TONGA

MDG ACCELERATION FRAMEWORK

REDUCING THE INCIDENCE OF NON-COMMUNICABLE DISEASES IN TONGA

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June 2013

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JUNE 2013

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ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
AIHW	Australian Institute of Health and Welfare
CPR	Contraceptive Prevalence Rate
DHS	Demographic and Health Survey
GDP	Gross Domestic Product
GSD	Government Statistics Department
HIES	Household Income and Expenditure Survey
IMR	Infant Mortality Rate
MAFFF	Ministry of Forestry, Farming and Fishery
MCTL	Ministry of Commerce, Tourism and Labour
MDGs	Millennium Development Goals
MIA	Ministry of Internal Affairs
MOFA	Ministry of Foreign Affairs
MOFNP	Ministry of Finance and National Planning
MOH	Ministry of Health
NHA	National Health Account
PICT	Pacific Islands and Territories
TSDF	Tonga Strategic Development Framework
UNDP	United Nations Development Programme
WHO	World Health Organization

FOREWORD

The Government of Tonga, in partnership with the United Nations, is honoured to present the MDG Acceleration Framework Report (MAF) and its Action Plan to reduce and combat non-communicable diseases (NCDs).

It portrays in one voice the strong commitment to reducing the incidence of NCDs — taking into consideration the impact of poverty and women on development — on the part of the Government of Tonga and its partners, including civil society organizations, the private sector, donors, and United Nations agencies. All collaborators' efforts toward drafting this MAF report and preparing the Action Plan are highly appreciated.

This MAF report takes into consideration His Majesty's concern for the growing burden of diseases, as expressed at the official opening of National Parliament on 7 June 2012. It also supports the Global Political Declaration on NCDs that was articulated at the UN High Level Meeting in New York in September 2011, as well as the global target for NCDs for 2025. The MAF Action Plan proposed target is to achieve 100 percent coverage of prioritized interventions nationwide by the end of 2015.

Over the last century, the Kingdom of Tonga experienced only one significant tragedy. An estimated 5 to 8 percent of Tongan lives were claimed by the influenza epidemic in 1918. However, this was only approximately one fourth as bad as the worst mortality rate in the Pacific Region, which registered at 20 percent. In the last four decades, though, the Pacific Region, including Tonga, experienced the arrival of NCDs. In spite of all efforts by the Government, the prevalence of NCDs in the adult population who are at moderate and high risk was estimated to be over 90 percent in 2004.

Additionally, NCDs are identified as a dominant cause of adult mortality (premature deaths), registering 28.6 to 36.3 percent for males and 20.9 to 27.7 percent for females from 2005 to 2009. These rates are roughly three to four times higher than those in neighbouring developing countries.

Since Tonga is among the leading countries confronting the problem of NCDs, the Government of Tonga has declared that NCDs are now among Tonga's highest national development priorities.

The development of the MAF executed by the MAF Expert Group was chaired by the Honorable Minister for Education under the guidance of the National MDG Taskforce. They bring together efforts to fight NCDs, integrating socio-economic determinants such as poverty incidence and the empowerment of women, and identifying the key bottlenecks and prioritized solutions under the Action Plan that would accelerate implementation and MDG progress. The result reflects the role that the Government, with the support from its partners, needs to play for the nation.

To this end, we are confident that this endeavour will be successful, even if the journey will not be an easy one.

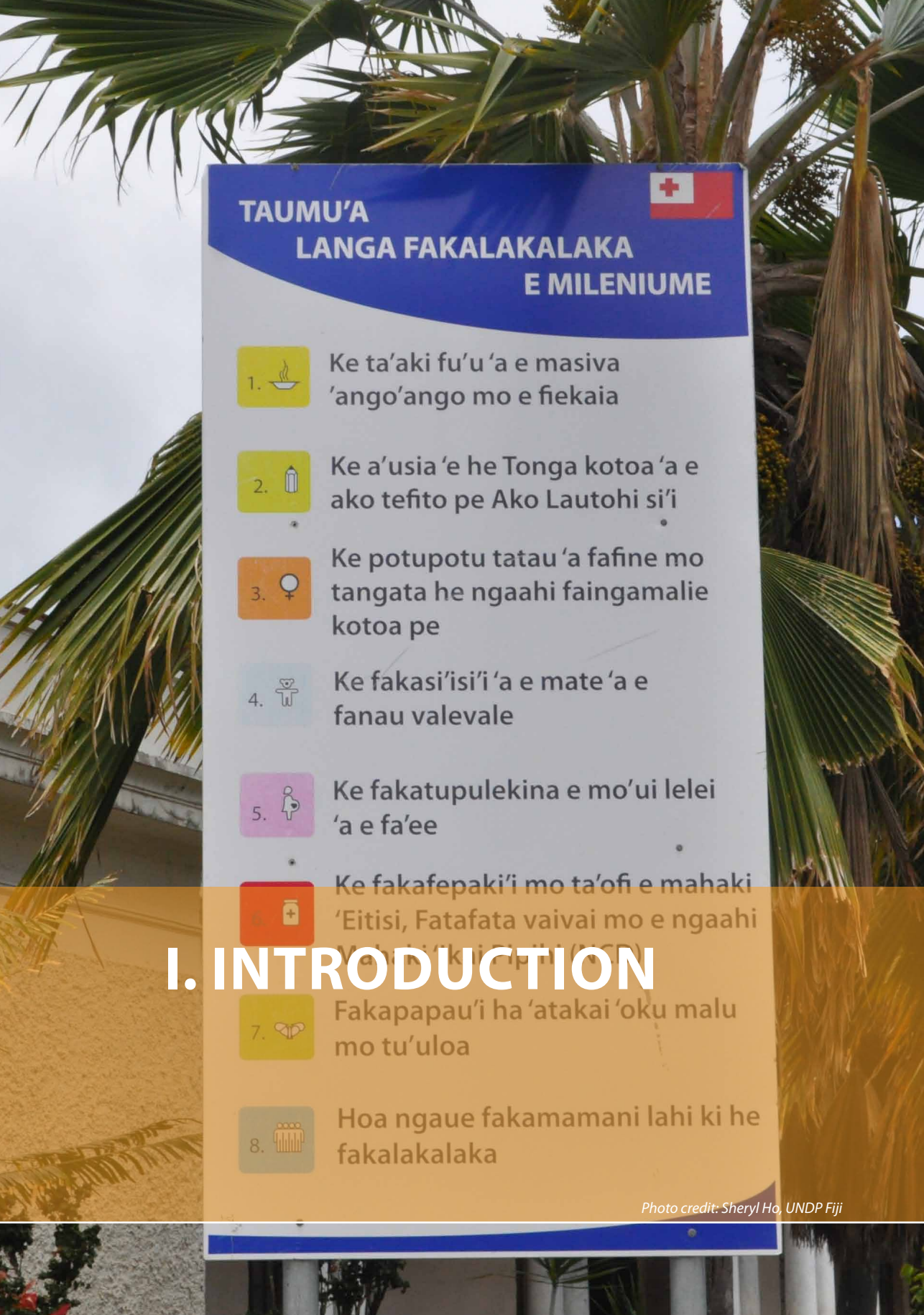
Lord Tu'ivakano
Hon. Prime Minister

Hon. Lisiate 'Akolo
Minister for Finance and National Plannin

Hon. 'Ana Taufe'ulungaki
Minister for Education

Mr Knut Ostby
UN Resident Coordinator

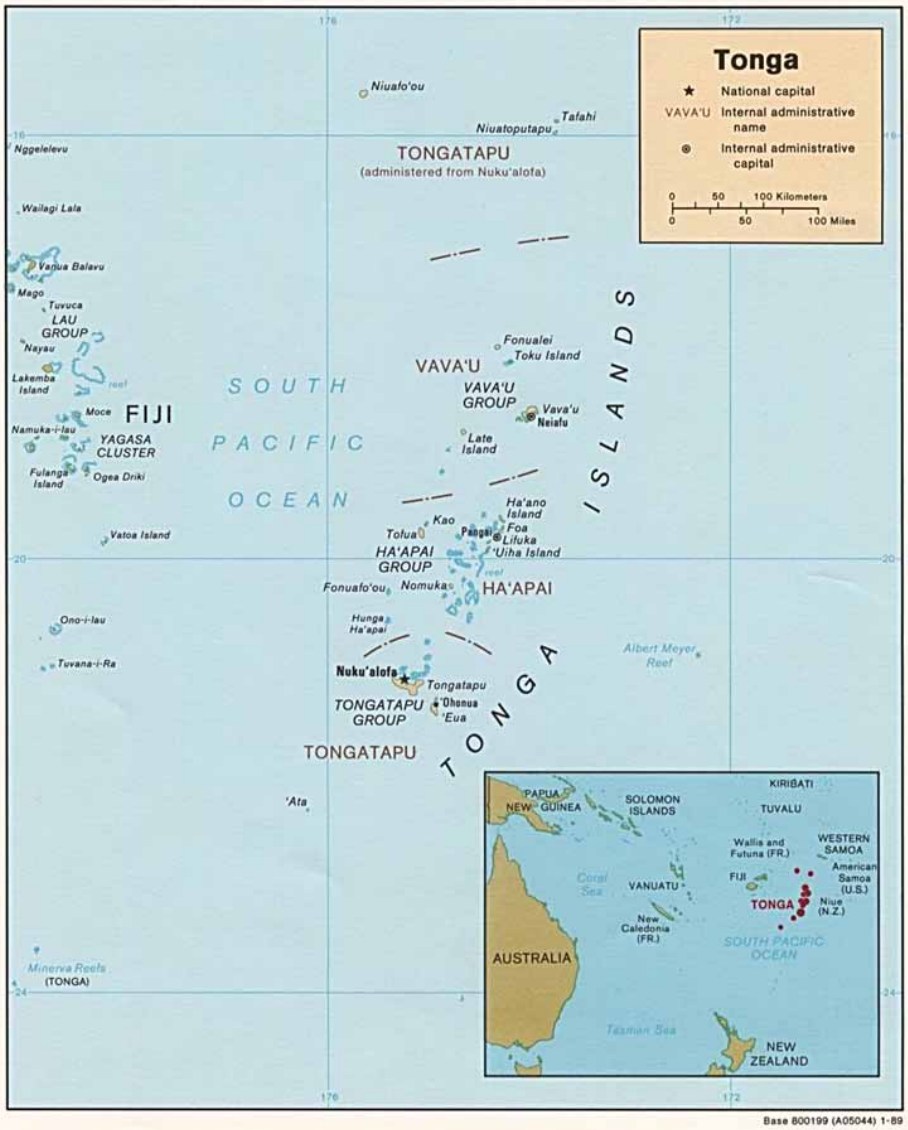
Lord Tu'i'afitu
Minister for Health



I. INTRODUCTION

Photo credit: Sheryl Ho, UNDP Fiji

MAP: **TONGA**


Tonga
National capital
VAVA'U Internal administrative name
Internal administrative capital
0 50 100 Kilometers
0 50 100 Miles
Niuafo'ou
Tafahi
Niuatoputapu
TONGATAPU
(administered from Nuku'alofa)
Nggelelevu
Wailagi Lala
Vanua Balavu
Mago
Tuvuca
LAU GROUP
Nayau
Lakemba Island
reef
Moce
FIJI
Namuka-i-lau
YAGASA CLUSTER
Fulanga Island
Ogea Driki
Vatoa Island
SOUTH PACIFIC OCEAN
Fonualei
Toku Island
VAVA'U
VAVA'U GROUP
Vava'u
Neiafu
Late Island
TONGA ISLANDS
Ha'ano Island
Kao
Tofua
Pangai
Foa
Lifuka
'Uiha Island
HA'APAI GROUP
reef
Fonuafo'ou
Nomuka
HA'APAI
Ono-i-lau
Hunga Ha'apai
Tuvana-i-Ra
Albert Meyer Reef
Nuku'alofa
Tongatapu
'Ohonua
'Eua
TONGATAPU GROUP
TONGATAPU
'Ata
Minerva Reefs
(TONGA)
PAPUA NEW GUINEA
SOLOMON ISLANDS
KIRIBATI
TUVALU
Wallis and Futuna (FR.)
WESTERN SAMOA
American Samoa (U.S.)
FIJI
VANUATU
Coral Sea
TONGA
Niue (N.Z.)
New Caledonia (FR.)
SOUTH PACIFIC OCEAN
AUSTRALIA
Tasman Sea
NEW ZEALAND
Base 800199 (A05044) 1-89

BOX 1: **MAJOR COMPONENTS OF TONGAN SOCIETY**

The Kingdom of Tonga is governed by a constitutional monarch who is supported by a prime minister elected by the parliament and appointed by the monarch.

Before the arrival of Western civilization, Tongan society consisted of three components, namely Famili, Ha'a And Kainga.[1] Famili (family) is not restricted to the immediate nuclear family, but also refers to those who belong to the same household, which may include grandparents, uncles and aunts.

However, Famili belongs to a larger component of Tongan society known as Ha'a, which is a larger extended family that is a collection of Famili. The definition of Ha'a reflects its ancient role vis-à-vis the king and all of Tongan society. For instance, Ha'a Ma'u has the vital role of looking after the burial areas of the royal family, including the arrangement and organizing of their funerals. Recently, the connection between Ha'a and Famili has been complicated by factors like the increase in population and globalization, but the link of Famili to the primary Ha'a is still maintained.

Ha'a also belongs to a larger component of Tongan society called Kainga. Kainga represents the connection of Ha'a and Famili as a result of marriage. If a family member of a Ha'a marries into another Ha'a, it creates Kainga, but not another separate Ha'a.[2]

Recent migration, both overseas and internal, geographically isolated most members of Kainga and Ha'a, but the typical Tongan ha'a were generally residing in the same village or district. The king gave them most of the Ha'a land primarily for the purpose of residence and for people to earn a living so that they could fulfil their cultural responsibilities. Land is transferred from generation to generation.

Sharing as well as fulfilling the traditional roles (tauhi vaha'angatae) of an individual, Famili, Ha'a and Kainga play central roles in the daily lifestyle of most Tongan families. For instance, traditional foods were commonly used in fulfilling these traditional roles, with a strict specification of types of food for certain types of traditional events. But as a result of globalization, these requirements have been slowly replaced by imported foods. Food in Tongan traditional events is regarded as a token of appreciation, greeting and love. Generally the amount given represents the extent of appreciation and love the giver would like to share with the receiver.

The changes in tradition, such as the shift in social dietary behaviour, were heightened by a shift from labour-intensive activities to capital-intensive economic development. Commercial farmers are switching from expensive labour-intensive methods and adopting foreign technological methods, and use pesticides on a larger scale than before. These shifts increase the risks and incidence of non-communicable diseases (NCDs).

1. Ana Seini Tupou Veihola Kupu, Mortality Analysis for Tonga 1982-1992.
2. Tongan names are not restricted to the purpose of identifying the individual, but loosely represent which Kainga and Ha'a the individual comes from. Sometimes, the first name, surname and other names work for the same purpose, but surnames explain most of the story. It is very common for Tongan society to name children after grandparents, great-grandparents, parents, uncles and aunts, where there are a lot of similar names from the same Famili, Kainga and Ha'a.

1.1 DEMOGRAPHICS OF THE KINGDOM OF TONGA

Tonga has 170 islands; approximately 33 are inhabited. They are grouped into five major island groups, namely Tongatapu, Vava'u, Ha'apai, 'Eua and Niuas. The Tongan population is variably distributed among these island groups, with 73 percent residing in Tongatapu, 15 percent in Vava'u, 7 percent in Ha'apai, 5 percent in 'Eua and 1 percent in Niuas. Comparing to the last census in 2006, the population residing at Tongatapu has increased by 0.8 percent, but it decreased by 5.2 percent in Niuas, 2.6 percent in Ha'apai, 0.8 in 'Eua and 0.7 percent in Vava'u.

The population of Tonga increased by 0.2 percent from the last government census in 2006 — from 101,911 to 103,036 — according to a preliminary analysis of the 2011 census. Tongan households also have increased in number from 17,462 to 18,053, a 3.4 percent increase.

1.2 MDG PROGRESS IN TONGA AND THE RATIONALE FOR MDG ACCELERATION

Since the inception of the Millennium Development Goals (MDGs), the Kingdom of Tonga has completed two MDG assessment reports and a snapshot review. The latest report was launched by the government, development partners and relevant stakeholders in November 2010.

Building upon the result of these reports, MDG requirements were integrated into the Tonga National Strategic Development Framework of relevant government and non-government ministries and organizations. The framework defines, through the respective strategies of these bodies, how they will fulfil their roles and responsibilities in such a way that will achieve their mission and MDG expectations. MDGs were also built into the Government Budget Statement of 2011/12 and 2012/2013 for the first time.

Among the unique national MDG advocacy approaches, the Kingdom of Tonga executed a series of social activities nationwide on 18 and 20 September 2011 to mark the importance of MDGs, with the theme of 'Fight the waves, swim on'.

The same initiative was conducted on 18 and 20 November 2012 with the theme 'The best is yet to come'. Tonga cannot afford to congratulate itself on what it has achieved and lose sight of the challenges remaining.

Progress notwithstanding, the alleviation of poverty, the promotion of gender equality and the reduction of the incidence of NCDs require special attention from the government and its development partners. Specifically, in the second MDG Report 2010 and the snapshot review of Tonga MDG 2012, MDG indicators 1.1 (Proportion of population below $1 per day), 3.3 (Proportion of seats held by women in national parliament) and 6.7-6.10, and the fight against NCDs were found lagging behind target.

In 2010, NCDs were the leading cause of morbidity; accounted for four of the five leading causes of mortality, 10 percent of hospital admissions and 20 percent of government spending in the health sector.[3] Therefore, MDG target and indicators under goal 6 have been adapted to NCDs as a development priority for the Kingdom.

