTRATION AND VITAL STATISTICS SYSTEM

Legislative organization and management framework
Civil registration functions are regulated by the Civil Status (Registration) Act (Cap61). It provides for the registration of births, acknowledgements, deaths, fetal deaths, marriages, dissolutions, and nullifications of marriage for all persons. The Act also provides for the creation of the position of Registrar General (who holds the sole authority of maintaining the official civil status register) and of district registrars and sub registrars to oversee registration activities at subnational levels. The Act further spells out the procedures and requirements for registering and maintaining civil status records, including the forms to be used to register every vital event and the format of recording to be followed.

The Civil Status Act is under review to update some of its dated provisions, such as its reference of historical geographical boundaries (districts in place of provinces) and the requirement that registration be handwritten. The revised Act also recommends that the Civil Status department be renamed the Civil Registration and Vital Statistics department. Though the review of the Act is still underway, operational changes have already been made to civil registration to align with the recommended processes. For example, though the processes outlined by the Civil Status Act are largely manual (paper based), since 2013, Vanuatu has been using an electronic SQL database known as RegisterViz (which was developed locally) to maintain civil status records.

The civil registration database is available over the e-government network in each provincial registration office and at major hospitals. The database operates across two main modes of access: one for capturing data and one for viewing data. Authorized civil registration officers with access to the system, and selected stakeholders such as the National Statistics Office, are given administrative rights to access all records through the view mode, but they cannot make changes. Other government departments also access the civil registration system through the view mode, especially to validate individuals’ identities. The database has both on-site and off-site backup; this is a critical requirement for records security, particularly during national disasters, where records and civil registration infrastructure is at a critical risk of loss and damage. A project to
evaluate the performance of the database — including its appropriateness for the national and regional context, and alternative options in the market — is underway.

**Level of completeness of registration of births**

The law requires that all births be registered within 21 days. In Vanuatu, only a small fraction of births are captured within this timeframe each year; in recent years (2014–2017), according to data provided by the Civil Registration Office (based on events captured in the civil registration database), only about 1 in 2 births are registered within the first year of life. The 2016 census, which asked respondents whether they had a birth certificate, estimated that 69.4 percent and 77.1 percent of children aged under 1 year old and under 5 years old, respectively, had a birth certificate at the time of the survey (Figure 2).

The reason for the difference in the estimates provided by the census and those derived from the civil registration dataset has not been verified. However, it is recognized that responses to this question may vary based on how the question was asked and how respondents interpreted it. For example, respondents may not always make a clear distinction between a birth certificate and a birth notification form, and they could assume these are the same thing. Other contributing factors include the subjective nature of asking the questions without having to verify or view the document itself. Another challenge is the cumulative nature of records. The validation of records and the verification of the registration has been an issue; it is being addressed in a progressive manner, with efforts to remove duplicates and identify deceased members who may still be listed as alive in the system.

A dramatic change in birth registration completeness from 2013 to 2014 was the result of several initiatives:

- To improve accessibility to civil registration services in 2014, with the support of UNICEF, the Civil Status Department set up a birth registration service desk in the maternity ward of the main hospital in Port Vila and at provincial hospitals. This made it possible for new mothers who deliver their babies in health facilities to complete the registration process and have birth certificates issued on-site and free of charge.

- The Department created a working arrangement with the Ministry of Education so that approved head teachers and principals can sign completed birth registration forms and correspond with the Civil Status Department to complete the registration process, including issuing certificates.

- Vanuatu has done a number of birth registration catch-up campaigns recently. In addition to supporting the registration of vital events, the campaigns advocate for the importance of civil registration.

- The government made policy changes over the last five years that require members of the public to present a birth certificate to access government services, such as enrolling in elementary school and participating in national sports activities, such as the Pacific Mini Games, hosted by the Government of Vanuatu in 2017.

- Most recently, a joint effort with the Electoral Office through the Vanuatu Electoral Environment Project led to a mass campaign for civil and voter registration to prepare for the 2020 national general elections. The focus was on registering citizens ages 12 and up and issuing their national ID cards.

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Figure 2: Trends in birth registration among children aged under 1 year and under 5 years.\textsuperscript{8}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure2}
\caption{Trends in birth registration among children aged under 1 year and under 5 years.}
\end{figure}

\textsuperscript{8}For 2016, possession of a birth certificate (collected by the 2016 Vanuatu mini census) is used as a proxy indicator for birth registration.

Figure 3 shows the distribution of the population that has a birth certificate by age group based on the 2016 census.

- About 85 percent of the population is estimated to have had a birth certificate at the time of the survey.

- Children aged 5 to 9 years and 10 to 14 years were the highest proportion of those with birth certificates among all age groups.

