PCRN
Pacific Civil Registrars Network

Report of the Pacific Civil Registrars Network

Disaster Preparation and Response Workshop

Suva, Fiji, 2-4 October 2017

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Contents

Acknowledgements

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The report was written by Tanja Sejersen (ESCAP) with the assistance of Jefferey Mitchell (ESCAP) and inputs from organisers and participants at the workshop.

Introduction

The Pacific Civil Registrars Network (PCRN) was created in 2014. Our vison is that by 2024 the Civil Registrars across the Pacific will work together in ways that are flexible to local needs, with a shared approach to legislative change, enabling technology and data exchange. We provide an opportunity to share information, lessons learned and good practice. This fosters coordination and integration of Civil Registrars' input and ideas into the implementation of the Pacific Vital Statistics Action Plan and Asia Pacific Regional Action Framework for Civil Registration and Vital Statistics. One focus is the impact for civil registration during times of natural disaster.

Pacific Island countries and territories (PICTs) are disproportionately prone to weather related disasters. The severity and frequency of these disasters is expected to worsen with the growing effects of climate change. Direct and indirect costs associated with disasters in the region in the recent past have not been explicitly quantified; it is however evident that the weather disasters in the region, and particularly water-related disasters, have contributed towards the loss of lives and are a significant contributor to poor livelihoods. Weather disasters continue to pose a real risk to economic and social development in the Pacific, making it critical to ensure that existing disaster preparedness and disaster management frameworks for the region are as elaborate and exhaustive as they can be.

The Sendai Framework for Disaster Risk Reduction 2015-2030, as well as the recently endorsed 2030 sustainable development agenda, provides ideal platforms and context to assess and reinforce national capacities on disaster mitigation and management. Goal 11 of the sustainable development goals specifically underlines the need to mitigate deaths and reduce the number of people affected by disasters, with a focus on protecting the poor and people in vulnerable situations. Goal 11(a) of the agenda further calls on countries to adopt and implement integrated policies and plans towards mitigation and adaptation to climate change, in line with the Sendai Disaster Risk Reduction Framework.

Over the past ten years, governments in the Pacific have significantly increased investments and strengthened their national capacities to prepare, mitigate, and manage weather disasters. It is however worth noting that not enough has been done to: (1) explore the role that civil registration and vital statistics systems can play in supporting such mitigation and disaster management efforts; and (2) explore what can be done to ensure that registration operations continue during disaster situations, including ensuring that civil registration systems and data are adequately shielded from the effects of disasters. The latter point is critical as vital events will still need to be registered following disasters, particularly with regards to death registration.

Civil registration records play a crucial role in ensuring that all individuals within the boundaries of a country have a legal identity which includes their usual place of residence. Such records are critical in enabling governments to reach out and locate individuals and families that may need specialised attention during and after disaster, including supporting re-unification of families in cases of separation. Weather disasters are often accompanied by severe deterioration of health, sanitary and general living conditions and hence require an immediate and accurately targeted response. Babies that are born during such unstable situations are less likely to survive and require close monitoring. Cause of death information during disasters is also vital in addressing and mitigating the spread of infectious diseases. In general, registering births and deaths during times of disaster is essential in keeping the government aware of new needs within the population, and in guiding the crafting of specialised care and support as needed.

At present, few countries in the Pacific have put in place a strategy or plan to manage civil registration during and post-disaster, including how to effectively use civil registration data to aid disaster management operations. This is despite the fact, that it is widely documented that registration operations can be significantly disrupted, such as in Vanuatu during Cyclone Pam, or in Nauru after civil registration data was lost to fire. There is great need for resilient civil registration systems that not only withstand the effects of a disaster, but that can effectively be used by governments to manage and mitigate disasters. Building disaster resilient civil registration systems requires, among other things: a disaster responsive civil registration legislative and policy framework; infrastructure investments (including physical registration facilities and IT infrastructure); establishing the right organisational, management and coordination frameworks; and building the right level of knowledge and awareness with the public as well as with civil registration functionaries.

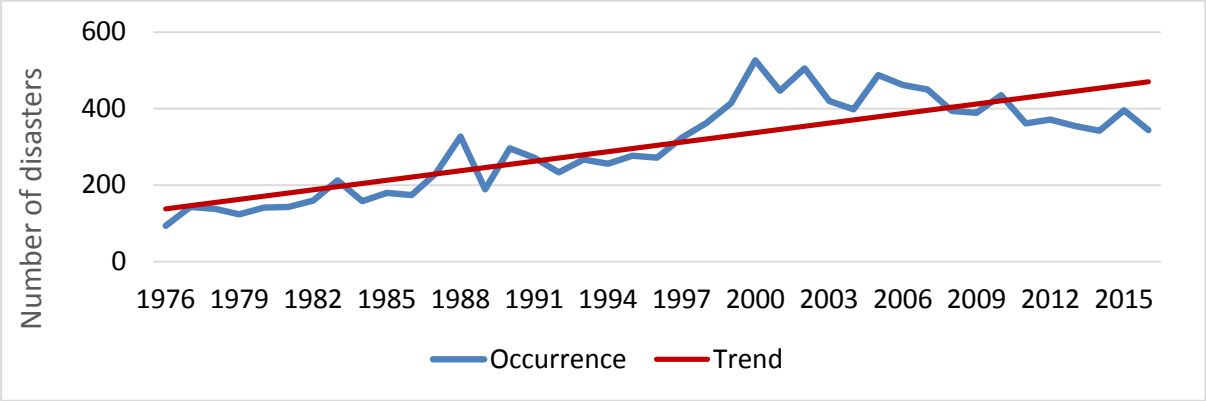
The Pacific Civil Registrars Network (PCRN) Strategic Plan 2015–2026 names “Strengthening Regional CRVS Disaster Planning and Response” as its priority for 2017. With the support of the Brisbane Accord Group (BAG), PCRN hosted a regional meeting from 2-4 October 2017 in Suva, Fiji to discuss this topic and share experiences from recent disasters such as Cyclones Pam and Winston. The meeting brought 15 pacific nations and a range of public and private agencies together to discuss how Civil Registration and Vital Statistics (CRVS) systems can assist with disaster recovery and data management within their nations and how they can be better prepared to face disasters. This report outlines the key discussions during the meeting as well as the recommendations and action points agreed by the participants.

Disaster Preparation and Response

Pacific Island countries and territories (PICTs) are disproportionately prone to weather related hazards and disasters. The number of hazards is increasing, as is their unpredictability. It is important to note that a hazard does not have to be a disaster[1], although hazards are more frequently turning in to disasters. The severity and frequency of these hazards and disasters are expected to worsen with the growing effects of climate change.

As can be seen in Figure 1, the number of disasters in Asia and the Pacific has been growing rapidly in the last 40 years and there is a clear upward trend in disaster occurrences. This is due in part to climate change, which impacts the severity of floods, storms, cyclones, hurricanes, etc.

Figure 1: Disaster occurrence in Asia and the Pacific (Source: EM-DAT)

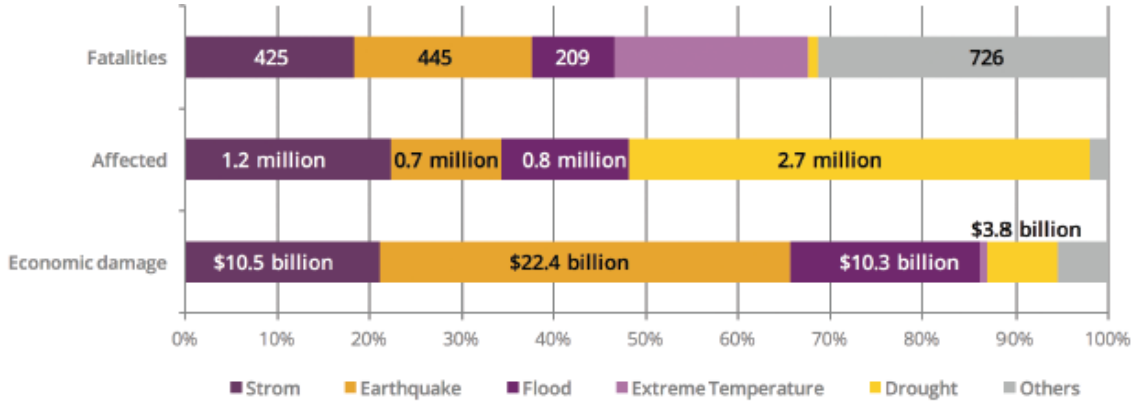


It is therefore no surprise that disaster risk reduction is mentioned in targets across the 17 goals of the 2030 Agenda for Sustainable Development.[2] The good news on this front is that disasters are claiming fewer deaths due to early warning systems, better awareness, better evacuations, and increased preparedness and informed actions before, during and after disasters. The focus should be on proactive preparation, rather than only reacting to the actual disaster. While there are fewer deaths as a result of disasters, the increased interconnectedness of the global economy means that disasters in one location can have wide ranging global impacts, such as disrupting supply chains. Overall the costs of disasters come in many forms, including those affected by the disaster, fatalities incurred, and economic damage, as can be seen in Figure 2.

[1] A hazard is a danger or a risk, while a disaster is a sudden event, such as an accident or a natural catastrophe, that causes great damage or loss of life.