3. Health Service Delivery Profile, Tonga (2012), MoH.

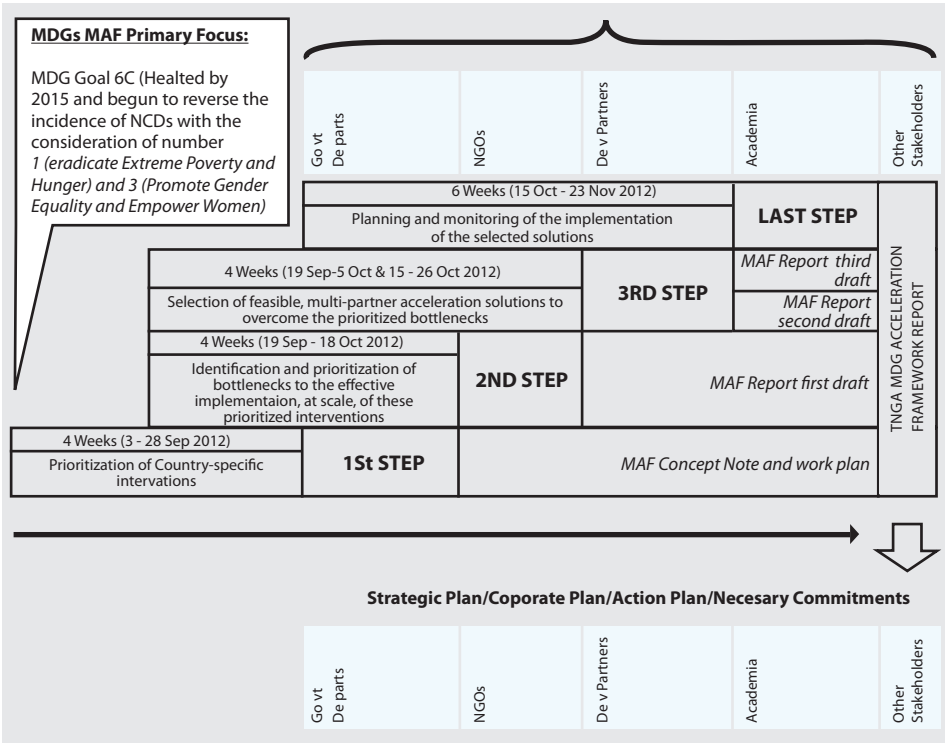
TABLE 1: COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES	
TARGET	**INDICATORS**
Target 6C: Have halted by 2015 and begun to reverse the incidence of TB and non-communicable diseases	6.5 Incidence, prevalence and death rates associated with tuberculosis [4]
	6.6. Proportion of tuberculosis cases detected and cured under directly observed treatment short course
	6.7 Incidence and death rates associated with diabetes
	6.8 Prevalence, incidence and death rates associated with cardiovascular diseases
	6.9 Incidence, prevalence and death rates associated with hypertension
	6.10 Prevalence and incidence of overweight and obesity

In addition, Tonga is ranked among the top 10 globally in the prevalence of diabetes. According to the latest STEPs Survey in 2003, the overall prevalence of diabetes in Tonga is estimated at 15.1 percent, which is double the prevalence rate in 1973. The proportion of the population living below the Basic Needs Poverty Line increased from 16.2 percent in 2001 to 22.5 percent in 2009. The poverty gap index measuring depth of poverty increased from 4.4 in 2000 to 6.3 in 2009.

Based on the challenges to achieving the MDGs, the Kingdom of Tonga has decided to apply the MDG Acceleration Framework (MAF) to reduce the incidence of NCDs, which includes a consideration of the socio-economic determinants and issues around women's empowerment.

4. Diabetes increases the chances of developing tuberculosis by at least 2.5 times. A person with diabetes and tuberculosis is more likely to fail tuberculosis treatment and more likely to die from tuberculosis than a person without diabetes. There is a high risk for double burden cases.

FIGURE 1: **MAF PROCESS IN TONGA**



he development of MAF was executed by relevant government ministries, non-government organizations (NGOs), development partners, academics and other stakeholders. The process followed four steps: prioritization of country-specific interventions; identification and prioritization of bottlenecks to effective implementation, at scale, of these prioritized interventions; selection of feasible, multi-partner acceleration solutions to overcome the prioritized bottlenecks; and planning and monitoring of the implementation of the selected solutions. This process resulted in the preparation of a report and an action plan that will feed into the strategic plan, the corporate plan, and the work plans of relevant government ministries, NGOs, development partners, academics and other stakeholders.

II. PROGRESS AND CHALLENGES IN ACHIEVING THE PRIORITY MDGS

Photo credit: Photoworks-Manfredi

2.1 NATIONAL NCD STRATEGY

NCDs are reflected as a national priority in the Tonga National Strategic Development Framework (2011-2014), the Ministry of Health's Corporate Plan (2008/09-2011/12) and the National Strategy to Prevent and Control Non-Communicable Diseases (2010–2015).[5]

NCDs have been integrated as one of the seven priority areas for the government in the Tonga National Strategic Planning Framework. There is ample awareness within the Ministry of Health (MoH) that NCDs are an urgent public health priority for Tonga; there is a dedicated NCD unit in the ministry and a national strategy to establish goals in the long term. Moreover, the National Health Accounts has developed a specific NCD sub-account to closely monitor funding gaps.

Tonga was the first Pacific island to launch a National Strategy to Prevent NCDs, which covered the 2004–2009 time-frame following the WHO STEP wise approach.[6] The main outcomes were the setting up of the institutional arrangements to fight NCDs, namely the establishment of the Tonga Health Promotion Foundation (operational since mid-2009) and the Health Promoting Church Partnership.

While the first strategy did not state goals in quantified terms, it was comprehensive in terms of its coverage of the four risk factors associated with NCDs (physical activity, alcohol, tobacco and diet).

The second national strategy covers the 2010–2015 time-frame and targets the four risk factors already identified in the first strategy. It further identified three main bottlenecks:

- Weaknesses in organizational management for combating NCDs;
- Deficiencies in monitoring, evaluation and surveillance;
- Insufficient funding.

The NCD strategy (2010–2015) offers quantified and measurable objectives to achieve the targets by 2015, and the national targets are used to monitor progress under MDG 6 of halting or reversing the trends in NCDs by 2015. To use the language of the official MDG framework is deemed unrealistic considering the current challenges faced under this particular health component.

BOX 2: NATIONAL NCD STRATEGY TARGETS BY 2015

Main Goal	Reduce NCDs by 2% per year by 2015
Main Targets	Reduce the prevalence of diabetes by 10% Reduce the prevalence of adult/children obesity by 2% Improve the rate of moderate intensity physical activity per day by 10% Improve the rate of consumption of 5 servings of fruits/vegetables per day by 10% Reduce the prevalence of current tobacco smokers by 2% Reduce the prevalence of binge alcohol drinking among youth by 10%

Source: Tonga National Strategy to combat NCDs, 2010-2015

5. Tonga MDG National Progress Report, 2010.
6. The STEP wise framework centres on actions taken from a population approach (at the national and community level), and a high-risk approach that revolves around clinical activities.

2.2 SUPPORT FROM PARTNERS

At the completion of the National Health Corporate Plan and Annual Report Week held from 13-17 February 2012, the MoH confirmed that NCD still remains the national health priority of the Corporate Plan (2012/13-2017/18).

The World Health Organization (WHO) has supported the MoH for about four decades, specifically regarding NCDs. Together, the WHO and MoH mobilize funding, technical assistance and even medical equipment and supplies to strengthen the public health system that delivers health care services in the hospital as well as in the community.

At the national level, such resources enable the MoH to establish a mechanism that operationalizes the NCD Strategic Plan; this includes the National NCD Committee and Sub-Committees on Healthy Eating, Physical Activity and Tobacco Consumption. Key NCD stakeholders are mostly represented at relevant forums and NCD events. They are encouraged to initiate and take the lead in implementing NCD intervention in the appropriate setting and context. Two programmes, Health Promoting Churches, and Health Promoting Schools and Workplace, were officially launched in 2009. These carry out NCD health intervention among Tongan adolescents and employed populations. Many WHO NCD resources encompass NCD advocacy programmes and ongoing NCD monitoring, including the use of the STEP survey to examine the magnitude of NCD problems, particularly risk factors. This survey was carried out in 2003/04 and 2011/12.

Regionally, WHO in conjunction with the Secretariat of the Pacific Community has hosted four consecutive Annual NCD forums for Pacific Island countries and territories since 2009. These have provided opportunities for participating countries to share their successes and failures in implementing NCD interventions. They were also provided with tools (scale-up actions against NCDs, NCD Monitoring and Evaluation Framework, package of essential NCD services (PEN) in-country, among others) and advice that would enhance and solidify national commitment to fight NCDs.

The Government of Australia supported the MoH through the Tonga Health Sector Planning and Management Project from 1999 to 2007. This project strengthened the health system in planning, management and organizational structure. It resulted in key milestones such as the development of the MoH's Corporate Plan since 1999 and Tonga's Health 2000 and strengthened the ministry's policy and procedures, and system and processes on hospital management, human resources, health finance and health information.

This support has been redeployed for the period of 2009-2013, building upon the success of the initial investment, and the health system leads and manages Australian support with appropriate joint oversight. The Partnership for Development identifies agreed priority health-based outcomes in the Ministry of Health Corporate Plan and Balanced Score Card.

To date, this partnership has contributed significantly to improving the presence of a primary prevention programme in community settings. There are dedicated NCD staff at four pilot health centres that carry out NCD profiling, and health intervention and education. It is anticipated that the lessons learned from this trial will be used for a larger scale NCD intervention.

7. Tonga Health Systems Support Program—Australian Support Framework Design, August 2009.

Behavioural change communication is one of the core components of this initiative. It places special emphasis on health promotion, particularly social marketing, that suits NCD needs and requirements for churches, schools and workplaces. An important component of the same programme targets better compliance with NCD risk reduction legislation for risk factors such as smoking and alcohol abuse.

Despite great efforts to promote and strengthen primary health care prevention, secondary health care services are undermined by the prevalence of NCD-related diseases. NCDs affect many key health care services which requires sound health infrastructure, equipment and a well-trained workforce. The Government of Japan has funded major health infrastructural development in Tonga in the last decade (including medical equipment). It funded the greatest share of the master plan for the Vaiola Hospital based in Tongatapu, which is also the only major referral hospital) that was co-funded by the Government of Tonga. The People's Republic of China funded the building of two health centres on the main island and a diabetes clinic on one of the more remote islands. The European Union funded the refurbishment of the hospital on the second largest island (Vava'u), while the Government of Australia undertook the same project on the third largest island (Ha'apai).

The Government of Tonga introduced the Health Promotion Act of 2007, with effect from 2009. This initiative established an independent body called Tonga's Health, co-funded by the government and VicHealth.[8] Tonga's Health has a close working relationship with the public in NCD-related activities that will slowly alleviate and isolate risk factors in the daily lives of Tongan households and communities. Their most effective initiatives include encouraging a healthy diet through funding of community and individual vegetable gardens, sponsoring physical activity games and even offering scholarships to pursue academic study of NCDs.

2.3 TONGA'S HEALTH SITUATION AND HEALTH SYSTEM PERFORMANCE

2.3.1 TONGA'S HEALTH AT A GLANCE

Tonga is one of the very few countries with the highest immunization coverage rate. This unique performance has been consistently sustained for more than a decade now. Accessibility to safe water and basic health services, including maternal and child services, is not a problem for the country.

Health resources, including human and financial resources that shoulder national health care services, varied consistently within the same range between 2006 and 2010. Development partners contributed 39 percent of the Tonga Health Expenditure of the country while the government contributed 46 percent.

8. The National NCD Strategy was updated in 2010 with support from the WHO, and is now known as the "Path to Good Health" or Hala Fononga.

TABLE 2: HEALTH INDICATORS FOR TONGA 2006–2010

	INDICATOR	2010	2009	2008	2007	2006
1	Estimated population ('000s)	103.6	103.1	102. 3	103.3	102.4
2	Annual population growth	0.3	0.3	0.3	0.3	0.3
3	Percentage of population less than 14 years (per 100)	38	38	38	38	38
	Percentage of population 65 years and over (per 100)	6	6	6	6	6
4	Percentage of urban population (per 100)	36	36	36	36	36
5	Rate of natural increase (per 1,000)	21.0	19.9	21.6	21.3	21.5
6	Crude birth rate (per 1,000)	26.0	25.4	26.7	26.5	26.5
7	Crude death rate (per 1,000)	5.3	5.5	5.1	5.2	5.0
8	Maternal mortality rate (per 100,000)	37.1	114.4	76.1	36.5	110.5
9	Life expectancy at birth (combined)					
	Life expectancy (male)	65	70	70	70	70
	Life expectancy (female)	69	72	72	72	72
10	Infant mortality rate (per 1,000)	21.5	14.5	16.4	11.7	10.7
11	Perinatal mortality rate (per 1,000 live births)	12.4	13.5	18.9	13.0	13.1
12	Total health expenditure ('000s)	22500	21375	21580	17761	20170
	Per Capita	217	207	210	172	196
	As a percentage of total recurrent budget	10.1	12.0	10.0	7.5	10.4***
13	Health workforce					
	Medical officers at post	45	55	59	58	57
	Health officers at post	21	22	19	17	20***
	Nursing and midwifery at post	---	355	346	302	325***
14	Percentage of population with safe water supply	99	99.9	99	98	97.5
15	Percentage of household with adequate sanitary facilities	99	99.7	98	99.6	97.2
16	Immunization coverage	99.6	99.5	99.5	99.6	99.1
17	Percentage of pregnant women immunized with tetanus toxoid 2	97.9	97.8	99.0	97.6	97.2
18	Percentage of population with access to appropriate health care services with regular supply of essential drugs within one hour's walk	100	100	100	100	100
19	Percentage of infants attended by trained personnel	100	100	100	100	100
20	Percentage of married couples practising contraception	28.4	29.8	27.0	27.7	23.9
21	Percentage of pregnant women attending antenatal care	97.7	98.6	98	98.7	99
22	Percentage of deliveries conducted by trained personnel	99	98.1	97	98	98
23	Total fertility rate	3.8	3.7	3.7	3.7	4.1

Source: Ministry of Health Annual Report 2010.

2.3.2 NATIONAL HEALTH SYSTEM

BOX 3: RELEVANT TONGA HEALTH LEGISLATION

Tonga's health care services are governed by the following Acts:

- Therapeutics Goods (Amendment) Act 2004
- Pharmacy (Amendment) Act 2004
- Nurses (Amendment) Act 2004
- Medical and Dental Practice (Amendment) Act 2004
- Health Practitioners Review (Amendment) Act 2004
- Mental Health (Amendment) Act 2004
- Tobacco Control (Amendment) Act 2004
- Drugs and Poisons (Amendment) Act 2001
- Public Health Act 2008
- Health Services Act 1991
- Waste Management Act 2005
- Health Promotion Act 2007

The majority of health care services are provided by the government at four major hospitals, 14 health centres and 17 reproductive health services clinics nationwide. Basic ambulatory and outpatient services are currently free of charge, and with minimal charges for inpatient services for the rest of the population with the exception for people younger than 14 and older than 70.

The MoH is the major financing agent (46 percent of the total health expenditure) as well as the major provider of health services in Tonga.

TABLE 3: HEALTH INDICATORS FOR TONGA 2006–2010

YEARS	GOV BUDGET, CURRENT TOP (A)	ANNUAL INCREASE (%) (B)	HEALTH BUDGET, CURRENT TOP (C	ANNUAL INCREASE (%) (D)	GDP AT CURRENT PRICES (`000) (E)	ANNUAL INCREASE (%) (F)	POPU-LATLON (G)	HEALTH AS A PROPORTION OF GDP (%) (I) = (C)/(E)
2001/02	90,721,732	16,5%	10,471,206	13.3%	397,000	12.62	99,946	2.6%
2002/03	102,787,886	11.7%	10,919,797	4.1%	444,700	12.02	100,358	2.5%
2003/04	110,811,375	7.2%	11,765,173	7.2%	470,600	5.82	100,772	2.5%
2004/05	111,226,017	0.4%	173,520,930	13.0%	503,000	6.88	101,188	2.7%
2005/06	160,534,106	30.7%	17,076,431	20.8%	594,100	18.11	101,606	2.9%
2006/07	153,352,555	-4.7%	20,002,773	14.6%	611,000	2.84	102,025	3.3%
2007/08	148,917,026	-.0%	19,212,939	-4.1%	659,200	7.89	102,446	2.9%

Source: Ministry of Health Annual Report 2010.

The steady growth of expenditure allocated to the MoH budget demonstrates the government's strong commitment to the improvement of health care in Tonga. The budget allocation for MoH as a share of the total government recurrent budget varied from 10.6 percent to 13.0 percent from 2001/02 to 2007/08. The MoH annual recurrent budget increase fluctuated between 4.1 percent and 13.3 percent over these seven years.

In detail, the year 2001/02 recurrent budget allocation to MoH was 13.3 percent higher than the previous year's allocation. This is mainly due to an increase in salaries, medical treatment and allowances compared to the previous year's outcome. In 2002/03, there was a 4.1 percent increase from the previous year, driven by the increase in the procurement of medical supplies and medical treatment.

For the year 2003/04, a 7.2 percent increase from the prior year was caused mostly by the introduction of government contributions to the establishment of the retirement fund, followed by the increase of technical assistance, salaries, technical equipment and supplies compared to the previous year. The 13 percent increase in 2004/05 was primarily due to the construction of the new hospital under the Health Sector Support Project. Additionally, salaries, contributions to retirement and procurement of medical supplies also increased compared to the previous year.