- Notable differences in registration status are found among children in the age groups 1 to 4 and 5 to 9. In Vanuatu, birth certificates are required to enroll in elementary school (which usually starts at age 5). The fact that approved head teachers and principals can sign completed birth registration forms and work with the Civil Status Department to complete birth registration for children who enroll in school is clearly an important factor.

\textsuperscript{8} Given the differences in the estimates from different sources and the potential limitations of each of the data sources in providing an accurate picture of the level of birth registration in Vanuatu, a detailed study to ascertain the estimated level of completeness is recommended.
Differentials in the possession of a birth certificate by age and sex, as estimated in the 2016 census, indicate that a higher proportion of males (86.6 percent) have a birth certificate compared to females (83.3 percent) (Figure 4). These differences are minimal among children but are more pronounced in the 20+ age groups. Differentials in older cohorts could indicate historic traditions of birth registration in favour of males. It may also be linked to the fact that more males were in the labour force or travelled internationally and needed a birth certificate for these activities.

Differentials in the possession of a birth certificate by geographical region (province) are shown in Figure 5. Shefa province (home to the capital city, Port Vila, located on mainland Efate) has the highest proportion of the population having a birth certificate (93.3 percent), followed by Sanma province (82.7 percent). Torba province, in the North, has the lowest proportion of the population with a birth certificate (67.3 percent). A closer look at these differentials at the sub-province (area council) level shows other key differences in performance by region; it could be useful to understand these when designing a targeted response. For example, in South Epi, in Shefa province, only 39.9 percent of the population has a birth certificate, despite being in the best-performing province; in West Santo, in Sanma, 43.2 percent of people have a birth certificate.

It remains to be seen whether these numbers will change after the 2020 National Population and Housing Census, which included questions about birth registration. However, it is highly expected that coverage will be better, especially after the mass registration campaign and the recent increase in registration points.
Figure 4: Differentials in birth registration by age and sex across different groups.

![Figure 4: Birth registration differentials by age and sex](image)


Figure 5: Differentials in birth registration by province.

![Figure 5: Birth registration differentials by province](image)

Level of completeness of death registration

The law requires that all deaths in Vanuatu be registered within seven days, but this is not happening in most parts of the country. Deaths are generally registered only if the deceased is to be buried in the municipal cemetery in Port Vila or Loganville, or if the family needs this documentation, such as for inheritance purposes (mostly in relation to land or for access to social benefits of the deceased, such as the Vanuatu National Provident Fund). In most cases, burial is done before the death is registered.

Figure 6 shows the distribution of registered deaths by year from 2013 to 2018, based on events captured in the civil registration database. For all years with figures of less than 25 percent, deaths are estimated to be captured in the civil registration database within a year of occurrence. A notable improvement in death registration completeness occurred between 2013 and 2014. However, these gains are not sustained: there is a steady drop in the proportion of events registered from 2015 to 2017, and no assessment has been done to identify the reasons behind it. A slight improvement is noted in 2017, though there is no data to confirm whether the improvements continued in the following years.

Figure 6: Trends in death registration in Vanuatu (2013–2018).

Source: Vanuatu Civil Status Department
In general, incentives to register deaths remain very low. Some key barriers include lack of awareness of the importance of registration, lack of immediate need for death certificates, and limited accessibility to civil registration services. As registration offices are mainly located in urban areas, people living in rural areas (70 percent of the population) have limited access to these services. Since most deaths are not registered, it is difficult to have accurate statistics on causes of death in Vanuatu; this includes statistics on disaster-related deaths. Cause-of-death information is available from hospital separation records, medical certification of hospital deaths, and community health facilities, but these sources need to be collated to be able to inform the leading causes of mortality. There are challenges in estimating deaths that are directly and indirectly attributable to disasters. Due to the uncertainty around current reporting completeness from CRVS systems in Vanuatu, it is not possible to provide accurate national estimates of cause-specific mortality rates in the population.¹⁹

WHY CRVS MATTERS DURING DISASTERS AND EMERGENCIES

The importance of legal identity documents and vital statistics during times of disaster

The primary function of civil registration is to issue members of the public with official documents that they can present as legal proof of identity and family relationships. These documents help people access key social and public services and support basic human rights. Experiences from past disasters in Vanuatu reveal that the need for legal identity records and documents is even more crucial during times of disaster. Individuals need these documents to prove who they are and to register for secondary identity documents such as national ID cards, which are often needed during disasters for things such as accessing relief supplies.