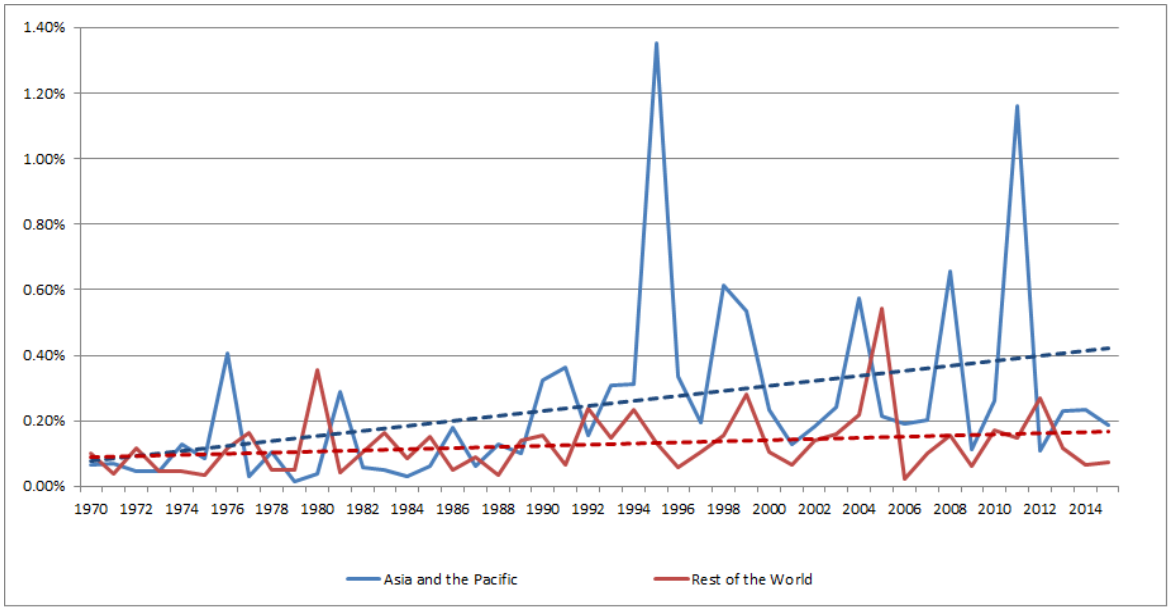
[2] United Nations (2015). United Nations Sustainable development goals
http://www.un.org/sustainabledevelopment/sustainable-development-goals/

Figure 2: Direct impacts in the Pacific 2000-2016[3]



In addition to the increasing numbers of disasters, the costs of disasters are also on the rise. This is particularly the case in Asia and the Pacific (Figure 3).

Figure 3: Estimated damage of disasters (in percentage of GDP)[4]



The increased awareness of the need for focusing on disaster risk reduction and preparedness led to the UN General Assembly endorsement of the Sendai Framework for Disaster Risk Reduction 2015-2030.[5] The framework recognises that States have the primary role in reducing disaster risk but that responsibility should be shared with other stakeholders including local government and the private sector. The framework's aim is to reduce the risk of disasters from affecting the economic, physical, social, cultural, and environmental assets of persons, businesses, communities, and countries.

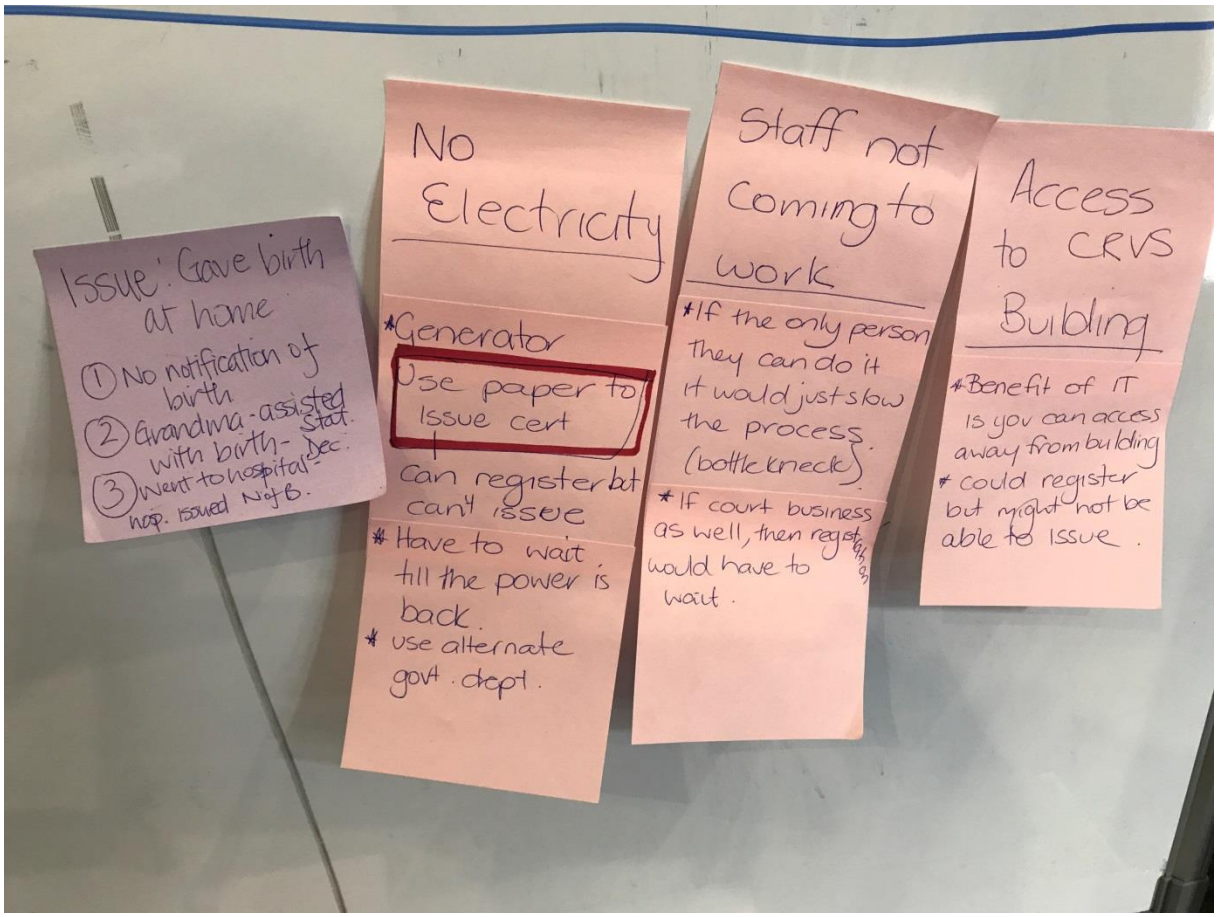
[3] UNESCAP: Disaster Resilience for Sustainable Development Asia-Pacific Disaster Report 2017, pg 19

[4] UNESCAP: Disaster Resilience for Sustainable Development Asia-Pacific Disaster Report 2017

[5] United Nations. The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework) http://www.unisdr.org/we/coordinate/sendai-framework

It is essential that risk management is an ongoing effort, imbedded in overall development issues and how we make economic decisions. Sound preparations for disasters are not a financial burden; in fact preparation can save money in the long run.

To improve the quality of statistics related to disasters, the Asia Pacific Expert Group on Disaster Related Statistics is currently developing a framework on disaster related statistics based on the Sendai Framework for Disaster Risk Reduction.[6] The approach of the Expert Group is to study and review methodologies for currently available data in order to develop a statistical framework which will contribute to the improvement of statistical quality while still being compatible with current national statistical systems. The Expert Group does not aim to create new concepts regarding disaster observation and risk management, but instead builds upon commonly accepted definitions as it strives to improve the quality of the underlying statistics. Through this approach, it will be possible to produce and analyse internationally comparable statistics based on the existing data in countries. The Expert Group's statistical framework can also be used as a tool to help to bridge the domains of disaster and risk management information on the one hand with socio-economic statistics on the other.



[6] http://communities.unescap.org/asia-pacific-expert-group-disaster-related-statistics

Civil Registration and Vital Statistics

Effective Civil Registration and Vital Statistics (CRVS) systems secure a person's legal identity and track major events of an individual's life such as birth, adoption, marriage, divorce, and death including cause of death. Civil Registration systems are poorly developed and poorly resourced in many Pacific countries. Due to the high level of migration within the region, sub-optimal systems have spill over effects on other systems in the region.

The improvement of CRVS in the Pacific is an integrated and important part of the 2030 agenda for sustainable development. Countries in the region have committed to improving CRVS systems through the Ministerial Declaration to 'Get Every One in the Picture' including the declaration of the CRVS Decade (2015-2024) and the Regional Action Framework. (ESCAP/RES/71/14 refers). The CRVS Decade seeks to realize the shared vision that, by 2024, all people in the region will benefit from universal and responsive civil registration and vital statistics systems that facilitate the realisation of their rights and support good governance, health, and development. Collaboration in sub-regions, such as the Pacific, is encouraged. New Zealand, Australia and all Pacific countries are party to this Ministerial Declaration which is supported by the efforts of the Pacific Civil Registrars Network.

Why is CRVS relevant to disaster risk reduction and preparedness?

A critical part of disaster risk management is managing the flow of information. Getting the right information to the right people at the right time saves lives and reduces losses, while also strengthening people's resilience to disasters. Some Asia-Pacific countries now have state-of-the-art disaster information management systems, but others have major gaps in data and analysis (Disasters without Borders, UNESCAP 2015). Well-functioning CRVS systems offer great potential to provide timely and accurate population data, which is one of the critical elements of disaster response strategies. Without accurate data and information, disaster response or disaster risk reduction programmes cannot be developed.

Civil registration and vital statistics (CRVS) systems have two major outputs: (1) a legal record of a birth, death or other vital event – the basis of a legal identity; and (2) the production of vital statistics concerning (amongst other things) the population, births and deaths. As such, CRVS systems provide important information at both the planning and recovery stages of a natural disaster.[7]

[7] Brisbane Accord Group: Pacific CRVS notes: CRVS and natural disasters, 2017, available from www.pacific-crvs.org

How CRVS data is used to plan and respond to Natural Disasters

Phase:	Planning	During/Recovery
Individual records	Access to services such as insurance	▪ Proof of identity to access government support programs (i.e. building loans/ support payments etc.) ▪ Proof of identity to re-establish ownership and property rights when returning home ▪ Re-unification of separated family, particularly children. ▪ Providing official records for deaths that have occurred as a result of the disaster
Vital statistics	Identification on population at risk and their characteristics	Monitoring the mortality impact of the disaster. Population data for provision of support and services. Examples include: ▪ Calculation of number of vaccine doses needed for affected population ▪ Estimates of emergency housing needs ▪ Budget planning for social welfare payments

Vital events in disasters

CRVS systems need to be resilient enough to not only continue functioning, but to expand their operations during a disaster. Deaths, both those due to the disaster and those from other causes, must be monitored. Children born at this time may be particularly vulnerable due to the disruption of services and displacement. It is therefore critical that new births are formally recognised and the children are registered as quickly as possible to ensure adequate provisions for support. CRVS systems must also be able to replace damaged or lost vital documents which are necessary to reduce the risk of exploitation.

