Risk and Resilience Unit

Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity

CYCLONE PAM

Medium and Long Term Recovery and Rehabilitation Strategy 2015-2017









Vanuatu Risk and Resilience Unit and Rehabilitation Strategy

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Introduction

Cyclone Pam is the most powerful cyclone to ever hit the Southern Pacific. On 13th March 2015, it strengthened to a Category 5 storm over the y-shaped chain of islands, which make up Vanuatu. Vanuatu took multiple direct hits over the islands of Efate (where the capital Port Vila is situated), Erromango and Tanna Island. 270km/h winds were sustained near Efate and the Shepherd Islands. The storm also brought with it heavy rains and storm surges. Shefa, Malampa and Tafea were the most heavily affected provinces although Pam affected an estimated 207,000 people on 26 islands, destroyed critical infrastructure, displaced thousands and severely affected food security and productive sectors including agriculture, livestock, fisheries, forestry and biosecurity.

The Risk and Resilience Unit (RRU), under the Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity (MALFFB) is mandated by the Government of Vanuatu and the National Disaster Management Office (NDMO) to coordinate and oversee all Cyclone Pam relief and recovery efforts in the following sectors: Food, Agriculture, Livestock, Fisheries, Forestry and Biosecurity. The RRU (called Food Security and Agriculture Cluster in the first 6 weeks following the cyclone) has a fully staffed Secretariat, supported by FAO and the SPC-GIZ program, which was operational before the cyclone struck. The RRU membership includes government, non-government, private sector and international partners working collaboratively to both respond to the immediate food security needs of those affected and plan and implement long term recovery, rehabilitation and sustainable development. The activities of the RRU build on strong collaboration in disaster preparedness and climate change adaptation work prior to Tropical Cyclone Pam.

Simultaneously with the emergency response, the Risk and Resilience Unit, under the MAL has prepared this strategy for the post-humanitarian phase wherein, from 2015-2017, all stakeholders including Government will work together to rebuild the food and agriculture sector, ensuring that both subsistence and commercial farmers are included. This recovery and rehabilitation work has a strong climate change adaptation and disaster risk reduction element to ensure that Vanuatu emerges more resilient than before Cyclone Pam.

This strategy sets out the approach of Vanuatu's Risk and Resilience Unit under the MALFFB, which builds on recent and current work in Vanuatu by local farmers, government agencies, civil society and development partners; it emphasises a collaborative approach with links to on-going and to planned future work by a large range of stakeholders.

The overarching goal of this strategy is to have, by 2017, a fully recovered, rehabilitated, well-coordinated and more resilient productive sector than pre Cyclone Pam. This is in direct support of the Vanuatu Agriculture Sector Policy (VASP) goal #10 that states that all stakeholders adequately meet food and nutrition security needs of Vanuatu.

Specifically this Strategy seeks to highlight and prioritize activities and programs that:







1. REHABILITATE THE PRODUCTIVE SECTOR, INCLUDING STRENGTHENING LOCAL FOOD PRODUCTION AND MARKETING SYSTEMS.

2. RECOVER AND IMPROVE FARM INCOMES AND LIVELIHOODS WITH PARTICULAR FOCUS ON GENDER EQUITY AND VULNERABLE GROUPS

3. PLAN FOR AND BUILD BACK BETTER WITH LOW CARBON, EQUITABLE, BROAD-BASED SUSTAINABLE ECONOMIC OPPORTUNITIES IN THE AGRICULTURE SECTOR

Summary of Vanuatu's Agriculture Sector and Rural Livelihoods

The Republic of Vanuatu comprises a chain of some 80 islands, with a population of approximately 247,300, spread over about 1,300 km and with a total land area of about 12,000 km² (Population and Housing Census 2009). The average per capita income was US\$3182 in 2012 (239,685 Vatu), placing the country 128th in the world for per capita income (World Bank 2012). The agriculture GDP in 2012 was US\$168.4 million, 21.3 per cent of GDP or US\$681 per capita. More than 75 per cent of Vanuatu's population lives in rural areas (VNSO 2009).

Vanuatu suffers from the third highest rate of annual losses to GDP resulting from natural disasters (principally cyclones) of any country in the world: almost 7 per cent of GDP every year (World Bank 2012). Since 1939, Vanuatu has experienced 124 tropical cyclones, of which 45 were categorized as having hurricane force winds – 14 of which have occurred since 1981, or an average of major cyclone every 1.7 years (World Bank 2008).

Agriculture continues to provide for the overwhelming majority of household income (71 per cent) among the rural population (VNSO 2013), where 98 per cent of the population participates in agricultural production (VNSO 2008). However among agriculturally active rural households, subsistence agricultural income continues to be a more important source of household income (39 per cent) than commercial agricultural sales (VNSO 2013). Food is the most important household expenditure item among rural households, representing 56 percent of total household expenditure, with the majority of the value of this expenditure being on the consumption of own produced food (HIES 2013). Yams (Dioscorea spp.) and taro (Colocasia esculenta) are the main staples, with bananas (Musa spp.) and breadfruit (Artocarpus altilis). Leafy vegetables, including island cabbage (Abelmoschus manihot) are a rich source of protein and calcium. These staples are cultivated in mixed gardening systems with other asexually propagated plants including cocoyam (Xanthosoma sagittifolium), sweet potato (Ipomoea batatas), cassava (Manihot esculenta) and kava (Piper methysticum). Commercial plantations, coconuts for copra, cocoa (Theobroma cacao), coffee (Coffea arabica) and livestock (Bos taurus and B. indicus) exist in some parts and islands of Vanuatu.

Most rural households also care for small livestock. In general, livestock such as chickens (64%), pigs (45%) and cattle (29%) were commonly raised by households in Vanuatu (VNSO,







2009), this percent is greater in rural areas. According to VNSO, Vanuatu households in 2009 had 108 000 pigs, 34 000 goats, 105 000 cattle, and 469 000 chickens.

The forests of Vanuatu occupy around 70 percent of the country's total land area (about 1,200,000 hectares, 1998 data, FRA 2005). Forests and forest products played a significant role in providing and supporting basic livelihood needs for Ni-Vanuatu: food, clean water, fuel, medicine and income.

Subsistence and commercial fisheries and harvest of coastal resources are a mainstay of food security throughout Vanuatu. The fisheries sector in Vanuatu (including aquaculture) involves 15,758 households (2007 Agriculture Census). Fish supply for direct consumption was 7,657 tonnes in 2007 and annual fish consumption is 33.6 kg per capita. Nearly all households in coastal villages are involved in coastal fishing activities at different levels of intensity, with 32% of all households in Vanuatu were engaged in marine fishing; 26% were engaged but only for subsistence and a further 6% of households were engaged in marine fishing for both subsistence and sale purposes. The most common fishing gears in order of quantities are fishing lines, hand-spears, spear guns, gill nets (19%).

The geographic dispersion of Vanuatu's population at low densities among a number of small islands has resulted in the development of inadequate and poorly maintained road and marine marketing infrastructure (ADB 2010). The land transport network in Vanuatu consists of about 1,800 km of roads – 90 per cent of it unsealed, and located on the two most populous islands: Efate and Espiritu Santos (ADB 2010).

Key characteristics of the Vanuatu productive sector:

- I. The agriculture GDP in 2012 was US\$168.4 million; 21.3% of GDP and US\$681 per capita.
- II. Vanuatu's agriculture sector is dominated by semi-subsistence farmers using mostly household labour, located in tiny village communities spread throughout the archipelago.
- III. Due to logistical constraints associated with the geographical isolation of many islands, rural households find it difficult to engage with markets for cash crops, particularly in remote areas.
- IV. Exports presently dominated by five productive sector products: coconut oil, copra, kava, beef and cocoa. These five products made up 85% of total agricultural exports in 2011.
- V. Vanuatu has a niche export market of premium grade spices and coffee, sawn timber, and marine products.
- VI. Livestock and cattle production represents another significant contribution to GDP, with exports to Japan and other Pacific Island countries.
- VII. Some 80% of semi-subsistence households derive income from copra with 30 to 40% of households receiving income from cocoa and from kava. Income from coffee is largely limited to one island with a larger commercial operation.
- VIII. Nearly all households in coastal villages are involved in coastal fishing activities at different levels of intensity.

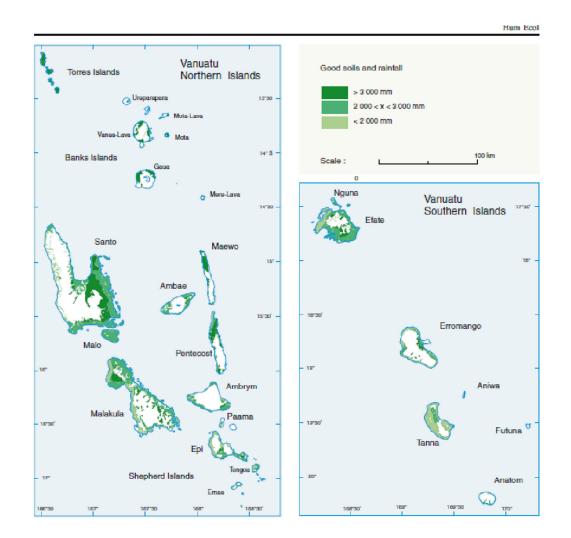






- IX. Vanuatu communities have long-standing traditional coping mechanisms to address immediate food needs and resume their agricultural production following crises.
- X. Climate change and variability severely limit agricultural productivity in Vanuatu; On the leeward (western) side of many islands, the annual rainfall is under 2,000 mm/yr and rainfed cultivated plots may suffer from droughts during the dry season, with cassava and yams being better adapted than taro, cocoyam or sweet potato.

According to Simeoni and Lebot "Food security is a major issue for Vanuatu because of the fast growing population and rapid environmental changes. At present there is no alternative, sustainable and diversified, food crop system to replace shifting cultivation based on vegetative-propagated plant species within agroforestry systems. Considering the present land uses and population densities on some islands of the archipelago, there is an urgent need for technical innovations, such as improved fallows, improved genetic materials and new, sustainable, and agroforestry techniques"









Food production on family farms together with subsistence and artisanal fishing continue to be a vital part of food security and provide resilience in the face of external shocks, either economic (price spikes, global recession) or natural (cyclones, floods, droughts etc.).

But an increasing trend over recent years of reliance on food imports (largely comprised of rice, flour, frozen meat cuts and tin fish) to meet the population's dietary needs has been cause for concern. In 2010 the value of total food imports at VT 5,241 million exceeded the value of total agricultural exports at VT 3,390 million. The preferred option for meeting the nation's growing food needs is, according to the Vanuatu Overarching Productive Sector Policy, increasing agricultural production.

Impacts of Cyclone Pam on the Food and Agriculture Sector

A series of Agricultural assessments from all six provinces in Vanuatu have fed into the development of this Strategy and its assessment of the impacts of Cyclone Pam on Food Security and Agriculture.

1. Immediately after the cyclone the Risk and Resilience Unit (RRU - then called the Food Security & Agriculture Cluster) established an online repository of informal reports coming from island affected areas. These reports have provided, and continue to provide, the most immediate on-ground information on which the unit based its emergency planning.

2. During the Government's 1st push of emergency food rations (21-28 March), the RRU sent agricultural experts alongside the food to observe distributions, provide extension advice and collect first-hand expert assessments of damage and emergency needs.

3. The Government of Vanuatu initiated on 30 March a Post-Disaster Needs Assessment (PDNA) economic analysis of the damages, losses and needs by a range of stakeholders (United Nations agencies and programmes, the World Bank, donors, non-governmental organizations). The PDNA exercise pulled together information into a single, consolidated report, including the economic value of the damages and losses in the agriculture, forestry, fisheries, and livestock sectors.

4. The RRU commenced on 6 April an in-depth on-ground assessment of food security and livelihoods for recovery and rehabilitation options for all affected and partially affected islands.

All assessments fed into the Food Security & Agriculture Process indicate very high levels of loss and damage across the sectors of Agriculture, Forestry, Fisheries and Livestock. The total effect to the entire agriculture sector amounts to VUV 6.062 billion. A total of VUV 1.421 billion was estimated as damage (the replacement value of totally or partially destroyed physical assets). A total of VUV 4.641 billion was estimated as loss (losses in the flows of the economy that arise from the temporary absence of the damaged assets). The agriculture sector represented approximately 25% of the 75.8 billion VUV GDP in 2013. Cyclone Pam loss and damage represent approximately 8% of Vanuatu's total gross



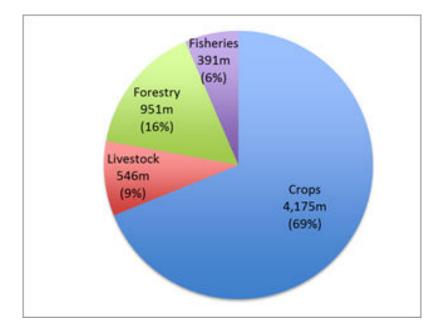




domestic product. The total envelope required for recovery and rehabilitation in the agriculture, forestry, fisheries, livestock and biosecurity 7,675,210,272VUV = 71,441,307USD.

- The majority of fruit trees have been either destroyed, or completely stripped of all fruit, including coconut
- All leafy vegetables and banana trees have been completely destroyed
- Root crops (yam, manioc, sweet potato and taro), despite having underground protection, have mostly been lost or badly damaged – having been uprooted or flooded during the cyclone
- Many vegetative planting materials and gardening tools have been destroyed or damaged
- Wild birds and flying fox populations, common bush meat sources in rural communities, have declined by up to 90%
- Livestock have been gravely impacted with a high proportion of pigs, cows, chickens affected
- Livestock feeds, particularly forage for pigs, have been destroyed
- Canoes, fishing boats, engines and fishing gears have been damaged or destroyed
- Coastal marine habitats (coral reefs, mangroves and seagrass beds) have been severely damaged

Out of the four sub-sectors, agriculture was the most affected (69% of all losses and damages), followed by forestry (16%), livestock (9%) and fisheries (6%). Of the total loss and damage, 93% has been borne by the private sector and 7% to the Government.





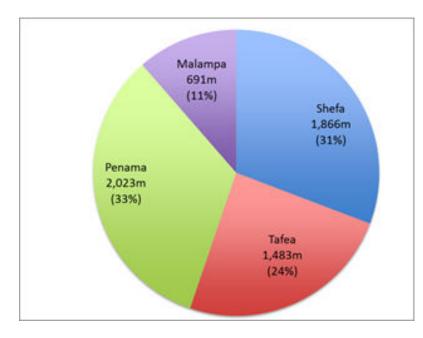




Economic Estimates of Damage and Losses in the Agriculture Sector

Sub-sector	Damage (Vatu)	Losses (Vatu)	Total effects (Vatu)
Crops Agriculture	(1000)	(100)	(1000)
Components of damage	131,596,000		
Components of losses		4,043,278,000	
Total crops			4,174,874,000
Livestock			
Components of damage	282,752,000		
Components of losses		263,133,000	
Total livestock			545,884,000
Forestry			
Components of damage	738,318,000		
Components of losses		212,332,000	
Total Forestry			950,650,000
Fishery			
Components of damage	268,253,000		
Components of losses		122,486,000	
Total Fishery			390,739,000
TOTAL VATU	1,420,919,000	4,641,229,000	6,062,147,000
TOTAL USD	13,266,000	43,331,350	56,597,350

The most affected provinces were Shefa and Tafea, followed by Malampa and Penama.









	Damage	Loss	Total Effects	Private	Public
	VUV	VUV	VUV	VUV	VUV
SHEFA	715,045,000	1,150,693,000	1,865,738,000	1,611,346,000	254,393,000
TAFEA	462,697,000	1,020,125,000	1,482,822,000	1,406,058,000	76,764,000
PENAMA	110,584,000	1,912,488,000	2,023,072,000	1,996,352,000	26,720,000
MALAMPA	132,592,000	557,923,000	690,515,000	634,572,000	55,943,000
TOTAL	1,420,919,000	4,641,229,000	6,062,147,000	5,648,328,000	413,820,000

Permanent crops, such as kava, banana, coconut, cocoa and coffee were the most impacted by the cyclone, but seasonal (vegetables) and annual (cassava, taro) crops also suffered important losses. Livestock sub-sector damage and losses occurred mainly in Shefa and Tafea provinces, mostly on commercial poultry farms, pigs and with respect to apicultural activities. In the forestry sub-sectors, the timber industry in Tafea and Shefa suffered from the high winds and damage to infrastructure and trees. The fishery sector was also impacted, with most effect on artisanal fishery and commercial aquaculture.

There are five separate assessments or reports that inform this summary

- 1. Initial 72-Hour Assessment Report (16th March)
- 2. Emergency Needs Assessment (21-25 March)
- 3. World Food Program: Vulnerability Assessment & Mapping (23-27 March)
- 4. DARD Livelihoods Recovery Assessment (10- 17th April)
- 5. Post Disaster Needs Assessment (ongoing)

The worst affected islands, Tanna and Erromango, have relatively high poverty levels (10-33%). In Port Vila city, the rates of poverty are much higher (18%) (Census 2009). People in urban areas are mostly dependent on wage or salaried income. In rural areas, own home production and household enterprise are the main income sources. Despite lower poverty in rural area, the rural subsistence types of livelihood are more likely to be impacted. Housing conditions are precarious. About 65% of households in Tafea province live in houses with walls and roofs made of traditional material. This contrasts with about 2% of households in Port Vila (Census 2009).

The impact of Cyclone Pam was not homogenous across Provinces or individual Islands. Major damage and loss is evident more clearly in the south and south-eastern parts of Island groupings and is closely aligned to the track of the cyclone. Households along the eastern parts of Shefa province and Tafea were directly on the path of Cyclone Pam. Resilience levels in these areas are lower with many people living in traditional housing and depending on subsistence farming. Many have lost their house and livelihoods.

Households located further west of the path of the cyclone predominantly escaped very high impact.

Summaries below for each Island grouping provide a concise overview from multiple assessments of the current status of each location. There is a high degree of correlation between the initial emergency rapid need assessments and subsequent detailed data on damage and loss for agricultural, forestry, fisheries and livestock resources sectors.







<u>NOTE</u>: The damage and loss score is a combination of damage across sectors, where some recovery is possible and complete loss. A score of 100 does not then mean 100% loss, but it does mean that across the sectors there is no sector left undamaged or without significant loss in that region. A simple key graph below shows overall ranking taking into account the access to livelihood ranking, damage and loss score, access to food and potential to recover crops.

Ranking	Colour
Highly Affected	Red
Moderately Affected	Yellow
Mildly Affected	Green

It should be noted that this information is incomplete and that there are areas and populations that have not been included in assessments and whose need remains unknown. Even in areas that have been classified as mildly or moderately affected there will be vulnerable individuals (eg. the elderly, female household heads, the infirm and people living with a disability) whose needs may be greater than the average. This should be taking into account when interpreting the data.

Island Loss and Damage Summaries

Rural Efate (incl. Peri-Urban Port Vila)

		Beneficiaries
Ranking	Moderate	52,355

Rural Efate agricultural assessments rank the region as moderately affected, with continuing access to livelihood and food stocks of around 40% of pre-cyclone baselines. While the DARD detailed agricultural assessment found that damage across the sectors was up to 90%, this was mediated by good prospects for recovery for 25% of damaged food stocks and access to diversified livelihood activities that can supplement income. 52,355 individuals are receiving food aid.

Efate Offshore Islands

Beneficiaries

Ranking Highly	4,015
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This region has a ranking of highly affected, with low levels of access to food stocks (<30%) and access to livelihoods (<15%) and 100% damage and loss score across the sectors. 4,015 individuals are receiving food aid.

Shepherd Islands



While the northern and western parts of Epi Island suffered marginally less than the south and southeast, the Shepherd Islands group as a whole has been rated as highly affected. A 100% damage and loss rating is applied across the sectors, informed by very low levels of access to food stocks, low levels of crop recovery potential (<10%) and very low levels of access to diversified livelihood opportunities (<15%) from pre-cyclone baselines. 4,361 individuals are receiving food aid.

Tanna



Tanna was one of the hardest hit islands in the Tafea Province. It is rated as highly affected and has a livelihood score of 0% indicating no opportunities currently exist for the population to conduct any cash generating activities. Scores of >90% loss and damage across all sectors are reported. South, north and central Tanna has 100% of the population still in evacuation centres. The loss of kava production in particular is identified as a significant long-term issue for livelihoods across affected islands in Tafea Province with many households relying on kava for income generation. 42,498 individuals are receiving food aid.

Tafea Outer Islands

		Beneficiaries
Ranking	Mildly	2,158

Aneityum, Futuna & Aniwa are rated as mildly affected. 2,158 individuals are receiving food aid.

Erromango

		Beneficiaries
Ranking	Highly	2,265

This area is rated as highly affected, with a damage and loss score of >90%. Access to livelihoods score is 0, indicating no opportunities currently exist for the population to conduct any cash generating activities. 2,265 individuals are receiving food aid.