In Vanuatu, government agencies, non-governmental organizations, and other actors increasingly rely on civil registration records and data to plan and keep track of services and to provide support to members of the public during emergencies and disasters. For example, in 2017, following increasing volcanic activity from the Manaro volcano on the island of Ambae, the government triggered a state of emergency, requiring the entire population (around 11,600 people, including some 5,220 children) to be immediately evacuated to the nearby islands of Santo, Pentecost, and Maewo. Once the volcanic activity stabilized, the National Disaster Management Office (NDMO) did a repatriation exercise, leading to the phased return of the residents of Ambae. In all cases, the evacuation, settlement,¹⁰ and repatriation efforts required reliable information about the identities of the

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¹⁰ During this emergency, UNICEF provided support to the Civil Registration Office to register births and issue identification cards at evacuation centres for people who did not have these.
persons concerned. To this end, a register of the identities of the victims was created; it needed to be cross-validated against the national civil register as well as with people’s birth certificates and national ID cards. The register of evacuees was used to facilitate safe repatriation efforts, including ensuring that those repatriated were the actual evacuees. The registers were also used to facilitate mobilization, planning, and distribution of government relief supplies.  

There have been similar uses of the civil register and civil registration documents during the COVID-19 pandemic, in which a state of emergency was declared in March 2020. During the state of emergency, Vanuatu citizens returning from overseas trips must register with the government (the NMDO and Ministry of Health) through providing a proof of identity (mainly a national ID card that is issued based on a birth registration record). The national ID card is also used as the primary identity document to register for a special health ID card (established by the government following the emergence of the pandemic) for all persons working within a designated quarantine site, to facilitate contact tracing. The civil registration database is used to validate the identity of the persons registering for this card: when the special ID is swiped, the civil registration database validates the identity on the card. The Vanuatu National Provident Fund uses civil registration records to verify identities to allow affected persons to withdraw funds for support during times of disaster.

More broadly, many government agencies now recognize the importance of registration. They are signing memoranda of understanding with the Civil Registration Office so that civil registration records can be used to verify identity. For example, the Electoral Office, which has done electoral listing exercises, now relies on the civil register to identify persons who are 18 or older and eligible to vote, and those approaching voting age, to issue the relevant identity credentials. Non-governmental organizations such as the Red Cross are also increasingly moving away from doing head counts to relying on civil registration data to understand the size and characteristics of the population affected in times of disaster.

Following Cyclone Pam in 2015, different agencies produced numerous reports on the scale of the disaster, mainly the numbers of those affected and their location. Conflicting reports complicate disaster management efforts. Civil registration records have been found to be a reliable source of data in Vanuatu, especially in enabling governments (in particular, the National Disaster Management Office) to get an accurate assessment of the number of victims and their geographical location for appropriate response.

The importance and uses of civil registration-based vital statistics in the context of disasters and emergencies

Civil registration records are considered crucial in supporting disaster management efforts. Vanuatu has also found it useful to triangulate them with other data sources to get the full picture of the magnitude and impact of the disaster and to design appropriate response and support mechanisms. In 2016, the Vanuatu National Statistics Office conducted a mini census in response to the disasters affecting the country, including Cyclone Pam and the El Niño drought that followed.

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11 Interview with Joemela Simeon, UNICEF Vanuatu.
13 Interview with Joemela Simeon, UNICEF Vanuatu.
In addition to providing the basic count of population and households, the census aimed to get information about households that were affected by the disasters. For example, the census collected information about households whose home was completely damaged and household members seeking shelter elsewhere by region; households that received disaster support by region; and the status of individuals in terms of having identity credentials (e.g., birth certificate, electoral card, or national ID card) and a bank and Provident Fund account, all of which are important in getting support after a disaster.

These data, along with civil registration data, have been useful in facilitating follow-up support to individuals and households affected by the disasters. Disaggregated data/statistics have been crucial in giving the government a better understanding of the impact of the disasters and in mitigating or eliminating potential inequalities arising from disaster impacts, such as among historically disadvantaged groups. In Vanuatu, these initiatives have shed a light on the status of having identity credentials and have made it possible to create mechanisms for issuing such credentials for populations that do not have them.

THE IMPACT OF DISASTERS AND EMERGENCIES ON CIVIL REGISTRATION OFFICES AND SERVICES AND POTENTIAL MITIGATION MEASURES

As the COVID-19 pandemic has shown, natural and other disasters and emergencies pose great risks to the performance of civil registration systems: these disasters could have both short-term and long-term impacts on civil registration operations and on the availability and quality of vital statistics. In Vanuatu, past disasters have negatively impacted the performance of the civil registration system in various ways:

- Disasters have personally affected the staff who work in civil registration offices whose homes are destroyed. These staff members are unable to report to work, which affects the delivery of civil registration services. The government has addressed this situation by deploying staff from unaffected regions to temporarily replace those working in affected regions. This makes it possible for the Civil Registration Office to resume operations while giving local staff time to recover.