Civil Registration and Vital Statistics in Asia and the Pacific

At the 2014 Ministerial Conference on Civil Registration and Vital Statistics (CRVS) in Asia and the Pacific, Governments adopted the Ministerial Declaration to 'Get Every One in the Picture' and proclaimed the 'Asian and Pacific CRVS Decade'. The Ministerial Declaration outlines the commitment of governments to achieve the shared vision that, by 2024, all people in Asia and the Pacific will benefit from universal and responsive civil registration and vital statistics systems that facilitate the realization of their rights and support good governance, health, and development, and lays out the following goals:

(a) Goal 1: Universal civil registration of births, deaths and other vital events;
(b) Goal 2: All individuals are provided with legal documentation of civil registration of births, deaths and other vital events, as necessary, in order to claim identity, civil status and ensuing rights;
(c) Goal 3: Accurate, complete and timely vital statistics (including on causes of death), based on registration records, are produced and disseminated.

In addition to the three goals, Governments committed to the implementation of the Regional Action Framework for Civil Registration and Vital Statistics in Asia and the Pacific composed of 15 nationally set targets, a set of principles, and eight implementation steps for countries to complete. The Regional Action Framework reflects the urgent need to improve CRVS systems in Asia and the Pacific.

Three years after the Ministerial Conference, the Regional Steering Group on CRVS in Asia and the Pacific – comprised of 22 member states and 8 development partners who are responsible for guiding the implementation of the Regional Action Framework – has noted significant but mixed progress among the countries in the Asia-Pacific region.

At least 26 countries in Asia and the Pacific have established national CRVS coordination mechanisms, with more countries planning to do so over the coming year. Countries who have not established coordination mechanisms generally fall into two categories: either the system is well established and it is perceived that an additional formal coordination mechanism is not needed, or the work on improving the CRVS system has just started. In some countries, coordination mechanisms are currently being established, often with support from development partners.

At least 16 countries in Asia and the Pacific have developed national CRVS strategies, with more countries planning to do so over the coming year. Countries who have not established national CRVS strategies generally fall into these categories:

1. The national CRVS system is well-established and therefore it is perceived that a comprehensive strategy is not needed
2. A national strategy is being developed or is currently under revision or awaiting political endorsement
3. There are significant impediments preventing the formalization of national strategies such as a lack of collaboration and awareness among relevant ministries
4. Work on improving the CRVS system has just started

The development of national strategies in some countries is currently receiving support from development partners.

In 2015/2016, 37 countries in Asia and the Pacific submitted their baselines for the CRVS Decade. The baseline reports analysed the status of countries' CRVS systems against the 15 targets they set under the Regional Action Framework. Countries also highlighted which of these targets they had already achieved and which would demand substantial work, support, and resources to be achieved. Setting the national targets was often a cumbersome process demanding high level endorsement within governments.

Most births in the region are registered, but there are still millions of children and adults who have not had their birth registered. Most countries have set ambitious targets for improving birth registration during the CRVS Decade. However assessing the baseline rate of completeness of birth registration was difficult for many countries, highlighting the challenge of measuring and tracking progress towards the goal of providing a legal identity for all.

Death registration is particularly challenging and many countries will not be able to achieve universal death registration within the CRVS Decade. Only 11 of the 37 reporting countries have set targets of 100% completeness for death registration and cause of death certification. Several baseline reports also highlighted that causes of death are not currently routinely recorded. Improvements in providing certification of cause of death are needed in many countries in the region.

The region shows wide variation in the production of vital statistics based on registration records: some countries are already disseminating timely and accessible statistics on births, deaths, and causes of deaths, while others aim to do this by the end of the CRVS decade. The use of registration records as the main source for statistics on causes of death is a challenge for several countries which still primarily rely on household surveys. This results in less timely data and difficulties in analysing patterns for specific population subgroups or geographical areas.

A wide network of partners in Asia and the Pacific are engaged in improving CRVS systems across the region. These development partners work together to support countries in their implementation of the Regional Action Framework and meet regularly to facilitate coordination and alignment of activities. In addition to the regional partnership of organizations working on CRVS, several sub-regional initiatives also support CRVS improvement activities in different subsets of countries in Asia and the Pacific. In the Pacific the implementation of the Regional Action Framework and CRVS improvements more generally are supported by the Brisbane Accord Group and the Pacific Civil Registrars Network.

The Pacific Civil Registrars Network

Established in 2014[8], the core membership of the Pacific Civil Registrars Network is composed of all Civil Registrars with State or Country level responsibility for civil registration or vital statistics, or their respective nominees. Members are from 22 countries and 14 states across the Pacific. Associate membership has also been extended to 21 relevant partner agencies and business, including key UN organisations.

PCRN gives all the nations in the Pacific (including Australia and New Zealand) an opportunity to meet and discuss the goals set by the countries as part of the CRVS Decade.

In the event of a natural disaster, all records are at risk of being destroyed. This means that emergency response groups will not have a clear picture of how many nationals have been displaced. Data held on a single computer or hard drive could be wiped out by a single but significant event. Risks faced by small Pacific nations are numerous and include cyclones, fires, volcanic eruptions, earthquakes, landslides, tsunamis, and rising sea levels due to the melting polar ice caps. This is why the Pacific Civil Registrars Network Strategic Plan 2015-2026[9] named "Strengthening Regional CRVS Disaster Planning and Response" as its priority for 2017.

Benefits to disaster recovery agencies

The work that the PCRN are currently involved in includes creating a robust and 'safe' registration process for 18 Pacific nations. This includes assisting them with creating a new way of recording registrations, such as through electronic registrations like New Zealand's SmartStart, or recording and saving registration data into a secure 'cloud' platform. This will benefit agencies after a disaster by providing relevant statistics for the affected villages such as how many people may have been living there at the time of the event.

National disaster management agencies rely on multiple sources of information on where people live. This includes registration data/population registers, census data, other surveys, and other administrative data. It is important to strengthen existing systems instead of creating new parallel systems. While accurate data is needed for planning responses and performing disaster risk analysis, collecting micro level data requires strict confidentiality measures and clear rules on who protects the data, who has access, and why and when access is granted.

The usual source of mortality estimates after a disaster occurs is the national disaster management agency. Often these numbers are refined over time and in some cases conflicting numbers are released. Clear information on who provides the official figures and how these numbers are verified is needed, and civil registrars and statistics authorities have an important responsibility to work together with national disaster management agencies during times of disaster.

[8] http://www.unescap.org/news/civil-registrars-spearhead-efforts-achieve-universal-civil-registration-asia-pacific

[9] http://getinthepicture.org/resource/pacific-civil-registrars-network-2015-2026-strategic-plan-poster

The Brisbane Accord Group

As no one single agency is responsible for civil registration and vital statistics (CRVS) in the Pacific region, the Brisbane Accord Group (BAG) was established in 2010 to coordinate, facilitate, and support investments in the region through collaborative activities.

Members of BAG currently include the Secretariat of the Pacific Community (SPC), the World Health Organisation (WHO), UNICEF, UNFPA, the Australian Bureau of Statistics (ABS), the Pacific Health Information network (PHIN), the University of Queensland (UQ), Queensland University of Technology (QUT), University of New South Wales (UNSW), the Economic and Social Commission for Asia and the Pacific (ESCAP), the Pacific Civil Registrars Network (PCRN) and Fiji National University (FNU).

The Pacific Vital Statistics Action Plan (PVSAP) 2011–2014 was developed by BAG partners to improve vital statistics in the Pacific region and improve coordination between development partners. The plan has been endorsed by the Heads of Planning and Statistics and the Pacific Ministers of Health, and sits under the Ten Year Pacific Statistics Strategy, 2011–2020, to ensure CRVS is fully incorporated into regional statistical priorities.

The basic premise of the PVSAP is to work with countries to assess their collection and reporting systems for births, deaths, and causes of death, and develop a country-specific improvement plan. Partner agencies are then able to focus their support in a coordinated manner to meet countries' needs.

Participants and objectives of the workshop

From 2-4 October, 15 Pacific nations arrived in Fiji to share updates about CRVS improvement efforts and discuss the needs of their countries, and collaborate with private sector and United Nations agencies.

Each country was represented by its lead civil registration official. While some countries were not able to attend, others sent an extra participant. Appendix A contains the full list of participants.

Organisations involved

The Pacific Civil Registrars Network partnered with key agencies in the Pacific with an interest in civil registration and developing a regional approach to disaster planning and response. This included SPC, UNHCR, UNESCAP, UNICEF, WHO, UNISDR, World Bank Group and Plan International. The NZ High Commissioner also participated in parts of the meeting, as did several companies including: Object Consulting, De la Rue, Axiell, and FamilySearch International.

The workshop consisted of a combination of presentations, panel discussions, group work and country planning sessions, and social networking events.

Objectives of the workshop

The overall aim of the workshop was to contribute to:

- improving interaction between Pacific island countries and institutions (by taking a regional approach to disaster planning and response)
- assisting Pacific Island countries to implement international agreements (such as ESCAP's Ministerial Declaration on CRVS and the Sendai Framework)
- capacity building for sustainable institutional development leading to improved decision-making processes (specifically with regards to disaster planning and response)

The focus of this event aligns with the New Zealand Aid Programme's investment priority to "Improve the preparedness of Pacific and ASEAN partners to manage and recover from disasters". More specifically the workshop objectives were to:

- strengthen critical infrastructure to reduce the risk of disruption to basic services including health, education, and public utilities
- support a seamless and timely transition from disaster response to recovery to minimise long-term impacts

Key challenges faced by countries in the Pacific related to CRVS and disasters

The first day of the workshop included presentations from countries on their existing CRVS challenges, current CRVS coordination efforts, data sharing and protection set up, as well as the potential of their CRVS systems to support and respond to disasters. Presentations were given by 15 counties or states. Participants had been given a template in advance of the meeting, which meant that similar issues were covered in all presentations. The key issues outlined in presentations included improving registration completeness, national coordination, data storage and protection, disaster preparedness and a set of other challenges. Key points are covered below, with information relating to American Samoa being drawn from their presentation as they were not physically at the event.