Port Vila Municipal

Beneficiaries

Ranking	Mildly	54,395
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This area is rated as mildly affected. Access to livelihoods is considered reasonable (>60%) although high poverty levels may mean a greater vulnerability level is experienced. 54,395 individuals are receiving food aid.

Epi

Beneficiaries

Ranking South & East	Highly	3,350
Ranking North	Moderate	2,585
Ranking Central	Mildly	1,877

South and eastern Epi is rated as highly affected with a 100% damage and loss score. Access to livelihoods rating is 0% indicating no opportunities currently exist for the population to conduct any income generating activities. North and western Epi are less affected by damage and loss across sectors (<50%) with a livelihood rating (<40%) and a rating of mildly affected. 7,992 individuals are receiving food aid, with 3,530 beneficiaries in the highly affected zone, 2,585 beneficiaries in the moderately affected zone and 1,877 beneficiaries in the mildly affected zone.

Ambrym

		Beneficiaries
Ranking South East	Highly	1,770
Ranking West/Northwest	Mildly	6,352

With a damage and loss score of 60% across the sectors and a high access to livelihoods rating of <50% West and North West Ambrym is considered mildly affected. However, South-East Ambrym has a damage and loss score of 75% across the sectors and a livelihood rating of 0%, representing significant income generation loss and a ranking of highly affected. 8,122 individuals are receiving food aid. 6,352 beneficiaries are in the mildly affected zone with 1,770 beneficiaries in the highly affected zone.

Paama

		Beneficiaries
Ranking	Moderate	1,482







Agriculture, particularly fruit trees and coconuts has been rated highly affected by one assessment. Livestock losses have been confined to chickens. Paama is considered a 2nd tier priority for emergency food aid and this informs the assumed damage and loss score of >60% and a ranking of moderately affected. 1,482 individuals are receiving food aid.

Maewo

		Beneficiaries
Ranking	Mildly	4,120

This area is rated as mildly affected. 4,120 individuals are receiving food aid.

Pentecost

		Beneficiaries
Ranking South-South East	Moderate	5,459
North- Northwest Ranking	Mildly	14,746

South East Pentecost has a 75% damage and loss score, but has a reasonable access to livelihoods and food stocks, with <30% crop recovery prospects. Access issues and lack of road transport on the island combine to increase vulnerability levels. These factors combine to give a moderately affected rating in the south and south-east and mildly affected in the north and north-west. 20,175 individuals are receiving food aid. 5,459 beneficiaries are in the moderately affected zone with 14,746 beneficiaries in the mildly affected zone.

Mere Lava

		Beneficiaries
Ranking	Mildly	582

South East Mere Lava has a 60% loss and damage score reducing to 30% in the North of the island. Crop recovery scores are 90 and 80% respectively. This area is rated as mildly affected. 582 individuals are receiving food aid.

Malekula

		Beneficiaries
Lamap	Mildly	4, 550
Maskyllenes	Mildly	1,500

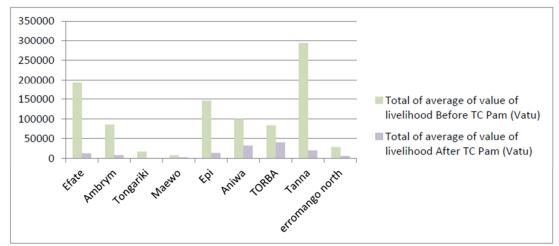
While affected areas on Southern Malekula suffered 60% crop damage, access to food was high at 60%. Southern Malekula was also found to have 78% and 70% recovery crops in







Lamap and the Maskelynes, respectively. The area overall is rated as mildly affected. No individuals received food aid.



Average Value and Loss of Livelihood Before and After Tropical Cyclone Pam

RRU Coordination and Role

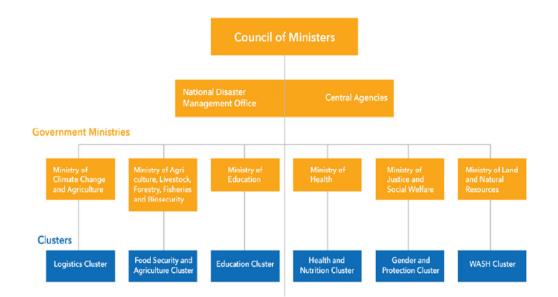
Acknowledging its status as one of the most risk-prone countries in the world, Vanuatu has set up a strong national structure for disaster preparedness and emergency operations. This is composed of a National Disaster Committee (NDC) and the National Disaster Management Office (NDMO). The Vanuatu Humanitarian Team (VHT) brings together a network of humanitarian actors to facilitate effective coordination and humanitarian action. VHT members include the Vanuatu Red Cross, French Red Cross, Vanuatu Association of NGOs (VANGO), UNICEF, the UN Gender Capacity building project and the protection cluster (in Suva, Fiji), Oxfam, CARE, Save the Children Australia (SCA), the Adventist Development and Relief Agency (ADRA), the World Health Organization (WHO), Peace Corps, World Vision, SPC/GIZ and Act for Peace. The VHT agencies co-lead clusters with the relevant government line-ministries.

The NDMO and the Vanuatu humanitarian team have adopted the cluster system coordination mechanism. After the cyclone, these clusters were activated and are now working under the leadership of the government, in partnership with humanitarian agencies. The following six clusters are currently operational:









The National Risk and Resilience Unit (in the immediate 6 weeks after the cyclone, the RR Unit was called Food Security and Agriculture Cluster) mandated by the Vanuatu Agriculture Sector Policy, is led by the Department of Agriculture and Rural Development (within the Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity (MALFFB)) has been tasked by the Government of Vanuatu and the National Disaster Management Office to coordinate and oversee all Cyclone Pam relief and recovery efforts in the Food, Agriculture, Livestock, Fisheries, Forestry and Biosecurity Sectors. The RRU has a robust membership from the private sector, government officers, non-government organizations, civil society organizations (including church groups), development partners and academic researchers. Ultimately the MALFFB is responsible for coordinating and steering long term Pam recovery with implementation by multiple types of actors.

The role of the Risk and Resilience Unit in compiling and releasing this strategy will rapidly transition from post-humanitarian Pam relief phase towards full government coordination, oversight and monitoring and evaluation under the Ministry of Agriculture. The Unit will also keep the private sector and non-government organization cooperation developed under it. Post-Pam Risk and Resilience Unit will maintain its mandate to "ensure coordination of the food security and agriculture activities and programs among partners related to disaster prevention, mitigation, risk reduction, preparedness and response, and climate change adaptation activities".

RRU's Approach to and Progress on Recovery and Rehabilitation







The RRU seeks to restore and enhance the affected population's capacity to meet its own food and livelihood needs, without extended reliance on external support. The Cluster has placed high importance on addressing medium to longer-term needs at the earliest stages.

To this end, the RRU broadcast preparedness actions and advice to harvest early were via radio in the week prior to the cyclone, and Provincial Agricultural Officers held gatherings with farmers to encourage implementation of these actions.

The day after Cyclone Pam struck, the RRU (then FSAC) compiled key messages in Bislama language advising farmers to quickly replant available materials, and consider their livestock needs. These messages were air dropped in affected locations, sent via SMS on all networks, and transmitted via shortwave radio. During the emergency food push in the week after the cyclone, all households were provided with an emergency ration of fast yielding crop seeds and Bislama-language instructions with planting advice.

Experience of other disasters in the Pacific suggests that complete livelihood recovery will certainly take years. With other climate extremes projected for the coming months, recovery and rehabilitation will face additional barriers. The remoteness of many of Vanuatu's islands presents a host of logistical and communication issues, as does the now limited capacity of government departments to deliver services due to damage to equipment and buildings. With many cash crops destroyed along with subsistence food crops, economic recovery will be prolonged.

The primary focus of recovery and rehabilitation efforts for Vanuatu under the RRU over the next 3 years is to have households and communities to achieve condition of food and nutrition security (Vanuatu Agriculture Sector Policy Objective #10) and for government to resume provision of services that enable resilient livelihoods.

Meanwhile, every effort will be made to re-establish cash income for households, to nurture economic activity across the sector and to strengthen the capacity of the sector to sustain similar shocks in the future. Building back better requires full engagement with affected communities, including farming, fishing and natural resource-dependent households, as well as private sector enterprises.

This strategy seeks to maintaining and strengthening inclusion, including clear identification and participation of vulnerable groups, with a gender focus where necessary, and incorporating nutrition and food security concerns through the medium and longer term. This is critical for the building of resilience, as the vulnerable and often marginalised are always those hit hardest in recurring natural disasters, and their perspectives, engagements and capacity is critical to success of any intervention.

The response to TC Pam does not occur in a vacuum and indeed there are many on-going and planned activities in support of the food and agriculture sectors in Vanuatu. It is essential that any actions taken to respond to the impacts of TC Pam are consistent with and reinforce these on-going and planned activities (See Annex 2 for a list of major ongoing programs, projects and initiatives).







To achieve this goal, the RRU has involved all major domestic and international players in the development and implementation of this integrated strategy. The Government of Vanuatu is fully committed to this cross-sector, multi-agency plan. Its policy framework pre Cyclone Pam clearly indicates this and allows for the coordinated Unit approach to recovery and rehabilitation. Some Government policies have already been amended (e.g. Sandalwood seasons, VAT/DUTY exemptions) and others will be reviewed in the coming months and years.

Structure of the RRU Recovery and Rehabilitation Strategy

This Cyclone Pam Recovery and Rehabilitation Strategy is directly aligned with the current Government of Vanuatu's Overarching Productive Sector Policy (OPSP), under the oversight of the Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity (MALFFB). The Overarching Productive Sector Policy (OPSP) establishes a coherent policy framework to guide strategic actions and investments over the medium term (2012-2022). The OPSP is the basis of sequenced and coordinated policy and institutional adjustments and investments over the longer-term aiming at improved efficiency and performance.

Although severe category 5 Cyclone Pam was not specifically considered in the OPSP, the policy does provide guidance on food security and resilience in the face of external shocks, including natural shocks like cyclones.

In keeping with Government of Vanuatu policies and priorities, this Strategy has recovery and rehabilitation work programs in the seven priority areas of the OPSP:

- 1. Reviving and Sustaining Market Access
- 2. Rehabilitation for Product Nutrition, Quality and Safety
- 3. Restoring and Revitalizing Production and Productivity
- 4. Recovery related processing and value adding
- 5. Reviving and strengthening environmental services and resilience
- 6. Prioritized recovery capacity building, training and entrepreneurship
- 7. Recovery and rehabilitation policy, coordination and monitoring

It should be noted that there is some overlap among the proposed work programs, for example increasing production and productivity (work program 4), requires important extension investments (work program 6). Similarly, the support towards production (work program 4) will automatically have implications on and require programs in both market access (work program 1), and building back better for resilience (work program 5).

This document is presented as a general recovery and rehabilitation strategy based on the current understanding of likely needs of the various sub-sectors. More detailed recovery, rehabilitation and resilience strategies will be based on analysis of the ongoing assessments







when they become available. Thus partners should understand that this strategy is phased and will be reviewed annually.

Immediately after the Cyclone, the RRU (then FSAC) organized itself into three simultaneously operating working streams:

- Stream 1: Emergency Food Aid
- Stream 2: Emergency Food Production
- Stream 3: Recovery and Rehabilitation

Under each stream a series of topical area working groups were established with a focal point and government/non-government members to develop and implement interventions. This list of projects included in the Annex is not exhaustive but represents a mix of more generic activities, as well as quite specific agency initiatives with target areas and groups. More detailed proposals and specific programs are available to interested donors and development partners.

The RRU has subscribed to a set of core principles for post-disaster rehabilitation (Annex 1), particularly that an integrated programme approach is undertaken for rehabilitation development and implementation. Equally, all proposed interventions are based on a sound understanding of appropriate options according to geographical, community and intrahousehold vulnerability. The proposed activities consider the present and future food security and nutrition context and how the related food production and distribution systems on the islands support this.

Strategy Implementation Arrangements

The anticipated and specific implementation arrangements are varied and outside of the scope of this strategy, however the proactive participation of all stakeholders is vital.

While structure of this Strategy is fully aligned with Government policy, the entire population of Vanuatu, together with regional and international partners and investors, hold a stake in the Cyclone Pam recovery and rehabilitation of the productive sector.

Government has a crucial role to play in defining and clarifying post-Pam policy and institutional frameworks, which both enables and encourages full participation and high performance from all sector stakeholders. Public sector main roles in post-Pam recovery and rehabilitation include investment in core public goods such as data and information, quarantine services, agriculture research, basic extension, infrastructure (e.g. rural roads) and enforcement of property rights, rules (regulations) and contracts.

Due to the possibilities of market failure in the post-Pam environment, government may find it necessary to intervene to provide adequate services (e.g. VAT/DUTY exemptions), although it will attempt to do this in the least distorting manner, with the aim of fostering equitable rehabilitation and recovery, and with constructive dialogue with the private sector and non-government organizations. Any government support in the market will be for timebound interventions that aim to stimulate effective private sector response.







In view of the many players with varied and vested interests in productive sector response and recovery, Government will continue to strengthen its key roles in facilitation, communication, coordination and regulation to create an enabling environment for all to operate effectively.

i. Provincial Government Councils

In accordance with Decentralization policy of the national government, Provincial Government Councils (PGCs) will play an increasingly important role in the implementation of this Strategy and its programmes. Following the changed roles of the central government institutions, extension staffs posted in provincial areas and headquarters in order to increase their efficiency, effectiveness and accountability.

ii. Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity

The MALFFB will provide oversight on the policies and laws to ensure they are effectively implemented. It will have regular communication and dialogue with stakeholders to progress reviews of the Strategy and assist to encourage investment in recovery and rehabilitation for the sector through the Cabinet the office of the Director General. The MALFFB will responsible for communicating recovery and rehabilitation priorities to donors and development partners.

iii. Line Departments

Line agencies in charge of other sectoral policies and rehabilitation and recovery programs have a role to play to ensure that their activities are consistent and compliment the work under this Strategy

The Private Sector holds a large share of agricultural production, processing, storage and marketing and must be enabled to take advantage of public sector frameworks for rapid recovery and rehabilitation. This strategy strongly promotes private sector-led agriculture recovery and rehabilitation, recognizing that the private sector - including farmers (big and small), traders, food vendors, processors and exporters – are the major drivers of livelihoods and by extension food security.

In the post-Pam context, critical recovery work and extension will be outsourced to the private sector and civil society agencies. Both the private sector and NGOs are able to provide important recovery and rehabilitation services to the sector and it is envisaged that individuals or agencies, where appropriate, will increasingly be involved in public service roles.

Civil Society and Non-Government Organizations, particularly those working already in Vanuatu through the Vanuatu Humanitarian Team (VHT) and the Vanuatu Climate Action Network (VCAN), have a critical role in the implementation of this strategy particularly by







addressing the specific needs of particularly vulnerable geographic locations and groups including children, pregnant women, lactating mothers, adolescents, women headed households, people with disability, elderly people, marginalised communities and others who may get excluded in recovery and rehabilitation programs. Civil society has an important responsibility to formalize its roles and responsibilities to be in line with and supportive of Government guidelines and approaches. NGOs will strengthen accountability towards the people affected by Cyclone Pam and play an important role in enhancing community participation in planning and implementation, information sharing, and facilitating complaint mechanisms etc.

Novel and Hybrid Implementation Options

Financial, human and technical resource flows that result from this Strategy will be utilized in a variety of ways by a variety of partners on ground in Vanuatu. This strategy does not advocate one modality over another, but rather seeks to ensure a wide array of aid modalities are taken advantage of that can be drawn upon to achieve balance in Cyclone Pam recovery aid. In all cases there must be a high degree of ownership and commitment by government and by civil society groups and in which subnational levels of government have been involved in recovery and rehabilitation planning processes. Generally, the central government seeks to minimize its involvement in activities in which the private sector might normally be expected to engage, taking on instead an effective role as regulator and facilitator of the private sector, and as provider of public recovery and rehabilitation goods.

The implementation and financing modalities, which would be acceptable under this strategy:

- Balance of payments support
- Aid-financed debt relief
- General budgetary support
- Sector budget support
- Sector earmarked Sectoral Off-budget within sector Blend of government
- Projects using government systems (Sector and) project
- Blend of government and donor systems
- Public Private Partnerships
- Direct Financing to Non-Government Organizations and civil society
- Low Interest Loans to private sector actors
- International Agency direct implementation arrangements
- Sector-wide approaches (SWAPs)
- Programme-Based Approaches (PBAs)

Monitoring & Evaluation

A preliminary set of indicators (both quantitative and qualitative) has been identified to monitor and evaluate the implementation of this Strategy. Other measures linked to the broader national outcomes, benchmarks and targets will need to be further elaborated in collaboration with MALFFB.







In general, the proposed M&E system for this Strategy will be based on existing sources of data, gleaned from a combination of annual reviews and results—based monitoring (e.g. National Census, Agriculture Census, Project/Program reporting, etc). This will relieve the financial and human resource burden for additional data collection. In limited cases where data detail is insufficient, data and information collection tools will be developed.

Reporting on this Strategy's progress and achievements will be aligned with GoV planning timelines and budget cycles. The M&E system developed for the Strategy will necessarily be participatory, and aim to achieve consensus amongst all stakeholders on progress towards achieving the jointly agreed outcomes. An emphasis will be placed on identifying the most significant changes that have occurred.

At the end of the Strategy implementation, an extensive evaluation will be conducted including a range of key local stakeholders and independent external evaluators to assist in the assessment of the impact and the identification of future Disaster Recovery and Rehabilitation

Work Programs

Government Recovery and Rehabilitation Priorities

The senior executive of the Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity have identified the top five recovery and rehabilitation priorities in each sector which have been captured in the table below and also in the 7 work groups themes in the main Strategy.

Sector	Government Led Priority Ranking	Recovery and Rehabilitation Program
Agriculture	1	Emergency repair and Replacement of Extension Assets
	2	Vegetables/Fruit trees Nursery Rehabilitation
	3	Expansion of Recovery Extension Services
	4	Coffee long term production
	5	Cocoa long term production
Forestry	1	Emergency Sawmill Support
	2	Assessment of forests resources-planted and natural
	3	Nursery Rehabilitation
	4	Forest seed collection and redistribution
	5	Re-establishment of permanent sample plots







Livestock	1	Destocking programs on affected islands and to supply market demand
	2	Production expansion and restocking with genetically improved animal s
	3	Animal feed supplement provision
	4	Movement of live protein sources to affected islands (cattle and chickens)
	5	Livestock assessments and livestock/agriculture census
Biosecurity	1	Animal health and meat hygiene
	2	Surveillance and border control
	3	Kava long term recovery and plant health
	4	Improved research and seed/germplasm management
Fisheries	1	Fisheries resource monitoring and ecosystem assessment support
	2	Fisheries infrastructure and fishing technology support (boat, canoe repair FAD fishing)
	3	Aquaculture development and farm production support
	4	Fish processing, value adding and marketing access
	5	New Fisheries wharf development and Sino-Van project operation

Work Program 1: Revive and Sustain Market Access

The overarching goal of this Strategy is to have, by 2017, a fully recovered, rehabilitated, well-coordinated and more resilient productive sector than pre Cyclone Pam. This will be achieved by creating programs and policies that:

- Rehabilitate the productive sector, including strengthening local food production and marketing systems. (Strategic Goal 1)
- Recover and improve incomes and livelihoods with particular focus on gender equity and vulnerable groups. (Strategic Goal 2)
- Plan for and build back better with low carbon, equitable, broad-based sustainable economic opportunities in the Agriculture sector. (Strategic Goal 3)

Building back better requires full engagement with the market-focused private sector enterprises, to establish nurseries, supply improved planting/genetic material, transfer knowledge of improved crop management practices, improved post-harvest processing for







cash crops, repair and maintain fishing gears, produce local livestock feeds, maintain animal health, market products, and developing programmes which incentivize smallholder farmers to consider crops which provide greater economic and market returns to labour.

Specifically in order to revive and sustain market access in post-Pam Vanuatu,

Objective 1: Recover and exceed the 2014 volume of saleable agricultural, forestry and fisheries products marketed by private sector into domestic and export markets.

Indicators:

- % of recovered veg. production.
- % of recovered of cubic meters of timber.
- % of recovered fish stocks.
- % of recovered volume available into the local market
- % of recovered volume exported
- Domestic market volumes and prices for locally produced agriculture, forestry and fisheries products
- Export volumes and value of locally produced agriculture, forestry and fisheries products
- Annual output growth rates in the primary sector

Total Program Envelope: 780,690,000VUV = 7,260,417USD

1.1 Agriculture

Post cyclone Pam, there is extremely high urgency for recovery and rehabilitation programs that:

- Capitalize on the demand in the domestic market for vegetables and other shortterm crops. This includes the demand to supply a growing tourism sector (Vanuatu Agriculture Sector Policy, VASP)
- Harness the existing capacity of farmers associations, industries and private sector to increase and sustain market-related production (VASP 9.1)
- Focus on agricultural products and value chains tailored to specific markets (VASP 9.4) including market access information to stakeholders.
- Improve market access and shipping arrangements. (On-Ground Assessments)
- Assess alternative income sources on each island to support people with no access to alternative livelihoods. (On-Ground Assessments)

1.2 Forestry

Rehabilitation and recovery programs will be critical that:

• Rehabilitate and build the adequate infrastructure to utilize damaged forest products and services (National Forest Policy NFP L23), including initiatives that enable the use of *'windfall' resources* and residual material of value that can be harvested for short and medium-term income. Damaged and fallen trees in forests, plantations and farms with economic value, such as sandalwood or indigenous hard







and soft timber, must be harvested, milled marketed and sold for domestic consumption.