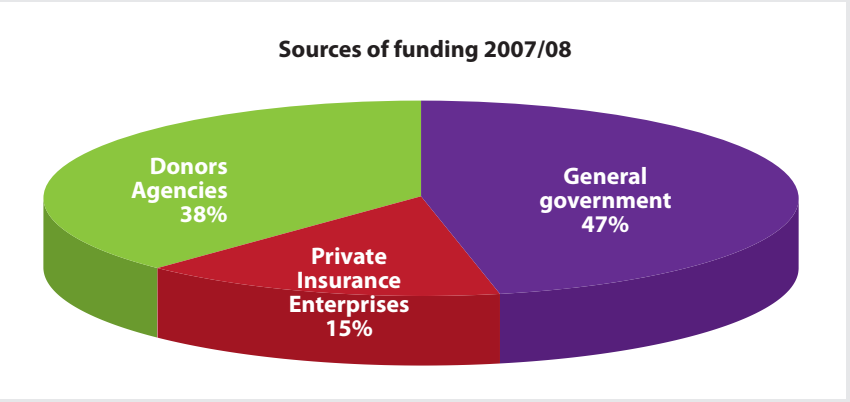
Health expenditure rose sharply, driven by the 60 to 80 percent salary increase as a result of the civil servants' strike in 2005/06. Allowances, maintenance of office buildings and wages also increased. The increase in the MoH budget continued by 14.6 percent in 2006/07, mainly determined by the increase in new building, the introduction of the establishment of duty, and also the increase of salaries compared to the previous year.

In the year 2007/08, the overall MoH budget declined, reflecting the completion of phase 1 of the construction work for the main hospital master plan, low procurement of medical supplies and the rationalization of expenditures over duty allowance entitlements for doctors and nurses.

As elsewhere in the world, the budget envelope is contingent on available resources and what is affordable for service provisions. The fluctuation of the overall budget is a manifestation of various policy changes in the government expenditure envelope that are based on the ability of the country to generate revenues.

Besides strong government commitment to funding the national health system, development partners also contribute significantly to infrastructural development, capacity building and technical assistance. The difference between government and donor agency contributions toward the national health system was 9 percent for the year 2007/08.

FIGURE 2: **SOURCES OF HEALTH EXPENDITURES, 2007/2008**



Source: National Health Account Report 2007/08, Ministry of Health.

Budget support from development partners meets the budget deficit of TOP$20.7 million that will arise from the government's actual revenue collection and recurrent expenditure during the 2011/12 fiscal year. During the Tonga Development Partner Forum of 2012, development partners reaffirmed their commitment to maintaining their budget support in the current budget cycle.

2.4 NCDS IN TONGA AND RELEVANCE TO THE GLOBAL SCENE

NCDs were commonly defined as 'diseases of affluence', 'diseases of urbanization' or 'diseases of modernization'.[9] With the development of the social sector, the definition was refined: "NCDs are a consequence of specific human behaviours, which derive from social and environmental circumstances, interacting with individual susceptibility. They are not inevitable and not irreversible."[10]

NCDs have been identified as the leading cause of deaths worldwide. They accounted for at least 60 percent of all deaths, or three of every five deaths.[11] It is most worrying to learn that 80 percent of these deaths occurred in low- and middle-income countries, according to WHO estimates. NCDs challenge nations in many ways, but the most visibly impacted areas emphasized in this report are premature deaths, disability and national development. In addition, half of those who die of chronic NCDs are in the prime of their

9. NCDs consist of cardiovascular disease, cancer, chronic respiratory diseases and diabetes (WHO, Non Communicable Diseases fact sheet, 2011).
10. Taylor, R. 2009, 'Mortality, morbidity, obesity and nutrition in the Pacific', Proceedings of the Regional Symposium on Population and Development in the Pacific Islands, University of the South Pacific 23-25 Nov 2009, Suva, Fiji, pp 140-173.
11. WHO, 'Global Status Report on NCDs', 2010.

productive years, and thus the disability imposed and the lives lost are also endangering the global competitiveness of Tonga's industry. Over the next 20 years, NCDs will cost more than US$30 trillion, representing 48 percent of global Gross Domestic Product (GDP) in 2010, and pushing millions of people below the poverty line.

The Kingdom of Tonga was represented by the Prime Minister (Lord Tu'ivakano), the Minister for Health (Hon. 'Uliti Uata) and a senior delegation to the United Nations High Level Meeting on NCDs, held from 19-20 September 2012. As part of the outcomes of this meeting, the UN General Assembly adopted the 'Political Declaration of the High-level Meeting on the Prevention and Control of Non-communicable Diseases' with special emphasis on the following areas:

- establishment of multi-sectoral national plans by 2013;
- integration of NCDs into health planning processes and the national development agendas;
- promotion of multi-sectoral action through health-in-all policies and whole-of-government approaches;
- building of national capacity;
- increase in domestic resources.

The application of the MAF in Tonga is one of the unique political commitments by the Government of Tonga and its stakeholders to combat NCDs. As part of the acceleration process, the Action Plan aims to:

- enhance the partnership between stakeholders with stronger communication strategies;
- strengthen community development;
- improve food security and empower local farmers;
- protect vulnerable population groups;
- support early detection of NCDs with measures to prevent incidence of disease and to improve remission;
- develop grassroots focus nationwide, country-driven, with minimal reliance on external factors.

These commitments are inspired by the global target on NCDs 'to reduce preventable deaths from NCDs by 25 percent' agreed upon during the 65th World Health Assembly, May 2012.

2.4.1 NON-COMMUNICABLE DISEASES IN THE PACIFIC REGION

CDs remain the common cause of death for the 21 countries and territories within the Pacific Region. They accounted for 75.4 percent of all deaths, i.e., four times higher compared to mortality from communicable disease (14.3 percent) or 15 times that of mortality caused by injury, poisoning and accidents (5.2 percent).

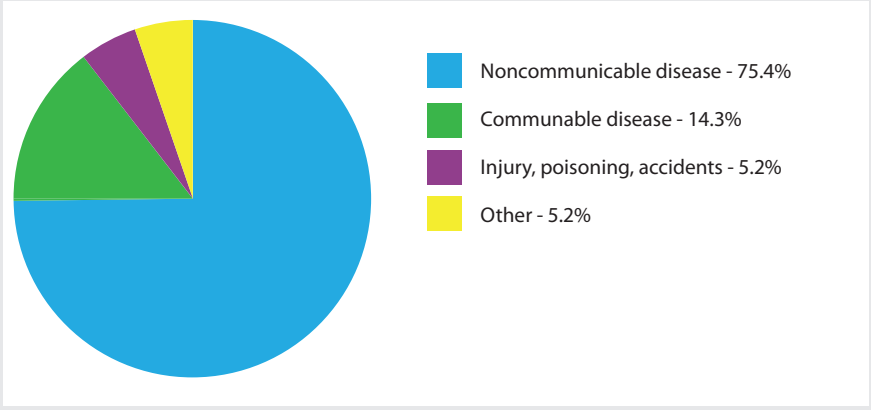
The Pacific NCD Framework (figure 4) summarizes the complexities of the causation pathway to chronic diseases and their relationship to the environment, lifestyles, clinical care, advocacy and surveillance and the sharing of roles between the entire government and the health system.

Globalization, in particular of trade and marketing, urbanization, an aging population and social determinants were found to be the underlying determinants of chronic diseases.

This leads to the second step, which consists of common risk factors such as an unhealthy diet, physical inactivity and air pollution, which in turn leads to the next step, the intermediate risk factors consisting of raised blood sugar, raised blood pressure, overweight and obesity, before an individual acquires common forms of NCDs (cardiovascular diseases, cancer, diabetes and chronic respiratory diseases).

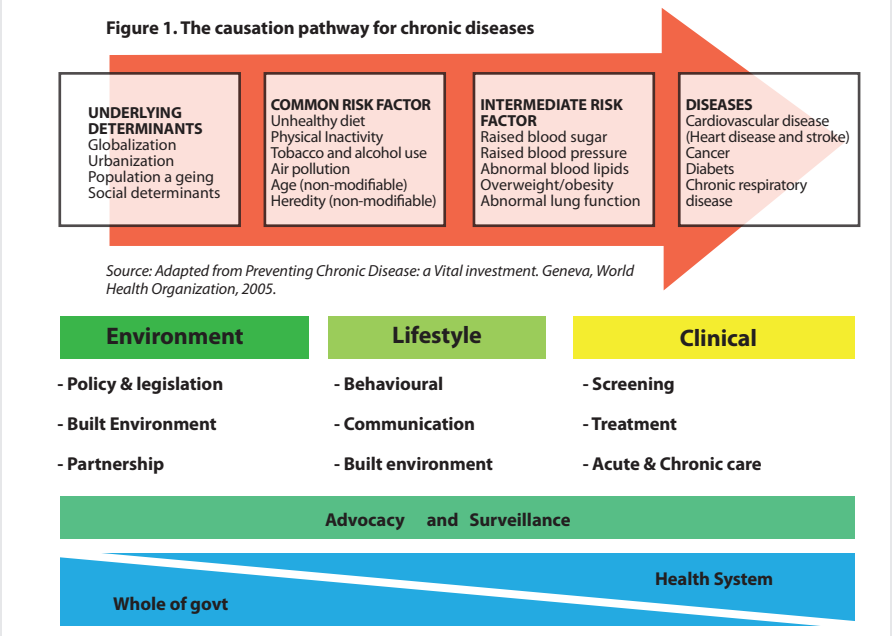
12. Details of the Political Declaration are presented in detail in annex 8.2.

FIGURE 3: **FREQUENT MORTALITY CAUSES IN THE PACIFIC (%)**



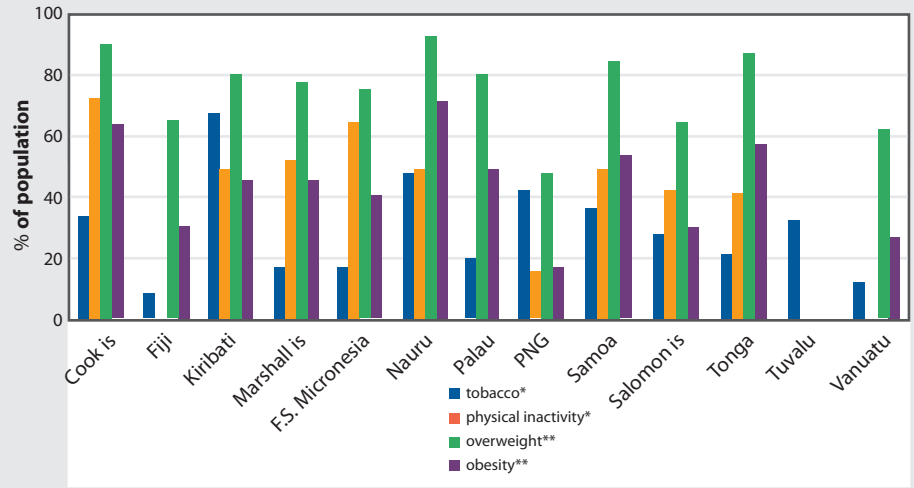
Source: WHO Country Health Information Profiles (2011)

FIGURE 4: **PACIFIC NCD FRAMEWORK**



The STEP survey is a common tool used by Pacific Island countries to measure the risk factors for NCDs. In light of the Pacific NCD Framework, it is estimated that the prevalence of the most common disease (diabetes) is as high as 40 percent (last step in the causation pathway for chronic diseases). Additionally, it is estimated that the prevalence rate among the Pacific population for overweight ranges between 60 to 90 percent (second step in the causation pathway for chronic diseases); and the prevalence rate for current smokers between 10 to 60 percent (third step in the causation pathway for chronic diseases). [13]

FIGURE 5: **MORTALITY INCIDENCE IN PACIFIC COUNTRIES (%)**



Source: Global Status Report on NCDs, 2010.

When comparing the key risk factors, overweight is the most common risk factor, followed by obesity, physical inactivity and tobacco consumption. These risk factors are shared by almost all the Pacific Islands and Territories; Tonga is amongst the five countries with the highest prevalence rate of overweight and obesity.

2.4.2 NCD MORBIDITY IN TONGA

The MoH conducted the STEP Survey in 2004 with the technical support of the WHO. It estimates the prevalence of NCDs and their associated risk factors.

One adult aged 15-64 in every 1,250 households was randomly selected to participate in this survey. Overall, there was an 80 percent response rate. Adults between 35 and 44 years formed 30.8 percent of the total sample and 57.8 percent were female participants.

The prevalence of diabetes is estimated at 16.4 percent (95 percent CI ±5.5) with no significant difference between men (16.3 percent, [95 percent CI ±7.7]) and women (16.6 percent [95 percent CI ±5.1]) for the population aged 25 to 64 years. Throughout the age group, women started with a prevalence of 10.8 percent (95 percent CI

13. WHO Multi-Country Cooperation Strategy for the Pacific 2013-2017.

±7.1) at the age group of 25 to 34, to about triple that rate, 32 percent (95 percent CI ±12.6) in the age group of 45 to 54. On the other hand, men started with a lower rate compared to women at 3.5 percent (95 percent ±4.6), which increased to six times higher, at 25.6 percent (95 percent CI ±16.8) in the next age group of 35 to 44 years.

Available estimates revealed that the prevalence of diabetes was estimated at 7.3 percent in 1973, 15.1 percent in 1999 and 16 percent in 2004. A STEP survey was carried out towards the end of 2011 and 2012, but the findings are yet to be finalized.

TABLE 4: PREVALENCE OF RAISED BLOOD GLUCOSE BY GENDER AND AGE GROUP

AGE GROUP	MEN			WOMEN			BOTH SEXES		
(years)	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	55	3.5	±4.6	56	10.8	±7.1	111	7.1	±4.2
35-44	61	25.6	±16.8	100	14.8	±6.6	161	20.1	±9.5
45-54	45	10	±8.5	65	32.8	±12.6	110	20.4	±8.0
55-64	46	35.3	±10.0	25	15.3	±17.6	71	27.5	±9.0
25-64	**207**	**16.3**	**±7.7**	**246**	**16.6**	**±5.1**	**453**	**16.4**	**±5.5**

*** Capillary whole blood value: ≥ 6.1 mmol/L (110 mg/dl).*
Source: Tonga NCD Risk Factors STEPS Report, 2004.

2.4.3 NCD MORTALITY IN TONGA

TABLE 5: SUMMARY OF NCD MORTALITY DISTRIBUTION FOR MALES AND FEMALES IN TONGA

NCD MORTALITY			
2008 estimates		*MALES*	*FEMALES*
Total NCD deaths (000s)		0.2	0.3
NCD deaths under age 60 (percent of all NCD deaths)		25.6	35.1
Age-standardized death rate per 100 000			
All NCDs		649.3	672.6
Cancers		67.4	93.9
Chronic respiratory diseases		68.8	53.2
Cardiovascular diseases and diabetes		395.9	395.0
NCD MORTALITY			
2008 estimated prevalence (%)	*MALES*	*FEMALES*	*TOTAL*
Current daily tobacco smoking	36.6	7.5	22.0
Physical inactivity	30.6	52.1	41.4
NCD MORTALITY			
2008 estimated prevalence (%)	*MALES*	*FEMALES*	*TOTAL*
Raised blood pressure	42.1	38.0	40.1
Raised blood glucose	15.8	19.1	17.5
Overweight	84.2	89.9	87.0
Obesity	46.6	68.5	57.6
Raised cholesterol	52.5	44.9	48.7

Source: Based on Tonga NCD Country Profile, WHO 2011.

Tonga is considered to be the fourth most overweight country in the world. According to WHO data, the average weight for a Tongan woman increased by 21.1 kg over 30 years to reach 95 kg, and the weight for Tongan males increased by 17.4 kg to 95.7 kg. Women and girls are gaining weight earlier in life, and in particular during pregnancy. In a 2004 survey, the overall adult obesity rate stood at 67 percent, with a Body Mass Index (BMI) above 30 as indicative of obesity. Fifty-six percent of males were considered obese and 75 percent of females. Moreover, data show that 36 percent of boys and 54 percent of girls were overweight or obese. Overall data show that women are more affected by obesity than men.[14]

Overall, adult mortality (15 to 59 years) is estimated at 26.7 percent for males and 19.8 percent for females. This rate is roughly three times higher than that of neighbouring developed countries such as New Zealand and Australia.

A study undertaken by a research team that examined the causes of death for Tonga found that over the study period, NCDs (cardiovascular diseases, neoplasms and diabetes) were the leading cause of adult mortality.[15] Cause-specific mortality from cardiovascular disease increased over time from 194–382 (2005) to 423–644 (2008) for males and 108–227 (2005) to 194–321 (2008) for females.

Mortality from diabetes for 2005 to 2008 is estimated to have increased from 94 to 222 deaths per 100,000 population for males and 98 to 190 for females (based on the range of plausible all-cause mortality estimates) compared with 2008 estimates from the global burden of disease study of 40 (male) and 53 (female) deaths per 100,000 population.

2.4.4 POPULATIONS AT RISK FOR NCDS IN TONGA

As a result of the STEP survey in 2004, a total of 60.7 percent of the surveyed population was considered as being at high risk of NCDs with a further 39.2 percent at moderate risk. High risk refers to those who have three to five NCD risk factors while moderate risk refers to those with one to two NCD risk factors. Risk factors refer to those who are current daily smokers, overweight (BMI ≥25 kg/m2), have raised blood pressure (SBP ≥140 and/or DBP≥90 mmHg or currently on medication), have consumed less than five combined servings of fruit and vegetables per day, and engaged in a low level of physical activity (<600 MET minutes per week).

TABLE 6: PERCENTAGE OF NCD RISK CATEGORIES AMONG BOTH SEXES BY AGE GROUP

SUMMARY OF COMBINED RISK FACTORS							
AGE GROUP	BOTH SEXES						
(years)	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
25-44	469	0.0	0.0	41.9	±5.8	58.1	±5.8
45-64	334	0.2	±0.4	34.4	±6.6	65.4	±6.6
25-64	**803**	**0.1**	**±0.2**	**39.2**	**±4.4**	**60.7**	**±4.4**

Source: Tonga NCD Risk Factors STEPS Report, 2004.