Birth and Death Registration completeness

One of the key challenges faced by all countries in the Pacific is ensuring universal registration of births and deaths, i.e. that all births and deaths are registered. An overview of the current situation as reported by countries during the workshop can be seen in Figure 1.

Figure 1: Registration completeness and the Regional Action Framework[10]

	1.A Birth registration of children within one year of birth	1.B Birth registration of children under 5	1.C Birth registration of the entire population	1.D Death registration	1.E Deaths recorded by the health sector with medically certified causes of death	2.A Per cent of registered births accompanied with birth certificate
American Samoa	100%		99.90%	100%	100%	100%
Cook Islands	100%		100%	100%	100%	100% [A]
Fiji	62.16%		70.76%	91.63%	100%	<100%
Kiribati	90.80%		87%	75%	75%	100%
Northern Mariana Isl.	98%		100%	100%	100%	[B]
Nauru	90%		70%	95% [C]	97%	<100%
Niue	100% [D]		100%	100% [E]	100%	100%
NSW, Australia	94.40%		99%	100%	80% [F]	[G]
New Zealand	97.70%			99.90%	89.60%	[H]
Pohnpei, FSM	85-90%		85%	75-80%	90%	<100%
Samoa	65%	75%	85%	88%	70%	100%

[10] An overview of all targets of the Regional Action Framework on CRVS in Asia and the Pacific can be found in Appendix C

Solomon Islands	42%		28%	12%	50%	<100% [I]
Tokelau	100%		80% [J]	100%	100%	<100% [K]
Tonga	96%			58%	100%	100%
Tuvalu	100%		85%	100%	85%	<100%
YAP, FSM	65%		60%	70%	100%	<100%

[A] Registration is free, certificates cost money
[B] Parents may request certified copies when needed
[C] Does not include non-citizens
[D] Parents are given a monetary allowance, but only if their children are registered. This encourages high registration rates
[E] Burials are only permitted with death certificate
[F] The other 20% of CoD is supplied by a coroner
[G] Certificates can be purchased at a cost of $56
[H] By request only
[I] Certificates are provided for all new births except at the National Referral Hospital in Honiara where parents are encouraged to collect their child's certificate at the CR office
[J] Tokelau wrote a "?" next to this figure
[K] Not provided for all births - usually upon request for a NZ passport

CRVS Coordination Mechanisms

The establishment of national multi-sectoral CRVS coordination mechanisms has been identified as one of the central activities which can support improvements to CRVS systems. Therefore, this is included as an implementation step of the Regional Action Framework on CRVS in Asia and the Pacific and the Brisbane Accord Group has given substantial support in recent years for countries to establish these mechanisms.

During the workshop, six Pacific countries reported that they have established formalised CRVS coordination mechanisms. For example, New Zealand has a national coordination mechanism which meets three times a year. A few others have also implemented “informal” or “ad-hoc” committees to promote coordination in their countries. Other countries did not report having a committee, but did mention that information sharing networks exist between agencies, or that different departments have joint CRVS implementation responsibilities.

The stakeholders involved in these committees vary between countries, but usually is composed of at least the Civil Registration Office, the National Statistics Office and the Ministry of Health. Some countries have significantly more members than these basic institutions. For example, the National CRVS Committee of Tonga is composed of the Ministry of Health, the Ministry of Justice, the Statistics Department, the Ministry of Internal Affairs, the Ministry of Finance, the Ministry of Education, the Ministry of Police, the Elections Office, the National ID Office, and the courts. Some countries also have the national ICT office on their committees to help coordinate digitization (such as in the Solomon Islands and Fiji). The Solomon Islands also gives development partners a seat on its national coordination mechanism.

Several countries highlighted the need for establishing formal systems and plans on what to do in times of disaster. It was mentioned that informal systems and coordination works well – until things go wrong. Disaster response and planning highlights the need for an agreed multisectoral CRVS plan and coordination with other agencies including disaster management authorities. There was consensus that resilience is built through a multi-sectoral approach. A multi-sectoral approach also helps achieve greater system impact for the scale of investment made.

Data Storage and Protection Challenges

Most countries reported having a mix of paper and electronic CRVS records. Full digitization (such as in New South Wales, Australia and New Zealand) is rare, with most countries still in the process of converting their current and especially historical records into an electronic format. For example, Fiji is currently developing a new app that will allow it to increase the speed at which documents can be digitized. Nauru has a new electronic database, but internet connectivity issues mean that uploads can sometimes take over an hour. Of the countries which do have at least some electronic records, most perform a back-up of their systems daily. Some countries perform less frequent back-ups, including Tonga which performs a weekly back-up, American Samoa which only performs a back-up once every 6-12 months, and Pohnpei, FSM which has only backed-up its system once in 2009. Others back-up constantly, such as the Solomon Islands which backs-up its data once every 4 hours and New South Wales which backs-up in real-time. Power outages may cause problems when trying to back-up data.

Some Pacific countries maintain an off-site back-up in case a disaster affects their main facility, including the Northern Mariana Islands, the Solomon Islands, Tonga, New Zealand and Yap, FSM. In the case of Tonga this back-up is especially important as it is the second most vulnerable Pacific country to earthquakes and cyclones (Vanuatu being the highest). New Zealand has not one but several data storage sites. Many other countries do not have a back-up site, but may have an external hard-drive or online storage system instead. Some countries have a significant proportion of their records not backed-up or duplicated; meaning in the event of a disaster such records could be permanently destroyed. In the case of Niue no records are backed-up, making the country particularly vulnerable to a natural disaster.

Another challenge facing some countries is the distribution of records across multiple sites and difficulties in consolidating records into a single location. In Pohnpei, FSM for example, original birth and death certificates are stored in Pohnpei State Hospital, while original marriage certificates are stored at the court. In other countries records are distributed across different sub-registries located in different islands. This can cause delays in replacing lost or damaged records.

While there was a lot of discussion on improving IT databases and backups, it was also highlighted that these important tools to support resilience need to be appropriate to the underlying structure of the CRVS system.

Other major challenges

The number one challenge reported by countries was improving information sharing, with 7 agencies mentioning this in their presentations. This includes timely transfer of information between the regional and central registration offices, as well as improved links between different departments. Several countries including American Samoa, Kiribati, and Samoa specifically identified the need to improve information sharing between the civil registration and health agencies to improve registration completeness. Tonga is also working on setting up an e-Government service across departments (with assistance from the World Bank), while Nauru hopes to improve linkages between data in the CR system and the Electoral Commission, education system, passport agency and various other government departments. Niue further stressed the need to consolidate records across agencies in one system with different levels of access, instead of having separate silo systems. Two countries highlighted the need for better coordination among government departments, especially in order to prepare for disasters. For example, in Samoa although birth certificates are technically required for enrolment in school, the Ministry of Education often allows students to enrol without one (by accepting a baptism certificate instead). Better coordination with the Ministry of Education could therefore improve registration completeness.

Another major challenge identified by participants was legislative reform, with five agencies identifying this as a priority. Concerns centre around clarifying tasks and organizational structures as well as delineating responsibilities between different agencies. Nauru stated that it is currently engaged in a legal review while Yap, FSM has new legislation pending which will standardize the time needed to complete birth and death certificates.

Three countries each identified digitization and registration access as challenges. With regards to digitization, countries stressed the need to develop electronic back-ups in the event that paper records are lost or damaged. Niue and Yap, FSM also pointed out how digitization makes it easier to exchange information and collaborate across government departments. In terms of registration access, Fiji and Solomon Islands noted how geography and infrastructure can slow down registration, especially during disasters. Mobile registrations were suggested to help deal with these challenges, but finding resources for these initiatives can be an issue. Remote islands pose a particular challenge. Administrative complexities can also hinder registration. For example in Yap, FSM a court hearing with a judge present must be conducted to add a name to a birth certificate.

Other key challenges identified by representatives included:

- Upgrading IT systems
- Training doctors in medical certification
- Reviewing emergency plans
- Tracking deaths occurring outside hospitals/introducing verbal autopsy
- Creating back-up systems
- Extending services to citizens living abroad
- The physical locations and condition of registration offices and their vulnerability in disasters (e.g. if the office is close to the harbour)
- Introducing more checks and balances in the preparation of statistical reports and data releases to the public
- The threat of disasters posed by climate change
- A general lack of planning
- A lack of public awareness
- Protecting systems from IT attacks

Pacific CRVS systems in disasters

Several countries mentioned the difficulty of replacing lost records. This is especially challenging in countries where data is not fully backed-up such as Nauru and Pohnpei, FSM. Niue mentioned how information from other departments can be used to reconcile CRVS information, including school enrolment records, medical records, tax records and census data, and expressed the need to store such data in a centralized system. Samoa would look to its back-up files in order to rebuild lost records, while Yap, FSM would also turn to its off-site data storage unit first in order to see what needs to be replaced.

The Cook Islands stressed the need to perform an assessment of the situation and decide if any temporary registry offices are needed. Tuvalu would also attempt to add additional registration officers, as well as draw upon records from the e-storage database and exchange vital records with other countries on the Civil Registrar Network. In this regard, the need to balance access to registration after an emergency with ensuring that the evidence used is robust to avoid duplicates and faulty records was highlighted.

In American Samoa, the CRVS committee plays the key role in disaster response, with communication and transportation difficulties highlighted as a big challenge which the committee will have to overcome. Fiji also mentioned infrastructure problems during disasters, as well as funding challenges and convincing people of the need to re-register.

The Solomon Islands identified coordination challenges as a big issue during disasters, especially as information is stored in different locations requiring different authorizations.

The Northern Mariana Islands presented their disaster plan called the Incident Command System (ICS). Under the plan the Health and Vital Statistics Office is activated under the Operation branch and the Registrar is tasked with keeping the system functioning, collecting data in a secure manner, surveying morbidity and mortality, and recovering from the disaster.

Finally, Tokelau and Tonga shared their experiences in managing disaster responses. After Cyclone Evan damaged the registration records of 1/8th of the population in December of 2012, Tokelau conducted a damage assessment and forged links with other agencies in order to replace records. This included agreements with the Department of Health and NZ Passport. After Cyclone Ian struck Tonga in 2015, registration records were used to confirm the identities of land occupiers before rebuilding, showing the importance of CRVS in recovering after disasters. Tonga also highlighted the need to store duplicate records in a different location. In a previous tsunami in 2009 in Niuatoputapu, the sub-registry office was totally destroyed and duplicate records had not yet been forwarded to the central office. This meant that the affected population had to be registered again.