- Open new markets for remaining and quick yielding forest products particularly value-added and niche markets. (NFP N30)
- Take advantage of the unique opportunities presented by Cyclone Pam to replanting climate and risk resilient and marketable tree species. (NFP J21)
- Promoting and encourage Ni-Vanuatu forest operators and small-scale producers. (NFP N31)
- Expand the utilization of local timber as an economically valuable, durable and renewable commodity for shelter and reconstruction purposes. (NFP N 33)

1.3 Livestock

In the wake of Cyclone Pam, there is a critical need for recovery programs that:

- Take advantage of export trade niche markets for which Vanuatu products have a comparative advantage (e.g. grass fed beef.)
- Promote relevant and up-to-date market information on Vanuatu livestock and livestock products to potential buyers and farmers will be of utmost importance.
- Strengthen supply chains and facilitate production and marketing from farm to end markets will be necessary.
- Strengthen existing domestic market outlets for livestock and livestock products (e.g. Morobe in Port Vila).
- Facilitate adequate animal holding facilities for inter-island and export trade. (Vanuatu National Livestock Policy Cd)
- Strengthen internal quarantine measures to avoid spread of harmful animal pests and diseases will prevent market worries. (VNLP C3)
- Establish formal inter-island trade of livestock (On-ground Assessments).

1.4 Fisheries

Post cyclone Pam, there is great urgency for rehabilitation and recovery programs that:

- Rebuild damaged fish market outlets and ice plants in TAFEA, Malekula & Port Vila.
- Facilitate renewable energy options (e.g. solar) for fish freezers will be of great benefit.
- Enable the transfer of fish by-catch from commercial vessels to local markets, and the transfer of fish caught in unaffected areas to markets in affected islands.
- Improve market structures for transport and sale of fresh fish, and promote and encourage the introduction of rural market centres/outlets to put rural fishermen in a better position to access markets.
- Strengthening of fishermen's associations and organizations of rural women shell collectors and reef gleaners to be fully empowered in the marketplace.
- Support the use of targeted subsidies for fisheries markets to address market failures (examples could be for inputs, transport and information), as well as those that facilitate linkages and synergies with the growing tourist market.







Work Program 2: Rehabilitation for Product Nutrition, Quality and Safety

The overarching goal of this Strategy is to have, by 2017, a fully recovered, rehabilitated, well-coordinated and more resilient productive sector than pre Cyclone Pam. This will be achieved by creating policies and programs that:

- Rehabilitate the productive sector, including strengthening local food production and marketing systems. (Strategic Goal 1)
- Recover and improve incomes and livelihoods with particular focus on gender equity and vulnerable groups. (Strategic Goal 2)
- Plan for and build back better, low carbon, equitable, broad-based sustainable economic opportunities in the Agriculture sector. (Strategic Goal 3)
- Mandate that producers must improve quality control, product traceability and management skills despite the emergency situation caused by Cyclone Pam. (OPSP 2.4)
- Take advantage of the recovery and rehabilitation phase that provides opportunities to facilitate and encourage investments in product and process upgrading (*example: product drying facilities*) and appropriate training for operators. (OPSP Strategy 2.5)

Specifically in order to improve product nutrition, quality and safety in post-Pam Vanuatu,

Objective 2: Improved nutrition, quality and safety of agriculture, forestry and fisheries (including processed) products.

Indicators:

- Number of high value agricultural products meeting internationally recognized standards.
- Volumes and value of certified products traded.
- Number of agriculture processing firms with HACCP and ISO standards in place 3. Increased sustainable production (and productivity) of farm, forest and fisheries products to provide household nutrition, traditional needs, improved cash incomes and to ensure stable and sustainable supply that caters to the demands of the industry and trade sectors. Yields and areas planted % Increase of food quality controls.
- % Increase in volume and value of food sold with a quality certification.
- % Increase in volume and value of processed food.

Total Program Envelope: 124,943,640VUV = 1,161,976USD

2.1 Agriculture

Post cyclone Pam, there is extremely high urgency for recovery and rehabilitation programs that:

• Improve access to and availability of sufficient, safe and nutritionally adequate food. (Vanuatu Agriculture Sector Policy VASP 10.2)







- Increase the production of (including mass production) sufficient and nutritionally adequate food, including by making available planting materials for high nutritional food crops.
- Include nutritional analyses and awareness programs on food with local consumers.
- Conduct pest and disease surveillance in local communities. (On-Ground Assessments)
- Carefully monitor invasive species. (On-Ground Assessments)

2.2 Forestry

Rehabilitation and recovery programs will be critical that:

• Include forestry safety advice and guidance, particularly on the use of chainsaws and mini-saw mills.

2.3 Livestock

In the wake of Cyclone Pam, there is a critical need for recovery programs that:

- Promote animal health information systems. (National Livestock Policy NLP 5H)
- Enable paravet capacities in diagnosing, treating and monitoring animal diseases and in basic animal health and hygiene.
- Ensure the quality and safety of animals and animal products.
- Provide vaccination and deworming support services. (On-Ground Assessments)
- Provision of animal feeds, pig and poultry breeding stocks to farmers who sustained significant losses. (On-Ground Assessments)

2.4 Fisheries

Post cyclone Pam, there is great urgency for rehabilitation and recovery programs that:

• Directly address fish safety, including refrigeration, preservation and known issues like ciguatera.

Work Program 3: Restoring and Revitalizing Production and Productivity

The overarching goal of this Strategy is to have, by 2017, a fully recovered, rehabilitated, well-coordinated and more resilient productive sector than pre Cyclone Pam. This will achieved by creating policies and programs that:

- Rehabilitate the productive sector, including strengthening local food production and marketing systems. (Strategic Goal 1)
- Recover and improve incomes and livelihoods with particular focus on gender equity and vulnerable groups. (Strategic Goal 2)
- Plan for and build back better, low carbon, equitable, broad-based sustainable economic opportunities in the Agriculture sector. (Strategic Goal 3)







The short hiatus in production represents an opportunity to implement changes. For example, the partners of the RRU will take advantage of opportunities for rebuilding damaged infrastructure in a way that brings greater benefits to the food and agriculture sector; particularly in terms of value addition and access to markets. There is an immediate need for revisiting recent analyses of value chains completed by many development partners to identify where investments should be prioritized.

Mapping and coordinating needs with locally available supplies is critical. Utilizing less affected islands as sources of planting materials, feeds and restocking inputs is planned. The initiative to increase production and add value will explore innovative grant/loan financing schemes targeting small commercial farmers and merchant financing arrangements. Promote the further provision of appropriate group based micro-credit for smallholders to acquire the necessary inputs needed to boost production and productivity. (OPSP Strategy 3.12)

Specifically in order to restore and revitalize production and productivity in post-Pam Vanuatu,

Objective 3: Recovered, increased and sustainable production (and productivity) of farm, forest and fisheries products to provide household nutrition, traditional needs, improved cash incomes

Indicators:

- Yields and areas planted and production of selected crops
- Numbers of livestock
- Income growth for rural areas as a result of primary sector earnings
- Prevalence of underweight children under-five years of age
- Proportion of population below minimum level of dietary energy
- % Agriculture value chain against 2014 data.
- % Forestry value chain against 2014 data.
- Fishery value chain against 2014 data.
- Improve the nutritional status of Affected people (against the UNICEF Vanuatu nutrition survey 2007)

Total Program Envelope: 2,127,905,559VUV = 19,790,740USD

3.1 Agriculture

Post cyclone Pam, there is extremely high urgency for recovery and rehabilitation programs that:

• Increase productivity through mechanisation (and animal power) and technology (Vanuatu Agriculture Sector Policy VASP 9.2)







- Establish machinery and technology centres in all provinces and major islands to encourage the use of appropriate technology and appropriate maintenance procedures. (VASP 9.2.2)
- Establish appropriate centres for exchange of planting materials and inputs in all provinces and some major islands (VASP 7.1)
- Exchange and distribute open-pollinated, GMO-free and off-season seeds to affected farmers (VASP 7.1.4)
- Rehabilitate prime agricultural land to enhance food security. (VASP 4.1.5)
- Explore new credit opportunities and novel collateral considerations for the agriculture sector. (VASP 3.3)
- Focus on productivity of existing staple foods and proven specialty products (OPSP Strategy 3.4)
- Enable better management of land resources maintenance of soil nutrients, pest control, weed and disease management for long-term sustainable yields (especially in organic systems) (OPSP Strategy 3.4
- Introduce short-term crops for regrowth such as kumala, yam, taro, etc. (On-ground Assessments)
- Build community nurseries (On-ground Assessments)

3.2 Forestry

Post cyclone Pam, there is extremely high urgency for recovery and rehabilitation programs that:

- Develop site-specific forest plantation concepts, in particular for cyclone damaged and degraded areas, with preference for local fast growing commercial species. (National Forest Policy NFP C10)
- Establish and strengthen nurseries to provide appropriate planting material for afforestation and reforestation. (NFP C10)
- Plant high-value, locally adapted and cyclone and climate resistant wood and non-wood species. (NFP C10)
- Provide and distribute species information and planting material
- Establish plantations for the sustainable production of fuelwood, charcoal and other forest products.
- Ensure farmers are organized into associations and cooperatives in Smallholder farmer and Community-Based Forestry. (NFP G)
- Modernize the forestry sector by developing joint ventures arrangements among community-based enterprises and industry. (NFP L26)
- Develop mobile sawmilling and other wood processing facilities in keeping with sustainable forest management. (NFP L26)
- Establish credit and financing opportunities for forestry enterprises, such as longterm, low-interest financing and credit programs for local farmers, catering for the particular needs of forest producers. (NFP Q41)
- Replant coconut plantations and utilize damaged coconut palm stems for timber production. (NFP N33)
- Establish tree seedling nurseries. (On-ground Assessments)
- Diversify agroforestry species. (On-ground Assessments)







- Restore sandalwood in affected areas. (On-ground Assessments)
- Develop a nursery program for the replanting of commercial species for timber trees such as Sandalwood, Whitewood and Mahogany. (On-ground Assessments)
- Provide fruit, nut and coconut tree seedlings for replanting. (On-ground Assessments)
- Provide equipment to process fallen timber trees. (On-ground Assessments)

3.3 Livestock

Post cyclone Pam, there is extremely high urgency for recovery and rehabilitation programs that:

- Focus on increased production and productivity of small animals (pigs and poultry) through provision of input supplies and veterinary support (OPSP Strategy 3.5 & NLP 1AS)
- Enable recovery cattle pasture improvement and weed management (OPSP Strategy 3.5)
- Encourage farming of dual purpose livestock types, example for both milk and meat (NLP 1AS)
- Develop joint working partnerships between smallholder livestock farmers and commercial livestock operators (NLP 2B S), via public private partnerships (NLP 9NS) including out-grower contract grower programs (NLP 2B S)
- Facilitate access to low cost essential equipment for farmers via borrow/lend schemes (e.g. tractors, rotovators) (NLP 2B S)
- Encourage other livestock species, including goats and honey bee farming (NLP 2B S)
- Utilize surplus agro-industrial foods and food products for livestock feeds (NLP 7J S)
- Promote the coordinated use of improved breeds with local breeds. (NLP 7J S)
- Establish cooperative and/or associations for livestock recovery activities (NLP 9N S)
- Strengthen livestock feed formation such as pig silage. (On-ground Assessments)
- Rehabilitate pastures through introduction of new species to areas of need. (On-Ground Assessments)
- Establish small livestock breeding centres in every province. (On-ground Assessments)

Introduce new and fast growing emergency fodder/pasture species for cattle. (Onground Assessments)

- Introduce new and improved chicken and pig breeds. (On-ground Assessments)
- Rehabilitate pastures and fences, providing staples and fencing materials for farmers with damaged fences. (On-ground Assessments)
- Establish pig-run systems to minimize damages to agricultural produce. (On-ground Assessments)
- Introduce goats and train farmers how to care for them. (On-ground Assessments)

3.4 Fisheries

Post cyclone Pam, there is extremely high urgency for recovery and rehabilitation programs that:







- Promote and support the development of sustainable aquaculture to help develop local production capacity to meet post cyclone demand for fish. (OPSP Strategy 3.7)
- Increase the amount of Tuna landed and processed on shore in Vanuatu enforced through a stronger link between attribution of a fishing licence and the positive impact on the national economy. (OPSP Strategy 3.8)
- Expand the use of fish aggregating devices for rapid rehabilitation of near shore fisheries
- Increase access to emergency fishing gears and production materials (including freezers and storage facilities) relevant to local contexts.

Work Program 4: Recovery related processing and value adding

The overarching goal of this Strategy is to have, by 2017, a fully recovered, rehabilitated, well-coordinated and more resilient productive sector than pre Cyclone Pam. This will be achieved by creating programs and policies that:

- Rehabilitate the productive sector, including strengthening local food production and marketing systems. (Strategic Goal 1)
- Recover and improve incomes and livelihoods with particular focus on gender equity and vulnerable groups. (Strategic Goal 2)
- Plan for and build back better, low carbon, equitable, broad-based sustainable economic opportunities in the Agriculture sector. (Strategic Goal 3)

Specifically in order to enable recovery related processing and value adding in post-Pam Vanuatu,

Objective 4: More onshore processing and value adding of agriculture, forestry and fisheries products.

Indicators:

- Range, value and volume of locally processed/value added agricultural products traded on domestic and overseas markets
- Number of agricultural processing businesses operating and sales/turnover
- Percentage of agricultural export products receiving above world parity prices
- Contribution to GDP of value added agriculture

Total Program Envelope: 546,160,838VUV = 5,079,296USD

4.1 Agriculture

Post cyclone Pam, there is extremely high urgency for recovery and rehabilitation programs that:

• Increase value adding and processing of agricultural produce and products through improved technologies (VASP 9.3), including solar dryers (VASP 10.4 and OPSP Strategy 4.4), especially to increase shelf life. (VASP 9.3.1)







- Build on traditional and modern food preservation knowledge and technologies. (VASP 10.4.1)
- Develop domestic market and export opportunities based on value added products principally from traditional crops to help ensure strong backward linkages to the affected rural communities who have the experience and the resources to produce them. (OPSP Strategy 4.1)
- Provide targeted support towards good performing market chain emergency incentives (e.g. agro-processors) at or near the upper end of the value chain that can "pull" products through the value chain. (OPSP Strategy 4.3)

4.2 Forestry

Post cyclone Pam, there is extremely high urgency for recovery and rehabilitation programs that:

• Expand the range of forest products (timber and non-timber) and services available through use of new technologies and increased downstream processing. (National Forest Policy L24)

4.3 Livestock

• Promote value addition for niche markets. (National Livestock Policy NLP 3C)

4.4 Fisheries

- Support the processing of primary products (including Tuna fish) to increase incountry value addition prior to export. (OPSP Strategy 4.2)
- Support the storage (freezers) and processing of fisheries products (including shellfish).

Work Program 5: Revive and strengthen environmental services and resilience

The overarching goal of this Strategy is to have, by 2017, a fully recovered, rehabilitated, well-coordinated and more resilient productive sector than pre Cyclone Pam. This will achieved through creating programs and policy that:

- Rehabilitates the productive sector, including strengthening local food production and marketing systems. (Strategic Goal 1)
- Recovers and improves incomes and livelihoods with particular focus on gender equity and vulnerable groups. (Strategic Goal 2)
- Plans for and builds back better, low carbon, equitable, broad-based sustainable economic opportunities in the Agriculture sector. (Strategic Goal 3)

Vanuatu's society, environment and economy are highly vulnerable to climate change and disaster risks. Predicted increases in extreme weather from climate change means we will







face greater impacts in future. According to the Vanuatu Agriculture Sector Policy, "Vanuatu's inability to increase and sustain agricultural production is exacerbated by the negatives effects of climate change and climate variability. With temperatures increasing, seasonal rainfall patterns shifting, and extreme events more frequent and severe, the incidence of heat, water, pest/disease and soil fertility stress are drastically hampering already risk prone production.

A key priority for the Risk and Resilience Unit and the Vanuatu Government is achieving resilient development across all levels and sectors; addressing the risks we face from climate change and disaster impacts. For decades, climate change and disaster risk reduction were treated at global, regional and national levels as separate policy issues, leading to duplication of structures and funding. The Vanuatu Climate Change and Disaster Risk Reduction Policy is an important advance in integrating work in these overlapping fields, placing Vanuatu at the forefront of innovative approaches in the Pacific and internationally. Thus this strategy seeks to uphold this integrated climate change and disaster risk approach, and to align all activities with climate change planning.

In the process of recovery and building back better, it is imperative that greater preparedness and disaster risk reduction (DRR) mitigate the impacts of future natural disasters, and both CCA and DRR are integrated into national policies and public financing. Well thought out actions and plans and their adequate financing will reduce the costs of subsequent disasters. Based on experience from Cyclone Pam, there is a need for risk mapping, contingency planning, insurance and financial tools, human capacity building and early warning and communications systems to reduce vulnerability and build resilience.

Most importantly, this program will ensure that the Cyclone Pam recovery shifts focus as quickly as possible from "crisis management or response" to "risk reduction and resiliencebuilding." (OPSP Strategy 5.1). This work stream will include cross-sectoral programs that advocate and facilitate the formulation of disaster preparedness plans, resource management plans and environmental action plans for the productive sectors (Strategy 5.2). This work stream will also ensure that appropriate natural resources data (land, freshwater and marine) is collected to improve land use planning and fisheries management, and to monitor impacts and sustainability of activities in the productive sector. (Strategy 5.7)

Importantly the devastating impacts of Cyclone Pam highlight the vulnerability of Vanuatu to climate extremes, variability and change. Every opportunity will be taken to publicize the loss and damage incurred in Vanuatu and the role of the international community to take immediate and transformation action to address the causes of climate change.

In Vanuatu women play a critical role since the early phases of the disaster management response. Often they are also bearing significant responsibility for managing critical productive resources such as land and water. Adopting a gender sensitive strategic approach will recognize their invaluable contribution in the successful implementation of the plan.

The overall outcome of integrating resilience is to orientate the recovery phase into a "build back better" recovery and rehabilitation phase and reduce vulnerability of communities affected by futures natural disasters.







Specifically in order to revive and strengthen environmental services and resilience in post-Pam Vanuatu,

Objective 5: Enhanced environmental services and sector resilience to natural disasters and climate change.

Indicators:

- Land area forested
- Fisheries management plans in place
- Recorded incidents of IUU fishing
- Incidence of foreign pest, disease and invasive species incursions
- Number and area PAs
- EIAs carried out in all agricultural development projects
- Disaster Management Plans in Place
- % increase of land afforested compared to 2014 data.
- % increase of land protected compared to 2014.
- % of rehabilitation project including a resilience component.
- % of project with gender balance

Total Program Envelope: 139,284,000VUV = 1,295,341USD

5.1 Agriculture

Post cyclone Pam, there is extremely high urgency for recovery and rehabilitation programs that:

- Promote environmentally friendly production systems, including integrated crop management, integrated pest management, agroforestry and organic farming. (OPSP Strategy 5.3)
- Consider climate variability, climate change and disaster risk reduction in all agricultural recovery and rehabilitation initiatives. (VASP 12.1.1)
- Incorporate sustainable farming practices such as agro-forestry and soil improvement technologies in all agriculture recovery and rehabilitation practices. (VASP 8.2)
- Enable traditional farming practices that provide resilience. (VASP 8.2.1)
- Promote site-appropriate soil improvement technologies e.g. agro-forestry, alley cropping, intercropping, windbreaks, contour farming, composting and cover crops in all agriculture recovery activities. (VASP 8.2.2 and on-ground assessments)
- Implement soil improvement technologies -- soil conditioning plants, mucana and other cover crops. (On-Ground Assessments)
- Diversify crop cultivators that are climate and disaster resilient (roots, fruits, vegetables). (On-Ground Assessments)
- Establish demonstration farms for resilient farming systems. (On-Ground Assessments)

5.2 Forestry







Post cyclone Pam, there is extremely high urgency for recovery and rehabilitation programs that:

- Undertake comprehensive forestry resilience assessments including a full National Forest Resources Assessment. (NFP)
- Protect younger age class trees and potential crop trees during emergency harvesting operations.
- Discourage conversion of natural forests during recovery programs. (NFP B5)
- Maintain soil quality (NFP D13) and rehabilitate degraded and eroded areas through afforestation and reforestation.
- Monitor and discourage the change of forest to other land uses.
- Develop and implement land use plans including forestry rehabilitation activities. (NFP F16)
- Create Forest Management plans. (On-ground Assessments)

5.3 Livestock

Post cyclone Pam, there is extremely high urgency for recovery and rehabilitation programs that:

- Promote environmentally friendly production systems including integrated crop management, integrated pest management, silviculture, and organic farming. (NLP 8LS)
- Recognise conservation, use and traditional practices in the livestock activities. (NLP 8L S)

5.4 Fisheries

- Support community based management of inshore marine resources, both empowering and assisting communities to develop and enforce appropriate conservation measures. (Strategy 5.5)
- Utilise further the already established options to recognise land and marine Protected Areas and taboos. (Strategy 5.6)

Work Program 6: Prioritized recovery capacity building, training and entrepreneurship

The overarching goal of this Strategy is to have, by 2017, a fully recovered, rehabilitated, well-coordinated and more resilient productive sector than pre Cyclone Pam. This will be achieved by creating programs that:

- Rehabilitate the productive sector, including strengthening local food production and marketing systems. (Strategic Goal 1)
- Recover and improve incomes and livelihoods with particular focus on gender equity and vulnerable groups. (Strategic Goal 2)
- Plan for and build back better, low carbon, equitable, broad-based sustainable economic opportunities in the Agriculture sector. (Strategic Goal 3)







This program of work will directly amplify the delivery of cyclone recovery and rehabilitation government extension sources. The program will enable MALFFB to meet stakeholder's expectations and to simultaneously institutionalize resilient agricultural practices and strengthening food safety and nutrition. There is a need to strengthen the capacity of government agriculture, forestry and fisheries institutions to fulfil a more active role in facilitation, coordination across sectors and partnering with private sectors and civil society (OPSP Strategy 6.1).