14. Data from the Tonga MDG National Progress Report, 2010.
15. K Carter, S Hufanga, C Rao, S Akauola, AD Lopez, R Rampitage, R Taylor. Causes of death in Tonga, quality of certification and implications for statistics. Population Health Metrics 2012, 10:4 doi: 10.1186/1478-7954-10-4

Alarmingly, men and women have relatively the same risk of having NCDs as early as 25 years old, with a worsened scenario by the age of 45 to 64 years. This is the most productive age of their lives and most of them have vital roles for their families, communities and the national development of Tonga.

TABLE 7: PERCENTAGE OF NCD RISK CATEGORIES AMONG MEN BY AGE GROUP

SUMMARY OF COMBINED RISK FACTORS							
AGE GROUP	MEN						
(years)	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
25-44	197	0.0	0.0	42.1	±9.5	57.9	±9.5
45-64	134	0.0	0.0	34.6	±8.5	65.4	±8.5
25-64	**331**	**0.0**	**0.0**	**39.5**	**±6.9**	**60.5**	**±6.9**

Source: Tonga NCD Risk Factors STEPS Report, 2004.

TABLE 8: PERCENTAGE OF NCD RISK CATEGORIES AMONG WOMEN BY AGE GROUP

SUMMARY OF COMBINED RISK FACTORS							
AGE GROUP	WOMEN						
(years)	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
25-44	272	0.0	0.0	41.7	±6.3	58.3	±6.3
45-64	200	0.5	0.8	34.1	±7.6	65.4	±7.5
25-64	**472**	**0.2**	**0.3**	**39.0**	**±4.0**	**60.8**	**±4.1**

Source: Tonga NCD Risk Factors STEPS Report, 2004.

While the strong correlation between socio-economic determinants and NCD risk factors is globally accepted, Tonga lacks enough information to quantitatively measure the nature of this association. Currently, a Demographic Health Survey is being conducted and the results, including information on the distribution of morbidity and mortality across income quintiles, will help the Government of Tonga better determine the most vulnerable groups. The survey has additional dedicated modules on disability, health expenditure and hardship.

Better coordination will become more critical given the cross-cutting nature of development challenges such as poverty, gender equity and NCDs.

III. STRATEGIC INTERVENTIONS TO REDUCE THE INCIDENCE OF NCDS

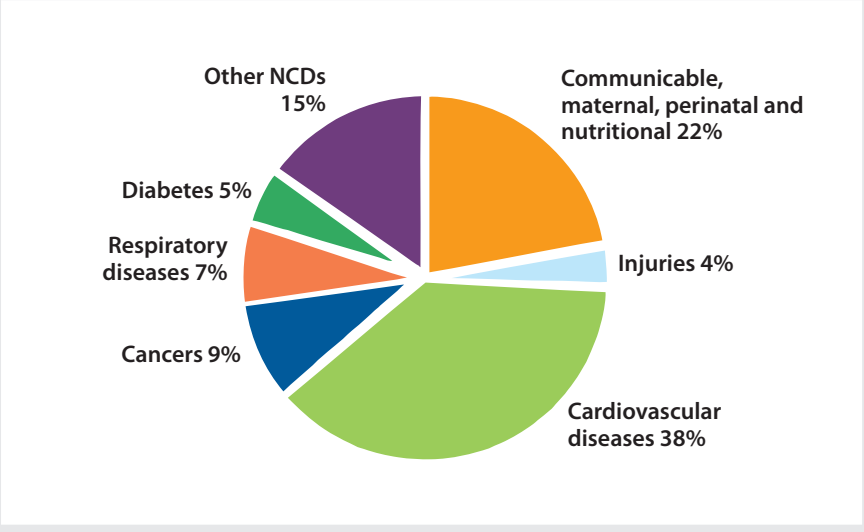
Photo credit: Paea Fifita, Ministry of Health, Tonga

Strong evidence links poverty, lack of education and other social determinants to diseases such as NCDs and their risk factors. A vicious cycle is created by the epidemic, whereby NCDs and their risk factors worsen poverty, while the rising rates of such diseases result in poverty. The prevention of NCDs would reduce poverty. At the same time, because of the magnitude of NCDs, the disabilities and premature deaths they cause and the long-term care required, NCDs reduce productivity and increase health care costs, thereby weakening national economic development.[16]

Urbanization and the globalization of trade and product marketing, particularly for tobacco, processed food and alcohol have led to a rise in the risk factors of such diseases in the developing world. The lack of health care capacity and social protections means that NCDs are more likely to cause people to become sick and die from them at younger ages.

Below is the distribution of mortality causes (percentage of all deaths recorded) that occurred in Tonga in 2008. The country still faces a double burden: communicable, maternal and neonatal deaths still account for about 22 percent of total deaths of all ages, whilst NCDs account for 74 percent of total deaths of all ages, most of which are premature.

FIGURE 6: **MORTALITY BY CAUSE (% OF ALL DEATHS), 2008**



Source: Commonwealth of Nations, available at http://www.commonwealthhealth.org/non-communicable-diseases/pacific/tonga/ (accessed on 15 May 2013).

16. The UN Secretary General's report to the UN High Level Meeting on Prevention and Control of NCDs.

The prioritized key interventions to address NCDs in Tonga focus on the needs of vulnerable groups, in particular the poor, the elderly and women. A list of key interventions is below.

3.1 STOCKTAKING OF KEY INTERVENTIONS THAT WILL HELP REDUCE THE INCIDENCE OF NCDS

3.1.1 IDENTIFIED KEY INTERVENTIONS RELATED TO POVERTY ALLEVIATION

3.1.1.1 National Retirement Benefit Scheme

Universal retirement scheme (National Retirement Benefit Scheme) for the population above the age of 75.

3.1.1.2 Social Services for the Most Vulnerable Elderly in Tongatapu and Ha'apai

A partnership among the Ministry of Finance and National Planning, the Asian Development Bank and the Japan Fund for Poverty Reduction launched a 12-month pilot project to provide social services for the most vulnerable elderly in Tongatapu and Ha'apai on 15 August 2012.[17] It provides services to the elderly such as case management, home care visits, and promotion of healthy practices to those 60 years or older, makes official diagnoses and referrals from approved medical doctors and grants approval from the social service selection committee.

3.1.1.3 Agricultural Extension and Women in Development

Agricultural extension: Develop agricultural programmes that support local individual and community farmers.

Women in development: Develop basic household programmes that support women and groups of women in the community.

This section has been operating as early as the 1960s under the name Home Economics under the Ministry of Forestry, Farming and Fishery. From 1998 until June 2011, it was operated under the research section of the same ministry.

3.1.1.4 Public Enterprise and Community Partnership

The major component of every Tongan household's standard expenses is electricity and water. The Tonga Water Board and Tonga Electricity Power Board were public enterprises owned by the government. The largest component of the price of services paid by the public was caused by high capital and maintenance costs. Even with current prices, the Tonga Water Board has made special arrangements, such as the institution of partial payments, in order to protect vulnerable population groups.

3.1.1.5 Micro-financing for Vulnerable Target Populations

This project, initiated by the Ministry of Finance and National Planning, the Asian Development Bank and the Tonga Development Bank to create

17. Media Release, 15 August 2012.

employment opportunities at the grassroots level, offers small loans at low interest. Part of the expectation is that this will establish a good pathway for people in the informal sector to rise to the level of the formal sector of private business.

3.1.1.6 Strengthen Protections of Local Businesses

Foreign investment law was reviewed to ensure that local businesses have sufficient forms of legitimate protection to enable them to develop, particularly in areas that can produce local substitutes of imported goods.

3.1.1.7 Strengthen Overseas Export

Agriculture and fishing offer some of Tonga's highest economic potential. But experience and capital capacity to compete in overseas markets, particularly in the areas of bio-security and packaging, are limited. At times, cooperative roles were run purely by the private sector. However, it is evident that such an arrangement does not use the full potential of local farmers or address the above constraints systematically.

3.1.2 IDENTIFIED KEY INTERVENTIONS TO PROMOTE THE EMPOWERMENT OF WOMEN

3.1.2.1 National Policy and Action Plan on Gender Development and Action Plan

3.1.2.3 Review of National Policy on Gender and Development, 2011

3.1.2.4 Agricultural Extension and Women in Development

This policy advocates the concept of engendering development. It seeks to establish equity between men and women in relation to the distribution of benefits, but, more importantly, the consideration of family needs in the development process.[18] More specifically, the family will have equal access to all benefits of development and control over public resources. Focus is placed on 10 policy areas, including gender and the family, gender and religion, gender, culture and society, gender and health, gender and education, gender and politics, gender and the economy, gender and regional, Outer Islands and rural development, gender and the public section, and gender and the private sector.

Following the endorsement of the policy, a comprehensive action plan was also drawn up to assist with finding funding to support the implementation.

The national policy on gender and development was reviewed and there were consultations with relevant stakeholders prior to final submission of the policy for approval by the Royal Cabinet. The consultation phase is complete, but a few administrative steps are currently being examined before final submission.

Agricultural extension: Develop agricultural programmes that support individual and community local farmers.

Women in development: Develop basic household programmes that support women and groups of women in the community.

This section operated as early as the 1960s under the name Home Economics under the Ministry of Forestry, Farming and Fishery. From 1998 until June 2011, it was operated under the research section of the same ministry. In July 2011, Losaline Ma'asi, the head of this section, made

18. National Policy on Gender and Development, 2001.

the section separate and gave it a focus primarily on women's development.

3.1.2.5 Micro-finance

One project, initiated by the Ministry of Finance and National Planning, the Asian Development Bank and the Tonga Development Bank to create employment opportunities at the grassroots level, offers low-interest small loans. Part of the expectation is that this will establish a good pathway for the population at the informal sector to raise itself to the formal sector of private business.

3.1.2.6 Promoting Local Handicrafts

The Tourism Visitor's Bureau has been merged with the Ministry of Commerce, Tourism and Labour as part of the Government National Reform of July 2012. Before and after this change, this organization has provided different types of support for local handicraft suppliers by hosting regional festivals in Tonga and has helped representatives of local handicraft suppliers attend relevant overseas festivals.

3.1.3 IDENTIFIED KEY INTERVENTIONS FOR NCDS IN MDG GOAL 6C

3.1.3.1 Provision of curative health services in the hospital setting

The government has 4 main hospitals, 14 health centres and 17 reproductive health clinics that deliver clinical services to the entire nation. Geographic isolation is a barrier to the delivery of health services throughout Tonga, given that the country is comprised of 170 islands, 33 of which are inhabited.

3.1.3.2 Provision of health care services and health promotion services in the health centre setting

Health centres are systematically stationed in community settings and remote islands to provide basic inpatient and outpatient health care services with a good referral system for acute patients who need urgent health support. The health centre setting does not have an extreme busy schedule as most hospital settings do, so they are expected to use their spare time for home visits to their chronic patients and the elderly and to participate strongly in health promotion activities.

3.1.3.3 Review of legislation, subsidiary legislation and policies affecting food, physical activity and tobacco

As part of the preliminary works executed by the Tonga Health Sector Support Project to support the NCD Behavioural Change environment, two local legal firms were recruited to execute this review and advise the ministry on areas that need to be improved as well as to suggest ways to promote healthy lifestyles.

3.1.3.4 Research on the magnitude of NCD problems in relation to family planning, poverty, socio-economic factors, risk factors and their implications

The MoH and its development partners implemented a series of studies to define the magnitude of NCD problems in Tonga. The two research tools (STEP and the Demographic Health Survey) were implemented in Tonga in 2011 and 2012. Academics from the University of Queensland and the University of New South Wales, both in Australia, also assisted the ministry with implementing capture-recapture and medical records studies. These studies discovered high adult mortality from NCDs in Tonga and their relation-

ship to a lowered life expectancy by at least three years, for the first time.

3.1.3.5 Disease-specific and risk factor screening

The MoH conducted voluntary breast cancer screening at pilot sites on the main island to alleviate the effect of the late presentation of breast cancer patients to health care services. The MoH carried out community screening of NCD risk factors as an ongoing monitoring project to guide relevant health interventions. This programme was supported by the Australian Agency for International Development (AusAID)-funded project called Tonga Health Sector Support Project.

3.1.3.6 Advocacy for healthy lifestyles (health promoting schools, churches and workplaces)

Key NCD stakeholders are mostly represented at relevant forums and NCD events. They are encouraged to take the initiative in implementing NCD interventions in appropriate settings and contexts. Health Promoting Churches was officially launched in 2009 in addition to Health Promoting Schools and Workplace; these carried out NCD health intervention among adolescents and the employed population of Tonga.

3.2 PRIORITIZING STRATEGIC KEY INTERVENTIONS THAT IMPACT NCDS IN TONGA

Out of 24 identified interventions in Tonga, a local expert group narrowed down the list to 13 observed key interventions. They were considered key factors in accelerating progress towards meeting the targets that are lagging behind the MDGs, specifically with respect to MDG Target 6C: 'Have halted by 2015 and begun to reverse the incidence of TB and NCDs'.

Experts assessed these interventions on the ground based on their potential impact (i.e., impact ratio, speed of impact and evidence of impact) and feasibility of implementation (political will to implement, governance, local capacity and resource availability). The average scoring based on expert rating is presented in table 7.

TABLE 9: PRIORITIZATION OF INTERVENTIONS (SCORE CARD)

INTERVENTIONS	IMPACT	FEASIBILITY
1. Agricultural extension and women in development	23	22
2. Creation of income-generating opportunities (e.g., strengthening protections of local businesses; promotion of local handicrafts)	22	21
3. Micro-finance	8	15
4. Provision of curative health service in hospital settings	20	23
5. Provision of health care services and health promotion services in health centre settings	21	18
6. Review of tobacco legislation in Tonga	18	18
7. Review of legislation, subsidiary legislation and policies affecting food and physical activity	18	20
8. Advocacy for healthy lifestyles	22	20
9. Research on the magnitude of NCD problems in relation to family planning, poverty, socio-economic factors, risk factors and their implications	21	18
10. Disease-specific and risk factor screening	22	21
11. Health Promoting Schools	19	18
12. Health Promoting Churches	19	18
13.Health Promoting Workplaces	21	20

The expert group selected a threshold cut-off point of a score of 20 for impact and feasibility. All interventions above the cut-off point were selected for execution (highlighted in green), with special consideration of interventions 7 and 12, which scored below the cut-off points. Since there were similarities between interventions 4 and 10 as well as 8, 12 and 13, interventions were further revised and prioritized into five interventions.

1. Increase local food supply to ensure the availability of affordable options for nutritious food, particularly for the poor.
2. Create income-generating opportunities for women and vulnerable groups to adopt more healthy diets and lifestyles.
3. Provide curative health services in the hospital setting, and improve disease-specific risk factor screening.
4. Review legislation, subsidiary legislation and policies affecting food/tobacco/kava Tonga/ alcohol and physical activity.
5. Advocate for healthy lifestyles (in churches, workplaces, schools and at the community level).

IV. BOTTLENECK ANALYSIS

Photo credit: Sheryl Ho, UNDP Fiji

NCDs are found to be at an alarming level in Tonga which will require political will and broad societal transformations to tackle them. The key bottlenecks to effective NCD control relate to the risk factors that drive NCDs, namely, diet, physical activity, individual preferences and the consumption of alcohol and tobacco – cutting across demand and supply side issues. The second set of bottlenecks relates to the health financing of NCDs, cross-sectoral coordination and collaboration, the existence of effective policies to promote healthy lifestyles, and poor lack of data and misdiagnosis. Below is a summary of main bottlenecks identified that need to be addressed.

Finally, it should be remembered that while the MAF seeks to identify sustainable and accelerated solutions to the problem of NCDs, preventive steps could take time to show results.

4.1 POLICY AND PLANNING

Inadequate coordination and lack of cross-sectoral collaboration

Given the magnitude of NCD problems in Tonga, past interventions were successful to some extent on their own. But the need for accelerated actions to reduce NCD incidence in Tonga, along with morbidity and mortality rates, demands policy and planning services that can better coordinate activities at the macro level to make an impact in a very short time.

During the course of MAF consultations, various ongoing initiatives were mapped that are similar but executed in isolation across different government institutions, UN agencies and partners. Inadequate coordination and cross-sectoral collaboration will need to be addressed to enable concrete results at a more affordable cost.

The MoH has its own National NCD Committee, but membership is limited to those who have a direct relationship with NCD activities. MAF activities provide a greater opportunity for wider participation by engaging representatives stakeholders who are directly involved in national policy and planning: these include the Ministry of Finance and National Planning, Ministry of Women Affairs, NGOs, civil society organizations, the Ministry of Foreign Affairs, the Ministry of Internal Affairs, the Ministry of Education, and the Ministry of Forestry, Farming and Fishery.

Inadequate monitoring and surveillance of NCDs

Tonga has one of the highest rates of diabetes in the world, ranked as one of the top 10 countries in the prevalence of diabetes. According to WHO, in 2002 the prevalence of type II diabetes among men and women above age 40 was 14.3 percent and 20 percent respectively.

A 2002 study put the overall prevalence of diabetes in Tonga at 15.1 percent, double the prevalence rate in 1973 (Colagiuri, 2002). According to the National Health Accounts 2005/06, 3,500 diabetes cases were registered in Tongatapu, 700 in Vava'u, 300 in Ha'apai and around 200 in 'Eua. More recent data place the rate at 18 percent (with Tongan women having a 19.1 percent prevalence, and men 16.5 percent). But diabetes in Tonga remains largely underdiagnosed.

Lack of effective policies to promote healthier life styles

Four modifiable risk behaviours — tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol — cause the majority of NCD deaths.

The consumption of alcohol (kava in particular) is common in Tonga and has an impact on the incidence of cardiovascular diseases, cancer and diabetes. Intoxication is also responsible for traffic accidents, and resulting injuries and deaths.

At the policy level, an enabling environment conducive to healthier life styles needs to be promoted. Recent increases in excise taxes levied on alcohol and tobacco (1 July 2010) were aimed at reducing intake. The correlation between high prices for these commodities and reduced demand is well established elsewhere.