Case Study: Vanuatu (Cyclone Pam)

Vanuatu has 34 main inhabited islands and is home to 270 000 people with 70 per cent of the population living in rural areas. Cyclone Pam hit the northern part of the islands in March 2015 and was the first category 5 to hit the country. Past experiences and preparedness limited the death toll to 13 individuals but 188 000 people were affected and 65 000 people were displaced from their homes. Infrastructure was hard hit with disabled telecommunication lines, damages to properties and the environment, and 96 per cent of crops wiped out.

Vanuatu's Civil Registration Office responded by initially conducting a rapid assessment to determine the scope of damage to CR records. Over 500 people were then mobilized with help from the Gender & Protection Cluster as part of a broad awareness campaign disseminated over radio, TV, the mobile network and in-person. One particularly interesting part of this campaign was the South Pacific football cup, where registration officers created special ID cards for attendees. Three new civil registration officers were also recruited and new registration centres were set-up at hospitals and schools. In addition, registration officials were provided with laptops loaded with the registration database to facilitate mobile entry. 51 499 children and 123 658 adults had birth certificates re-issued and 25 919 children and 54 322 adults had birth certificates issued for the first time. A mini-census conducted in 2016 showed that 85% of the population now has a birth certificate.

While this recovery is impressive, certain challenges still remain. Although registration is compulsory, it is generally not enforced. Registration lists also contain several inconsistencies and duplicate entries. This is due in part to the lack of review applied to the information entered and communities trying to acquire more resources by adding non-existent people to the lists. Additional checking points have been added to the system to try and rectify this problem. Retaining staff is an issue as well, as is registration timeliness: only 50% of children less than one year old have a birth certificate. Mobile registration continues in certain areas, sometimes with youth going door-to-door to meet personally with residents. There has also been a drive to link the electoral roll with CRVS.

Case Study: Fiji (Cyclone Winston)

Located in a tropical cyclone belt, Fiji experiences frequent disasters with varying impact across the country. In February 2016 Fiji was struck by Tropical Cyclone Winston, the strongest cyclone on record in the Southern Hemisphere. 350 000 people, representing 40% of the population, were impacted by the storm. Winston caused widespread damage to housing, vegetation and infrastructure (including electrical and water systems) and the total losses amounted to around 10 per cent of GDP. Some registration offices were without power for 9 months, meaning that registrations needed to be performed manually. Infrastructure damage including broken bridges and jetties also made accessing remote islands especially difficult.

Replacing lost and damaged records after the disaster was critical, as documentation was needed by families to receive support or rebuild homes. In response Fiji enacted its disaster plan, which involves close coordination under the guidance of disaster management controllers. The plan also involves NGOs, civil society and development partners. UNICEF contributed $110 000 towards mobile registration equipment and a registration awareness campaign. Fiji's registration agency also quickly formed a data exchange agreement with the Ministry of Education by working through Permanent Secretaries. The agreement allowed the registration agency to access the Fiji education management information system (FEMIS). Students from around 200 schools were targeted for birth certificate replacement using information from FEMIS, with principals checking to ensure that the right children received the correct certificates. Most countries in the Pacific have similar education management information systems which could also serve this role during disasters.

How emergencies affect civil registration processes and populations

All types of emergencies will disrupt or destroy a civil registration system. The extent of the damage depends on the nature and scale of the emergency, and the strength of the existing system to cope with the shock. This will vary depending on the size of the affected population, the type of system (paper-based, online, offline), and the requirements outlined in the laws and policies that legitimise birth registration processes.

It is critical to effectively prepare for civil registration in emergencies (CRiE). During this session Plan International highlighted the need to identify bottlenecks and barriers of civil registration processes before and after an emergency, understand the people who emergencies affect, and use this analysis to inform the design of civil registration services for during and after an emergency, for all individuals, especially the most vulnerable.

User Centred Design

User-centred design — also referred to as *design thinking or human-centred design* — starts with getting to know the people you are designing for through conversation, observation and co-creation. Information gathered through this engagement leads to building, testing and redesigning tools until they effectively meet user needs. By designing with the users, and not for them, you can develop suitable CRiE services to better address the specific context, culture, behaviours and expectations of the people who will directly engage in and are responsible for these services. Designing together means partnering with users throughout the project lifecycle, co-creating solutions, and continuously gathering and incorporating users' feedback.

Why is this important for CRiE? It is important to develop services that reflect the needs of those who you serve, and reflect the capacity during or after an emergency.

1. Understand your service users and providers: how will they be affected by the emergency? What are their priorities? What can and can't they do? What do people need?
2. Identify individuals who will be increasingly vulnerable in an emergency e.g. single mothers, those with disabilities, and consider how to ensure that these individuals can access CRiE services.

Included below are a number of activities that countries can conduct in order to better prepare for and provide effective birth registration services during emergencies. The same principles can be used for other vital event registration.

Map & Assess Civil Registration Processes

In order to understand how a civil registration process may be affected by an emergency, it is important to map out the process and identify existing and potential bottlenecks and barriers.

> **Bottleneck:** something that slows down the process
>
> **Barriers:** something that prevents people from engaging in, or completing, the process.

Based on this analysis, you should consider alternative processes that will mitigate against bottlenecks and barriers that would likely exist during an emergency e.g.

- If distance is a barrier to registering a birth, how can you offer outreach services that take the services to affected populations?
- If a young single mother is deterred from registering a birth because of the social stigma, how can you effectively communicate to her that all children should be registered and that she does not need to explain the absence of a father on the birth certificate?
- If birth registration services are only available on one island, preventing people from travelling because transport has been disrupted by the emergency, how can you still provide the service?

Develop User Personas

User Personas are fictional characters created to represent different user types, the challenges they face and their desires for potential solutions. System design teams are better equipped to make empathetic design decisions for their solutions that are based off of the users' needs, motivations, and challenges.

When designing CRiE interventions, is it useful to develop personas to ensure that you (i) identify all individuals who need to interact with the civil registration system (customer and provider), (ii) understand their capacity, abilities, and priorities of these individuals; in order to develop services that reflect need and capacity.

Persona Name	What is the name of this person?
Persona Role	What role does this person play within the CRVS system?
About	What are their characteristics e.g. gender, age, education level, computer literacy, motivations, concerns, etc.?
Responsibilities	What is this person responsible for in terms of the CRVS system? What work do they do? What do they need to do it?
Challenges	What challenges does this person face with regards to their CRVS responsibilities? What problems do they face? What frustrations do they have? What limitations do they encounter?
Needs & Wants	What benefits would the user expect from this system?
Environment	Where does this person live/ work? What resources do they have? What limitations are there?

Using these personas, consider whether the services that you will offer during an emergency will serve these individuals/reflect their capacity. If not, how can you design services that will?

Identify Opportunities

In order to identify alternative modalities for civil registration during an emergency, it is important to understand what existing individuals, services and locations Mothers/caregivers usually engage with and whether they would be a suitable service or communication point for BRiE.

Draw a timeline (horizontal line), labelling the start point as "Baby is born" and the end point as "Baby is 6 months old". Ask mothers/parents/caregivers in the community questions in order to complete the timeline. Consider:

- Immediately after the baby is born what does the Mother do and where does she go?
- Who visits the Mother within the first few days/week after birth?
- Does the Mother need to register the child? If so, when and where?
- How does the Mother add the child to the family card (if available)?
- Does the Mother access any health services for either the child or herself e.g. Ante-natal care or immunisations? If so, where and how often within the first 6 months?
- Does the Mother initiate the child in a religious ceremony e.g. baptism? If so when and where?
- Does the Mother access any regular distribution (food/NFIs/vouchers/cash? If so, where and how often?
- Are any door-to-door services offered to the Mother and her baby? If so, what services, how frequently, and by whom?

The Birth Registration in Emergencies Toolkit

Every child has the right to birth registration, yet birth registration does not routinely feature in humanitarian action. Birth registration in emergencies (BRiE) encompasses interventions that promote and improve girls and boys access to continuous, permanent, and non-discriminatory birth registration services in humanitarian situations.

The https://www.brietoolkit.com/ is a step-by-step guide developed to support the analysis, design, and testing of birth registration interventions pre and post emergency. By using the toolkit you will plan, develop, and prove an effective BRiE model, at relatively low cost, in order to scale to all affected populations.

Plan International developed the toolkit in response to continued requests from Child Protection practitioners for practical resources to re-establish and/or strengthen birth registration services in the aftermath of an emergency. The toolkit has been designed primarily as a resource for field-based Child Protection practitioners.

Recognising that Civil Registration and Vital Statistics (CRVS) is a government mandated responsibility, the BRiE toolkit can also be used by responsible government agencies, and those humanitarian actors supporting them, to prepare and respond efficiently and effectively in humanitarian emergencies to ensure no child is left behind.

For guidance of how to conduct activities as described above, check out the BRiE Toolkit (https://www.brietoolkit.com/).

How disasters may affect registration data and systems

The collection of information on births and deaths is generally facilitated by some computerisation of records. In the Pacific Islands, these systems range from simple Excel spreadsheets updated by a single operator, to large commercial software platforms operating over multiple sites. Similarly, the level of infrastructure support varies greatly, affecting both the operability and sustainability of these systems. The primary CRVS IT infrastructure is generally a civil registry database, but may also include systems that support data sharing with the Health Department (HIS and medical certification records), the National Statistics Office, and other departments.[11]

Many CRVS systems in the Pacific work well in a normal setting, but are fragile when extra challenges occur. This includes fragility to natural disasters, political risks, as well as funding sustainability and personnel changes. One of the key discussions that kept emerging at the workshop was the vulnerability of the existing IT solutions in the countries. Some of these vulnerabilities have in the past resulted in a loss of records in disasters, difficulties in retrieving data from systems due to vendor lock-in, technological development or personnel changes, as well as privacy concerns.