Specifically in order to build capacity, improve training and entrepreneurship in post-Pam Vanuatu:

Objective 6: Enhanced capacity of both public and private productive sector stakeholders with particular focus on women and youth.

Indicators:

- Number of agriculture college graduates working in support services to the sector
- Number of farmers who have received vocational training
- Number of farm/agri-business participants that have received small business enterprise training
- (all data disaggregated by gender and age)

Total Program Envelope: 3,573,713,635VUV = 33,295,740USD

6.1 Agriculture

Capacity building and training for all agriculture stakeholders should

- Encourage and engage participation of women, youths and vulnerable groups in all agriculture rehabilitation-training activities. (VASP 13.1.1)
- Integrate recovery and appropriate agriculture training syllabus and modules based on the needs of the sector. (VASP 2.1.1)
- Promote field school programs to facilitate hands-on training. (VASP 2.1.5)
- Include agriculture recovery awareness, workshops, and showcase events, festivals. (VASP 2.1.6)
- Embrace and promote the use of ICT to support up-skilling and information sharing of farmers. (VASP 2.1.8)
- Include provincial authorities and private sector in training agriculture workers. (VASP 2.1.9)
- Adopt more effective and innovative approaches to extension services. (VASP 2.4)
- Strengthen the role of private sector in extension services. (VASP 2.4.1)
- Engage lead farmers to train other farmers and provide specific technical information to relevant cyclone rehabilitation. (VASP 2.4.2)
- Utilize existing structures and networks (e.g. Church networks, Provincial Area Secretaries, Farmers Associations, NGOs) to enhance extension outreach. (VASP 2.4.3)
- Improve mobility of extension workers (government and non-government) by provision of assets, inputs and relevant infrastructure. (VASP 2.4.5)







• Provide necessary trainings to support rehabilitation process such as nursery propagation techniques, horticulture production, agro and food processing techniques, harvest preservation techniques, utilization of copra by-products, etc. (On-Ground Assessments)

6.2 Forestry

Capacity building and training for all forestry stakeholders should

• Provide trainings on nursery and propagation techniques, grafting of fruit trees and new farming systems. (On-ground Assessments)

6.3 Livestock

Capacity building and training for all livestock stakeholders must:

- Foster partnerships for demand driven client-based extension and research based on partnerships with a variety of stakeholder producer marketing associations, NGOs etc. (OPSP Strategy 3.10)
- Promote information kits for farmers on cost effective pasture establishment and management. (NLP 1A S)
- Promote information and training to farmers on low cost pasture establishment and management strategies. (NLP 1A S)
- Expand and strengthen the Livestock extension service, using multi-skill livestock extension officers in all major livestock-producing areas (at a minimum in all 6 provinces). (NLP 1A S)
- Promote joint coordination of extension services with other stakeholders (private sector and NGOs) to maximize service coverage on all the islands. (NLP 1A S)
- Provide training on duck farming and provision of stocks. (On-ground Assessments)
- Provide training on animal husbandry, feed supplement formulation. (On-ground Assessments)
- Build sample piggery/chicken demonstration farms. (On-ground Assessments)

6.4 Fisheries

- Establish aquaculture demonstration farms. (On-Ground Assessments)
- Provide aquaculture and fishing technology trainings. (On-Ground Assessments)
- Train fishermen on more robust and effective pelagic fishing methods (mid-water trawling etc)

Work Program 7: Recovery and rehabilitation policy, coordination and monitoring

The overarching goal of this Strategy is to have, by 2017, a fully recovered, rehabilitated, well-coordinated and more resilient productive sector than pre-Cyclone Pam. There is critical need for programs that:

• Rehabilitate the productive sector, including strengthening local food production and marketing systems. (Strategic Goal 1)







- Recover and improve incomes and livelihoods with particular focus on gender equity and vulnerable groups. (Strategic Goal 2)
- Plan for and build back better, low carbon, equitable, broad-based sustainable economic opportunities in the Agriculture sector. (Strategic Goal 3)

Cyclone Pam has provided Government with an opportunity to strengthen policy with new experience and implement the valuable lessons learned from the disaster and RRU response. These lessons clearly point to necessary changes within institutions and the policy framework that support increased mainstreaming of resilience and disaster risk management. Building on the success in coordination of the RRU, there is an important need to establish a Permanent Productive Sector Coordination Committee (PSCC) under the Ministry of Agriculture. The PSCC will be responsible for:

- Coordinating policy, planning, implementation and monitoring to ensure the recovery and rehabilitation goals of this Strategy are being achieved. (OPSP Strategy 7.1)
- Strengthening assessment and baseline data will ensure recovery and rehabilitation activities have continued relevance and effectiveness. (OPSP Strategy 7.2)
- Importantly, this work program will utilize information gained through monitoring and evaluation and impact assessments by Government for recovery related policy development, review and refinement. (OPSP Strategy 7.3)

Specifically in order to ensure coordinated recovery and rehabilitation in post-Pam Vanuatu:

Objective 7: A priority focused productive sector recovery and rehabilitation operating within a stable and coherent policy framework.

Indicators:

- Productive Sector recovery plans policies and regulations endorsed by Council of Ministers
- Sub-sector recovery programmes, action plans and projects developed and costed
- Public spending on recovery and rehabilitation in the productive sector (including development partner funds) as a percentage of GDP
- Regular recovery and rehabilitation implementation monitoring reports prepared.

Total Program Envelope: 382,512,600VUV = 3,557,797USD

7.1 Agriculture

Post cyclone Pam, there is extremely high urgency for consideration of recovery and rehabilitation policy and coordination which includes:

- Strengthening of institutions responsible for enacting, administering and enforcing the agriculture sector recovery policies and plans. (VASP 1.1 & OPSP 2.2)
- Develops agriculture policies, procedures and protocols to effectively administer the recovery and rehabilitation of the sector. (VASP 1.2.1)
- Reduces barriers to investment and costs of recovery in Agriculture (VASP 5.3), including provision of a tax exemptions on agricultural inputs e.g. tools, machineries,







seeds, fertilizers, pesticides, fuel (VASP 5.3.2), and exemptions on licences on agriculture businesses (VASP 5.3.3).

- Gives Industry the roles responsibility to set recovery and rehabilitation standards and monitor compliance; government will facilitate emergency legislation and regulations where appropriate. (OPSP Strategy 2.3)
- Considers temporary subsidies to crops such as copra. (On-ground Assessments)

7.2 Forestry

Post cyclone Pam, there is extremely high urgency for consideration of recovery and rehabilitation policy and coordination which includes:

- Strengthening of the National Government responsible for regulating and administering the recovery and rehabilitation of the forestry sector in Vanuatu. (VASP U51)
- Mechanisms to provide sound recovery and rehabilitation advice to Government on forestry issues. (VASP U53)
- Strengthens cooperation and collaboration for recovery and rehabilitation among all forestry sector stakeholders (VASP V55)
- Devolves and decentralize forestry recovery and rehabilitation operations and implementation to communities and the private sector. (VASP V55)

7.3 Livestock

Post cyclone Pam, there is extremely high urgency for consideration of recovery and rehabilitation policy and coordination which includes:

- Ensure the industry has agreed standards criteria for livestock rehabilitation and recovery. (NLP 10 P/Q S)
- Recognizes and promotes a Vanuatu Livestock Advisory Board (VLAB) as the national representative body to assist the government develop the recovery and rehabilitation in the livestock sector. (NLP 10 S)
- Undertakes post Cyclone Livestock Status Assessments (NLP 11 R), including a Livestock Census. (NLP 10 S)

7.4 Fisheries

- Strengthening of institutions responsible for enacting, administering and enforcing the fisheries sector recovery policies and plans. (OPSP 2.2)
- Reduces barriers to investment and costs of recovery in fisheries, including provision of a tax exemption on inputs (e.g. gears, fuel and exemptions on licences on fisheries businesses).







Annex 1: Guiding Principles for Food Security & Agriculture Recovery

The Food Security & Agriculture Cluster has identified the following guiding principles for its responses to Cyclone Pam:

Ensuring immediate needs are met: The RRU strives to ensure that lives, food, health and immediate safety needs are supported initially, and steps are taken to reduce any further losses e.g. distress selling of livestock or other assets, limiting further indebtedness (e.g. by introducing cash for work).

Addressing needs of vulnerable: The RRU strives to identify who are the vulnerable, hard to reach, have difficulty in accessing services that may require special rehabilitation throughout the recovery phases.

Inclusion and Gender: further to the above, in identifying and delivering responses and support, recovery and rehabilitation will fit the needs of all types of affected groups, also with difference in the households. This also further applies to the processes used, which shall be participatory.

Integrated approach – livelihoods: Responses and plans must recognise the nature of the impact on households and community livelihoods systems. In Vanuatu these are often very mixed: nearly all-farming families have some form of livestock, fishing communities practice farming, agroforestry is part of household system, etc. Similarly watersheds and forests, farming, coastal production and ecosystems are closely interconnected in Vanuatu.

Ensuring technical quality: The quality of inputs and services delivered post Cyclone Pam are critical. The RRU seeks to avoid poor quality seeds, wrong materials for rebuilding or only insufficient advice on timing of inputs. Where possible, already existing technical expertise and materials will be used.

Building back better: The RRU long-term recovery plan seeks to improve from previous systems – provided this does not hamper efficiency and divert effort from more immediate needs.

Incorporating disaster risk reduction and resilience: RRU believes that building back better is strengthening resilience and reducing risk to future disasters. This is particularly applicable to Vanuatu's recurrent natural disasters such as cyclones.

Environmental sustainability: Following on from the above and The RRU plans to proactively identify options and monitor implementation that has positive, or at least neutral environmental effects. Vanuatu's stance is that robust integrated ecosystems play a key role in reducing disasters







Addressing climate change: As Vanuatu is particularly vulnerable to climate change, recovery and rehabilitation actions will also be no-regrets climate change adaptation measures.

Participation and strengthening of key stakeholders, especially at the community level: RRU has observed that the results of interventions are better targeted and more durable if communities – and the local services that support them – are deeply engaged in the design and implementation of rehabilitation activities. Strengthened community networks, and coordinated provincial and customary governments, will be one of the most important elements and actors in RRU recovery strategy and plans.

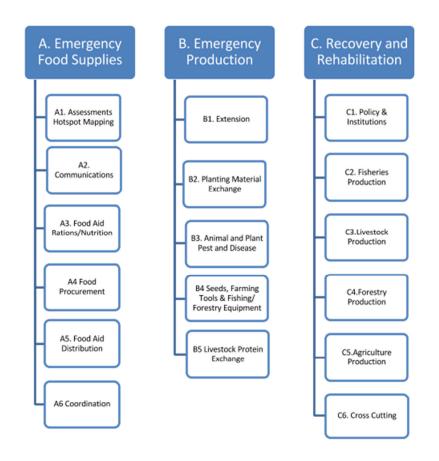
Innovation, global best practices and knowledge exchange will underpin the delivery of many of the above principles and practices. RRU strives to ensure that best practices and emerging new approaches are tried and adopted so as not to 'reinvent the wheel' but also take on board measures, which may save lives and strengthen livelihoods.







Annex 2. RRU Operational Structure for Cyclone Pam Relief, Recovery and Rehabilitation









Annex 3: Island Recovery Needs

Short-Term	
Medium-Term	
Long-Term	

Island	Livestock	Forestry	Сгор	Biosecurity	Fisheries
TORBA PROVI	NCE				
Merelava	 Maintenance of stonewall pig fences 	-	 Need for suitable taro planting materials Need cuttings of island cabbage Improve market access and shipping arrangements 	 Regular awareness and surveillance monitoring 	 Provision of fishing gears (nets, lines, etc.) Establish aquaculture farms Provision of aquaculture and fishing technology training
PENAMA PRO	VINCE				







Maewo	 Chicks Cattle breeds Pasture and feeds Vaccination 	 Seeds and/or seedlings for Sandalwood, whitewood, Blue Water, Natora 	 Replanting of root crops Need planting materials 	 Vaccination of livestock Pesticides 	 Provision of fishing gears (nets, lines, etc.) Establish aquaculture farms Provision of aquaculture and fishing technology training
Pentecost	 Wire for fencing Barbed wire Nails 	• Sawmill	 Vegetable seedlings Planting material Agriculture tools 	 Need training and awareness on pest and disease surveillance and control 	Provision of fishing gears (nets, lines, etc.)
		Seedlings for Mahogany and Sandalwood		Regular awareness and surveillance monitoring	 Provision of aquaculture and fishing technology training
	New cattle breeds			Regular awareness and surveillance monitoring	 Provision of boats Establish aquaculture farms
MALAMPA P	ROVINCE				
Ambrym	 Supply staples for farmers to erect damaged fences 30 ctns staples needed by livestock farmers 	Mill windblown trees	 Training in new farming system Provide vegetable seeds Plastic bags to propagate Kava 	 Regular awareness and surveillance monitoring 	 Provision of fishing gears (nets, lines, etc.)
	•	 Establish community nurseries 	 Training in grafting of fruit trees Coconut seedling for replanting Subsidise copra price 	 Need training and awareness on pest and disease surveillance and control 	 Provision of aquaculture and fishing technology training







	 New genetics in pigs Livestock diversification Introduce new pasture/fodder 	 Provision of Natangura and coconut seedlings Sandalwood restoration 	 Establishment of seedbanks/bulking sites Diversification of crop cultivars (roots, fruits, vegetables) Establish resilient farming demonstration farms 	 Need training and awareness on pest and disease surveillance and control 	 Deployment of FADs (Fish Aggregating device) Establish aquaculture farms
Malekula	 Staples to erect fences Chainsaw to clear fallen coconuts/trees 	 Utilisation of fallen logs Provide mini mill to process damaged trees 	 Supply of vegetable seeds Cuttings of resilient root crops 	 Check sick chickens and pigs 	 Provision of fishing gears (nets, lines, etc.)
	 Training on pig and chicken husbandry Chicken and pig wires Training on duck farming Feed formulation such as pig silage Fencing animals to avoid damages New improved chicken and pig breeds Cattle and goat stocks 	• Forest management	 Plant propagation techniques (crafting, etc.) Crop production systems and diversifications Farming practices and farming systems Soil improvement technologies – soil conditioning plants 	 Need training and awareness on pest and disease surveillance and control 	 Provision of aquaculture and fishing technology training Biocontrol methods







	 New genetics for recovery 	 Provision of Natangura and coconut seedlings Sandalwood restoration 	 Cropping systems Provision of Pigs and fowls Diversification of root crop cultivars Fowl fencing Pig fencing Farming implements Technical and financial support – school fees Alternative income source 	 Regular visits of Vet staffs 	Establish aquaculture farms
Maskelynes SHEFA PROVIN	-	-	 Copra farmers are producing copra Farmers are already selling Kava Need planting materials (Cuttings) 	 Regular awareness and surveillance monitoring 	 Provision of fishing gears (nets, lines, etc.) Establish aquaculture farms Provision of aquaculture and fishing technology training







Ері	 Need basic materials to repair fence Diversify feed supply Tethering ropes 	 Sandalwood and coffee seeds Polybags Pruning saws 	 Planting materials such as seeds, cuttings Training on horticulture and agro processing Need basic clearing tools like pruning saws to clear cocoa patches Repair of cocoa, copra driers Need training in agro processing 	 Need training and awareness on pest and disease surveillance and control 	 Need distribution of essential fishing gears Need deployment of FADs Establish aquaculture farms Provision of aquaculture and fishing technology training
Tongoa	 Ropes for tying cattles & pigs Trainings on animal husbandry Vaccination 	 Training on nursery and propagation techniques Establish tree seedling nursery 	 Provision of short term crops planting materials eg, Kumala, Vegetable Seeds 	 Need training and awareness on pest and disease surveillance and control 	 Fishing net
	 Breeding pigs/Cattles Day old chicks 	 Training on nursery and propagation techniques Establish tree seedling nursery 	 Provision of medium term crops planting materials, eg Cassava, Taro, Provision of resilient crops planting materials like Taro Fiji 	 Need training and awareness on pest and disease surveillance and control 	 Provision of aquaculture and fishing technology training







	 Establish piggery/chicken demonstration farms 	 Provision of Natangura and coconut seedlings Sandalwood restoration 	 Establishment of seed banks/bulking sites Diversification of crop cultivars (roots, fruits, vegetables) Establish resilient farming demonstration farms 	 Need training and awareness on pest and disease surveillance and control 	 Establish aquaculture farms Fishing boat Fishing gear Engine boat Fuel
Tongariki	 Fencing Materials Animal feeds Day old chicks Piglets (breeding pigs) Ropes for tying cattles & pigs Vaccination Deworming 	 Propping up of windblown woodlots. Equipments to process fallen timber trees 	 Vegetable seeds Provision of short term crops planting materials eg, Kumala, Salon shades 	 Need training and awareness on pest and disease surveillance and control 	Fishing gearsFishing net
	 Training on Animal husbandry feed formulations 	 Training on nursery and propagation techniques Establish tree seedling nursery 	 Provision of medium term crops planting materials, eg Cassava, Taro, Provision of resilient crops planting materials like Taro Fiji 	 Need training and awareness on pest and disease surveillance and control 	 Provision of aquaculture and fishing technology training
	 Establish piggery/chicken demonstration farms 	 Diversification of agroforestry species 	 Establishment of seedbanks/bulking sites Diversification of crop cultivars (roots, fruits, vegetables) Establish resilient farming demonstration farms 	 Need training and awareness on pest and disease surveillance and control 	 Establish aquaculture farms Fishing boat Fuel & oil Engine boat







Emau (Efate)	 Feeds for chicken and pigs Fencing materials New pastures 	 Seedlings for timber trees (Sandalwood, Whitewood, Mahogany Seedlings for fruit trees (Nangai, Natapoa, Nantau, Navel) Chainsaw Fuels Polybags 	 Planting materials – Kumala, island cabbage, cassava, Taro Fiji, Panadanus, Natangura, Kava, Root stock (Citrus), Yams, Wailu, 6 manis yam, Navia, laplap leaves, Vetiva grass, Glyricidia, Macuna Agriculture tools (hoe, forks, axe, crowbar, knives, Polybags Vegetable seeds 	 Training on pests and diseases control measures Biological control measures Chemical control measures Control of invasive species 	 Need artisan fishing gears Establish aquaculture farms Provision of aquaculture and fishing technology training
Efate	 Land Clearing and Fencing Materials 	 Milling Machines and reforestation 	 Seeds/seedlings/planting materials and land clearing machines 	 Need training and awareness on pest and disease surveillance and control 	 Establish FADs and aquaculture farms Provision of aquaculture and fishing technology training
TAFEA PROVI	INCE		-		
Erromango	FencingFeeds	 Marketing of fallen Sandalwood 	 Vegetable seeds Planting materials for short term crops Fencing materials 	 Regular awareness and monitoring of pests and diseases 	 Provision of fishing gears (nets, lines, etc.)
	 Breeding centre Animal health and breeding strategy Introduction of goats 	 Seeds/tools Seedlings for replanting 	 Training on sustainable farming practices 	Control of invasive species	 Provision of aquaculture and fishing technology training







	 Establish inter island trade with Tanna and Efate Fodder trees New pastures Breeding programme for small livestock 	 Nursery programme for replanting of commercial species 	 Training on food processing and food preservation techniques Relocation of farms Establishment of demonstration on sustainable farming systems Introduction of suitable alley cropping and windbreaks Transportation issues caused several tonnes of copra wasted – need to establish cooperative shops Need to expand VCO Need taro varieties to supplement cassava and yam 	Regular awareness and surveillance monitoring	 Deployment of FADs Establish aquaculture farms
Tanna	 Animal feeds (chickens and pigs) Fencing materials Diversification of livestock Introduce new pastures 	 Seedlings for high value timber species Chainsaw to mill the fallen trees 	 Vegetable seeds Introduce cyclone resistant crop varieties Agriculture tools Farm machines (rotovator) Cultivate under tunnel houses 	 Control of invasive species Need training and awareness on pest and disease surveillance and control 	 Provision of fishing gears (nets, lines, etc.) Establish aquaculture farms Provision of aquaculture and fishing technology training







Aniwa	 Chicks Cattle breeds Pasture and feeds Vaccination Feeds Breeding stocks and technique Livestock construction materials Feed formulation (silage) 	 Seeds and/or seedlings for Sandalwood, whitewood, Blue Water, Natora Forestry management 	 Replanting of root crops Need planting materials including seeds and cuttings Soil improvement technologies Improving farming techniques Introduction of resilient crops Solar driers Food storage and processing 	 Vaccination of livestock Pesticides 	 Fishing gears Establishment of fishing cooperatives
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Annex 4: Projects

1. Revive and sustain market access

Project Name	Vegetable Water-Making Support
Lead Agency	Kaliva
Description	The FSAC is sending out vegetable seeds for most affected areas, however these seeds require regular watering. Many of the most affected areas are in the midst of a drinking water scarcity crisis and so sparing water for vegetables is a low priority. The project will require mobile desalination units to be deployed to affected islands, especially in the Shepherds and offshore Efate to provide sufficient drinking and vegetable growing water, up to 7,000liters per day.
Partners	
Summary Budget	Desalination Units: 4,500,000VT Fuel: 28,000,000VT
Expected Outputs	Affected rural residents have sufficient water for drinking and nursery purposes.