Import of foods with low nutritional value

In Tonga, as elsewhere, consumption of inexpensive, high-calorie fatty foods are associated with an increase in diet-related NCDs.[19] In the last four decades or so, the consumption of imported foods low in nutritional value has increased at the expense of traditional diets that are generally recognized as healthier alternatives. Consumption of imported meats with high fat content is of concern. Mutton flap consumption more than doubled in 20 years: from 1,434,696 kg in 1976 (valued in TOP$420,217) to 2,940,822kg (valued in TOP$4,480,702) in 1996.

Although between 1996–1999, foreign trade statistics indicate a dramatic fall in the import of mutton, this decrease has been more than offset by increases in other imported meats. On the whole, the last 10 years or so has seen massive increases in the consumption of imported high-fat meats. The import level of key meats (mutton flaps, poultry pieces, sausages and corned beef) show a cumulative increase from 3,389,228 kg in 1989 (valued at TOP$5,331,364) to 5,559,418kg (valued at $TOP10,235,756) in 1999. Given the relative slow population growth in Tonga, the massive increase in imported food consumption represents a large per capita change.

Practical ways to effectively change consumption patterns remain a challenge and require further work through advocacy and providing adaptable alternatives, and economic and other incentives.

Poor quality of statistical data

Data limitations have restricted the disaggregation of data into a more detailed subset where policy intervention can pinpoint the areas and populations requiring the most attention. As a result, policy tends to be broad and may place emphasis incorrectly. For the same reason, most users refrain from drawing a strong inference from statistical trends over time because data limitations are sometimes unable to explain how the statistics can contribute to stochastic or real variation of trends over time. The same problem was also evident at the MDG snapshot in 2012 and other related works in the International Conference on Population and Development Programme of Action, the Vital Registration and even during the MAF consultations.

More than 50 percent of deaths in Tonga (285/553) occur outside the health infrastructure system and are likely to have no death certificate unless the family requests it. The second highest cause of death in Tonga after diseases of the circulatory system was 'unknown' (technically: 'symptoms signs and abnormal clinical and laboratory findings not elsewhere classified'.[20]

19. Based on data and facts provided by the 2005 Tonga MDG Progress Report.
20. Government of Tonga, Report of the Minister for Health, 2010. From World Bank, 2013.

Due to the lack of available data, the management of NCD will continue to be a health development challenge in Tonga. A follow-up National Diabetes survey in 2000 indicated that a large proportion of people with diabetes remained undiagnosed. However, it is estimated that the health system does not have the capacity to care for all these undiagnosed patients if they are identified.

Timely, comprehensive and disaggregated data on NCDs are required to inform the policy and decision-making process, including budgetary exercises. The National Health Accounts should aim at providing disaggregated data on health financing for each major NCD. Measurements better adapted to Pacific Islanders are required to gauge the extent of obesity prevalence, as BMI alone is not a good indicator. Indicators are needed that pinpoint the proportion of body fat in Pacific Islanders.

4.2 BUDGETING AND FINANCING

Cost of treating NCDs

A key characteristic of health financing in Pacific is that governments (supported by development partners) pay for most of health care. Private and out-of-pocket expenditure is low in absolute and relative terms. The Government of Tonga has limited fiscal space to increase expenditure on public health in a way that is sustainable.

A huge burden on health expenditure

NCDs in Tonga account for four of the five leading causes of mortality, and a major cause of morbidity. NCDs reduce quality of life, increase disabilities, and impose a major financial burden on the health system, in particular because of their chronic nature. They represent 10 percent of hospital admissions and 20 percent of government spending in the health sector.

Underfunding of NCD prevention

In 2004/05, overall health expenditures (not just NCD expenditures) represented 4 percent of the GDP, which increased to 6.8 percent in 2005/06. The MoH received 10.34 percent of the government budget in 2003/04, and in 2005/06, that proportion was 12.2 percent.

Health prevention is underfunded, in particular for NCDs, as can be seen in the National Health Accounts. In 2005/06, only 1.6 percent of health funds was used for the prevention of NCDs, while in-patient curative care used 15.7 percent of funds.

Health expenditures on NCDs are skewed towards more expensive and traumatic clinical care (as seen in the increase of diabetes-related amputations). Although primary health care is well established nationally, service delivery at the prevention level is underfunded and is a barrier to stepped prevention mechanisms.

Pharmaceutical expenses account for the majority of NCD expenses, at 60 percent. Out of the total spending on NCDs, 88 percent is dedicated to curative care. The prevention of NCDs is largely financed by donors.

The percentage of the total public health budget in 2008/09 allocated to preventive health was 5 percent (this amount did not include donor funds). Data from the first STEPS survey (baseline data from 2004) are not readily available to make a stronger case for increased budgeting.

In 2003/04, donor disbursement for the prevention of NCDs represented only 8 percent of the total spending (AusAID, WHO, Japan International Cooperation Agency [JICA] and New Zealand Agency for International Development [NZAID]) were the predominant contributors). Donor support represented 31 percent of total health care financing, with the MoH being the largest contributor to overall health care financing, at 54.5 percent. That contribution was 52 percent in 2005/06.

NGOs also participated in the financing of health expenditures. Although the total spent is relatively small compared to the MoH and donors, NGOs dedicated 14 percent of their budget to NCDs, the highest contribution of all providers of health care funds.

Neglect of remote areas in budget allocation

While there are good interventions, their benefits are restricted to areas with sufficient resources. In many cases, development tends to focus on urban areas and areas of high population density and leaves remote areas unattended because of limited budgets for transport and peripheral activities.

4.3 SERVICE DELIVERY

Inadequate monitoring of service delivery

Most organizations have good recording systems for service delivery but very limited systems focus on service utilization. Additionally, there is no systematic arrangement to disclose the level of customer satisfaction with service delivery.

Any discussion of dissatisfaction is usually left out at meetings or in informal or formal complaints by individuals. Of late, much attention is being paid to strengthening the monitoring and evaluation capacity of government and NGOs.

Following the national government reforms, impacted organizations were still in the learning stage of implementing their modified business procedures. These organizational reforms require sufficient time to enable work processes and systems to stabilize before the monitoring and evaluation results can be used as a key advisory tool for system maintenance.

Misdiagnosis of the incidence of NCDs

There has been substantial under-reporting of diabetes and cancers (neoplasms) as an underlying cause of death in Tonga. Specifically, 47 of 59 deaths (80 percent) for which diabetes was the actual underlying cause was originally assigned to septicaemia (which is not an NCD) and cardiovascular disease. Similarly, 12 cancer deaths (18 percent) were originally assigned to other causes.

Inadequate social support services for vulnerable populations

NCDs hurt the vulnerable population groups disproportionately, in particular the poor, women, the elderly and people living with disabilities. Currently, the social support services available to vulnerable groups are inadequate and the Government of Tonga is working with partners to redress this situation.

For instance, the Government, in partnership with the Asian Development Bank and the Japan Fund for Poverty Reduction, is introducing projects that protect vulnerable population groups, including the elderly and people with disabilities, from economic crises. Recently, the

21. Carter K et al, forthcoming publication, cited in World Bank, 2013.

Government of Tonga introduced a general retirement scheme (National Retirement Benefit Scheme) for the population above the age of 75. The primary goals are to provide a measure of financial security and to alleviate financial hardship for the elderly.

Physical education in schools is optional

A cross-linkage with MDG 2 (education) is important. Currently, physical education is not compulsory but an optional subject in primary schools. Teachers in primary schools are often expected to devote a small amount of time to physical activity, which is not sufficient to produce adequate health benefits for children or to respond to the challenges of NCDs. Moreover, teachers are not trained in the specific requirements of physical education. However, under the new primary schools curriculum currently being drafted, physical education will become a compulsory subject called Movement and Fitness.

4.4 SERVICE UTILIZATION[22]

Poor dietary practices affected by individual preferences

Profound dietary changes have occurred in Tonga over the last decades. Diets have changed from predominantly root vegetables, coconut and fresh fish to bread, rice, tinned fish, sugar and salt and, more recently, Asian packaged noodles. Certain imported foods have increased the risk of NCDs.

A taste for fatty foods (lamb flaps, or sipi in Tongan) is now firmly established in Tonga's society and presents a particularly difficult set of challenges. A real nutritional problem is how to obtain an adequate source of protein at reasonable prices, and the over-consumption of lamb flaps illustrates this dilemma. Both the quality and quantity of food consumed explain the high rates of obesity seen in the country, and in turn, the soaring rates of NCDs.

In relation to MDG 2 (Education), the MoH has a Nutrition and Food Policy for Schools and nutritional awareness programmes. However, qualitative assessments point to the lack of good nutrition in schools. Some families derive a small income from selling nutritionally poor foods around schools. Prohibiting them from selling those could deprive them from a key income source for the entire family. The Government would have to work to identify alternative sources of income.

Lack of an enabling environment to promote physical activity

The other main risk factor is physical inactivity. One tangible consequence of Tonga's accelerated development is the exponential increase in the number of motor vehicles, which in turn, has an environmental impact on air quality and economic impact by increasing the demand for energy. From pure observational evidence, very few people can be seen either walking or biking on the main island of Tongatapu.

22. Extracted from the 2010 Tonga MDG National Report.

There are many barriers that prevent an increased use of bicycles in Tonga, including the higher social status attached to owning a motor vehicle and the fear of riding a bicycle near motor vehicles, cultural misconceptions about the impact that bikes might have on a girl's virginity, and the independence that bikes give girls and young people overall. Community nurses working for the MoH used bicycles in the past as a mode of transportation, but no longer as the fear factor acts as a powerful disincentive. Other hazards that preclude a wider uptake of cycling include animals on the streets, free roaming dogs in particular.

4.5 CROSS-CUTTING

Failure of silos approach to enable broader partnerships to fight NCDs

The scale and deep-rooted nature of the NCD epidemic in Tonga requires actors to work together across sectors. Initiatives delivered through education, health, trade, rural development and other ministries and non-governmental actors need to be well coordinated. However, the advocacy for healthy lifestyles has vastly relied on the capacity of the MoH in the last decade. As times goes on, the public has started to take this message lightly and sometimes to ignore it.

A number of initiatives intended to reduce the incidence of NCDs have been contemplated and adopted. Food-related behaviours remain a major challenge for policy makers, as educational initiatives are predicated on the notion that people's food preferences and thus their consumption patterns can be transformed. However, the diverse and wide educational awareness campaign has contributed only in a limited way to containing the rapidly increasing diabetes rate and subsequent prevalence of obesity. The effective implementation of solutions to redress and prevent the current NCD situation in Tonga will require broader multi-sectoral partnerships.

During the process of MAF consultations, stakeholders started to think about common strategies rather than work in sectoral silos. Some of the NCD partners recognized the importance of partnerships, but such opportunities were not fully encouraged or pursued. Key partners who would be instrumental in NCD advocacy, such as church and community leaders, are strongly committed to take part in the implementation of the MAF Action Plan in Tonga.

TABLE 10: BOTTLENECK ANALYSIS MATRIX

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	CATEGORY
1. Increase local food supply to ensure the availability of affordable options of nutritious food, in particular to the poor	1.1. Inadequate coordination and lack of cross-sectoral collaboration	Policy and planning
	1.2. Silos approach has not enabled broader partnerships to fight NCDs	Cross-cutting
	1.3 Inadequate availability of healthy food (imports of foods with low nutritional value affect traditional diets)	Policy and planning
	1.4 Inadequate support to local farmers' cooperative	Policy and planning
2. Create income-generating opportunities for women and vulnerable groups to adopt more healthy diets and lifestyles	2.1 Poor households are unable to afford basic needs, in particular those headed by women	Policy and planning
	2.2. Inadequate availability of social support services to vulnerable population groups	Service delivery
	2.3. Geographic isolation	Cross-cutting
3. Provision of curative health services in hospital setting, disease-specific risk factor screening	3.1 NCD prevention is underfunded	Budget and financing
	3.2 Inadequate monitoring and surveillance of NCDs incidence	Policy and Planning
	3.3 Misdiagnosis of NCDs incidence	Service delivery
	3.4 Inadequate monitoring of service delivery	Service delivery
4. Review of legislation, subsidiary legislation and policies affecting food/tobacco/kava Tonga/alcohol and physical activity	4.1 Lack of effective policies to promote healthier life styles	Policy and planning
	4.2 Poor quality of statistical data	Policy and planning
5. Advocacy for healthy lifestyles (churches, workplaces, schools and communities)	5.1 Lack of enabling environment to promote physical activity (workplace, churches, schools, community)	Service utilization
	5.2 Poor dietary practices affected by individual preferences	Service utilization
	5.3. Physical education at schools is optional, not compulsory	Service delivery

V. ACCELERATING MDG PROGRESS: IDENTIFYING SOLUTIONS AND BUILDING A COMPACT

Photo credit: Photoworks-Manfredi

As noted, NCDs are a national priority for the Government of Tonga. The MoH cannot alone spur radical changes in the prevalence and incidence of NCDs as these are fundamental societal issues that require a multi-sectoral input (health, education, energy, agriculture, sports, transport, communication, urban planning, environment, labour, industry and trade, finance and social and economic development) and strong policy support. Moreover, resources must be mobilized to fund the primary prevention of NCDs.

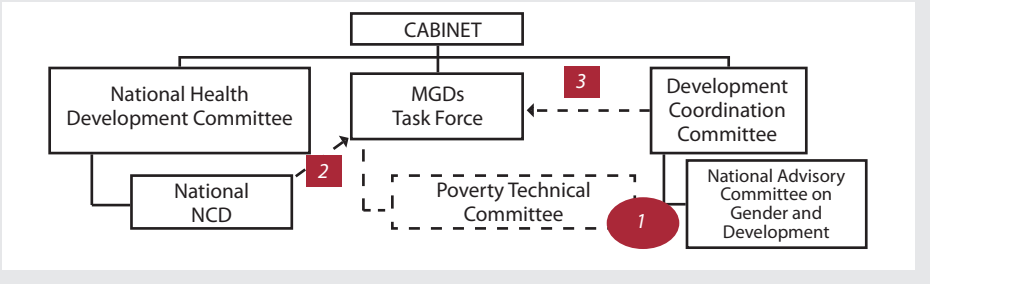
A broad package of solutions can have a significant impact, and lower the direct and indirect costs of NCDs. Among these: providing more and better information about nutrition and the importance of regular exercise, directed particularly at young people and poorer households; ensuring sufficient financing of preventive and primary health care to spot and treat problems early on; and increasing tobacco taxes to reduce the number of new smokers, while simultaneously generating extra revenue for Government. Consideration could also be given to increasing taxes on sugary soft drinks, alcohol and junk foods high in saturated and trans-fats, and salt content.

Quick gains against the NCD epidemic can be achievedthrough modest investments in interventions. What is needed for widespreadimplementation of the interventions is the active engagement of non-health sectorsand a complete Government approach, including sectors such as education, trade,agriculture, food security and the environment.[23]

The nature of the problems associated with NCDs warrants an improvement inthe government institutional set-up and work processes such as building good working relationships between existing technical forums including NCDs andwomen's development forums with the MDG Task Force. Unfortunately, none focus on poverty and a new committee may be needed to fill this gap. More importantly, it is vital to coordinate activities that are relatively similar among all relevant stakeholders.

The government institutional set-up should have an enhanced monitoring and evaluation component with an annual review mechanism. The delineation of roles and responsibilities in executing the MAF should be explicitly defined and revisited over time. Given the current strengths of the existing arrangement, it is useful to consider the Annual MDGs Expo Days as an opportunity for relevant authorities to publicly present the progress of their MAF roles and responsibilities.

FIGURE 7: GOVERNMENT INSTITUTIONAL SET-UP TO DEAL WITH POVERTY/MDGs



23. In line with the recommendations contained in the UN Secretary-General Report on NCDs (A/66/83), May 2011.

5.1 ROLE OF GOVERNMENT

The leadership role of the Government of Tonga in the fight against NCDs is crucial for national development in the short and long term. Political support must be sustained and increased, asmany stakeholders must cooperate .

While the lack ofinformation and integration have beenidentified as fundamental bottlenecks, the coordination and implementation roles vested inthe Ministry of Finance and National Planning (MOFNP)and the Ministry of Internal Affairs(MIA) are among the cornerstones for success in this endeavour. Sufficient support and recognition should begiven to those who play these roles at these ministries.

Accelerating solutions were built around community development in partnership with village and district councils as well as churches. It is a model that was recommended as early as the 1980s and again re-emerged during the 2009 Pacific Regional Conference on Population and Development as well as at the WHO Review of PEN Packages in Tonga in 2012. If undertaken, this would bethe first time that this model istested and appliedin a basic approach . However, immediate success and sustained benefit would rely on strong and consistent commitment from village and district councils. It demandsthe active participation of each contingency representative to parliament .

All specific activities of this plan are intendedto remove the immediate and long-term bottlenecks thatimpede progress towardachievingMDG 6c, with attentiontoMDG 1 and 3. At the macro level, it is anticipated that planned activities would achieve 50percentcoverage of Tongan households by mid-2014 and the entire population by mid-2015.

The scope of this work is crucial not only for national development before the end of theglobal and national MDG journey in 2015 but also for thepost-2015 development approach. If NCDs cannot be halted and reversedit has the potential to disturb the economic development of Tonga. The fight against NCDs should be maintained as a core national economic and development issue recognized fromthe highest to the lowest levels of authority inthe Kingdom of Tonga.

5.2 ROLE OF SOCIETY

The 2010 Tonga MDGProgress Report highlighted the problems with data limitations. Insufficient data and lack of disaggregated data limits the impact of policy intervention as priority areas and vulnerable groups may not be adequately targeted.

In addition, the outcome of the Economic Dialogue Forum 2012 established eight strategies, including to 'enhancingthe collaboration between the Government with the private sector, and across the private sector'. During the Tonga Strategic Development Framework, issues related to partnership and coordination across society were also highlighted.