Multiple CRVS IT systems in the Pacific are self-built, which limits their robustness and sustainability and makes them volatile to personnel changes. Some are only built to enter data, not necessarily to retrieve data (sometimes countries even have to pay extra fees to access their own data), which is necessary for using the registration systems for producing data for statistics. There is a strong desire amongst Pacific Civil Registrars to improve the IT systems used and increase interoperability with other government systems, including the health sector. This would be particularly useful in disasters to limit the burden on individuals of bringing documents to multiple offices. Civil registrars also recognise the growing focus on establishing national ID systems and ensuring CRVS systems are being incorporated and aligned with these discussions to avoid overlaps and parallel systems. Establishing unique identities through ID systems is a valuable tool to improve service delivery, but identity systems should start at birth, which means birth registration should be the starting point to avoid separate systems.

Presentations given during the workshop highlighted the need for ensuring the ability to scale up systems during and after disasters without jeopardising privacy issues as well as the importance of continuing to protect and access existing data in the event of an emergency without establishing parallel systems or duplicate records. Trust in certificates issued by civil registration authorities has to continue during and after emergencies and confidentiality and privacy protection should also be there during emergencies when people are most vulnerable. This means that systems need to be sufficiently secure even during emergencies to secure data and ensure that access is appropriately rationed. In this regard, it was highlighted that the need for notification and support documentation should be adjusted - but not suspended – during emergencies.

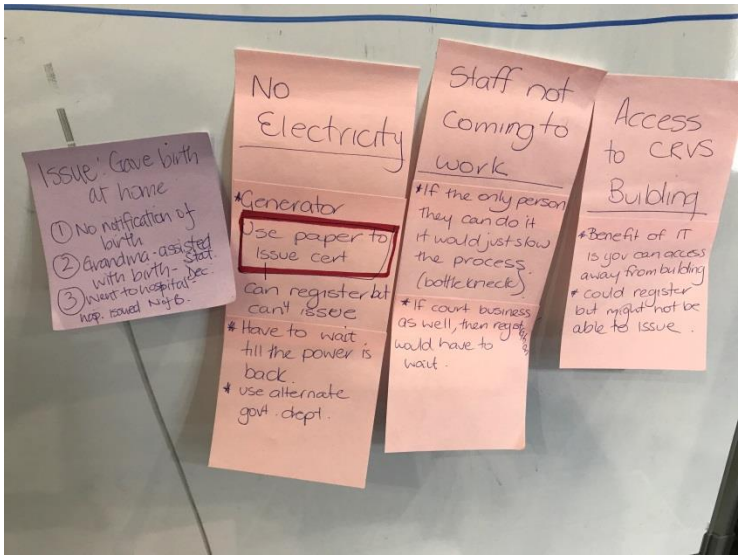
Some of the key recommendations from the discussion on IT was to ensure a focus on what is needed from the system, rather than letting the IT system dictate changes needed to CRVS. In addition, the need for maintenance of systems and system sustainability was highlighted.

[11] Brisbane Accord Group: A regional standard on IT for CRVS in the Pacific Islands, available from www.pacific-CRVS.org

There were also discussions on a region-wide CRVS IT solution and the example of health information systems in the region was showcased. There are currently only two different health information systems operating in the Pacific, DHIS2 (OpenSource system) and MedTech (commercial system). This alignment means capacity can be shared and makes it easier for countries to partner with each other. Civil registrars are interested in a region-wide solution for CRVS, in a similar fashion as what the smaller states in Australia are currently doing, but there needs to be alignment of standards first in order to establish a platform for working on a Pacific CRVS system together. This could, however, be a productive endeavour to take advantage of economies of scale.

While most Pacific countries have established a digital civil registry, many are still struggling with the backlog of old records yet to be digitised. In some countries, the digitization of old records has created some data inaccuracies, and in others it has been used to address such inaccuracies and eliminate duplicates, etc. Independently, it was clear that digitization is not just an issue of scanning documents, but also includes procedures for checking old files, etc. In Fiji, close to one million records entered before 2003 need checking and the registrar from New South Wales in Australia highlighted how problems with old records are being fixed when the problems arise. This is also the approach used in New Zealand. As a word of caution, an example from Liberia was shared, where erroneous records had resulted in children orphaned by Ebola having difficulties being united with remaining family.

In order to get through a large backlog of digitisation of old records and documents, it may be necessary to hire specific staff for certain periods. In this regard, it was mentioned that statistics offices may have scanning equipment normally used for census data that could potentially be useful for scanning non-fragile documents.



Some potential sources of support to civil registration systems

Various sessions throughout the workshop focused on existing tools and organisations who may be in a position to support civil registrars in limiting the impacts of disasters on their systems and service delivery, and ensure that they can support the response efforts of the government.

Online free training available

The Global Civil Registration and Vital Statistics (CRVS) Group and the World Bank Group Open Learning Campus, in partnership with the Korea Ministry of Strategy and Finance, recently launched the first comprehensive CRVS eLearning course. The goal of the course is to train policy makers, public and civil servants, university students, researchers, development practitioners, and civil society organizations by providing practical tools and approaches in building and maintaining state-of-the-art CRVS systems that are linked to identity management systems and tailored to local contexts. These systems will eventually contribute to alleviating poverty and promoting shared prosperity. This interactive course was built using materials from the United Nations' Principles and Recommendations for a Vital Statistics System and the 2015 Training Course on CRVS Systems by the U.S. Centers for Disease Control and Prevention International Statistics Program, and has received inputs from a large range of partners.

The new eLearning course is presented in 13 modules. The first three modules are core modules that all learners must take. The remaining modules, which are optional, provide more in-depth knowledge on a range of topics. While all 14 modules are relevant to civil registrars, module 13 in particular on Refugees, Internally Displaced Persons, Stateless Persons and CRVS Systems provides guidance for dealing with populations displaced by disasters.

Registration and enrolment in the courses is free and available from the Open Learning Campus website: https://olc.worldbank.org/

Regional guidelines on Civil Registration legislation

The role of legal frameworks in providing an enabling environment for disaster management and disaster risk reduction is well recognised by the United Nations through the Hyogo framework for action. The Sendai Framework further lists "strengthening disaster risk governance" as one of four priorities for action to manage disaster risks. A fundamental component of disaster risk governance is the laws and regulations governing disaster and risk management. These not only include laws dedicated to disaster risk management but also other sectoral laws and regulations that are critical for building safety and resilience. As noted earlier, civil registration legislation is one the fundamental legal areas that can make a difference in this regard.

The Pacific Community in collaboration with the Brisbane Accord Group has developed "Civil Registration Legislation best practice guidelines"[12] which are aimed at guiding Pacific Island countries in the review and updating of their civil registration laws. It is important to review the contents of the guidelines with regards to the management of civil registration during disasters and to update the content as may be found necessary.[13]

[12] http://www.pacific-crvs.org/docs?view=download&format=raw&fileId=115

[13] Countries such as South Korea provide good examples of laws that address disaster situations

Regional guidelines on IT for CRVS

IT infrastructure for civil registration is of fundamental value, particularly in ensuring the protection of civil registration data in times of disaster and also in ensuring the continuity of civil registration operations during disasters. The regional draft guidelines on IT for CRVS provides some level of guidance on the back-up of civil registration data, which is invaluable for disaster situations. It is important that countries review and learn from the content of the guidelines in this regard and that the guidelines are improved/updated as may be found necessary. In addition to the regional guidelines, countries could consider using the CRVS Digitisation guidebook, a tool developed for the African context by PLAN international in collaboration with the Economic Commission for Africa, which aims to digitalize existing documentation and state records regarding CRVS.[14]

Support for internally displaced persons

Internally displaced persons (IDP) are defined as "persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border"[15]. The predominant causes of internal displacement in the Pacific are Natural Disasters (both weather-related and earthquakes).

A presentation from UNHCR highlighted that the organisation will support countries with IDP issues when requested. The presentation also highlighted the distinction between 1) UNHCR's functional registers of affected individuals, with a focus on facilitating or monitoring assistance and protection and; 2) civil registers, which should include all individuals within the territory and be a government responsibility.

UNHCR are assisting governments across the world with issuance of registration documents and replacement documents following displacement. An example of this was following Typhoon Yolanda in the Philippines[16] where UNHCR supported awareness raising amongst affected populations as well as mobile civil registration and community legal assistance. In addition, there was a temporary waiver of civil registration fees and the disaster gave an opportunity to 'build back better' and increase the capacity of civil registrars (both staff and hardware). The work was initiated by UNHCR and local partners but eventually UNICEF took over and expanded the scope.

UNISDR

As the UN office for disaster risk reduction, UNISDR supports the implementation, follow-up and review of the Sendai Framework for Disaster Risk Reduction 2015-2030, which was adopted by the Third UN World Conference on Disaster Risk Reduction on 18 March 2015 in Sendai, Japan. The Sendai Framework is a 15-year voluntary, non-binding agreement that maps out a broad, people-centred approach to disaster risk reduction, succeeding the Hyogo Framework for Action that was in force from 2005 to 2015.

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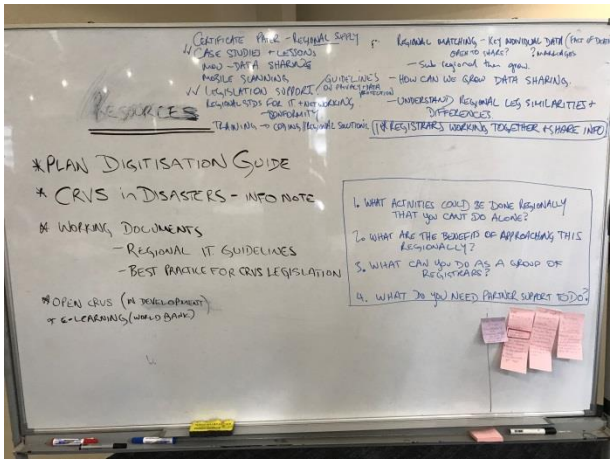
[14] http://getinthepicture.org/resource/crvs-digitisation-guidebook

[15] UN Guiding Principles on Internal Displacement (2004)

[16] A video on this work is available from https://www.youtube.co m/watch?v=9uo94AW7 Aww

A presentation from UNISRD[17] highlighted the four types of action needed for disaster preparedness: Temporary (eg. hiring fans to cool the workplace), Managerial (eg. introducing flexi-time), Technical (eg. refurbishing buildings and enhancing flood defences) and Strategic (eg. commissioning new buildings with climate resilient design as part of planned programmes). The four different strategies for avoiding risk were also highlighted. These are avoiding risk, reducing risk, sharing risk and/or accepting risk.