Project Name	Improving Access to Education & Nutrition (part of: Recovery to Resilience-Community Access to Markets & Education)			
Lead Agency	Live & Learn Vanuatu			
Description	Working with Shefa Province, Malampa Province, Tafea Province, Department of Education to improve school attendance and the			
	nutrition of schoolchildren and vulnerable people in affected communities			
Partners	USP			
Summary Budget	AU\$ 300,000			
Funding Gap	AU\$ 300,000			
Expected Outputs	In affected communities in Efate, Ambrym and Tafea:			
	Linkages between of local agro-produce markets and School canteens created			
	Hot nutritious meals provided to schoolchildren			







Food support for the elderly and people with disabilities
Improved future risk resilience through strengthening of local governance structures and planning.

Partners	Currently preparing to implement a reduced scale pilot with Save the Children in select Peri-Urban and East Efate
	Communities.
Project Name	Improving Community Access to Markets (part of: Recovery to Resilience-Community Access to Markets & Education)
Lead Agency	Live & Learn Vanuatu
Description	Working with Shefa Province, Malampa Province, Tafea Province, Department of Forests, Department Agriculture and Rural Development and Southern Cross University support affected communities to restore damaged farm infrastructure, replant short medium and long term crops and tree species in resilient agroforestry farm systems and to generate market income.
Partners	Currently preparing to implement a reduced scale pilot with Save the Children in select Peri-Urban and East Efate Communities.
Summary Budget	AU\$ 1.2M
Funding Gap	Approximately AU\$1.1M (Currently EURO 90,000 being provided by MOFA / Government of Holland via Save the Children)
Expected Outputs	In affected communities in Efate, Ambrym and Tafea: Rehabilitated farms and farm access Planting material for crops and timber species Expert support and know-how in established agroforestry plots Reestablishment of local agro-produce markets and new linkages created Improved future risk resilience through strengthening of local governance structures and planning.
Time Period	15 months (medium to long term)

Project Name	Sanma Community Economic Development
Lead Agency	World Vision
Description	Increase agriculture-based income through value added products and increased market access, particularly copra and cocoa. Current focus is Sanma province, however the opportunity to divert programming into Penama as a Cyclone Pam-affected province is being explored.
Partners	New Zealand
Summary Budget	65,900,000







Funding Gap	
Expected Outputs	Improved capacity of farmers in production, processing, finance and marketing. Improved access to market opportunities in Luganville and Port Vila.
Time Period	2 years

Project Name	Agricultural Development for Tanna's Economic Growth
Lead Agency	World Vision
Description	This Activity aims to enhance economic development and strengthen household resilience for 5,700 people in south-west Tanna, through
	improved production and processing of coffee beans, intercropping of vegetables, and integration of disaster risk reduction principles.
Partners	DARD, Nasi Tuan, New Zealand
Summary Budget	182,780,000VT
Funding Gap	
Expected Outputs	1. Smallholder farmers completed all stages of crop production training
	2. Smallholder farmers completed business management training
	3. Co-operative for South West Tanna established and functioning to connect farmers and buyers
	4. Smallholder farmers have completed natural disaster awareness training and disaster mitigation plans
Time Period	5 years

Project Name	Biogas Renewable Energy Project
Lead Agency	DoL
Description	Install and train on household level biogas digesters utilizing the waste of small livestock (e.g. pigs) for cooking gas. These digesters will
	be linked to a solar panel to provide light and also to power a solar dehydrator to preserve pig meat products
Partners	Private Sector (China), USP
Summary Budget	Digesters and panels- 50,000,000VT
	HR- 3,000,000VT
	Transportation- 1,500,000VT
Expected Outputs	Local households have a source of free and clean energy and long-term pig product preservation options







Time Period	Long Term (7-24 months)
Project Name	Small Business Development and Genetic Upgrade Project: Muscovy Ducks
Lead Agency	Livestock Industry Working Group
Description	Revive the Muscovy Ducks existence in Vanuatu by sourcing fertile eggs from either Fiji or New Zealand and establish three breeder farms using existing farms on Santo and Efate to supply the progeny to farmers. Each breeder farms would get 2 females and 1 male for breeding and over time establish isolated flocks with the exchange of breeding males to ensure upgrading on a regular basis. The existing stock of Muscovy ducks in the country have become inbred and quite small hence the need to upgrade the breeding stocks.
	Muscovy ducks do not have high water requirements compared to other duck breeds and produce a low fat meat ratio making them suitable for the communities in Vanuatu. Also, they do not require high nutritional levels and thrive on a local diet and are easy to manage.
	This could be an alternative income generation activity for families in areas where the cyclone has badly damaged the coconuts and the farmers are unable to move back to their traditional pig farming.
Partners	Department of Livestock/ VARTC/Yo Ku Farm/Pepe's Farm
Summary Budget	6, 650,000 vatu
Funding Gap	
Time Period	Long Term: 1-36 months
Contact	Carolyn Ernst (LIWG chairperson)
	ernst@vanuatu.com.vu

Project Name	Small Business Development Genetic Upgrade Project: Sheep
Lead Agency	Livestock Industry Working Group
Description	Import genetics to improve breeding and availability of breeding stock to the smallholder farmers. Imported genetics will be raised on 2 existing sheep properties and distributed to smallholder farmers. This would also require provision of materials to construct small yards and housing.
	Sheep would make a great small economic development project for the small farmers. They are very easy to manage and are browsers, which do not require expensive pastures and fencing. Also, the tropical breeds of sheep have hair and shed their fleece so they do not

	require shearing.
	Lamb is an expensive, luxury meat in Vanuatu so there is a great opportunity for families to improve their income. This would be suitable for families who do not wish to return to pig farming in the nearest future because of the damage to coconut trees which provide feed for their animals.
Partners	Department of Livestock/ Vanuatu Cattle Co/Yo Ku Farm
Summary Budget:	9.2 Million vatu
Funding Gap	
Expected Outputs	 This project is expected to achieve the following output: Improve the breed of sheep available in the country Provide rural farmers with another income generating opportunity to improve their income and restore their livelihoods. Introducing another source of protein in the local markets. Encouraging the involvement of more people especially youths in the livestock sector. Allow the farmers to diversify and have multiple sources of income generation that could lead to increased production over time.
Time Period:	Long Term: 1-48 months
Contact	Name: Carolyn Ernst (LIWG chairperson)
	Email: <u>ernst@vanuatu.com.vu</u>

Project Name	Small Business Development Genetic Upgrade Project: Goats
Lead Agency	Livestock Industry Working Group
Description	Introduce Nubian goats in Vanuatu and provide materials to build small yards and housing for the goats. Because of the widespread destruction to coconut trees, it will take at least 5 years to get the pig herds to their original size. Nubian goats provide a better alternative for rural communities, which may find it difficult to continue raising pigs and the SDA communities who are unable to keep or eat pigs on religious grounds. The Nubian goats are a suitable alternative to pigs as they can be kept for both milk and meat and they are browsers and do not require expensive improved pasture. The existing goats in Vanuatu are inbred and quite small with very slow growth rates.
Partners	Department of Livestock/ Vanuatu Cattle Co/Yo Ku Farm
Summary Budget:	Vt. 11,000,000
Funding Gap	
Expected Outputs	The project is expected to achieve the following outputs:







	1. Improve the breeding and availability of breeding stock to the small holders.
	2. Creation of small business development in the rural communities and source of income for household involved.
	3. Satisfy the local demand for goat meat amongst the Indian consumers in Port Vila.
Time Period	Long Term: 1-48 months
Contact	Carolyn Ernst (LIWG chairperson)
	ernst@vanuatu.com.vu

Project Name	Fish processing and market access
Lead Agency	VFD
Description	Support for improved fishing technology and aquaculture production for tuna. Improving access to local and export markets for reef fish, shellfish and beche-de-mer to support the livelihood needs of affected communities and to improve returns to fishers. This project will include stock sustainability monitoring, evaluation and planning measures.
Partners	
Summary Budget	62,000,000 vt
Funding Gap	62,000,000 vt
Expected Outputs	Improved livelihoods for small-scale fishers. Sustainable utilization of fisheries resources.
Time Period	24 months
Contact	

Project Name	Fisheries wharf development	
Lead Agency	VFD	
Description	Securing of wharf facilities to enable offloading of fish for processing at the Marobe factory.	
Partners		
Summary Budget	100,000,000 vt	
Funding Gap	100,000,000 vt	
Expected Outputs	Operation of the factory will generate economic benefit by providing employment opportunities.	
	Export of fish will contribute foreign exchange to the country and fishing vessel will contribute to economic activities from sourcing stock	
	supplies from Port Vila.	







Time Period	24 months
Contact	







2. Improved product quality and safety

Project Name	Nutritional education and consumption of island kakae	
Lead Agency	World Vision	
Description	National awareness campaign to promote the consumption of a balanced diet rich in nutritious local foods. Utilises World Vision Vanuatu's new <u>Ademap Kala</u> nutrition awareness video (1.55min) for television and radio.	
Partners	USP, other partners invited.	
Summary Budget	Radio FM107 = 56,250VT (5 times per day for 30 days) Television Blong Vanuatu = 65,250VT (3 times per day for 30 days) Total: 121,500VT p/month	
Funding Gap	121,500VT	
Expected Outputs	Increased community awareness of the nutritional value of local foods and ways to prepare a healthy and balanced meal.	
Time Period	Short Term (1 to 2 months). To be implemented when Food Distributions are completed and/or food security has stabilised.	

Project Name	Plant border control	
Lead Agency	Biosecurity	
Description	The increased volume of seeds and tools arriving to Vanuatu as part of relief efforts as placed increased pressure on biosecurity and quarantine resources. These materials need to be rapidly screened by Biosecurity to ensure that aid and relief efforts are not disrupted. However, it is vital that the increase in volume of agricultural materials arriving in Vanuatu does not increase the risk to Vanuatu's resources.	
Partners		
Summary Budget	5,011,200	
Expected Outputs	Biosecurity have the resources to rapidly and effectively screen the increased volume of agricultural products arriving in country	
Time Period	Short Term (1-3 months)	







Project Name	Plant pest and disease surveillance
Lead Agency	Biosecurity
Description	Check and survey important subsistence and cash crops for pests and diseases. Officers will visit the gardens and record all the pests and diseases that are damaging crops including: Assess the level of pest damages on crops. Conduct pests and diseases awareness in the local affected communities. Assist farmers in the emergency management of crops pests and diseases. Conduct quarantine clearances of international crafts on affected islands. Inspect relief supplies on the affected islands
Partners	
Summary Budget	18,877,000
Expected Outputs	Local farmers are able to quickly manage unexpected pest and disease outbreaks in their newly planted recovery gardens
Time Period	Short Term (1-3 months)







Emergency Inter-Island Fresh Produce Supply		
Youth Challenge Vanuatu (local incorporated NGO)		
Cyclone Pam has had a devastating effect on the food security of large segments of Vanuatu's population, including the urban population of Port Vila affected by shortages in fresh food supply. Not all food gardens were destroyed in cyclone Pam. Gardens are intact and remain productive in the Northern islands, in particular Santo. Thus Vanuatu still has some ability to meet the population's immediate, and future, food supply needs with local produce in conjunction with imported produce/food aid. Utilizing locally produced food and local trade and transport provides economic benefits to local populations, resists development of food-aid dependency, and supports recovery of an agricultural supply chain in Vanuatu.		
	duce purchased from local growers in Santo and sold in Port Vila. If the project stem is intended to be self-funding and sustainable.	
	grocery chain stock) will be introduced to improve efficiency and cost effectiveness ty of produce arriving into markets through inter-island transport.	
A short feasibility study will be required to establish fresh produce demand, current excess produce supply situation, and how to price the produce.		
Youth Challenge will engage youth from our Ready for Business program (in both Port Vila, Efate and Luganville, Santo), to purchase and resell the produce.		
This project has immediate economic benefits for local populations throughout the supply chain, including suppliers and end-buyers. The plan supports diverse and healthy diets and improves the prospects of good nutrition among presently vulnerable populations.		
This pilot is hoped to improve the nutrition for the urban population in Vila and if extended beyond initial emergency food supply post cyclone recovery the project would encourage and expand the internal trade in local produce increasing Vanuatu's future food security.		
Consulting Vanuatu / CHEP Australia, USP		
Shipping reusable crates from Brisbane (Assumes duty and VAT free)	Vt 970,000	
Research supply/ demand/ price conditions Initial Purchase Funding Initial Shipping	Vt 300,000 Vt 2,000,000 Vt 400,000	
	Youth Challenge Vanuatu (local incorporated NGO) Cyclone Pam has had a devastating effect on the food of Port Vila affected by shortages in fresh food supply remain productive in the Northern islands, in particu and future, food supply needs with local produce in of local trade and transport provides economic benefits recovery of an agricultural supply chain in Vanuatu. We plan an immediate pilot, which will see fresh pro- extends beyond the initially emergency supply the sy Light weight, stackable produce crates (ex Australian of fresh produce transport, and to improve the qualit A short feasibility study will be required to establish the produce. Youth Challenge will engage youth from our Ready for resell the produce. This project has immediate economic benefits for loc plan supports diverse and healthy diets and improves This pilot is hoped to improve the nutrition for the un cyclone recovery the project would encourage and est Consulting Vanuatu / CHEP Australia, USP Shipping reusable crates from Brisbane (Assumes duty and VAT free) Research supply/ demand/ price conditions Initial Purchase Funding	







	Initial Staff Costs	Vt 240,000
	Setup costs (accounting, audit, reporting, M&E)	Vt 200,000
	Total:	Vt 4,110,000
Funding Gap	Vt 4,110,000	
Time period	1-3 months	
Contact	Tim Hewatt	
	tim.hewatt@consultingvanuatu.com	
	+678 7755657	

Project Name	Sustainable Inter-Island Fresh Produce Supply	
Lead Agency	Youth Challenge Vanuatu (local incorporated NGO)	
Description	Cyclone Pam has had a devastating effect on the food security of large segments of Vanuatu's population, including the urban population of Port Vila dependent on local food imports. Not all gardens were destroyed in cyclone Pam. Gardens are intact and remain productive in the Northern islands, in particular Santo. Thus Vanuatu still has some ability to meet the population's food needs with local produce rather than imported produce/food aid. Utilizing locally produced food and local trade and transport provides economic benefits to local populations, resists development of food-aid dependency, and supports growth and diversification of the agricultural supply chain in Vanuatu.	
	We plan a pilot that will see fresh produce purchased in Santo and transported and sold in Port Vila on a medium to long-term basis. Following injection of start-up funds to establish efficient trade links, the program is to be self-funding and sustainable.	
ł	Plastic, stackable produce crates (ex Australian grocery chain stock) will be introduced to improve efficiency and cost effectiveness of fresh produce transport, and to improve the quality of produce arriving into markets through inter-island transport.	

	A short for the line of the li	for the send of the second of
	A short feasibility study will be required to establish f for supply improvement and how to price various pro	fresh produce demand, current excess produce supply situation, and opportunities oduce.
	skills, and giving them practical experience, in sales a	or Business program (in both Port Vila, Efate and Luganville, Santo), developing their and marketing. We plan to collaborate with the Department of Agriculture and the ome agricultural training will be incorporated to support local producers, initially at ly is anticipated.
	 This project will provide medium and long-term economic benefits for participants and communities involved throughout the supply chain, including suppliers and end-buyers. The plan supports diverse and healthy diets and improves the prospects of good nutrition among presently vulnerable populations. Efficient supply of fresh produce improves affordability and provides alternatives to (often costly) foreign food imports, access to which presents a major risk to economically vulnerable populations and in turn jeopardises access to good nutrition. This project has economic benefits for Vanuatu and long-term nutritional benefits by reducing the dependency on rice. Post cyclone recovery the project would encourage and expand the internal trade (Vanuatu's inter-island supply chain is presently a major limitation to domestic economic growth as well as national food sovereignty) in local produce increasing Vanuatu's national food security situation. 	
	This pilot is hoped to establish an improved food supply network, which is capable of expanding to other production zones/islands.	
Partners:	Consulting Vanuatu / CHEP Australia, USP	
Summary Budget:	Shipping reusable crates from Brisbane (Assumes duty and VAT free)	Vt 970,000
	Research supply/ demand/ price conditions Initial Purchase Funding	Vt 300,000 Vt 1,000,000
	Initial Shipping	Vt 250,000
	Initial Staff costs	Vt 120,000
	Setup costs (accounting, audit, reporting, M&E)	Vt 200,000
	Total:	Vt2,840,000
Funding Gap	Vt2,840,000	
Time period	Medium to Long Term	
	Name: Tim Hewatt	







Email:	tim.hewatt@consultingvanuatu.com
Telephone:	+678 7755657

Project Name	Animal Health and Meat Hygiene	
Lead Agency	Biosecurity, DoL	
Description	Livestock holders to be advised to slaughter animals for food which are injured or have become weak, in order utilize meat which may	
	otherwise go to waste if animals die. Public awareness materials will be n field visits, leaflets and public announcements via radio and/or	
	newspaper which will inform the public of steps to ensure that animals are killed humanely and dressed in as hygienic a manner as can	
	be achieved in the field in key livestock areas.	
Partners		
Summary Budget	HR/DSA- 700,000VY	
	Transportation- 800,000VT	
Expected Outputs	Smallholders have the skills and knowledge to humanely kill animals in the field and dress them in as hygienic a manner as possible for	
	consumption	
Time Period	Short Term (1-3 months)	

Project Name	Animal Disease Survey and Monitoring	
Lead Agency	Department of Livestock	
Description	Identify and report the disease outbreak in identified islands. Identify the possible impact of the outbreak, and report actual impact and	
	spread	
Partners		
Summary Budget	3,960,000	
Expected Outputs	Timely identification and response to disease outbreaks resulting from Cyclone aftereffects	
Time Period	Short Term (1-3 months)	

Project Name	Aquaculture Expansion
Lead Agency	VFD







Description	Tilapia and freshwater prawn aquaculture has been growing by small farmers on many islands in Vanuatu over the last 5 years. The
	extent of the availability of tilapia will ensure protein security for many islands most severely affected. The VFD has developed local
	extension materials and required the expended capacity to supply fingerlings to rural farmers from their centralized hatchery
Partners	QUT, SPC, GIZ
Summary Budget	67,700,000vt
Expected Outputs	Communities have a simple and ready source of protein for consumption and sale
Time Period	Medium Term (4-6 months) and Long Term (7-24 months)







3. Increased production and productivity

Project Name	Solar Food Dryers
Lead Agency	SPC/GIZ
Description	400 communities in affected areas will be provided with a solar food dryer package and a 1-day training on how to dry and preserve any
	available root crops, vegetables, meat, fish, nuts or fruit.
Partners	DARD, Industry, Germany
Summary Budget	Solar Dryers- 14,000,000VT
	Transportation- 1,000,000VT
	HR- 700,000VT
Expected Outputs	Local farmers are able to immediately preserve windfall fruits and protein and store early harvested crops without refrigeration
Time Period	Short Term (1-3 months)