The MAF process and consultations mapped out various relevant initiatives aimed to reduce and prevent NCDs which are very similar in nature but executed in isolation. The MAF Action Plan has an important role in strengthening collaboration among partners, eliminating duplication and enabling better targeted investments for cost-effective accelerated progress. In this respect, the role of society cannot be over emphasized. For instance, partnerships with academics and universities can help address the limitations present in data gathering. Social group sand

individuals can play a powerful role in outreach and advocacy for healthier lifestyles.

5.3 ROLE OF DEVELOPMENT PARTNERS

The Action Plan resulted from a consultative process carried out with relevant stakeholders and development partners. Solutions proposed are interrelated, therefore, meaningful and sustainable results can only be achieved if a holistic approach is applied. Stakeholders should be aware that the following features have been embedded into this plan:

- enhancedengagement ofdevelopment partners with stronger communication strategies and outreach;
- strengthening of community development with special emphasis on encouraging women's participation;
- improvement of food security and empowerment of local farmers;
- protection for vulnerable population groups;
- support for early detection of NCDs with measures to prevent incidence of disease and to improve remission;
- grassrootsfocus nationwide, country-driven with minimal reliance on external factors.

The supporting role of development partners in theimplementation ofthisplan isvitalandrequires the government to assume a leadership role. The solutions to mitigate the negative impact of socio-economic determinants (such as poverty and lack of women's empowerment) cannot be solved within the country alone or by the government on its own. Additionally, the government and the implementers need to draw upon the experiences of success and failure that others have had in the fight against NCDs around the world and in the Pacific setting.

Nevertheless, it is important that all support be granted under the leadership and management of the government whether it bein the form of financial or technical assistance.

5.4 FINANCING SOLUTIONS

While the government is taking aleadership role in designing and implementing this plan, it is appropriate to be consistent in using its budgetary approach to shoulder the cost. This is also important, given that the fight againstNCDs will take at least severalyears.

The cost borne by this plan should be considered under the budgetary system of the government from2013/14 to 2015/2016. Development partners can contribute through the budget support system under the government budgetary system for the same period.

Allocated funds will be managed by the MAF CM at the MOFNP and dispersed according to relevant stakeholders as prescribed by the plan. The MAF CM as well as the MAF POs will be responsible for micro-monitoring the implementation and advising the MDG Task Force on the progress over time.

Implementers are expected to submit clear implementation details of each activity as part of the process to request these funds. They are also responsible for providing a detailed completion report at the end of theimplementation of each activity.

TABLE 11: MDG ACCELERATION ACTION PLAN TO REDUCE THE INCIDENCE OF NCDS IN TONGA

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS
1. Increase local food supply to ensure the availability of affordable options of nutritious food, in particular to the poor	1.1. Inadequate coordination and lack of cross-sectoral collaboration	1.1.1 Mapping exercise to accelerate the operationalization of the National Food Council
		1.1.2 Prioritize the enactment of the Food Bill
		1.1.3 Identify and strengthen village councils to support local food production
	1.2 Inadequate availability of healthy food (imports of foods with low nutritional value affect traditional diets)	1.1.4 Strengthen working relationship with village councils
		1.2.1 Accelerate home gardening initiatives

	SPECIFIC ACTIVITIES	RESPONSIBLE PARTNERS	POTENTIAL SUPPORTING PARTNERS
	1.1.1.1 Review the Terms of Reference of the National Food Council in the framework of food security and NCDs and submit recommendations to the MDG Country Taskforce	Ministry of Fishery and Agriculture	Ministry of Health, Legislative Assembly
	1.1.2.1 Inspect and complete the process requirement for enactment of the Food Bill	Legislative Assembly, Ministry of Fishery and Agriculture, Ministry of Health	Ministry of Internal Affairs, Ministry of Finance and National Planning
	1.1.3.1 Stocktaking of village councils nationwide 1.1.3.2 Devise best practice guidance tools that will strengthen management of current village councils and establish new village councils 1.1.3.3 Provide ongoing mentoring roles and relevant training for village councils to support local food production	Ministry of Internal Affairs, Ministry of Finance and National Planning	Ministry of Health, civil society, NGOs
	1.1.4.1 Establish points of contact, and two-way communication channels as part of working relationship between village councils and relevant stakeholders	Ministry of Internal Affairs, Ministry of Finance and National Planning	Ministry of Health, Tonga's Health, civil society, NGOs
	1.2.1.1 Increase financial resources that supply to and support home gardening in rural and urban areas 1.2.1.2 Strengthen the capacity of agricultural extension	Ministry of Finance and National Planning, Ministry of Forestry, Farming and Fishery, Tonga's Health, Ministry of Internal Affairs	FAO, UNDP, Ministry of Health, SPC

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS
1. Increase local food supply to ensure the availability of affordable options of nutritious food, in particular to the poor	1.2 Inadequate availability of healthy food (imports of foods with low nutritional value affect traditional diets)	1.2.2 Introduce quota for overseas vessels (mindful of the processing cost)
		1.2.3 Strengthen policy that supports sustainable protection of marine resources
		1.2.4 Establish trade arrangement (through existing network of trade supplies) that will secure healthy food at lower transport cost
		1.2.5 Advocate for greater utilization of healthy local food production
	1.3 Inadequate support to local farmers' cooperatives	1.3.1 Government assumes duty of cooperative role immediately and encourages support from development partners
2. Create income-generating opportunities for women and vulnerable groups to adopt more healthy diets and lifestyles	2.1 Poor households, in particular those headed by women, unable to afford basic needs	2.1.1 Review Foreign Investment Act and regulations in partnership with Pacific Islands and Territories (PICTs) that have a good record in foreign investment
		2.1.2 Devise/expand micro-finance solutions to areas and population groups that most need the support

	SPECIFIC ACTIVITIES	RESPONSIBLE PARTNERS	POTENTIAL SUPPORTING PARTNERS
	1.2.2.1 Review relevant policies and legislation 1.2.2.2 Submit and test recommendations prior to full implementation 1.2.2.3 Conduct thorough assessment of logistics requirements to facilitate recommended changes	Ministry of Forestry, Farming and Fishery, Ministry of Commerce, Tourism and Labour	FAO, Ministry of Health, Legislative Assembly
	1.2.3 Strengthen policy that supports sustainable protection of marine resources	Ministry of Forestry, Farming and Fishery	FAO, Legislative Assembly, SPC, Ministry of Finance and National Planning
	1.2.4.1 Explore alternative trade agreements and partnerships (e.g., Cook Island, Fiji, NZ, Niue, Vanuatu, etc.) that can potentially operate at lower transport costs	Ministry of Commerce, Tourism and Labour, Ministry of Finance and National Planning	UNDP, Ministry of Health, Ministry of Foreign Affairs, Ministry of Internal Affairs
	1.2.5.1 Conduct public training and consultation on available healthy food production 1.2.5.2 Provide technical support that would encourage communities, organizations and households to join in producing healthy food (e.g., community gardens)	Ministry of Health, Ministry of Forestry, Farming and Fishery	WHO, UNDP, Ministry of Internal Affairs, civil society, NGOs, Legislative Assembly
	1.3.1.1 Stocktaking of the basic needs of local farmers 1.3.1.2 Secure required resources that would meet the basic needs of local farmers 1.3.1.3 Mobilize resources to support local farmers' cooperatives	Ministry of Forestry, Farming and Fishery, Ministry of Finance	Ministry of Commerce, Tourism and Labour, Ministry of Internal Affairs, civil society, NGOs
	2.1.1.1 Review Foreign Investment Act and regulations in partnership with PICTs that have a good record in foreign investment	Ministry of Commerce, Tourism and Labour	Ministry of Finance and National Planning, Ministry of Justice, Ministry of Foreign Affairs, World Bank, ADB
	2.1.2.1 Identify specific vulnerable population groups that need micro-finance solutions 2.1.2.2 Ascertain funding support 2.1.2.3 Expand the scope of the existing micro-finance solutions to cover identified vulnerable groups	Ministry of Finance and National Planning	UNDP, ADB, UNICEF, Ministry of Education, Ministry of Health, Ministry of Internal Affairs

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS
2. Create income-generating opportunities for women and vulnerable groups to adopt more healthy diets and lifestyles	2.1 Poor households, in particular those headed by women, unable to afford basic needs	2.1.3 Conduct National Poverty Policy Review
		2.1.4 Identify which organizations will most directly assume responsibility for poverty with the assistance of others
		2.1.5 Consider capital equipment (Tonga Power Board and Tonga Water Board) for public enterprises at the Government Foreign Policy Dialogue and development partners' support
	2.2. Inadequate availability of social support services for vulnerable population groups	2.2.1 Consider expanding the scope of the current social services to include critical areas of hardship that are not included
		2.2.2 Build a stronger social services system that will cater to more public needs with multi-sectoral support
	2.3. Geographic isolation	2.3.1 Improve provision for basic resources that deliver on the MAF Action Plan initiatives in remote areas
3. Provision of curative health services and disease-specific risk factors screening in hospital setting	3.1 NCD prevention is underfunded	3.1.1 Secure supporting resources from re-fencing pool of funding approach to supplement resources gap
	3.2 Inadequate monitoring and surveillance of NCDs incidence	3.2.1 Develop/implement good monitoring indicators

	SPECIFIC ACTIVITIES	RESPONSIBLE PARTNERS	POTENTIAL SUPPORTING PARTNERS
	2.1.3.1 Develop a Terms of Reference to complete the National Poverty Review 1.2.3.2 Considering the local resources, recruit a short-term consultant/ consultancy firm to conduct Poverty Policy Review	Ministry of Finance and National Planning	Asian Development Bank, UNICEF, UNDP, World Bank, Ministry of Health, Government Statistics Department
	2.1.4.1 Consider the recommendations from the National Poverty Policy Review and government reform; hold series of meetings to determine which organization will most directly assume responsibility for poverty 2.1.4.2 Provide policy advice to the MDGs Task Force specifically on the institution that will most directly assume responsibility for poverty reduction programmes	Ministry of Finance and National Planning	Asian Development Bank, UNDP, World Bank, WHO, Ministry of Labour and Commerce, Ministry of Internal Affairs, Ministry of Foreign Affairs, civil society, NGOs
	2.1.5.1 Consider capital equipment (Tonga Power Board and Tonga Water Board) for public enterprises at the Government Foreign Policy Dialogue and development partners' support	Ministry of Finance and National Planning, Tonga Water Board, Tonga Power Board	Ministry of Internal Affairs, civil society, NGOs, Ministry of Foreign Affairs
	2.2.1.1 Consider expanding the scope of the current social services to include critical areas of hardship that are not in included	Ministry of Finance and National Planning	Asian Development Bank, Ministry of Internal Affairs, Ministry of Health, Japan Fund for Poverty Reduction
	2.2.2.1 Build a stronger social services system that will cater for more public needs with multi-sectoral support	Ministry of Finance and National Planning	Asian Development Bank, Japan Fund for Poverty Reduction, Ministry of Internal Affairs, Ministry of Health
	2.3.1.1 Improve provision for basic resources that deliver on MAF Action Plan initiatives in remote areas	Ministry of Finance and National Planning	Ministry of Internal Affairs, Ministry of Health, NGOs, civil society
	3.1.1.1 Examine NCD-related priority expenditure not met by the recurrent budget 3.1.1.2 Submit supplementary budget proposal to the MDGs Task Force/Ministry of Finance 3.1.1.3 Secure funding support for public health infrastructural development	Ministry of Health, Ministry of Finance and National Planning	Japan
	3.2.1 Develop/implement good monitoring indicators to be used across districts/towns	Ministry of Internal Affairs, Ministry of Health, Tonga Police Department	Ministry of Finance and National Planning, Public Service Commission

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS
3. Provision of curative health services and disease-specific risk factors screening in hospital setting	3.3 Inadequate monitoring of service delivery	3.3.1 Rebuild good chain of communication between town/district officers, Tonga Police Department and MOH
	3.4 Late diagnostic of NCDs incidence [24]	3.4.1 Promote medical check-ups and disease-specific risk factors screening
4. Review of legislation, subsidiary legislation and policies affecting food/tobacco/kava Tonga/alcohol and physical activity	4.1 Lack of effective policies to promote healthier life styles	4.1.1 Fast track tax on unhealthy food and tobacco
	4.2. Silos approach has not enabled broader partnerships to fight NCDs	4.2.1 Strengthen implementation roles (supervision, monitoring, reporting)
		4.2.2 Support MAF Action Plan coordinator's roles and responsibility
		4.2.3 Strengthen MDGs Country Taskforce/ Technical Committee • Implementation, monitoring, supervision, communication and interaction • Action Plan • Reporting on progress • Coordination with other implementing agencies

24. The Ministry of Health in collaboration with partners has been putting measures to address this, including: (1) Two training workshops targeting doctors on causes of mortality in Tonga that were conducted by the University of Queensland and Fiji National University; (2) a causes of death session for new graduates that uses a Handbook (pocket size), which focuses on the cause of death (mortality), to facilitate their daily procedures; (3) a clinical monthly mortality meeting convened by MoH to review deaths recorded at the hospital level and assess the procedures in order to improve; and (4) a new curriculum introduced by the Fiji National University on this specific issue on fourth and fifth year medical students in training. Students are encouraged to do their final research on those issues. (A final year student is now repeating the same method at the next largest island of Tonga (Vava'u) and we will probably see the results later this year.)

	SPECIFIC ACTIVITIES	RESPONSIBLE PARTNERS	POTENTIAL SUPPORTING PARTNERS
	3.3.1.1 Rebuild good chain of communication between town/district officers, Tonga Police Department and MOH	Ministry of Internal Affairs, Ministry of Health, Tonga Police Department	Ministry of Finance and National Planning, Public Service Commission
	3.4.1 Procurement of mammography machine to support cancer screenings	Ministry of Health, Ministry of Finance and National Planning	Japan, Ministry of Internal Affairs, Public Service Commission
	4.1.1 Fast track tax on unhealthy food and tobacco	Inland Revenue, Ministry of Health	Legislative Assembly, Ministry of Commerce, Tourism and Labour and, Ministry of Foreign Affairs
	4.2.1.1 Establish dedicated staff whose primary role will be facilitating the efficient delivery of the MAF Action Plan at operational levels (village councils and relevant stakeholders)	Ministry of Internal Affairs, Ministry of Finance and National Planning, Public Service Commission	UNDP, Ministry of Health
	4.2.2.1 Maintain the coordination role by providing secretariat and administrative support for the MDGs Country Task Force, Technical Sub-Committee and development partners at executive level	Ministry of Finance and National Planning	UNDP, Ministry of Internal Affairs
	4.2.3.1 Maintain regularity (at least monthly) of meeting 4.2.3.2 Stocktaking of achieved milestones and identified bottlenecks 4.2.3.3 Design solutions to address unforeseen events that were not reflected in the MAF Action Plan 4.2.3.4 Strengthen provision of appropriate policy advice to Royal Cabinet, public and relevant stakeholders 4.2.3.5 Follow closely the implementation of cross-sectoral action through monitoring and evaluation processes in order to determine the progress in achieving planned outcomes, and identify opportunities for productive changes in approach	Ministry of Finance and National Planning	UNDP, Ministry of Internal Affairs, Ministry of Health, civil society, NGOs

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS
4. Review of legislation, subsidiary legislation and policies affecting food/tobacco/kava Tonga/alcohol and physical activity	4.2. Silos approach has not enabled broader partnerships to fight NCDs	4.2.4 Integrate MAF Action Plan into the Corporate Plan and Annual Management Plan of relevant government department and stakeholders
		4.2.5 Provide at least one progress report on MAF activity from implementers on a quarterly basis to the MAF coordinator, Secretariat of MDG Country Taskforce
	4.3 Quality of statistical data	4.3.1 Build capacity of public officers and service providers for NCD data collection and analysis [25]
5. Advocacy for healthy lifestyles (churches, workplaces, schools and communities)	5.1 Lack of an enabling environment to promote physical activity (workplace, churches, schools, community)	5.1.1 Encourage PEDI bus approaches

25. There is a regional approach to improve Civil Vital Registration led by Brisbane Accord Group.
26. SPC (Public Health Division) has just developed an Operation Research action plan for the Pacific. In addition, with support from the Australian Development Grant Award in 2013, research is being conducted on the trends of NCD risk factors and premature mortality in Pacific Island countries and predictive modelling of effects of inaction and control interventions.