[17] Further UNRISD resources are available from: http://www.pipso.org.fj/for-pacific-businesses/key-sectors/business-disaster-support/#videos, http://www.pipso.org.fj/wp-content/uploads/2017/05/Business-Continuity-Plan-BCP-Template.pdf and http://www.pipso.org.fj/for-pacific-businesses/key-sectors/business-disaster-support/#resources

The importance of protecting assets and operations to avoid losses and enhance reputation was also discussed and it was highlighted how ensuring offices remain open following disasters can have a positive impact on the level of optimism in the affected community. Finally, the presentation suggested 12 steps to disaster-proof registries, highlighting that PICTs can adopt steps suitable to their own situations but should ensure that they are useful, usable and used, otherwise it will be useless.

The 12 steps to disaster-proofing civil registries
1. Identify your core products/services 2. Identify central roles and skills sets 3. Identify your essential equipment 4. Identify your essential supplies 5. Identify your relocation options 6. Identify your insurance options 7. Agree on a delegation of authority 8. Record contact details 9. Registry records 10. Save the plan 11. Emergency preparedness 12. Practice and update plan

Private sector support

Private companies were present at the workshop highlighted how their various systems could be used to assist in safeguarding records and establishing CRVS IT systems. This includes things like cloud storage, in-country and offshore backups, hosting, portable IT systems that can work offline for extended periods, mobile data capture and forms, specialised security paper, the use of chips, ID cards, the use of biometrics to limit fraud, etc.

Collaboration between registrars, UN agencies and the private sector is a hallmark of PCRN events and add considerable value to the discussion. Thank you to Del La Rue, Object Consulting, Axiell, Canadian Bank Note and Family Search for participating in this event.

Country level action planning

As part of the workshop, a session was held to discuss country level action planning to support PICTs to develop strategies and action plans for the management of civil registration systems during disasters.

The general objective is to ensure that all births and deaths are notified and/or registered as soon as practical (ideally in real-time) during disasters and that such data is made available to relevant authorities for planning and to support service delivery.

Participants were asked to assess how birth and death registration could be implemented during and after a major disaster. What would the registration process look like from a service provider and service recipients' perspective? The following questions were discussed during the session:

- Where and how should the public report the occurrence of an event during times of disaster?
- At an institutional level, who would be in charge of availing registration services in the event of a disaster? What special provisions need to be in place to effectively deliver these services?
- Collating data and compiling statistics pertaining to vital events during disasters - How is the data collected used? To whom is it transmitted?

On policy and advocacy frameworks for civil registration during disasters:

- Is there need for national standards and guidelines for the management of civil registration in times of disasters?
- What inter-institutional relationships should be established/are needed in order to be able to efficiently manage registration operations during disasters?
- How are members of the public made aware of registration processes in times of disasters?
- Are there any revisions necessary to the civil registration legal and policy environment to accommodate registration operations in times of disasters? For example, in countries where fees are required for registration, would these be annulled during disaster situations?

On optimising civil registration records and data to support disaster planning efforts:

- How can existing records be used to support disaster management efforts? What level of detail is necessary? With whom should such records be shared?
- What measures should be put in place to ensure that existing records and documents are well backed-up and protected from the effects of the disaster?

Discussions centred around the increasing reliance on technology and which services could be provided in the case of limited access to internet or electricity, as well as whether agreements and arrangements could be made in advance to facilitate access to power, etc. from other agencies. There was agreement that manual back-up systems should be established to ensure business continuity during and following a disaster. This includes developing plans to access records, which may necessitate agreements with other agencies on data sharing (for whom, when and how should access be granted?) as well as contingency plans for database access. Examples of using education or church records to replicate lost records were mentioned. In this regard, the importance of establishing communication mechanisms with other agencies in advance of a disaster was discussed. Part of this discussion was the possibility of empowering staff from other agencies or volunteers to assist in disasters. Key to this would be a clear chain of command within and outside the registration offices to be used in emergencies and disasters. This would also include raising awareness of citizens on how to keep important records safe and accessible.

The physical protection of records and offices were also discussed and several countries mentioned the need to store back-up files at less volatile locations, such as on higher grounds or developing safe storage solutions. For countries where paper forms are still in use, they would likely be destroyed in a disaster. In countries with digital systems reliant on electricity on the other hand, the need for having back-up paper forms such as pre-printed empty certificates, may need to be considered (depending on legislation and whether such certificates would be accepted in the community going forward).

The consideration of staff well-being as well as access to the offices was a topic of concern and it was recommended to let staff check on their family before attending to issues in the office. The small number of staff in some offices could mean that even smaller emergencies could have large effects on continuity of services.

Developing a business continuity plan

The business continuity plan and civil registration disaster management model adopted by each country inevitably will be unique to that nation and its peculiarities. Nevertheless, it is key to ensure that there is a well-known and documented process that it is backed by the civil registration legislative and policy framework. This includes establishing key stakeholder relationships and communication channels including with the public.

Business process maps will be useful in identifying specific activities that different stakeholders would need to undertake at various stages of the disaster (pre-, during and post-disaster) to facilitate full efficiency of the civil registration system. It is important to note that contingency plans are living documents. This means they should be updated regularly, especially after disasters where additional learning can improve the plan substantially. In addition, it is important that regular exercises are made to test plan implementation.

Recommendations from the workshop

Coming together with colleagues from across the region, in itself, provides an opportunity to share ideas and build networks which contributes to the strengthening of CRVS.

The workshop gave multiple recommendations on how to ensure that the national CRVS system can continue and scale up activities in a disaster setting, which requires both resilient CRVS infrastructure and resilient CRVS databases.

The recent events in Vanuatu and Fiji (with the help of UNICEF) have demonstrated how mobilising CRVS at the community level in response to a disaster can be an opportunity to also reach out to those who have never been registered and increase registration completeness at the national level. Following Cyclone Pam, the National Birth Registration campaign launched by the Ministry of Internal Affairs with support from UNICEF assisted the people of Vanuatu with obtaining a reissued birth certificate, while also offering an opportunity for others to register their births for the first time.

Recommendations to countries

Key elements that countries should consider when assessing the resilience of their systems include:

- The physical infrastructure and buildings that house their systems and access points, ensuring they are resilient to disasters
- How data (paper and digital) is backed up and how it can be accessed after an emergency – this should include both the frequency with which data is backed up, and whether there is off-site backup/multiple backup locations. This should also include a backup of the backup. Consideration might also be given to waterproof certificates.
- Whether access to the database can be made mobile to assist replacing registry services at damaged locations and to reach out to displaced or affected communities
- Whether mobile teams can access the national registry database to minimise the risk of duplicate registrations being created while “off-line”
- Whether there are existing provisions to waive the usual fees so that affected people can access the registry services
- Whether there are enough staff delegated with sufficient training that services can be delivered in the absence of staff who have been affected by the disaster themselves
- Whether CRVS services have been considered as part of national disaster planning

Presently, few countries in the Pacific is known to have put in place an elaborate strategy or plan on how to prepare, manage or mitigate the impacts of a disaster on civil registration systems and/or operations. There was consensus on the need for countries to build resilient civil registration systems that not only withstand the effects of a disaster, but that can effectively be used by governments to support disaster management efforts. This would include educating the public on how to register during disasters and ensuring the legislation (including legislation relevant to data sharing) takes potential disasters into account. Countries are encouraged to embed disaster mitigation/disaster management plans into their national CRVS plans and ensure that these are sufficiently resourced. As noted earlier, ensuring proper back-up and archival of civil registration records is an essential component of this plan.

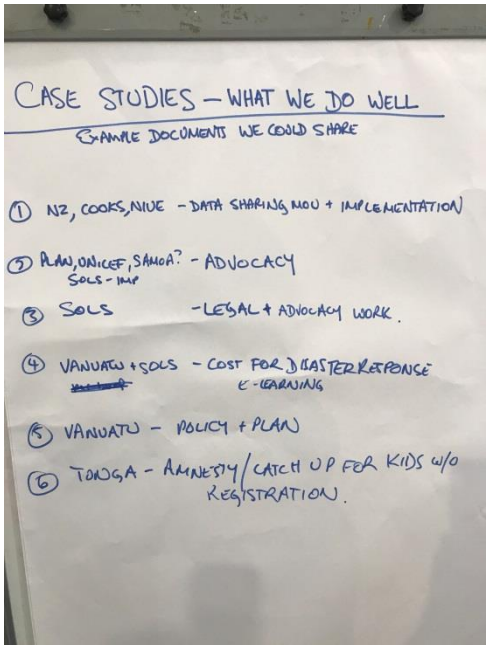
Regional recommendations

A set of regional recommendations were made at the workshop. This included:

1. Looking into the potential for buying security paper in bulk across the region
2. Producing legal standards/modelling an MOU on data sharing
3. Getting partner support for legislation reviews and revisions
4. Further developing an alignment of regional standards for IT
5. Sharing New Zealand's experiences with forming a number of MOUs for data-sharing with Pacific Island States
6. Looking into ideas of developing fact of death file or fact of marriage file as in Australia
7. Regional support for scanning, such as through a mobile scanning team
8. Development of case studies and lessons learnt on the following topics:
    a. New Zealand/Cook Islands/Niue case study on new data sharing agreements
    b. Advocacy (Plan International and UNICEF) & Samoa
    c. Solomon Islands – legislation review
    d. Vanuatu and Fiji – business case of cost of mobile registration
    e. Vanuatu and Fiji – e-learning examples
    f. Vanuatu willing to share policy and implementation plan
9. Continuation of the Pacific Civil Registrars Network as a forum for networking and sharing of best practice across the region.

The need for regional support for coding cause of death was mentioned multiple times. The specific need is highly dependent on the size of the country, but for many countries it would be relevant to identify a regional pool of experts who can assist with training and minimizing costs.