Project Name	Support to Household Food Garden Recovery
Lead Agency	Oxfam
Description	Targeted distribution of NFI's to support recovery and rehabilitation of food gardens and rapid replanting of fast growing crops for
	households food security and short-term marketing in most affected areas of South East Ambrym, Epi, Paama, and Eastern Efate.
Partners	USP
Summary Budget	18,000,000 Vatu
Funding Gap	4,000,000 Vatu
Expected Outputs	1,600 Households reached with support (1000 In-Kind, 600 Voucher)
Time Period	Short (1-3 months)

Project Name	Seed Distribution and Technical Advice
Lead Agency	Oxfam, FAO
Description	Large scale distribution of fast growing seed varieties, accompanied by planting and food preservation advice and messaging,







	to affected rural communities in South East Ambrym, Epi and Paama to support garden replanting and recovery of dietary diversity.
Partners	USP
Summary Budget	5,000,000 Vatu
Funding Gap	0 Vatu
Expected	3,200 Households receive seeds for immediate use
Outputs	
Time Period	Short (1-3 months)

Project Name	Emergency Seed Support
Lead Agency	FSAC
Description	All Households in affected areas will be provided with a basic seed package containing 7 critical short-term vegetables including printed
	extension advice.
Partners	FAO, Government New Caledonia, Germany
Summary Budget	Purchase of Seeds – 1,000,000VT
	Transportation- 600,000VT
	HR- 210,000VT
	Printing – 350,000VT
Expected Outputs	Local farmers are able to immediately access fast yielding crop varieties for planning
Time Period	Short Term (1-3 months)

Project Name	Emergency Tool Support
Lead Agency	FSAC
Description	All Households in affected areas will be provided with a basic tools package containing knives, spades and crowbars.
Partners	WB, FAO
Summary Budget	Tool Procurement- 31,000,000VT







	Transportation- 1,000,000VT
	HR- 1,050,000VT
Expected Outputs	Local farmers are able to immediately access tools required for planting
Time Period	Short Term (1-3 months)

Project Name	Coffee recovery awareness programme
Lead Agency	World Vision, DARD
Description	With more than 500 registered small-holder coffee farmers on Tanna Island who are spread over 7 district area councils, there is a distinct need to provide reliable and up-to-date information regarding the immediate situation and impact within the local coffee industry (post cyclone), the work that will need to be done to resurrect their coffee trees, what their roles and responsibilities will be within the overall recovery program and what support can be expected. This awareness programme will foster information sharing between coffee growers, while providing farmers with insight into local, regional and international marketplaces.
Partners	Tanna Coffee, Nasi Tuan, INNK Coop
Summary Budget	675,000vt
Expected Outputs	500 small-holder coffee farmers informed on coffee recovery programming
Time Period	1-3 months

Project Name	Rehabilitating, and diversifying agricultural systems, and developing income generating activities
Lead Agency	Save the Children
Description	Increase food security for at-risk groups by rehabilitating, maintaining and diversifying agricultural systems, strategies and assets and developing income-generating activities. Activities: Provision of seedlings; land clearance kits; household agricultural tool kits; Cash For Work; Income Generating Activities
Partners	
Summary Budget	37,544,500
Expected Outputs	Households in Efate, Epi, Tongoa and Ambrym receive seedlings and tools
	Households in Efate, Epi, Tongoa and Ambrym earn cash through short term employment and income generating activities
Time Period	3-6 months







Project Name	Support for women's groups for community led initiatives
Lead Agency	Save the Children
Description	Develop skills and tools to contribute to identify and address the underlying causes of vulnerability to reduce the need for continued
	humanitarian assistance and increase resilience. Cash and in-kind support to women's groups in Efate, Epi, Tongoa and Ambrym
Partners	
Summary Budget	8,045,250
Expected Outputs	Women's groups receive cash and in-kind support
Time Period	3-6 months

Project Name	Coffee plantation clearance
Lead Agency	World Vision, DARD
Description	500 smallholder farmers, an overall plantation clearance program covering somewhere in the vicinity of 400Ha will need to be implemented immediately. A priority strategy will be developed showing the worst affected areas within the 7 district area councils and
	these will be prioritized according to priority needs. Several (2-3) teams of skilled local experts will be appointed and trained.
	Each team will comprise of a DARD extension officer acting as a supervisor, a suitable 4WD vehicle such as those used in the previous Awareness Program and 3-4 experienced local men with chain-saws and a large array of small hand-tools. There is a need to provide at least 500 sets of ratchet tree-loppers, axes, pruning saws, bush-knives, shovels and spades which can be freely provided to the individual farmer(s) and their associated family members who are prepared to assist and work in the overall clean-up of the particular block. Each individual who willingly helps with this work could receive a nominal amount of 1,000vt for the day's work and also keep their tools.
Partners	Tanna Coffee, Nasi Tuan, INNK Coop
Summary Budget	23,500,000
Expected Outputs	
Time Period	

Project Name Coffee plantation pruning programme







Lead Agency	World Vision, DARD
Description	
Partners	Tanna Coffee, Nasi Tuan, INNK Coop
Summary Budget	23,500,000
Expected Outputs	
Time Period	

Project Name	Tanna coffee vegetable nursery
Lead Agency	World Vision, DARD
Description	
Partners	Tanna Coffee
Summary Budget	9,500,000
Expected Outputs	
Time Period	

Project Name	Emergency Distribution of Fast Growing Local Planting Material
Lead Agency	DARD
Description	Farmers must have urgent access to vegetative planting material, particularly those local crops which hold early yield: Kumala, Island
	Cabbage, Taro, Manioc
Partners	WB, VARTC
Summary Budget	Planting Materials- 800,000VT
	Transportation- 1,000,000VT
	HR- 720,000VT
	Total: 2,520,000
Expected Outputs	Local farmers have quick access to planting materials to put them on a path to early recovery.
Time Period	Short Term (1-3 months) & Medium Term (4-6 months)







Project Name	Community Level Recovery of Small Scale Enterprise
Lead Agency	Oxfam
Description	Technical and material support to the rapid recovery and return to operations of small scale agricultural (vegetable, chickens, spices) and peri-urban enterprises in heavily affected areas of Ambrym, Epi, Paama, Efate and Tanna.
Partners	FSA, YCV
Summary Budget	25,000,000 Vatu
Funding Gap	10,000,000 Vatu
Expected Outputs	300 semi-commercial enterprises return to operations
Time Period	Short to Medium (1-6 months)

Project Name	Immediate assistance to re-establish food security in communities affected by TC Pam
Lead Agency	FAO
Description	Provision of vegetable seeds, technical guidance, materials and training for food preservation and community nurseries
Partners	DARD, Oxfam, Act for Peace
Summary Budget	US\$211,375 (source: UN CERF)
Funding Gap	0
Expected Outputs	4,500 households with restored access to own food stocks
	26 communities with capacity and equipment to preserve food
	5 communities with increased food security from community nurseries
Time Period	6 April – 5 October 2015

Project Name	Multiplication plot establishment on Tanna
Lead Agency	Nasi Tuan
Description	This sub-output consists of establishing multiplication plots in key areas, and ensuring people have access to planting material, in the project's first year. 3,800 households in five Area Councils of Tanna (all except South-west and South) affected by Cyclone Pam.
Partners	TEAR Fund NZ; (funded by NZ Aid Programme and TEAR Fund / Integral Alliance private funding)
Summary Budget	4,622,570VT
Expected Outputs	Multiplication plots are established in key areas, and people have access to planting material







Time Period	12 months	

Project Name	Planting materials distribution and construction of nursery boxes on Tanna
Lead Agency	Nasi Tuan
Description	Distribution of planting materials and construction of demonstration nursery boxes in key distribution points in Tanna, during the first
	year. 3,800 households in five Area Councils of Tanna (all except South-west and South) affected by Cyclone Pam.
Partners	TEAR Fund NZ (funded by NZ Aid Programme and TEAR Fund / Integral Alliance private funding)
Summary Budget	3,997,616VT
Expected Outputs	Distribution of planting materials and construction of nursery boxes in key distribution areas
Time Period	12 months

Project Name	Strengthen urban and peri-urban food and nutrition security
Lead Agency	FAO
Description	Establish an urban (Port Vila and surrounding communities) food and nutrition security programme through support for the creation of home gardens.
Partners	MALFFB, Slow Food Vanuatu, USP, others
Summary Budget	21,454,000vt
Funding Gap	21,454,000vt
Expected Outputs	-Urban source of multiple nutritious crops established
	-Source of income for vulnerable households created
Time Period	May 2015 – June 2016

Project Name	Food Security and Agricultural Recovery
Lead Agency	World Vision
Description	Distribution of fruit, root crops, planting materials and tools in order to improve food security and nutrition in Shefa, Tafea and Penama. Training will be provided on planting, harvesting and composting. Also nutrition training and promotion of planting and use of traditional disaster resilient crops.
Partners	ACTIV (fruit and root crop distribution), USP, Australia, New Zealand, Netherlands







Summary Budget	51,264,000VT
Funding Gap	
Expected Outputs	Fruit, root crops, seedlings, toolkits distributed. Training on planting, harvesting, composting and nutrition.
Time Period	6-12 months

Project Name	Support to the rehabilitation of kava plantations of small-holder TC-Pam affected households	
Lead Agency	FAO	
Description	Rehabilitation (replanting, establishment of nurseries) of TC-Pam affected kava with propagation of noble varieties and use of climate resilient farming methods	
Partners	MALFFB, others	
Summary Budget	80,452,500vt	
Funding Gap	80,452,500vt	
Expected Outputs	-Small-holder kava plantations mapped -Kava plantations salvaged and restored -High quality Kava planting material nurseries established	
Time Period	May 2015 – June 2016	

Name Originator	MALFFB	Division	DARD
Title of Proposal	Urban Food Security		
Value of Grant	250,000,000	Co-financing	FAO/World Bank
Implementation Period	12 –18 months	GRIP ID	
Selected Strategy Period	Selected Strategy Period		
Window	Country specific	Country	Vanuatu
Background	The recent cyclone that hit Vanuatu has exposed deficiencies in the food security system of town dwellers. There are no food security strategies for urban dwellers and they are not fully utilizing their backyards as productive gardening spaces. Urban dwellers rely very heavily on imported and fast food, the consequences of which is poor health and increase non-communicable diseases. This is evident in the number of NCD cases recorded in the main hospitals of Port Vila and Luganville.		







	The urban food security is therefore an essential component of work that is aimed at addressing food security and health issues of town dwellers.
Direct and indirect target	The direct group is farmers, which include fruit and vegetable, and schools in the urban areas.
group	
Goal, objectives and	To return food security to town dwellers and to contribute to improved diet and health and to put un-used backyard spaces to
expected outcome	good use.
Key activity by	
component	
Rationale for recipient	
selection and recipient	
capacity	

Project Name	Cacao Long Term
Lead Agency	DARD
Description	Damaged cooperative fermentries on Epi will be replaced. Pruning saws nursery materials and planter bags will be supplied to the Epi
	Cocoa Growers Association to re-establish cocoa plantations damaged by the cyclone.
Partners	Epi Cocoa Growers Association
Summary Budget	Materials: Vt3,000,000
Expected Outputs	Cocoa farmers on Epi return to production level pre-cyclone in 3 years
Time Period	Long term: 7-24 months

Project Name	Spices Long Term Production	
Lead Agency	DARD	
Description	Damaged plots of vanilla, pepper and a variety of spices will be rehabilitated using clean planting materials brought from VARTC and	
	unaffected areas to replace the affected spices. Nurseries will be restored, enabling farmers to have access to seedlings. Planter bags,	







	secateurs and nursery equipment will be supplied to farmer groups with the proper training and technical extension.	
Partners	FSA, Venui Vanilla, TVET, ACTIV, VARTC	
Summary Budget	Technical Expertise/HR – 1,500,000VT	
	Materials for Nursery: 10,000,000VT	
	Transportation: 1,000,000VT	
Expected Outputs	Smallholder farmers have access to a variety of the seedlings of the best spices with technical knowledge of recovery and at the same	
	time maximise production and generate higher income in 3-4 years.	
Time Period	Long term: 7-24 months	

Project Name	Root Crops Long Term	
Lead Agency	DARD	
Description	The Department of Agriculture has promoted root crop production annually at various special occasions, such as the yam festival or	
	different islands of Vanuatu. This festival is an opportunity where farmer representatives from affected areas will attend the event, share	
	their experience and collect planting materials based on their selection criteria. The agriculture field officer will assist in establishing root	
	crop demonstration plots in the farmer's field, on station for collection of planting materials and distribution to nearby areas.	
Partners	FSA, VARTC, USP	
Summary Budget	Root Crop Festival – 10,000,000VT	
	Transportation – 5,000,000VT	
	Root crop demonstration plot – 1,000,000VT	
Expected Outputs	Root crop farmers have sufficient food supply for consumption and sale. Increase capacity on improved farming technology adaptation in	
	2 years.	
Time Period	Long term: 7-24 months	



Lead Agency	DARD
Description	The establishment of seed centres in the provinces will eventually solve the need of farmers losing their vegetable seeds during the
	cyclone. The centre will supply OP seeds to farmers, nurseries as well as use of simple mechanized tools such as rotovetors, tractors for
	ploughing and others with the proper training and technical extensions.
Partners	VAS, RTCs, Provincial authority
Summary Budget	Seed centres – 10,000,000VT
	Machineries and tools – 20,000,000VT
	Fuel – 800,000VT
	Technical Expertise/HR – 1,500,000VT
	Seeds importation – 30,000,000VT
	Transportation – 3,000,000VT
Expected Outputs	Smallholder vegetable farmers' access to high resilient seeds (OP) contributing to increase in production facilitated by agricultural
	machinery for consumption and sale in first year.
Time Period	Long term: 7-24 months

Project Name	Vegetable Nursery Rehabilitation
Lead Agency	DARD
Description	The Department of Agriculture and many private sector actors have established vegetable nurseries throughout the islands to grow dual subsistence and commercial species. These nurseries will need to be rebuilt, and additional nurseries established with the proper training and technical extension.
Partners	
Summary Budget	Technical Expertise/HR – 1,500,000VT Materials for Nursery: 10,000,000VT Transportation: 800,000VT
Expected Outputs Time Period	Transportation: 800,000VT Smallholder commercial have access to the best seed types and nursery access for rapid commercialization and recovery. Long Term (7-24 months)

Project Name Tanna coffee reestablishment programme







Lead Agency	DARD	
Description	Damaged dryers, pulpers, Tanks and processing containers at smallholder cherry processing sites on Tanna and Efate will be reconstructed. Pruning saws and secateurs will be provided to prune damaged trees.	
Partners	Tanna Coffee, Nasi Tuan, INIK Coop	
Summary Budget	200,000,000	
Expected Outputs	Coffee farmers on Tanna and Efate return to same production levels before cyclone in 2 years	
Time Period	7-24 months	

Project Name	Coconut Long Term
Lead Agency	DARD
Description	Re-establishment of nursery production on Efate and Malekula. Rehabilitation of damaged old coconut plantation on South Malekula, SE
	Ambyrm, Epi, Efate and Reconstruction of damaged hot-air dryers.
	Improve production of value added coconut products including virgin coconut oil.
Partners	VARCT, Coffely
Summary Budget	Technical Expertise/HR – 3,500,000VT
	Materials for Nursery: 12,000,000VT
	Materials for hot-air dryers – 25,000,000VT
	Rehabilitation – 30,000,000VT
	Transportation: 2,500,000VT
	Total: 73,000,000vt
Expected Outputs	Small farmers consume and sell their coconut (copra) after recovery in 5 years.
Time Period	Long term: 7-24 months

Project Name	Hot Stream Drier Project
Lead Agency	Cocoa Industry Working group and Department of Agriculture
Description	Financial support is required to purchase three hot stream driers to improve the quality of cocoa beans in Vanuatu in order to meet the
	premium chocolate market standards and attract the premium prices.







Information	activassociation@hotmail.com
Contact	Sandrine Wallez
Time Period	Long 7-36 months
	 More farmers will be encouraged to revive their cocoa plantations, which will overtime lead to increased and improved production.
	- Smoke free beans, which will attract higher prices and improve the income of farmers.
Expected Outputs	It is expected that adopting the hot stream drier technology will produce:
Funding Gap	
Summary Budget	Vt. 3,500,000
Partners	
	The next cocoa production will be higher because of the stress to trees by TC Pam. The driers will be valuable assets to help the producers get a better quality product and better price and minimize the loss of volume due to the cyclone.
	The hot stream drier provides an oxygen-free environment, prevents oxidative reactions, pasteurization, sterilization, deodorization, better product porosity, no hard casing and removes the bitterness from the beans (used in the chocolate making process which is an essential process for chocolate making. The drying rates may possibly be higher if the temperature is high enough and it may be possible to reuse exhaust steam elsewhere. Each drier has 60 drawers each capable of holding up to 20kg of beans.
	For a long time, cocoa producers were using the conventional driers, which produced smoke tainted beans. But in more recent years, there has been a growing interest of smoke free beans from the chocolate makers. This is an opportunity for smallholder cocoa producers to gain higher income for their efforts and this is only possible with the installments of the hot stream driers on 3 locations throughout Vanuatu.

Project Name	Kava Long Term recovery
Lead Agency	DARD
Description	The Department of Agriculture will target the replanting all noble kava variety that was damaged by cyclone Pam. Planting materials from the unaffected areas will be supplied to farmers for planting. Existing nurseries will need to rebuilt, and additional nurseries established with the proper training and technical extension.
Partners	FSA, Kava Store, VARTC, Lead Farmers







Summary Budget	Materials for nursery – 10,000,000VT
	Transportation – 1,500,000VT
Funding Gap	The Project "Developing capacity to establish and enforce Kava standards in Vanuatu" has been approved under the FAO TCP facility
	resources with a total budget of USD 92,243 is yet on hold creating financial and technical gap support for Kava development.
Expected Outputs	Smallholder farmers in the affected areas access to noble kava planting materials with increase production for sale in 3-5 years.
Time Period	Long term – 36 months

Project Name	Canarium / Nangai nut recovery and development
Lead Agency	Department of Forestry
Description	Canarium is a Priority Indigenous Multiple Tree Species with much economic potential for Vanuatu. The tree in Vanuatu is reasonably wind firm and after cyclones if not blown down normally recovers with more new branches and foliage and with very heavy fruiting session.
Partners	Department of Industry
Summary Budget	
Expected Outputs	
Time Period	Long term

Project Name	Multi-year agricultural recovery on Tanna
Lead Agency	Nasi Tuan
Description	Multi-year recovery project for Tanna, which aims to achieve agricultural recovery and food security for 3,800 households in five Area Councils of Tanna (all except South-west and South) affected by Cyclone Pam. This sub-output encompasses the work, which will be conducted to this end in years two and beyond. This will consist of follow-up and monitoring of year one food security and agricultural activities; further support to production, processing and marketing of cash crops (namely peanuts and coffee); and introduction of poultry.
Partners	TEAR Fund NZ, Nasi Tuan (funded by TEAR Fund / Integral Alliance private funding)
Summary Budget	43,200,000VT
Expected Outputs	Support to longer-term recovery through support to production, processing and marketing of cash crops and livestock
Time Period	From 12 months, up to 36 months







Project Name	Day old Chick and Feed Exchange
Lead Agency	FSAC
Description	10,000 Households in most affected areas will be provided with 10-day-old chicks and a sufficient supply of feed for chickens to reach 6-
	week slaughter size for protein security not reliant on imported foods.
Partners	Livestock Private Sector
Summary Budget	Transportation- 1,800,000VT
	Chickens- 65,000,000VT
	HR- 240,000VT
Expected Outputs	Local farmers are able to care for their own protein sources to be killed as needed to promote emergency protein self sufficiency
Time Period	Short Term (1-3 months)

Project Name	Live Cattle Exchange
Lead Agency	FSAC
Description	200 Communities in most affected areas will be provided with 3 live cattle from non-affected islands which can be slaughtered as
	required for urgent protein security. The activity will also include feeds and planting forage grasses (for large ruminants) and medicines
	such as vaccines
Partners	Livestock Private Sector
Summary Budget	Transportation- 1,500,000VT
	Cattle + Feed- 33,000,000VT
	HR- 240,000VT
Expected Outputs	Communities are able to care for their own protein sources to be slaughtered promote emergency protein self sufficiency
Time Period	Short Term (1-3 months)

Project Name	Emergency Stock Feed
Lead Agency	DoL
Description	Emergency finance to purchase locally available stockfeeds for smallholder pig and chicken farmers, and medicine to treat sick and
	injured animals, and to repair damaged holdings.