- A common phenomenon during and after disasters in Vanuatu is the loss and destruction of people’s civil registration documents. In some cases, civil registration offices and infrastructure have been destroyed. For example, in 2015, following Cyclone Pam, the civil registration office in Tafea (in the Southern province) was damaged. Computers used for registration were also damaged. Power cuts affected operations. Also, paper documents and some printed certificates were destroyed.14
Vanuatu has also begun a number of birth registration catch-up campaigns, including following Cyclone Pam, where deliberate efforts have been made to reissue lost or damaged birth certificates and to facilitate the registration of births for adults. During these campaigns, the birth registration database (which can operate offline) is downloaded onto laptops, which are transported to the remote islands and used for registration. The records are resynced with the global database upon return. During the campaigns, the civil registration office enlists support from volunteers such as teachers and youth, who are trained on how to collate information from individuals and to complete registration forms.

**DISASTER MITIGATION STRATEGIES AND SOME RECOMMENDATIONS**

Like Vanuatu, a few other countries in the Pacific, such as Nauru and the Federated States of Micronesia, have experienced disasters, including fires, that have damaged important records and data. Disaster risk planning can make civil registration systems much more resilient to disasters. According to a workshop of Pacific civil registrars held in October 2017, except for a few countries such as the Commonwealth of the Northern Mariana Islands (CNMI) and Australia, many countries have not added disaster planning to their civil registration plans, and they lack clear guidance on how to mitigate impacts or manage civil registration procedures when disaster hits. Some good practices can be observed in countries such as Australia, Vanuatu, and New Zealand, countries that have business continuity plans that have come in handy in supporting the government’s response to the COVID-19 crisis.
One of the key disaster mitigation measures that Vanuatu has strongly benefited from over the years is the centralized structure of its civil registration database. This structure ensures that the database can be accessed from all locations of the country and that civil registration records are universally backed up (available online) and accessible (can be issued from different geographical points). This means that even if one region is affected by a disaster and its equipment is destroyed, all records of that region are secure and can be accessed from alternative devices.

Senior staff of the Civil Registration Office of Vanuatu who have managed civil registration operations in times of disaster have gathered important practical experience on how to respond when a disaster strikes and how to adequately plan to mitigate the impact of disasters. During the writing of this paper, it was recognized that it is important to document this knowledge, including for the benefit of other countries.

Here are some of the recommendations shared by UNICEF staff members who have supported Vanuatu during times of disaster:

1. **Have a backup plan for CRVS system operations.** Set up alternative, well-equipped offices to ensure operational continuity of the CRVS system in case the disaster affects the central office. Distribute resources into developing multiple civil registration service points and avoid putting all your eggs in one basket.

2. **Ensure that all civil registration records are well backed up** (especially if these are stored electronically) and establish ways for securing the backup.

3. **Have a disaster management plan.** This plan should include guidance on how to manage staff members, who are also likely to be affected by disasters. In Vanuatu, during past disasters, the Civil Registration Office organized staff rotations, where staff living in unaffected areas move temporarily to replace those in the affected areas until the situation has stabilized and the affected staff can return to work. These staff rotation arrangements are done in close consultation with staff and are not organized until it is confirmed that the staff seeking to provide support are in a good position to do so.

4. **Establish good relationships with development partners working in the CRVS area and other stakeholders,** such as organizations that traditionally provide the Civil Registration Office with office supplies. Such relationships could come in handy in supporting the Civil Registration Office so it can resume operations faster and to mitigate the impact of disasters. For Vanuatu, the support provided by UNICEF after a disaster helped the Civil Registration Office to mitigate and manage the impact of disasters and to resume operations as quickly as possible.

All of the above recommendations have been included in the Vanuatu Civil Registration Business Continuity Plan (BCP), an initiative led by the Vanuatu government to ensure that government offices can identify essential services in the event of a disaster. The plan makes it possible to identify services, resources required, and mode of delivery, taking into account the type of disaster and the infrastructure available. For example, in the event of community transmission for COVID-19 cases, the work-from-home concept will be activated, which will enable access to the civil registration database via the e-government network and will allow electronic certificates to be issued.
CONCLUSION

Disasters are likely to remain an important development concern in the coming decades for Vanuatu, other countries in the Pacific, and globally. Vanuatu’s experience shows that it is important for countries to create disaster management plans and mitigation strategies: these strategies must be well documented and shared with stakeholders. As shown in this paper, civil registration records and data are critical resources for supporting governments and individuals during times of disaster. As such, governments should seek to make the best use of civil registration documents and to ensure that if they are lost or destroyed, they are reissued as soon as possible after a disaster so that members of the public can prove their identity during such critical times.

On the other hand, CRVS systems are dismally affected during times of disasters, as shown by the ongoing COVID-19 pandemic as well as specific examples provided in this case study. The importance of disaster preparedness and planning within national CRVS action plans cannot be overemphasized: this includes ensuring that CRVS records are well backed up (preferably electronically and online). A robust electronic platform for registration has proven particularly helpful in supporting Vanuatu in resuming the provision of civil registration services during and after disasters.

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