For the smaller countries, training at the national level is not sustainable due to the number of deaths being too low to maintain the coding skill set over time. With assistance of BAG partners, smaller countries are in the process of setting up a formalized agreement with Australia and New Zealand for deaths to be coded there. Larger countries such as Fiji are leading the way by implementing automatic coding using IRIS.



Appendix A: List of participants

Name	Country/Agency	Role
Amanda Ianna	NSW, Australia	NSW BDM - Registrar
Kitele Tefoto	Tuvalu	
Gaylene Tasmania	Niue	Director General, Ministry of Social Services
Lawrence Prasad	Fiji	Registrar General
Leba Drole	Fiji	Registry Officer
Claudine Henry-Anguna	Cook Islands	Registrar
Joe johnson Iati	Vanuatu	
Ettienne Ravo	Vanuatu	
Marilyn Deireragea	Nauru	Registrar
Tiensi Kaua	Kiribati	Registrar
Birimaka Tekanene	Kiribati	Secretary
Temaleti Pahulu	Tonga	
Ponifasio Vasa	Samoa	Deputy Registrar
Roderick Kidoe	Solomon Islands	Registrar - Civil Registration Office
Margaret Pedro	Tokelau	Manager Support Services - Dept of Transport & Support Services
Jeff Montgomery	New Zealand	Registrar General
Selesitina Faamoe	New Zealand	Registration Officer
Adrian Jarvis	New Zealand	Deputy Registrar General
Prescilla F. Figer	Yap, FSM	State Court - Deputy Chief Clerk
Darwin Shelten	Pohnpei, FSM	Assistant Clerk - Supreme Court
Wilbert G. Rospel	Commonwealth Northern Mariana Islands (CNMI)	State Vital Statistics Registrar
Tanja Sejersen	UN ESCAP - Statistics Division	Statistician
Chris Ryan	UN ESCAP - Pacific Office	Statistician
Anika Kingmele	UNICEF	National Child Protection Officer - Solomon Islands Field office
Joemela Simeon	UNICEF	Child Protection Officer
Salote Kaimacuata	UNICEF	Child Protection Specialist
Brigitte Sonnois	UNICEF	Chief Child Protection
Amy Delneuville	UNICEF	Child Protection Specialist
Vathinee Jitjaturunt	UNICEF	Pacific Deputy Representative
Dr Samuel Mills	World Bank Group	Senior Health Specialist
Mike Higgins	FamilySearch International	Area Manager
Mark Kelly	FamilySearch International	Area Manager
Dominic Marshall	Axiell	Product Manager - Registries and Vital Records
Sophie Shugg	Plan International	Senior Child Rights & Protection Advisor
Annina Wersun	Plan International	Digital Birth Registration Manager
Nicholas Oakeshott	UN High Commission for Refugees	Senior Identity Management Officer (incoming)
Brooke Banks	De La Rue	Regional Manager

Tim Phipps	De La Rue	Business Development Director
Karen Carter	SPC	CRVS Specialist
Gloria Mathenge	SPC	Social Statistician, Civil Registration & Vital Statistics
Gavin Watters	Australian High Commission Suva	First Secretary Immigration and Border Protection
Jessica Carpenter	Dept of Foreign Affairs and Trade Australia	Pacific Analyst
Andrew McElroy	UNISDR	Regional Coordinator
Brett McDowall	Object Consulting	Chief Technology Officer
Graham Jones	Object Consulting	Group Business Development Manager

Appendix B: Programme of the workshop

Sunday 1 October 2017: Arrival day

5:00 – 6.15pm	Registration and payment of per diems from Tanoa Reception
6.15pm	Walking bus departs from Tanoa Reception for the Holiday Inn
6:30 – 8:30pm	Welcome Reception and Dinner in the Holiday Inn Garden hosted by Her Excellency The High Commissioner for the United Kingdom 

Monday 2 October 2017: Setting the scene
Chair - Jeff Montgomery, New Zealand Registrar

8:00 – 8:30	Registration
8:30 – 9:30	Opening – His Excellency The High Commissioner for New Zealand, UNICEF Pacific Representative and SPC Deputy Director General
9:30 – 10:00	Morning Tea
10:00 – 11:30	Country presentations - Cook Islands, American Samoa, Tuvalu, Niue, Tonga, Nauru, Kiribati, Tokelau, New Zealand
11:30 – 12:30	Panel Discussion - Disasters : the overarching issues impacting on Civil Registrars
12:30 – 1:30	Lunch
1:30 – 2:30	Resources available to help – the new CRVS eLearning course and civil registration for internally displaced persons module plus other online tools
2:30 – 3:30	Country presentations - Fiji, Solomon Islands, Samoa, New South Wales (Australia)
3:30 – 3:50	Afternoon Tea
3:50 – 4:50	Country presentations - Yap (FSM), Pohnpei (FSM), Northern Mariana (CNMI)
4:50 – 5:00	Summary of day and what's happening later tonight
5:00 – 5:50	Break
5.50	Walking bus departs from Tanoa Reception for Governor's Restaurant
6:00 – 8:00	Gala Dinner at Governor's Restaurant, 46-50 Knolly Street 

Tuesday 3 October: Country level capacity
Chair - Claudine Henry –Anguna, Cook Islands Registrar

8:15 – 8:30	Registration
8:30 – 8:45	Welcome and introduction to the day
8:45 – 10:00	Case study – Responding to a major disaster: lessons from Cyclone Winston and Cyclone Pam (UNICEF, Fiji and Vanuatu)
10:00 – 10:20	Morning Tea
10:20 – 12:10	Business Continuity Management training – how to prepare your Registry for a disaster (UNISDR)
12:10 – 12:40	Lunch
12:40 – 2:10	Scenario Exercise - How emergencies affect civil registration • Who are the different people involved in the civil registration process?

	• What bottlenecks and barriers exist within current birth and death registration processes? How has or will and emergency affect this? • Do user scenarios change during times of emergency? Are your systems ready to cope with these changes? (Plan International)
2:10 – 3:10	Scenario Exercise - How emergencies affect a family • Map of mother and new-born interactions OR post-death interactions. • Identify common interactions that mothers will have in the immediate time after a baby is born. • Which of these interactions provide an opportunity for either a service or communication point for civil registration during times of emergency? (Plan International)
3:10 – 3:30	Afternoon Tea
3.30 – 4.50	Panel Discussion - Protecting your data and core systems – the cloud, multi-tenant systems and other innovations (World Bank, De La Rue and Object Consulting)
4:50- 5:00	Summary of day and what's happening later tonight
5:00 – 6:00	Break
6:00 – 8:00	BBQ Dinner and Drinks at Tanoa Plaza Hotel AXIELL

Wednesday 4 October: Regional Response

Chair – Amanda Ianna, New South Wales Registrar

8:15 – 8:30	Registration
8:30 – 8:45	Welcome and introduction to the day
8:45 – 10:30	Country level action planning
10:30 – 10:50	Morning Tea
10:50 – 11:30	Report backs from country planning session
11:30 – 12:30	Key challenges and issues for a regional response
12:30 – 1:30	Lunch
1:30 – 3:30	Options for a regional approach to supporting civil registration systems affected by a disaster
3:30 – 3:50	Afternoon Tea
3:50 – 4:40	Priorities and planning for next steps
4:40- 5:00	Summary, Closing and Farewells

Appendix C: Goals and targets of the Asian and Pacific CRVS Decade

The three goals of the Regional Action Framework for Asia and the Pacific address the three essential outputs of civil registration and vital statistics systems: the civil registration of vital events, which is a precursor to the two other goals; the provision to individuals and families of legal documentation as evidence of the occurrence and characteristics of vital events; and the production and dissemination of vital statistics based on civil registration records.

Goal 1: Universal civil registration of births, deaths and other vital events

1.A: By 2024, at least … per cent of births in the territory and jurisdiction in the given year are registered

1.B: By 2024, at least … per cent of children under 5 years old in the territory and jurisdiction have had their birth registered

1.C: By 2024, at least … per cent of all individuals in the territory and jurisdiction have had their birth registered

1.D: By 2024, at least … per cent of all deaths that take place in the territory and jurisdiction in the given year are registered

1.E: By 2024, at least … per cent of all deaths recorded by the health sector in the territory and jurisdiction in the given year have a medically certified cause of death recorded using the international form of the death certificate

Goal 2: All individuals are provided with legal documentation of civil registration of births, deaths and other vital events, as necessary, to claim identity, civil status and ensuing rights

2.A: By 2024, at least … per cent of all births registered in the territory and jurisdiction are accompanied with the issuance of an official birth certificate that includes, as a minimum, the individual's name, sex, date and place of birth, and name of parent(s) where known.

2.B: By 2024, at least … per cent of all deaths registered in the territory and jurisdiction in the given year are accompanied with the issuance of an official death certificate which includes, as a minimum, the deceased's name, date of death, sex, and age.

Goal 3: Accurate, complete and timely vital statistics (including on causes of death) are produced based on registration records and are disseminated

3.A: By ...(year), annual nationally representative statistics on births – disaggregated by age of mother, sex of child, geographic area and administrative subdivision – are produced from registration records or other valid administrative data sources.

3.B: By ...(year), annual nationally representative statistics on deaths – disaggregated by age, sex, cause of death defined by ICD (latest version as appropriate), geographic area and administrative subdivision – are produced from registration records or other valid administrative data sources.

3.C: By 2024, at least … per cent of deaths occurring in health facilities or with the attention of a medical practitioner have an underlying cause of death code derived from the medical certificate according to the standards defined by ICD (latest version as appropriate).

3.D: By 2024, the proportion of deaths coded to ill-defined codes will have been reduced by … per cent compared with the baseline year.

3.E: By 2024, at least … per cent of deaths taking place outside of a health facility and without the attention of a medical practitioner have their underlying cause of death code determined through verbal autopsy in line with international standards.

3.F: By ...(year), key summary tabulations of vital statistics on births and deaths using registration records as the primary source, are made available in the public domain in electronic format annually, and within one calendar year.

3.G: By ...(year), key summary tabulations of vital statistics on causes of death using registration records as the primary source, are made available in the public domain in electronic format annually, and within two calendar years.

3.H: By ...(year), an accurate, complete and timely vital statistics report for the previous two years, using registration records as the primary source, is made available in the public domain.