Partners	FAO
Summary Budget	
Expected Outputs	
Time Period	Short Term (1-3 months)

Project Name	Animal Welfare Support for Cyclone Affected Areas
Lead Agency	Vanuatu Livestock Department, World Animal Protection
Description	895 animals will directly benefit from supplementary feed interventions, targeting pigs and chickens as the most at risk livestock and most important for livelihood recovery. A further estimated 31,800 livestock including cattle and goats will benefit from veterinary and husbandry information interventions during feed distribution and veterinary delivery. Delivery of 120 tonnes of emergency feed to pigs and poultry to Epi Islands and Shepherd Island Group, sustaining livestock through the first 1-3 critical months of animal feed shortages. Distribution of Animal Welfare in Disaster videodiscs and USB flash-drives produced following TC Lusi needs analysis to ALL area councils within Vanuatu.
Partners	Vanuatu Ministry of Agriculture, Livestock Department, World Animal Protection, Epi and Shepherd Islands local governance.
Summary Budget	Epi/Shepherds Copra Meal (120tons) = VUV 6,250,000 (Delivery inclusive of cost); Epi/Shepherds Veterinary Supplies and Local Staffing Fees = VUV 261,000 National Expansion @3400vt/household = 85,000,000VT
Funding Gap	World Animal Protection is committed to providing financial and technical support to Epi and the Shepherd Islands, but the same critical needs for livestock exist for all other areas affected by TC PAM, thus creating a financial gap for complete support for animal health and welfare. Costs for the World Animal Protection supported interventions result in approximately 3400 VUV per household which can be used to calculate for other priority areas to protect livestock assets.
Expected Outputs	 1 2. Maintain or improve body condition of livestock through feed and veterinary services. 3. Provide animal husbandry messages to beneficiary livestock owners during feed distribution
Time Period	Short 1-3 months

Project Name	Emergency Supplementary Pig Feed project
Lead Agency	Department of Livestock & Livestock Industry Working Group







Description	Financial support is required to purchase copra meal and meat meal to feed 3,061 pigs in priority 1 area for four months.
	Presently, animal feed is a major concern as TC Pam has destroyed majority of the coconut and it will take time for the palms to be
	restored. In the meantime, the surviving pig herds will mostly likely compete with humans for whatever root crop is available in the
	gardens. Thus to avoid this situation, the pigs must be fed with the supplementary diet in order to maintain the current stock.
	This initiative considers the welfare of the animals in ensuring that they are given sufficient feed for their survival.
Partners	
Summary Budget	Vt. 9,000,000
Funding Gap	
Expected Outputs	This project is expected to provide feed for the surviving herds in priority 1 area for four months to maintain the stock of pigs in these
	areas.
Time Period	Long 7-36 months
Contact	Carolyn Ernst (LIWG chairperson)
Information	ernst@vanuatu.com.vu
Project Name	Chicken Protein Source Project
Lead Agency	Livestock Industry Working Group
Description:	Performance of veterinary services Work Animal Health organization (OIE).
	Work Animal Realth organization (OE).
	This area has been identified as a gap area by the Performance of veterinary services analysis which was carried out the World Health Organization (OIE)
	As part of the short term emergency food production and food security, the livestock industry working group proposes for 2 drops of 10 chickens to be made to each household in the Priority 1 areas of the Shepherd islands. These chickens will be dropped with enough food for 6 weeks after which time they can be eaten. Hybrids will be used because they are easily available as well as they have the best food
Darthara	to meat conversion. Each bird will be in excess of 1 kilo by the end of 6 weeks.
Partners	Department of Livestock/Pepe's Farm 9.4 million vatu
Summary Budget: Funding Gap	
Expected Outputs	This project is expected to:
Expected Outputs	וווז אוטובני זו באאבניבע נט.







	1. Provide adequate supply of protein to 1000 families on Shepherds.
	2. Provide the families on these areas with an incentive to use their newfound skills to continue raising chickens in the future which
	would generate income for their families to restore and improve their livelihoods.
Time Period:	Long Term:2- 6 months
Contact	Name: Carolyn Ernst (LIWG chairperson)
	Email: <u>ernst@vanuatu.com.vu</u>

Project Name	Livestock De-stocking and Restocking
Lead Agency	DoL
Description	Small livestock are currently without sufficient feed resources on many islands. This program will ensure that islands and communities that cannot care for livestock will be destocked in a way that provides urgently required income. In the long-term, once island production has recovered sufficiently, the lost livestock assets will be replaced with improved genetic varieties.
Partners	
Summary Budget	Purchase of Small Livestock on Affected Islands – 30,000,000VT Distribution to non-affected islands – 3,000,000VT Import of Genetically improved breeds for restocking 46,000,000VT
Expected Outputs	
Time Period	Short Term (1-3 months) Medium Term (4-6) Long Term (7-24 months)

Project Name	Honey Bee long term recovery
Lead Agency	DARD
Description	Reconstruction of the Honey Bee project on Efate and offshore islands. Hive materials, queen bees and essential equipment that were
	damaged by the cyclone will be supplied to the model farmers. Appropriate training will be provided to the farmers.
Partners	MSG, Gibson, SPC/GIZ, Vanuatu Direct
Summary Budget	Technical Expertise/HR – 2,500,000VT
	Materials – 10,000,000VT
	Transportation – 1,500,000VT
Funding Gap	N/A







Expected Outputs	Honeybee farmers are able to produce sufficient supply of honey for consumption and sale.
Time Period	Long term: 7-24 months

Project Name	Livestock Genetic Improvement
Lead Agency	DoL
Description	The Department of Livestock and private sector partners have identified suitable breed of chicken, cattle and pigs, which are better suited to Vanuatu's climate and production conditions. The program will seek to incorporate this improved genetic material into affected communities to improve long-term outputs.
Partners	
Summary Budget	Technical Expertise/HR – 3,500,000VT Procurement of Improved Varieties: 65,000,000VT Transportation: 1,500,000VT
Expected Outputs	Livestock smallholders have access to the best varieties of cattle, pigs and chickens to maximize feed conversion and climate resilience.
Time Period	Long Term (7-24 months)

Project Name:	Pig Improved Genetic Project
Lead Agency:	Livestock Industry Working Group
Description:	 Importation of Improved breeds of Pigs suitable to climate change and free range conditions. Import Berkshire and Duroc breeds from New Zealand and establish a breeding program to maintain a pure strain of each breed. The protocol already exists to facilitate their importation. This will also lead to a crossbreeding programme with the locally available pigs to produce breeds that are suitable for the village situation and the changing environment. Also, the pigs will be suitable for commercial purposes and will eventually increase the household income overtime. The only importation of pig genetics in the past 40 years has been breeds of pigs suitable for large intensive pig farming. This means tha there is a growing need to import breeds that are suitable for village smallholder situations and free-range farmers. Also, the existing survival herd of white pigs suffer from sunburn and skin diseases and do not cope with the lower nutrition levels, a situation created by TC Pam.
Partners	Department of Livestock/ Yo Ku Farm







Summary Budget:	6 Million vatu
Funding Gap	
Expected Outputs	 This particular project expects to achieve the following output: Improve the genetics of pig breed in Vanuatu. Access breed of pigs that can tolerate the heat of the sun and is suitable for climate change. Improved pig breeds that are commercially desirable. Fulfils one of the aims of the overarching productive sector policy on improving the breeds of small livestock in the country through genetic improvement.
Time Period:	Long Term: 12-36 months
Contact	Name: Carolyn Ernst (LIWG chairperson) Email: <u>ernst@vanuatu.com.vu</u>

Project Name	Restocking village pigs with improved breeds
Lead Agency	Livestock Industry Working Group
Description	Supply 300 improved pigs to the rural communities. Pam damaged trees and pig sheds and the surviving village pigs are suffering from sunburn and skin diseases. Also, pig farmers may have lost their source of income. The improved pigs are basically the colored breed which are tolerant to the sun's heat and are more suitable for climate change. They have a higher meat to fat ratio which is desirable for commercial purposes.
	productivity of small livestock in the country.
Partners	Department of Livestock
Summary Budget:	11 Million vatu
Funding Gap	
Expected Outputs	The restocking project is expected to assist small holders in rebuilding their pig herds with a better stock, restore and increase the farmer's income and improve their livelihood, satisfy the demand for pig meat and restore the supply of protein sources in the local markets for consumers. It is also expected that with a monitoring system and extension service in place, this project will provide the means to improve and increase pig production in the country for the long run.
Time Period:	Long Term: 6-36 months
Contact	Name: Carolyn Ernst (LIWG chairperson)







	Email: ernst@vanuatu.com.vu
Project Name	Locally manufactured stock feeds
Lead Agency	Department of Livestock, Pepe's Farm
Description	Financial support is required to purchase a small sized feed mill that can grind grains such as wheat and corn to be added to these local products along with a premix of vitamins and minerals to make a readymade stock feed. In the mill it will also have a mixer and a bagging machine so the process can be done efficiently and ready to send out to farmers.
	Vanuatu is heavily dependent on imported readymade feed for the majority of the small livestock such as chickens, ducks and pigs etc. Because of this it makes the feed expensive therefore making it harder for local farmers to compete with imported frozen meats. In Vanuatu we have access to local products such as copra meal and meat meal that can be utilized to make feed at a low cost but other raw materials still have to be added to make a balanced diet.
Partners	Livestock industry working group
Summary Budget	8,000,000vt
Funding Gap	5,000,000vt
Expected Outputs	It is expected that there will be a cost saving of around 20% on stock feeds against imported feed as well as using local products to support other local industries. Improved local resilience due to reduced reliance on import. Reduced wastage, as surplus agricultural production is repurposed.
Time Period	Long 7-36 months
Contact Information	Pepe's Farm (Mark Nutley) pepesfarm@gmail.com

Project Name:	Cattle Genetic upgrade: VARTC Upgrade Project
Lead Agency:	Livestock Industry Working Group
Description:	Assist the VARTC with repairing and upgrading the yards and equipment at VARTC and provide an artificial insemination and management assistance package for 3 years.







	These upgrades are highly significant to provide a strong and active cattle department in VARTC, which in turn is essential for the wellbeing of the central and northern district cattle farmers. VARTC is also essential to the agriculture college as a practical training centre and an ideal place to conduct field days and involve the farming community and disseminate information.
	This particular project is related to the strategies of the overarching productive sector policy, which emphasizes on genetic improvement to raise productivity of cattle in Vanuatu. Also, this is a gap area that has been identified by Performance of Veterinary Services analysis, which is reported by the World Health Organization (OIE).
Partners	VARTC /Department of Livestock
Summary Budget:	15.6 million vatu
Funding Gap	
Expected Outputs	 This project is expected to: 1. Improve breeding and availability of breeding stock to the Central and Northern cattle farmers from the small holder to the large commercial plantations. 2. Upgrade the local staff and create a sustainable business model that will be self-sustainable into the foreseeable future
Time Period:	Long Term: 6-42 months
Contact	Name: Carolyn Ernst (LIWG chairperson) Email: <u>ernst@vanuatu.com.vu</u>

Project Name:	Emergency Saw Mill Support
Lead Agency	DoF
Description	Over 22 islands have been seriously affected by Cyclone Pam with an estimated 80% of timber trees damaged or destroyed. The amount of available timber is high, but most rural areas have no access to milling equipment or the capacity to turn damaged trees (including coconut) into useable timber for reconstruction/rehabilitation. The provision of special hybrid tuko mini saw mills to the islands of Erromango, Tanna, and Emae.
Partners	
Summary Budget	Hybrid Mills- 12,000,000VT Transportation- 500,000VT HR- 700,000VT
Expected Outputs	Local farmers are able to immediately utilize windfall timber for rehabilitation and reconstruction







Time Period	Short Term (1-3 months) and Medium term (4-6 months)
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Project Name:	Support to agricultural rehabilitation of TC Pam affected households through improved technology and capacities
Lead Agency	FAO
Description	Technical and in-kind support for agro-forestry and agricultural rehabilitation
Partners	DARD, others TBC (CIRAD, NGOs, local community groups)
Summary Budget	US\$1,200,000
Funding Gap	US\$900,000
Expected Outputs	-Established source of critical tree seedlings (fruit, vegetable) through a network of nurseries for communities severely impacted by TC Pam -Improved access to and knowledge of agricultural production practices and inputs, contributing to resilient food and nutrition security
Time Period	6 April 2015 – 5 April 2016

Project Name:	Nursery Rehabilitation
Lead Agency	DoF
Description	The Department of Forestry and many private sector actors have established forest nurseries throughout the islands to grow 7 priority
	species. These nurseries will need to be rebuilt, and additional nurseries established with the proper training and technical extension.
Partners	
Summary Budget	Technical Expertise/HR – 3,500,000VT
	Materials for Nursery: 30,000,000VT
	Transportation: 1,500,000VT
Expected Outputs	Smallholder commercial have access to the best seedling types and nursery access for rapid commercialization and recovery.
Time Period	Long Term (7-24 months)

Project Name	Forest Seed Collection and Redistribution
Lead Agency	DoF
Description	Seed production of key forest tree species will be hampered for several years. In order for nurseries and production to be restored, seeds
4	from unaffected islands will be collected and redistributed to affected areas. The DoF will run its pre-existing seed storage facility for this







	purpose.
Partners	
Summary Budget	HR – 1,500,000VT
	Operation of Cooled Seed Storage Facility: 3,000,000VT
	Transportation: 500,000VT
Expected Outputs	Smallholder bursary operators in affected areas will have access to seed for planning and nursery operation.
Time Period	Medium Term (4-6 months) and Long Term (7-24 months)

Project Name	Emergency Fishing Gear Support
Lead Agency	VFD
Description	All Households in affected coastal areas will be provided with a basic fishing gear package containing string and hooks
Partners	
Summary Budget	Fishing Gears- 2,500,000T
	Transportation- 800,000VT
	HR- 480,000VT
Expected Outputs	Local farmers are able to immediately access gears required to utilize marine resources
Time Period	Short Term (1-3 months)

Project Name	Boat and Canoe Repair
Lead Agency	VFD
Description	Assessments indicate that hundreds of outboard engines, boats and canoes have been destroyed. The repair and maintenance of these
	assets will enable fishermen to quickly resume their livelihood activities and production
Partners	
Summary Budget	HR/Technical Expertise – 4,000,000VT
	Replacement Assets/Materials: 75,000,000VT
Expected Outputs	Fishermen are able to repair and maintain their boats, engines and canoes for recovery and rehabilitation from Cyclone Pam.
Time Period	Medium Term (4-6 months) and Long Term (7-24 months)







Project Name	Financial Tools, Risk Sharing and Insurance
Lead Agency	Vanuatu Agriculture Development Bank
Description	Microfinance and micro insurance will be made available to small and large holder famers/fishers to ensure that they have the capital
	required to rebuild, and be insured against further loss and damage
Partners	
Summary Budget	Credit: 200,000,000VT
Expected Outputs	Farmers can purchase the materials required to recommence production in a more resilient manner
Time Period	Long Term (7-24 months)







4. Enhanced processing and value adding

Project Name	Solar powered refrigeration for markets and communities
Lead Agency	Sustainable Energy Services
Description	
Partners	
Summary Budget	53,763,441vt
Expected Outputs	
Time Period	6 months

Project Name	Support to peanut and coffee farming on Tanna
Lead Agency	Nasi Tuan
Description	Provision of support to cash cropping through training of Field Assistants/communities on production, processing and marketing; establishment of model plots; and distribution of tools, in the project's first year. Particular focus cash crops are peanuts and coffee. 3,800 households in five Area Councils of Tanna (all except South-west and South) affected by Cyclone Pam
Partners	TEAR Fund NZ (funded by NZ Aid Programme and TEAR Fund / Integral Alliance private funding)
Summary Budget	16,474,591VT
Expected Outputs	Support provided to cash cropping through training of Field Assistants/communities on production, processing and marketing; establishment of model plots; and distribution of tools
Time Period	Long Term (12 months)

Project Name	Vanuatu food processing facilities
Lead Agency	Vanuatu Direct
Description	Island foods are nutritious. During standard times there is an overproduction of root crops - or a feast famine cycle of tree fruits and cash crops. A return to oversupply will occur in 9 to 12 months. A process had been developed and markets found. The proper tooling, equipment, training and contract relationships with growers to reduce wastage and improve returns needs to be re -established. Facility expanded to have available stocks for future disaster relief in Vanuatu/ Pacific. Includes in Farm support networks with in house extension services, seed supply, planting material for contract growers. HACCP training,







Partners	
Summary Budget	Technical support 30,000,000
	Equipment 100,564,000
	Buildings 210,632,000
	Consumables 8,200,000
	Total funding required: 349,396,000
	Funding gap: 227,584,000
Expected Outputs	Improved returns to growers.
	Security of markets. International standards
	Training of GAP system, food safety from the field
	Import substitution, and product development
	Disaster relief supplies of natural foods of the Pacific.
	Export earnings for country
	Improved nutrition security through more stable access to diverse food sources outside of harvest seasons
Time Period	
Contact	Cornelia Wyllie
	cornelia.wyllie@vanuatudirect.com.vu
	+678 77 24720

Project Name	Agricultural Processing and Value Adding Program
Lead Agency	DARD & Ministry of Trades & Industry
Description	Damaged Agricultural processing facilities will be supplied and re-constructed on Tanna, Futuna, Aniwa, Aneityum, Efate, Epi, Paama,
	Malekula and SE Ambrym with the proper training and technical extension.
Partners	DARD, Ministry of Trades & Industry
Summary Budget	Technical Expertise/HR – 2,500,000VT
	Processing & Value Add Materials – 30,000,000VT
	Transportation – 3,000,000VT
Expected Outputs	Local farmers return to normal food processing and value adding operation in their respective areas by end of year 2.
Time Period	Long term: 7-24 months







5. Strengthened environmental services and resilience

Project Name	Rehabilitation of natural forests, forest plantations and agro-forests affected by TC Pam
Lead Agency	FAO
Description	Rehabilitate key forest areas, including critical watersheds, damaged coastlines river banks and farmer woodlots to restore productive and protective functions across the landscapes
Partners	MALFFB (Department of forests), others
Summary Budget	US\$1,000,000
Funding Gap	US\$1,000,000
Expected Outputs	-Damaged or destroyed natural forests rehabilitated -Restored protective and productive functions of forests -Increased income of local farmers
Time Period	June 2015 – June 2017

Project Name	Risk mapping for Agriculture, Forestry, Fisheries and Livestock Sectors
Lead Agency	MALFFB
Description	Island Level risk maps to be developed highlighting the vulnerabilities and disaster-specific risks to the productive sector must be undertaken
Partners	
Summary Budget	Technical Expertise: 5,000,000VT
	Transportation: 3,000,000T
	IT: 800,000VT
Expected Outputs	A full comprehensive loss assessment and detailed strategy of needs for sustainable and resilient recovery and rehabilitation.
Time Period	Short Term (1-3 months) , Medium Term (4-7 months)







6. Prioritised capacity building, training and entrepreneurship

Project Name	Technical assistance for rebuilding and institutional capacity building
Lead Agency	DARD
Description	
Partners	
Summary Budget	
Expected Outputs	
Time Period	

Project Name	Tafea Food Security & Livelihoods Recovery and Rehabilitation
Lead Agency	CARE International in partnership with DARD, Naistuan, Provincial Government & Lume and Napil RTC and Community Disaster Committees
Location	Erromango, Aniwa & Tanna (Middle bush & White Sands primarily)
Description	Building on CARE's existing program in these Islands over the last 6 years, CARE will continue to partner with the Tafea Province, DARD, Local NGO's and RTCs to re-establish household food production and agriculture based livelihoods for women and men. The reestablishment of production and incomes will take into consideration the ongoing vulnerabilities communities face to future shocks and disaster.
	Pre-cyclone there is an existing MOU between CARE and DARD to provide provincial wide training and technical mentoring on 1. Food Security, 2. Farming Systems and 3. Disaster Preparedness. The destruction caused by TC Pam would see these technical support increased and expanded out with other partners to include; 4. The re-establishment of nursery stocks and establishment of pilot nurseries, 5. the improvement of soil quality, 6. Poultry farming and 7. Support to local fisheries and aquaculture produce and production. Attention will given to mitigating the potential that re-established food gardens are destroyed by pest, wild pigs and rodents.
	This project will specifically look at the needs of women farmers and fishers. Ensuring that they have the information to analyse their market chains post cyclone to look and plan for the road to recovery in food and income production. This will focus on the commodities







	of vegetables, fruits and plants for weaving (pandanas, natangura & bamboo). We will also provide specific funding to support women
	led recovery initiatives that promote quicker and less labour intensive food production, preservation and sales. Including: seed and tool
	banks, investment in appropriate technology for women farmers and access to markets in Vila.
Partners	Provincial Government, DARD, Nasi Tuan, Tafea RTC's and Tafea CDC's
Sum Budget	US 550,000
Funding Gap	US 470,000
Expected Outputs	 Women, men, young people and vulnerable groups have a greater ability to participate in farming practices through actively involving women, youth and increasing accessibility for people with disabilities in all activities. Increase awareness of the connection between Food, Agriculture, Climate Change and Food Security amongst communities. Greater awareness and practice of disaster preparedness in targeted communities Increased practical skills and access to technology to re-establish diversify and quicken food production. Including the trial of different techniques such as hoop and green houses and drip fed irrigation. Women, men, young people and vulnerable groups have increased access to sustainable protein source through fish farming and poultry farming of layers, improving nutrition with potential for long term income generation. Increase capacity and gender balance within the DARD through provision of extra DARD extension officer positions. Support Women-led recovery innovation and ideas in food security, agriculture and livelihoods. Share their success with other women and girls and the wider community. The learning from this program influences government and other stakeholders to develop and implement policy and practice that better supports women, men, young people and vulnerable in food and livelihoods recovery.
Time Period	9 months