	SPECIFIC ACTIVITIES	RESPONSIBLE PARTNERS	POTENTIAL SUPPORTING PARTNERS
	4.2.4.1 Create strong link between MAF Action Plan activities and relevant government department and stakeholders' plans and actions.	Ministry of Finance and National Planning, Ministry of Health, Ministry of Fishery and Agriculture, Ministry of Commerce, Tourism and Labour and, Ministry of Internal Affairs	UNDP, AusAID, ADB, World Bank, JICA, WHO, civil society, NGOs
	4.2.5.1 Provide at least one progress report on MAF activity from implementers on a quarterly basis to the MAF coordinator, Secretariat of MDG Country Taskforce	Ministry of Finance and National Planning, Ministry of Health, Ministry of Fishery and Agriculture, Ministry of Commerce, Tourism and Labour and, Ministry of Internal Affairs	UNDP, civil society, NGOs, WHO, AusAID, ADB, World Bank
	4.3.1.1 Develop the capacity of public officials to collect NCD data in a timely manner 4.3.1.2 Use health impact assessment as a tool to identify potential (positive and negative) health impacts of other sectors' policies, actions that can enhance positive impacts and reduce risks; and the roles and responsibilities of other sectors in achieving healthy policies. 4.3.1.3 Provide tools and techniques to include health in the policies of other sectors and to address health inequalities/ inequities (e.g., health impact assessment, economic analysis, data disaggregated by gender, income, participatory research, and qualitative analysis etc.)[26]	Ministry of Health	WHO, UNDP, World Bank, ADB
	5.1.1.1 Start-up initiatives that would support transport by foot or bicycle to workplaces to reduce use of motor vehicles 5.1.1.2 Introduce a daily '1000 steps' initiative to encourage physical activity	Ministry of Health, Public Service Commission	AusAID, Ministry of Finance and National Planning, Chamber of Commerce, civil society, NGOs

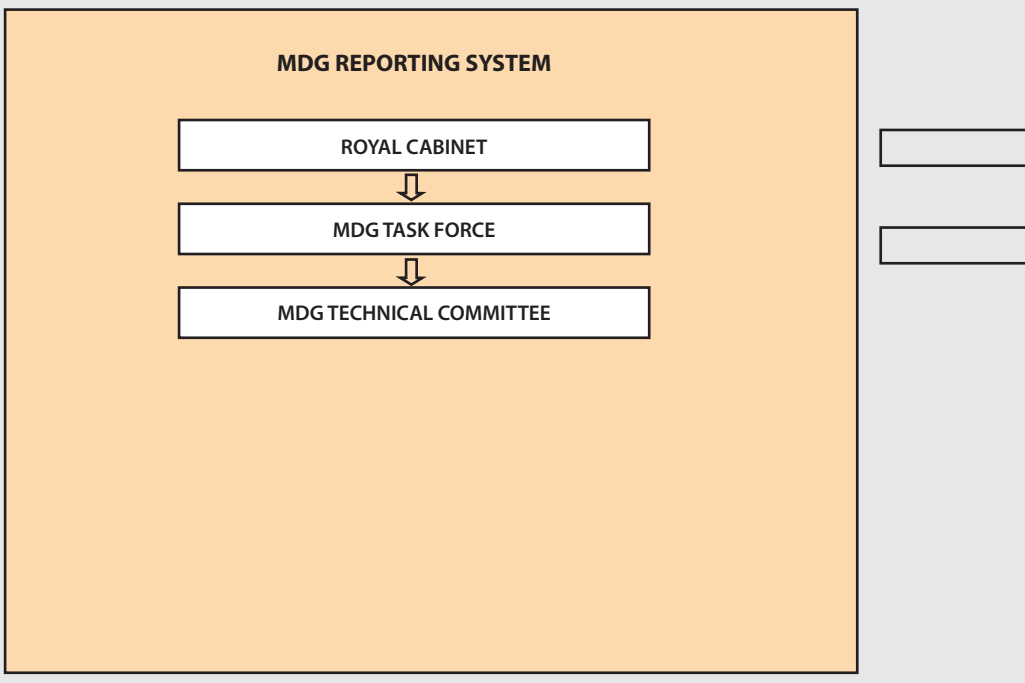
PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS
5. Advocacy for healthy lifestyles (churches, workplaces, schools and communities)	5.1 Lack of an enabling environment to promote physical activity (workplace, churches, schools, community)	5.1.2 Introduce occupational health policy that requires regular health check-ups (at least every two years)
		5.1.3 Encourage interdepartmental sports
		5.1.4 Provide support to accelerate development of existing church NCD programmes (set up series of NCD church programmes such as youth debates and dedicated Sunday programmes on NCD)
		5.1.5 Introduce NCD-related programmes to become a core function of church leaders' forums
		5.1.6 Enhance community participation in policy development, implementation and evaluation processes through public consultations/hearings, disseminating information using mass media, web-based tools and facilitating the equal and meaningful involvement of constituency/ NGO representatives at all levels

	SPECIFIC ACTIVITIES	RESPONSIBLE PARTNERS	POTENTIAL SUPPORTING PARTNERS
	5.1.2.1 Deliver health talks and advice at a regular basis (at least once a quarter) 5.1.2.2 Review of Public Service Commission Policy to design policy brief on recommended changes to support regular health check-up and regular health talks 5.1.2.3 Conduct consultations with relevant stakeholders on possible amendments to Public Service Commission Policy 5.1.2.4 Fulfil the procedural requirements for the approval of Revised Public Service Commission Policy	Public Service Commission, Ministry of Health	AusAID, civil society, NGOs, Chamber of Commerce
	5.1.3.1 Diversify types of interdepartmental sports competition to encourage full participation 5.1.3.2 Advocate for good attendance	Ministry of Internal Affairs	Ministry of Health, NGOs, civil society
	5.1.4.1 Advocate for restriction of smoking on all church premises 5.1.4.2 Stocktaking of the current/future list of NCD-related activities 5.1.4.3 Identify church activities that require accelerating specific solutions 5.1.4.4 Initiate community sports activities (male and female)	Church leaders and community	WHO, Ministry of Health, Ministry of Internal Affairs, Ministry of Finance and National Planning
	5.1.5.1 Conduct consultations with church leaders to understand how churches can support activities to promote healthier lifestyles of church members 5.1.5.2 Develop NCD supporting tools for church leaders and church members	Church leaders and community	WHO, Ministry of Health, Ministry of Internal Affairs, Ministry of Finance and National Planning
	5.1.6.1 Mobilize NGOs and CBOs to act on the issue of NCDs irrespective of their area of work 5.1.6.2 Engage community groups to facilitate dissemination of information on NCDs 5.1.6.3 Develop an advocacy and awareness campaign to prevent NCDs with the help of CBOs and NGOs using radio, TV, web-based tools, etc	Ministry of Health, Ministry of Education, Community Based-Organizations, NGOs, Churches and UN agencies	AusAID, civil society, NGOs, Ministry of Internal Affairs, Media Community

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS
5. Advocacy for healthy lifestyles (churches, workplaces, schools and communities)	5.2 Poor dietary practices affected by individual preferences	5.2.1 Restrict the availability of unhealthy food and the habit of smoking at the workplace
		5.2.2 Encourage green environment at workplaces
		5.2.3 Encourage healthy diet and discourage excessive use of alcohol at official functions

5.5 MONITORING AND IMPLEMENTATION ARRANGEMENT

FIGURE 8: **SCHEMATIC OF THE PROPOSED ARRANGEMENT FOR MONITORING THE IMPLEMENTATION OF THE MAF ACTION PLAN ON NCDS FOR TONGA.**



	SPECIFIC ACTIVITIES	RESPONSIBLE PARTNERS	POTENTIAL SUPPORTING PARTNERS
	5.2.1.1 Prohibit the access of vendors to workplaces at all times 5.2.1.2 Enforce the restriction of tobacco smoking at workplace premises	Public Service Commission	Ministry of Finance and National Planning, Ministry of Health, NGOs, civil society
	5.2.2.1 Encourage planting of healthy diet vegetables at workplaces where possible	Public Service Commission	Ministry of Finance and National Planning, Ministry of Health, NGOs, civil society
	5.2.3.1 Develop a standard healthy diet with advisable recommended standards as the basis for hosting official events	Ministry of Health and Tonga's Health	Ministry of Finance and National Planning, Ministry of Health, NGOs, civil society

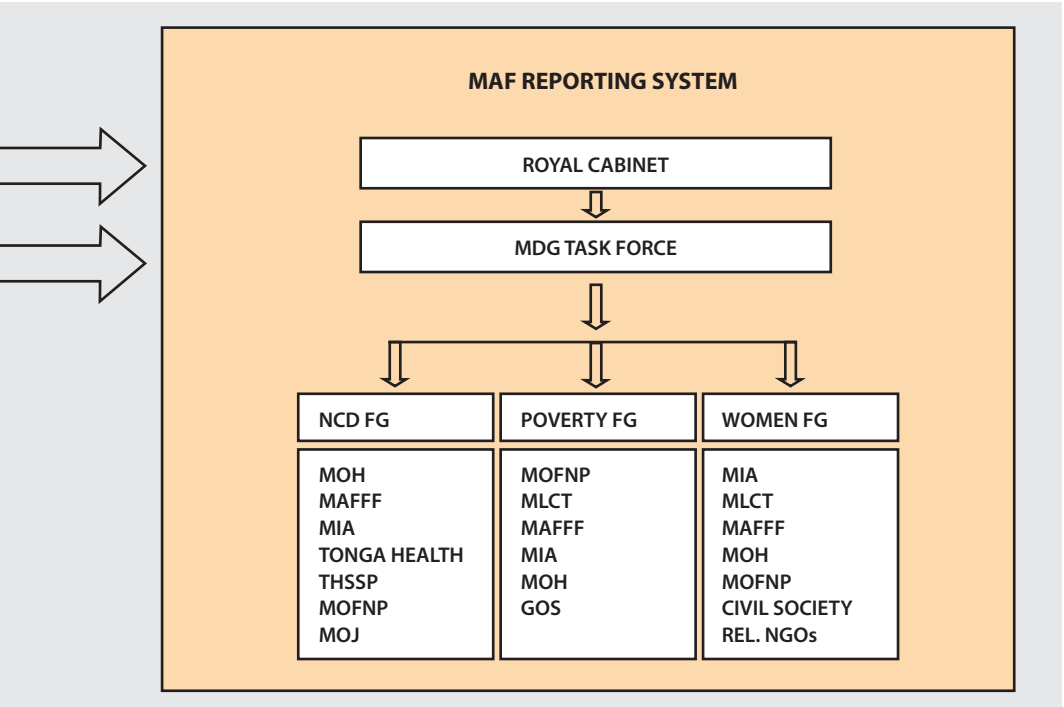


TABLE 12: IMPLEMENTATION AND MONITORING OF THE MAF ACTION PLAN

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS	SPECIFIC ACTIVITIES
1. Increase local food supply to ensure the availability of affordable options of nutritious food, in particular for the poor	1.1. Inadequate coordination and lack of cross-sectoral collaboration	1.1.1 Mapping exercise to accelerate the operationalization of the National Food Council	1.1.1.1 Review the Terms of Reference of the National Food Council in the framework of food security and NCDs and submit recommendations to the MDG Country Taskforce
		1.1.2 Prioritize the enactment of the Food Bill	1.1.2.1 Inspect and complete the process requirement for enactment of Food Bill
		1.1.3 Identify and strengthen village councils to support local food production	1.1.3.1 Stocktaking of village councils nationwide 1.1.3.2 Devise best practice guidance tools that will strengthen management of current village councils and establish new village councils 1.1.3.3 Provide ongoing mentoring roles and relevant training for village councils to support local food production
		1.1.4 Strengthen working relationship with village councils	1.1.4.1 Establish points of contact and two-way communication channels between village councils and relevant stakeholders
	1.2 Inadequate availability of healthy food (Imports of low nutritional value foods affect traditional diets)	1.2.1 Accelerate home gardening initiatives	1.2.1.1 Increase financial resources that supply and support home gardening in rural and urban areas 1.2.1.2 Strengthen the capacity of agricultural extension

	COST (IN TOP)	DESIRED OUTCOMES	RESPONSIBLE PARTNERS	2013				2014				2015			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
		Revised TORs of NFC that best represent relevant stakeholders' needs	Ministry of Fishery and Agriculture												
		Disclose and advise MDGs Task Force on barriers to enactment	Legislative Assembly, Ministry of Fishery and Agriculture, MoH												
	20,000	Complete list of villages with/ without village councils Best practise guidance for current or new village councils Enhanced working relationship between village councils and relevant stakeholders	Ministry of Internal Affairs, Ministry of Finance and National Planning, Ministry of Fishery and Agriculture												
		Communication System and Strategy for village councils and relevant stakeholders	Ministry of Internal Affairs, Ministry of Finance and National Planning												
	100,000	Wider coverage of home gardening initiatives	Ministry of Finance and National Planning, Ministry of Forestry, Farming and Fishery , Tonga's Health, Ministry of Internal Affairs												

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS	SPECIFIC ACTIVITIES
1. Increase local food supply to ensure the availability of affordable options of nutritious food, in particular for the poor	1.2 Inadequate availability of healthy food (Imports of low nutritional value foods affect traditional diets)	1.2.2 Introduce quota for overseas vessels (mindful of the processing cost)	1.2.2.1 Review relevant policies and legislation 1.2.2.2 Submit and try recommendations prior to full implementation 1.2.2.3 Conduct thorough assessment of logistics requirements to facilitate recommended changes
		1.2.3 Strengthen policy that supports sustainable protection of marine resources	1.2.3 Strengthen policy that supports sustainable protection of marine resources
		1.2.4 Establish trade arrangement (through existing network of trade supplies) that will secure healthy food at lower transport cost	1.2.4.1 Explore alternative trade agreement and partnership (ex., NZ, Vanuatu, Fiji, Tonga, Niue, Cook Island etc.) that can potentially operate at lower transport costs
		1.2.5 Advocate for greater production and use of healthy local food	1.2.5.1 Conduct public training and consultation on available healthy food production 1.2.5.2 Provide technical support that would encourage communities, organizations and households to join in producing healthy food (e.g. community gardens)
	1.3 Inadequate support to local farmers' cooperatives	1.3.1 Government assumes duty of cooperative role immediately and encourages support from development partners	1.3.1.1 Stocktaking of the basic needs of local farmers 1.3.1.2 Secure required resources that would meet the basic needs of local farmers 1.3.1.3 Mobilize resources to support local farmers cooperative

	COST (IN TOP)	DESIRED OUTCOMES	RESPONSIBLE PARTNERS	2013				2014				2015			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	12,500 7,500	Policy review in the framework of the quota system	Ministry of Forestry, Farming and Fishery, Ministry of Commerce, Tourism and Labour												
	7,000	Comprehensive and sustainable marine resources protection policy	Ministry of Forestry, Farming and Fishery												
		Less expensive trade agreement options	Ministry of Commerce, Tourism and Labour, Ministry of Finance and National Planning												
	50,000	Greater individual participation in local healthy food production Greater group participation in local healthy food production	MoH, Ministry of Forestry, Farming and Fishery												
	100,000		Ministry of Forestry, Farming and Fishery , Ministry of Finance												

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS	SPECIFIC ACTIVITIES
2. Create income-generating opportunities for women and vulnerable groups to adopt more healthy diets and lifestyles	2.1 Poor households are unable to afford basic needs, in particular those headed by women	2.1.1 Review Foreign Investment Act and regulations in partnership with PICTs who have a good record in foreign investment	2.1.1.1 Review Foreign Investment Act and regulations in partnership with PICTs that have a good record in foreign investment
		2.1.2 Devise/expand micro-finance solutions to areas and population groups that most need the support	2.1.2.1 Identify specific vulnerable population groups that need micro-finance solutions 2.1.2.2 Ascertain funding support 2.1.2.3 Expand the scope of existing micro-finance solutions to cover identified vulnerable groups
		2.1.3 Conduct National Poverty Policy Review	2.1.3.1 Develop a Terms of Reference to complete the National Poverty Review 2.1.3.2 Considering local resources, recruit a short-term consultant to conduct Poverty Policy Review
		2.1.4 Identify which organizations will most directly assume responsibility for poverty programmes with the assistance of others	2.1.4.1 Consider recommendations from the National Poverty Policy Review and government reform; hold series of meetings to determine which organization will most directly assume responsibility for poverty programmes 1.2.4.2 Provide policy advice to the MDGs Task Force specifically on the institutions that will most directly assume responsibility for poverty reduction programmes

	COST (IN TOP)	DESIRED OUTCOMES	RESPONSIBLE PARTNERS	2013				2014				2015			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
		Revised Foreign Investment Act and Regulations that will improve economic growth by both attracting foreign investment and protecting private business	Ministry of Commerce, Tourism and Labour												
	200,000	Defined target of vulnerable population group. Defined funding options to support defined target group. Greater coverage of micro- financing solutions for vulnerable groups	Ministry of Finance and National Planning												
		TOR of a National Poverty Review Implementation of National Poverty Review	Ministry of Finance and National Planning												
		Comprehensive process to identify the organization that will most directly assume responsibility for poverty programmes Assumed poverty alleviation as a core function of the most directly responsible organization	Ministry of Finance and National Planning												

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS	SPECIFIC ACTIVITIES
2. Create income-generating opportunities for women and vulnerable groups to adopt more healthy diets and lifestyles	2.1 Poor households are unable to afford basic needs, in particular those headed by women	2.1.5 Consider capital equipment (Tonga Power Board and Tonga Water Board) for public enterprises at the Government Foreign Policy Dialogue and with development partners' support	2.1.5.1 Consider capital equipment (Tonga Power Board and Tonga Water Board) for public enterprises at the Government Foreign Policy Dialogue and with development partners' support
	2.2. Inadequate availability of social support services for vulnerable population groups	2.2.1 Consider expanding scope of current social services to include critical areas of hardship that are not included	2.2.1 Consider expanding scope of current social services to include critical areas of hardship that are not included
		2.2.2 Build a stronger social services system that will cater to more public needs with multi-sectoral support	2.2.2 Build a stronger social services system that will cater to more public needs with multi-sectoral support
	2.3. Geographic isolation	2.3.1 Improve provision for basic resources that deliver on the MAF Action Plan initiatives in remote areas	2.3.1 Improve provision for basic resources that deliver on MAF Action Plan initiatives in remote areas
3. Provision of curative health services and disease-specific risk factor screening in hospital setting	3.1 NCD prevention is underfunded	3.1.1 Secure supporting resources from re-fencing pool of funding approach to supplement resources gap	3.1.1.1 Examine NCD-related priority expenditure not met by the recurrent budget 3.1.1.2 Submit supplementary budget proposal to the MDGs Task Force/Ministry of Finance 3.1.1.3 Secure funding support for public health infrastructural development
	3.2 Inadequate monitoring and surveillance of NCDs incidence	3.2.1 Develop/implement good monitoring indicators	3.2.1.1 Develop/implement good monitoring indicators to be used across districts/towns
	3.3 Inadequate monitoring of service delivery	3.3.1 Rebuild good chain of command/communication between town/district officers, Tonga Police Department and Ministry of Health	3.3.1.1 Rebuild good chain of command/communication between town/district officers, Tonga Police Department and Ministry of Health

	COST (IN TOP)	DESIRED OUTCOMES	RESPONSIBLE PARTNERS	2013				2014				2015			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
		Capital investment support that can reduce basic household expenditure	Ministry of Finance and National Planning, Tonga Water Board, Tonga Power Board												
	200,000	Wider coverage of social support services	Ministry of Finance and National Planning												
		National Social Services System with multi-sectoral support	Ministry of Finance and National Planning												
	300,000	Complete coverage of MAF initiatives nationwide	Ministry of Finance and National Planning												
	500,000	Sustainable Budget Support toward NCD Curative and Preventative Programme Budget Supplemented Support Process for NCD Curative and Preventative programme Public Health Building	MoH, Ministry of Finance and National Planning												
		Better surveillance system for NCDs in place	Ministry of Internal Affairs, MoH, Tonga Police Department												
		Efficient and effective chain of command/ communication among enforcers	Ministry of Internal Affairs, Ministry of Health, Tonga Police Department												

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS	SPECIFIC ACTIVITIES
3. Provision of curative health services and disease-specific risk factor screening in hospital setting	3.4 Late diagnostic of NCDs incidence	3.4.1 Promote medical check-ups and disease-specific risk factor screening	3.4.1.1 Procurement of mammography machines to support cancer screenings
4. Review of legislation, subsidiary legislation and policies affecting food/ tobacco/kava Tonga/alcohol and physical activity	4.1 Lack of effective policies to promote healthier life styles	4.1.1 Fast track tax on unhealthy food and tobacco	4.1.1.1 Fast track tax on unhealthy food and tobacco
	4.2. Silos approach has not enabled broader partnerships to fight NCDs	4.2.1 Strengthen implementation roles (supervision, monitoring, reporting)	4.2.1.1 Establish dedicated staff to focus on facilitating efficient delivery of MAF Action Plan implementation at operational levels (village councils and relevant stakeholders)
		4.2.2 Support MAF Action Plan coordinator's roles and responsibility	4.2.2.1 Maintain the coordination role by providing secretariat and administrative support for the MDGs Country Task Force, Technical Sub-Committee and development partners at executive level
		4.2.3 Strengthen MDGs Country Taskforce/Technical Committee • Implementation, monitoring, supervision, communication and interaction • Action Plan • Reporting on progress • Coordination with other implementing agencies	4.2.3.1 Maintain regularity (at least monthly) of meetings 4.2.3.2 Stocktaking of achieved milestones and identified bottlenecks 4.2.3.3 Design solutions to address unforeseen events that were not reflected in the MAF Action Plan 4.2.3.4 Strengthen provision of appropriate policy advice to Royal Cabinet, public and relevant stakeholders 4.2.3.5 Follow closely the implementation of cross-sectoral action through monitoring and evaluation in order to determine progress in achieving planned outcomes, and identify opportunities for productive changes in approach

	COST (IN TOP)	DESIRED OUTCOMES	RESPONSIBLE PARTNERS	2013				2014				2015			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
		Procurement of mammography equipment	Ministry of Health, Ministry of Finance and National Planning												
		Application of appropriate taxes and restrictions system that support healthy lifestyles	Inland Revenue, Ministry of Health, Ministry of Finance and National Planning												
	60,000	Dedicated Staff (MIA*3) for the implementation of MAF	Ministry of Internal Affairs, Ministry of Finance and National Planning, Public Service Commission												
	40,000	MDG Country Manager Position in place	Ministry of Finance and National Planning												
		Active management of MDG activities Up to date advice on MAF milestones and bottleneck assessment Effective and timely problems solving system Proactive advisory role to His Majesty's Cabinet, public and relevant stakeholders	Ministry of Finance and National Planning												

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS	SPECIFIC ACTIVITIES
4. Review of legislation, subsidiary legislation and policies affecting food/ tobacco/kava Tonga/alcohol and physical activity	4.2. Silos approach has not enabled broader partnerships to fight NCDs	4.2.4 Integrate MAF Action Plan into the Corporate Plan and Annual Management Plan of relevant government department and stakeholders	4.2.4.1 Create strong link between MAF Action Plan activities and relevant government department and stakeholders' plan of action
		4.2.5 Provide at least one progress report on MAF activity from implementers on a quarterly basis to the MAF coordinator and Secretariat of MDG Country Taskforce	4.2.5.1 Provide at least one progress report on MAF activity from implementers on a quarterly basis to the MAF coordinator and Secretariat of MDG Country Taskforce
	4.3 Quality of statistical data	4.3.1 Build capacity of public officers and service providers for NCD data collection and analysis	4.3.1.1 Develop the capacity of public officials to collect NCD data in a timely manner 4.3.1.2 Use health impact assessment as a tool to identify potential (positive and negative) health impacts of other sectors' policies, actions that can enhance positive impacts and reduce risks; and the roles and responsibilities of other sectors in achieving healthy policies 4.3.1.3 Provide tools and techniques to include health in the policies of other sectors and to address health inequalities/inequities (e.g., health impact assessment, economic analysis, data disaggregated by gender, income, participatory research, and qualitative analysis)

	COST (IN TOP)	DESIRED OUTCOMES	RESPONSIBLE PARTNERS	2013				2014				2015			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
		Clear and strong linkage between MAF and stakeholder's plan	Ministry of Finance and National Planning, Ministry of Health, Ministry of Fishery and Agriculture, Ministry of Commerce, Tourism and Labour, Ministry of Internal Affairs												
		Up-to-date MAF Progress Reporting System	Ministry of Finance and National Planning, Ministry of Health, Ministry of Fishery and Agriculture, Ministry of Commerce, Tourism and Labour, Ministry of Internal Affairs												
		Improved data quality	Ministry of Health												

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS	SPECIFIC ACTIVITIES
5. Advocacy for healthy lifestyles (churches, workplace, schools and communities)	5.1 Lack of an enabling environment to promote physical activity (workplace, churches, schools, community)	5.1.1 Encourage PEDI bus approaches	5.1.1.1 Start-up initiatives to support transport by foot or bicycle to workplaces to reduce use of motor vehicles 5.1.1.2 Introduce daily 1,000 steps initiatives in order to encourage physical activity
		5.1.2 Introduce occupational health policy that requires regular health check-up (at least every two years)	5.1.2.1 Deliver health talks and advice on a regular basis (at least once a quarter) 5.1.2.2 Review of Public Service Commission Policy to design policy brief on recommended changes to support regular health check-ups and health talks 5.1.2.3 Conduct consultations with relevant stakeholders on possible amendments to Public Service Commission Policy 5.1.2.4 Fulfil the procedural requirements for the approval of Revised Public Service Commission Policy
		5.1.3 Encourage interdepartmental sports	5.1.3.1 Diversify types of interdepartmental sports competition to encourage full participation 5.1.3.2 Advocate for good attendance

	COST (IN TOP)	DESIRED OUTCOMES	RESPONSIBLE PARTNERS	2013				2014				2015			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	50,000	Healthy transport initiatives 1000 steps initiative	MoH, Public Service Commission												
		Regular occupational health advice Identified opportunity for improvement in the Public Service Commission Policy to serve regular occupational health advice Improved awareness/Fact finding exercise on possible changes for Public Service Commission Policy Revised Public Service Commission Policy with regular occupation health advice	Public Service Commission, Ministry of Health												
		Greater types of inter-department sports competition Greater participation at the inter-department sports completion	Ministry of Internal Affairs												

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS	SPECIFIC ACTIVITIES
5. Advocacy for healthy lifestyles (churches, workplace, schools and communities)	5.1 Lack of an enabling environment to promote physical activity (workplace, churches, schools, community)	5.1.4 Provide support to accelerate development of existing church NCD programmes (set up series of NCD churches programmes such as youth debates and dedicated Sunday programmes on NCD	5.1.4.1 Advocate for restriction of smoking on all church premises 5.1.4.2 Stocktaking of the current/future list of NCD-related activities 5.1.4.3 Identify church activities that require accelerating specific solutions 5.1.4.4 Initiate community sports activities (male and female)
		5.1.5 Introduce NCD-related programmes to become a core function of church leaders' forum	5.1.5.1 Conduct consultations with church leaders to understand how churches can support activities to promote healthier lifestyles of church members 5.1.5.2 Develop NCD supporting tools for church leaders and members
		5.1.6 Enhance community participation throughout policy development, implementation and evaluation processes through public consultations/hearings, disseminating information using mass media, web-based tools and facilitating the equal and meaningful involvement of constituency/ NGO representatives at all levels	5.1.6.1 Mobilize NGOs and CBOs to act on the issue of NCDs irrespective of their area of work 5.1.6.2 Engage community groups to facilitate dissemination of information on NCDs 5.1.6.3 Develop an advocacy and awareness campaign to prevent NCDs, with the help of CBOs and NGOs, using radio, TV, web-based tools etc.

	COST (IN TOP)	DESIRED OUTCOMES	RESPONSIBLE PARTNERS	2013				2014				2015			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	20,000 100,000 100,000	Strong restrictions on smoking at all church premises Complete List of current/future list of church NCD-related activities Complete List of church NCD activities for acceleration Balanced community sport activities for males and females	Church leaders and community												
	10,000 20,000	Church management system with a core function of promoting good health NCD supporting tools for church leaders and members	Church leaders and community												
		Greater community participation	Ministry of Health, Ministry of Education, CBOs, NGOs, churches and UN agencies												

PRIORITIZED INTERVENTIONS	PRIORITIZED BOTTLENECKS	ACCELERATION SOLUTIONS	SPECIFIC ACTIVITIES
5. Advocacy for healthy lifestyles (churches, workplace, schools and communities)	5.2 Poor dietary practices affected by individual preferences	5.2.1 Restrict the availability of unhealthy food and smoking at the workplace	5.2.1.1 Prohibit the access of vendors to workplaces at all times 5.2.1.2 Enforce the restriction of tobacco smoking at the workplace
		5.2.2 Encourage green environment at the workplace	5.2.2.1 Encourage planting of healthy diet vegetables at the workplace where possible
		5.2.3 Encourage healthy diet and discourage excess use of alcohol at official functions	5.2.3.1 Develop a standard healthy diet with advisable recommended standards as basis of hosting official events

	COST (IN TOP)	DESIRED OUTCOMES	RESPONSIBLE PARTNERS	2013				2014				2015			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	40,000	Strong restrictions on vendor access to the workplace at all times Strong restrictions on tobacco smoking at the workplace	Public Service Commission												
		Significant presence of healthy diet at the workplace	Public Service Commission												
	10,000	Standard healthy diet for hosting official events	Ministry of Health, Tonga's Health												

VII. ANNEXES

Photo credit: Patrick Tuimalealiifano, UNDP Fiji

BOTTLENECK ANALYSIS – PRIORITIZATION CRITERIA

The expert group rated bottlenecks based on their negative impact (measured or observed) on the implementation of the respective prioritized intervention. Another criteria applied was feasibility, specifically the ability of the Government of Tonga, in collaboration with its partners on the ground, to remove or mitigate the bottleneck.

Bottlenecks considered to have a high impact on the implementation path of the intervention were then selected for further analysis and whether they are feasible to be addressed by the Government and its partners. A rating scale from 1-4 was applied, with 1 being the lowest and 4 being the highest.

TABLE 13: BOTTLENECK ANALYSIS PRIORITIZATION CRITERIA

PRIORITIZED INTERVENTIONS	IDENTIFIED BOTTLENECKS	IMPACT	FEASIBILITY
1. Increase local food supply to ensure the availability of affordable options of nutritious food, in particular for the poor	1.1. Inadequate coordination and lack of cross-sectoral collaboration	4	4
	1.2. Silos approach has not enabled broader partnerships to fight NCDs	4	4
	1.3 Inadequate availability of healthy food (import of food low in nutritional value affects traditional diets)	4	4
	1.4 Inadequate support to local farmers' cooperatives	3	3
	1.5 Low capacity to export and compete in overseas markets	2	3
2. Create income-generating opportunities for women and vulnerable groups to adopt more healthy diets and lifestyles	2.1 Poor households, in particular those headed by women, are unable to afford basic needs	3	3
	2.2. Inadequate availability of social support services to vulnerable population groups	3	3
	2.3. Geographic isolation	4	2
	2.4. Lack of an enabling environment for women in development/political participation	2	3
3. Provision of curative health services and disease-specific risk factor screenings at hospital setting	3.1 NCD prevention is underfunded	4	4
	3.2 Inadequate monitoring and surveillance of NCDs incidence	4	4
	3.3 Misdiagnosis of NCDs incidence	4	3
	3.4 Inadequate monitoring of service delivery	4	3

PRIORITIZED INTERVENTIONS	IDENTIFIED BOTTLENECKS	IMPACT	FEASIBILITY
4. Review of legislation, subsidiary legislation and policies affecting food/tobacco/kava Tonga/alcohol and physical activity	4.1 Lack of effective policies to promote healthier lifestyles	4	4
	4.2 Poor quality of statistical data	4	4
5. Advocacy for healthy lifestyles (churches, workplaces, schools, and communities)	5.1 Lack of an enabling environment to promote physical activity (workplaces, churches, schools, community)	4	4
	5.2 Poor dietary practices affected by individual preferences	4	2
	5.3. Physical education at schools is optional, not compulsory	3	4

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POLITICAL DECLARATION ON NCDs

Below are some extracts of the Political Declaration on NCDs adopted during the UN High-Level Meeting on NCDs held in New York, 19-20 September 2011.

36. Recognize that effective NCD prevention and control required leadership and **multi-sectoral approaches** for health at the government level, including, as appropriate, **health in all policies and whole-of-government approaches** across such sectors as health, education, energy, agriculture, sports, transport, communication, urban planning, environment, labour, employment, industry and trade, finance, and social and economic development;

We [Heads of State and Government] therefore commit to:

45. Promote, establish or support and strengthen, by 2013, as appropriate, multi-sectoral national policies and plans for the prevention and control of NCDs, taking into account, as appropriate, the 2008–2013 Action Plan for the Global Strategy for the Prevention and Control of NCDs Diseases and the objectives contained therein, and take steps to implement such policies and plans;

61. Call upon WHO, with the full participation of Member States, informed by their national situations, through its existing structures, and in collaboration with United Nations agencies, funds and programmes, and other relevant regional and international organizations, as appropriate, building on continuing efforts to develop before the end of 2012, a comprehensive global monitoring framework, including a set of indicators, capable of application across regional and country settings, including through multi-sectoral approaches, to monitor trends and to assess progress made in the implementation of national strategies and plans on NCDs.

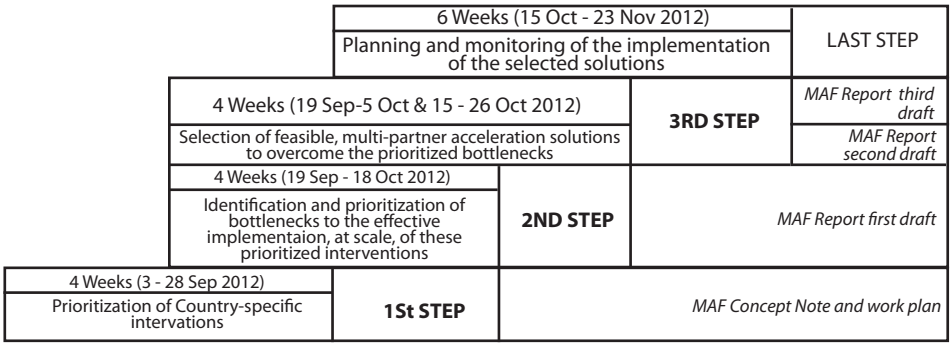
62. Call upon WHO, in collaboration with Member States through the governing bodies of WHO, and in collaboration with United Nations agencies, and other relevant regional and international organizations, as appropriate, building on the work already under way, to prepare recommendations for a set of voluntary global targets for the prevention and control of NCDs, before the end of 2012.

63. Consider the development of national targets and indicators based on national situations, building on guidance provided by WHO, to focus on efforts to address the impacts of non-communicable diseases and their risk factors and determinants.

64. Request the Secretary-General, in close collaboration with the Director-General of the World Health Organization, and in consultation with Member States, United Nations funds and programmes and other relevant international organizations, to submit by the end of 2012 to the General Assembly, at its sixty-seventh session, for consideration by Member States, options for strengthening and facilitating multi-sectoral action for the prevention

DETAILS OF NATIONAL CONSULTATIONS

The development of the MAF Action Plan followed the phases below:



The original MAF plan envisaged a combination of individual consultation and a Validation Workshop as the ideal processes to pursue. Unfortunately, MAF works clashed with other national commitments and activities.

The consultation was carried out by the MAF consultant with assistance from the MDGs Country Manager from 5 September to 6 October 2012. It covered 24 organizations: 11 from the government and 13 from NGOs. NGOs include three churches, three training institutions, three development partners, two public enterprises (water/electricity) and two independent NGOs.

During the period of this work, seven meetings and seven local workshops attended by the MAF consultant contributed significantly towards fulfilling this work. An expert group of eight attended the Regional MAF Meeting at Suva on 22 October 2012 to establish the fundamental grounds for evaluating key interventions currently being executed in Tonga.

OVERVIEW OF THE PROCESS AND LESSONS LEARNED

The Second Tonga MDG Progress Report highlighted the problems introduced by data limitations. This problem restricted the disaggregation of data into a more detailed subset where policy intervention can target areas and populations based on their needs. This would address the problem of policy that tends to be broad and unlikely to target the most marginalized groups. In addition, trends of progress over time are also affected by data limitations and subject to statistical errors. This is evident in the MDG Snapshot in 2012 and other related works in the areas of the International Conference on Development Programme, the Vital Registration and even in this MAF consultation.

At the completion of the Economic Dialogue Forum 2012, there were eight established strategic priorities, with specific actions, to be executed within the framework of economic growth and national development strategy for Tonga. The first strategy (overarching strategy) emphasized the need to enhance collaboration between the public and private sector to achieve the development goals. Public and private sector partnerships are also highlighted under the 2nd Outcome Objectives of the Tonga Strategic Development Framework.

The MAF consultation process revealed a lot of critical ongoing work that is being executed in isolation. There is a need to strengthen coordination and collaboration among partners and avoid duplication within the framework of acceleration in order to reach concrete results in a cost-effective manner.

Enhanced collaboration and partnerships are very important in order to address the socio-economic dimensions of NCDs, including poverty and gender inequality. Accelerating sustainable development will depend on overcoming them in a holistic manner.

June 2013