Project Name	Technical assistance for rebuilding and institutional capacity building
Lead Agency	Livestock
Description	
Partners	
Summary Budget	
Expected Outputs	







Time Period	

Project Name	Technical assistance for rebuilding and institutional capacity building
Lead Agency	Fisheries
Description	
Partners	
Summary Budget	
Expected Outputs	
Time Period	

Project Name	Technical assistance for rebuilding and institutional capacity building
Lead Agency	Forestry
Description	
Partners	
Summary Budget	
Expected	
Outputs	
Time Period	

Project Name	Technical assistance for rebuilding and institutional capacity building
Lead Agency	Biosecurity
Description	
Partners	
Summary Budget	
Expected	
Outputs	
Time Period	







Project Name	SMS Broadcast, Radio and Print Short Messaging
Lead Agency	FSAC Secretariat
Description	Regular daily messages in bislama are being sent to all rural and urban residents through mobile phone sms, radio messaging and printed
	phamplets
Partners	Digicel, TVL, Radio Vanuatu, FM 107, FM104, SPC/GIZ
Summary Budget	SMS- 4,000,000VT
	Radio Spots- 1,000,000VT
	Printing: 1,500,000VT
	HR- 450,000VT
Expected	Rural/isolated residents are up to date on the progress of relief, recovery and rehabilitation and receiving expert advice on simple and
Outputs	effective production
Time Period	Short Term (1-3 months)

Project Name	Expansion of the Extension Service
Lead Agency	DARD, VFD, DoL, DoF, QB
Description	Rapidly upscale the HR capacity of island-based extension officers to advise and guide on ground recovery, including building back better
	for climate change adaptation and disaster risk reduction and enabling the use of traditional knowledge
Partners	
Summary Budget	HR- 14,000,000VT
	Training and Induction- 1,000,000VT
Expected	The Extension service is able to rapidly resume its function to enable rural communities to quickly re-establish self-sufficiency in
Outputs	production.
Time Period	Short Term (1-3 months) & Medium Term (4-6 months)

Project Name	Farmer Training and Support
Lead Agency	TVET
Description	Training modules on sustainable production have been developed and rolled out in rural communities for the last 5 years. A series of







	farmer-focused training and awareness sessions must be urgently rolled out to all affected communities covering topics in agriculture, livestock, fisheries, and forestry including production, marketing and sustainable development, including building back better for climate change adaptation and disaster risk reduction and enabling the use of traditional knowledge
Partners	
Summary Budget	HR/DSA- 3,000,000VT
	Transportation- 2,500,000VT
	Training Materials- 3,500,000VT
Expected	Extension is backed up with on-ground technical training from local experts.
Outputs	
Time Period	Medium Term (4-6 months)

Project Name	Fest'Napuan Food Security Music Festival
Lead Agency	Fest'Napuan Committee
Description	The Fest' Napuan Committee will continue with its annual music festival, the largest in the South Pacific, with the theme of agricultural recovery and reconstruction, using the medium of music as an opportunity to run major awareness and extension campaigns regarding resilient recovery and reconstruction in October 2015.
Partners	
Summary Budget	International Musicians: 5,000,000VT Domestic Logistics: 3,500,000vt
Expected Outputs	Young people and residents of Vanuatu learn and take action for resilient agricultural recovery and rehabilitation
Time Period	Medium Term (4-6 months)

Project Name	Skills for Livelihood and Economic Recovery in Agriculture, Livestock and Aquaculture
Lead Agency	TVET sector strengthening program
Description	TVET Centres' focus on the recovery will involved coordination between partner training providers and provincial extension officers to
	deliver training in demand areas to address the needs identify post Pam with a focus on agriculture, small livestock and aquaculture. This







	gaps for further support through the TVET Centres.
	· Provide ongoing support post training through the TVET Program's Monitoring and Evaluation system and technical follow up to identify
	improved production of local vegetables, small livestock production and Tilapia fish farming.
	· Provide ongoing support through coaching and mentoring program to farmers after training with input from technical experts for
	fish pond demonstration to be accessed by the community
Outputs	• As part of the training, assist the affected communities to esablish pilot back yard nursery, small livestock demonstration site and Tilapi
Expected	Coordinate the delivery of technical skills and demonstration in back yard nursery, small Livestock production and Tilapia Fish farming t improved local diet which will later leads to income generation.
F	Total: 9,063,000
	Staffing and admin: 1,933,000
	Training materials: 3,960,000
Summary Budget	
Partners	DARD, Vanuatu Agricultural College, Rural Training Centers
	specific gaps needed to help the participants reach their full potential in terms of production.
	Centers will organize technical follow up post training with industry experts and extension officers to provide onsite coaching and identif
	what they aim to achieve after the training as part of their recovery plan. As part of the ongoing support to the community, the TVET
	and setting up backyard tilapia fishpond. At the end of each training, participants will be able to complete an action plan to guide them i
	This will be a 3-5 days demonstration and transfer of skills in setting up a back yard nursery for vegetable production, setting up poultry
	Centers will partner with training providers, extension officers and industry experts to provide these training in the affected communities
	can contribute to the supply of food in the community and also contribute to the economic recovery of their communities. The TVET
	focus on inclusion and we will ensure that people with a disability and women are also empowered through these skills training so they
	ensure a fair representation of people participate in the training including women and people with disability. The TVET Centers has a lot
	needed to produce certain quantity for the community and later use the surplus to sell for income generation. The TVET Centers will
	participate in the training which they will later share their skills to other community members. The focus will be to provide the skills
	The TVET Centers in collaboration with the area secretaries and community leaders will select potential candidates to be part of the training. The approach will be to work with area secretaries and community leaders to identify key farmers in different communities to







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Project Name	Food preservation training & documentation on Tanna
Lead Agency	Nasi Tuan
Description	Training trainers in food preservation as a method for disaster risk reduction, and documenting traditional techniques for this, in the project's first year. 3,800 households in five Area Councils of Tanna (all except South-west and South) affected by Cyclone Pam.
Partners	TEAR Fund NZ (funded by NZ Aid Programme and TEAR Fund / Integral Alliance private funding)
Summary Budget	5,732,196VT
Funding Gap	N/A
Expected	Trainers are trained in food preservation as DRR and traditional techniques are documented
Outputs	
Time Period	12 months

Project Name	Strengthening of rural agriculture extension services
Lead Agency	MALFFB / FAO
Description	Strengthen capacities and access of rural MALFFB/DARD extension officers to provide effective island and community extension information
Partners	DARD, SPC, others, World Bank, Livestock, Fisheries, Forestry, Biosecurity
Summary Budget	U\$\$300,000
Funding Gap	U\$\$300,000
Expected	-Rural extension officers have knowledge and tools to support farmers recover agricultural productivity affected by TC Pam, with climate
Outputs	and disaster resilient technology and approaches -Rural extension officers have mobility support to reach remote farming households -Rural farmers have improved livelihoods through improved farming methods
Time Period	1 May 2015 – 30 April 2016

Project Name Establishment of improved research centre, seed and germplasm bank







Lead Agency	FAO
Description	The project aims to strengthen existing research activities into a range of crops, forestry, fisheries, animals
Partners	VARTC, others
Summary Budget	U\$\$1,000,000
Funding Gap	U\$\$1,000,000
Expected	-Comprehensive research structure encompassing genetic diversity, local genetic base expansion, improved gene pool, genetic resilience
Outputs	to adverse climatic conditions, genetic conservation and genetic resource availability for Vanuatu
Time Period	June 2015 – June 2017







7. Coordinated policy development, coordination and monitoring

Project Name	National Agriculture Census
Lead Agency	DARD
Description	The Department of Agriculture has not has a full census since 2007. A full stock-take of the agricultural sector is required to plan for
	sustainable and resilient long-term recovery.
Partners	
Summary Budget	Technical Expertise/FR – 5,500,000VT
	Transportation: 2,000,000VT
Expected	National and local authorities have a clear picture of the agriculture sector, which can be used for planning, and implementation of
Outputs	recovery.
Time Period	Long Term (7-24 months)

Project Name	Vanuatu Livestock Sector Policy
Lead Agency	DoL
Description	The Department of Livestock has already undertaken a 1 year process to consult on and develop a policy framework that guides the
	sustainable development of the extended sector. The policy requires minor amendments to take into account Cyclone Pam lessons learned
	and lessons from the region. In addition, the policy must be launched, printed and distributed to all stakeholders.
Partners	SPC/GIZ
Summary Budget	Technical Expertise – 600,000VT
	Launching/Promotion: 1,000,000VT
	Printing: 1,500,000VT
Expected	All stakeholder priorities/plans for sustainable development are codified into national policy, including recovery and rehabilitation from
Outputs	Cyclone Pam.
Time Period	Medium Term (4-6 months) and Long Term (7-24 months)







Project Name	National Livestock Census
Lead Agency	DoL
Description	The Department of Livestock has not has a full census since 2007. A full stock-take of the livestock sector is required to plan for sustainable
	and resilient long-term recovery
Partners	
Summary	Technical Expertise/HR – 3,500,000VT
Budget	Transportation: 1,000,000VT
Expected	National and local authorities have a clear picture of the livestock sector, which can be used for planning, and implementation of recovery.
Outputs	
Time Period	Long Term (7-24 months)

Project Name	National Year of Livestock
Lead Agency	DoL
Description	The Department of Livestock will declare 2016 the year of livestock and take the opportunity to run major awareness and extension
	campaigns regarding resilient recovery and reconstruction
Partners	
Summary	Technical Expertise/HR – 3,500,000VT
Budget	Transportation: 1,000,000VT
	Materials: 2,500,000
Expected	Livestock husbandry and recovery is a priority for all stakeholders
Outputs	
Time Period	Long Term (7-24 months)

Project Name	Assessment of tree species' resilience to wind damage
Lead Agency	Forestry
Description	
Partners	







Summary	
Budget	
Expected	
Summary Budget Expected Outputs	
Time Period	

Project Name	Fisheries Comprehensive Livelihoods Recovery Assessment
Lead Agency	VFD
Description	
Partners	
Summary	
Budget	
Expected	A full comprehensive loss assessment and detailed strategy of needs for sustainable and resilient recovery and rehabilitation.
Outputs	
Time Period	Short Term (1-3 months)

Project Name	Emergency Repair and Replacement of Extension Assets
Lead Agency	DARD, VFD, DoL, DoF, QB
Description	Provincial and island-based extension materials and assets have been destroyed, and must urgently be replaced to enable to island-based
	extension officers to resume their work.
Partners	
Summary	Vehicles, Boat, Moto – 67,500,000VT
Budget	Buildings Temporary Repair – 18,000,000VT
	Asset/Tool Replacement – 5,000,000VT
	Transportation/Fuel- 8,000,000VT
Expected	The Extension service is able to rapidly resume its function to enable rural communities to quickly re-establish self-sufficiency in production.
Outputs	







Time Period	Short Term (1-3 months) & Medium Term (4-6 months)
Project Name	FSAC Secretariat Support
Lead Agency	FSAC
Description	The FSAC cluster is fully coordinating all interventions in the agriculture, livestock, forestry, fisheries and biosecurity sectors. The cluster is
	preparing daily briefs, liaising with partners, compiling reports, tasking individuals and groups, chairing meetings and otherwise controlling
	the process.
Partners	Government of Vanuatu, GIZ/SPC, FAO, USP, SPC-LRD
Summary	HR- 7,200,000VT
Budget	Transportation – 4,500,000VT
	IT/Coms – 3,600,000VT
	Office Space/Utility- 1,500,000VT
	Equipment- 1,500,000VT
Expected	The FSAC is well-organized and effectively coordinating the long-term recovery from Cyclone Pam
Outputs	
Time Period	Short Term (1-3 months) & Medium Term (4-6 months)

Project Name	Vanuatu Agriculture Sector Policy
Lead Agency	DARD
Description	The Department of Agriculture & Rural Development has already undertaken a 2 year process to consult on and develop a policy framework
	that guides the sustainable development of the extended sector. The policy requires minor amendments to take into account Cyclone Pam
	lessons learned, and lessons from the region. In addition, the policy must be launched, printed and distributed to all stakeholders.
Partners	SPC/GIZ
Summary	Technical Expertise – 600,000VT
Budget	Launching/Promotion: 1,000,000VT
	Printing: 1,500,000VT
Expected	All stakeholder priorities/plans for sustainable development are codified into national policy, including recovery and rehabilitation from
Outputs	Cyclone Pam.







Time Period	Medium Term (4-6 months) and Long Term (7-24 months)
Project Name	Vanuatu National Sustainable Development Plan
Lead Agency	Prime Minister's Office
Description	The Prime Minister's Office has already undertaken a 1.5 year process to consult on and develop a national policy framework to replace the
	now-expiring Priority Action Agenda (PAA) that guides the sustainable development of the nation. The policy requires minor amendments to
	take into account Cyclone Pam lessons learned and lessons from the region. In addition, the policy must be launched, printed and
	distributed to all stakeholders.
Partners	IUCN, SPC/GIZ, GGGI, ADB
Summary	Technical Expertise – 600,000VT
Budget	Launching/Promotion: 1,000,000VT
	Printing: 1,500,000VT
Expected	All stakeholder priorities/plans for sustainable development are codified into national policy, including recovery and rehabilitation from
Outputs	Cyclone Pam.
Time Period	Medium Term (4-6 months) and Long Term (7-24 months)

Project Name	Agricultural-Climate Early Warning Systems
Lead Agency	VMGD
Description	Improved climate early warning systems will be developed to provide farmers and fishermen with sector specific advice and warning for key
	climate events, including cyclones, droughts and extreme rainfall.
Partners	SPREP, NIWA
Summary	
Budget	
Expected	Farmers/fishermen are able to take sound decisions for production well in advance of a hazard onset.
Outputs	
Time Period	Medium (4-7 months) Long (8-24 months)

Project Name Vanuatu National Climate Change & Disaster Risk Reduction Policy







Lead Agency	National Advisory Board on Climate Change & Disaster Risk Reduction
Description	The Vanuatu National Advisory Board on Climate Change & Disaster Risk Reduction (NAB) has recently finalized a policy to guide the
	integrated mainstreaming of CC & DRR into development. The policy requires minor amendments to take into account Cyclone Pam lessons
	learned and lessons from the region. The Policy requires urgent implementation to speed up the building back better and resilient
	development of the productive sectors.
Partners	UNDP, SPC/GIZ
Summary	Technical Expertise – 600,000VT
Budget	Implementation of Critical Directives: 10,000,000VT
	Printing: 1,500,000VT
Expected	All stakeholder priorities/plans for climate adaptation and risk reduction are codified into national policy, including recovery and
Outputs	rehabilitation from Cyclone Pam.
Time Period	Medium Term (4-6 months) and Long Term (7-24 months)

A6b	Data Entry and Analysis
Lead Agency	FSAC
Description	The FSAC cluster requires the support of a team of 20 data entry officers to rapidly enter and run preliminary analyses on the food
	distribution data coming in.
Partners	PMO
Summary	HR-2,700,000VT
Budget	Equipment- 700,000VT
Expected	The FSAC is well-organized and effectively coordinating the long-term recovery from Cyclone Pam
Outputs	
Time Period	Short Term (1-3 months)

A3a	Nutritional Analysis of Local Foods
Lead Agency	DARD
¥	







Description	Develop nutritional guidelines for both local fresh and non-perishable foods and use this information to support the rationing of emergency food aid relief.
Partners	WFP, DARD
Summary	HR- 360,000VT
Budget	Printing- 500,000VT
Expected	Clear nutritional guidelines for ration amounts.
Outputs	
Time Period	Short Term (1-3 months)

A1a	Informal Damage/Need Reporting and Assessment
Lead Agency	FSAC Secretariat
Description	Immediately after the Cyclone, the FSAC established a damage reporting system with all reports posted online for easy access and
	assessment. The FSAC requires the system to be expanded to include informal reports on food availability, food distribution status,
	livelihoods needs, and recommendations from partners
Partners	DARD, FAO, SPC/GIZ
Summary Budget	HR- 360,000VT
	IT- 500,000VT
Expected	This informal reporting system will allow the FSAC to keep up to date with the huge volumes of information coming in each day regarding
Outputs	all topics under the cluster mandate. The FSAC will output a weekly updated assessment dashboard of progress and needs.
Time Period	Short Term (1-3 months)







Annex 5: TC Pam Recovery and rehabilitation budget estimates

					Funded	Duration	Short (1-3	Medium (4-6	Long (7-48
Sub-industry	Project	Partners	Value (vt)	USD	USD	(months)	months)	months)	months)
1. Revive and	d sustain market access								
Agriculture	Vegetable Water-Making Support	Kaliva	32,500,000	302,250		3			
	Improving Access to Education & Nutrition	LLEE, USP	25,209,000	234,444		4			
	Improving Community Access to Markets	LLEE & Save	100,836,000	937,775	102,000	15			
	Sanma Community Economic Development	World Vision	65,900,000	612,870		24			
	Agricultural Development for Tanna's Economic Growth	World Vision, Nasi Tuan	182,780,000	1,699,854		60			
Livestock	Biogas renewable energy project	DoL, Private sector	54,500,000	506,850		24			
	Small Business Development and Genetic Upgrade: Muscovy Ducks	LIWG, DoL, VARTC, private sector	6,650,000	61,845		36			
	Small Business Development Genetic Upgrade: Sheep	LIWG, DoL, VARTC, private sector	9,200,000	85,560		48			







	Small Business Development Genetic	LIWG, DoL, VARTC, private					
	Upgrade: Goats	sector	11,000,000	102,300	48		
Fisheries	Fish processing and market access	VFD	62,000,000	576,600	24		
	Fisheries wharf development	VFD	100,000,000	930,000	24		
	· ·		780,690,000	7,260,417			
2. Improved	product quality and safety					<u> </u>	
Agriculture	Nutritional education and consumption	World Vision,					
	of island kakae	USP	121,500	1,130	2		
	Plant border control	Biosecurity	5,011,200	46,604	3		
	Plant pest and disease surveillance	Biosecurity	18,877,000	175,556	6		
	Emergency Inter-Island Fresh Produce Supply	Youth Challenge Vanuatu, Consulting Vanautu, CHEP Australia, USP	4,110,000	38,223	6		
	Sustainable Inter-Island Fresh Produce Supply	Youth Challenge Vanuatu, Consulting Vanautu, CHEP Australia, USP	2,840,000	26,412	18		
Livestock	Animal health and meat hygiene	Biosecurity, DoL	1,500,000	13,950	3		
	Animal disease survey and monitoring	Department of Livestock, USP	3,960,000	36,828	3		
	Aquaculture development and farm	VFD, QUT, SPC,					
Fisheries	production support	GIZ	67,700,000	629,610	24		
			124,943,640	1,161,976			







Agriculture		DARD, industry,						
	Solar food dryers	SPC/GIZ	15,700,000	146,010		3		
	Support to Household Food Garden							
	Recovery	Oxfam, USP	18,000,000	167,400	130,200	3		
	Seed Distribution and Technical Advice	Oxfam, USP	5,000,000	46,500	46,500	3		
		DARD, FAO,						
		New Caledonia,						
	Emergency Seed Support	Germany	2,160,000	20,088		3		
	Emergency Tool Support	DARD, WB, FAO	33,050,000	307,365		3		
		World Vision,						
		Tanna Coffee,						
	- <i>K</i>	DARD, Nasi						
	Coffee recovery awareness programme	Tuan, INIK Coop	675,000	6,278		3		
	Rehabilitating, and diversifying							
	agricultural systems, and developing	Save the	27 544 500	250.000		6		
	income generating activities	Children	37,544,500	350,000		6		
	Support to women's groups for	Save the	0.045.050	75 000				
	community-led recovery initiatives	Children	8,045,250	75,000		6		
		Tanna Coffee,						
	Coffee alexantica elecanone	DARD, Nasi		210 550		4		
	Coffee plantation clearance	Tuan, INIK Coop	23,500,000	218,550		4		
		Tanna Coffee,						
	Coffee plantation any ping programs	DARD, Nasi		70.050		Δ		
	Coffee plantation pruning programme	Tuan, INIK Coop	8,500,000	79,050		4		
	Tanna coffee vogetable pursery	Tanna Coffee, DARD	9 500 000	88,350		Л		
	Tanna coffee vegetable nursery		9,500,000	88,350		4		
	Emergency Distribution of Fast Growing Local Planting Material	DARD, WB, VARTC	2,520,000	23,436		6		
		VANIC	2,320,000	25,450		0	1	







Community Level Recovery of Small						
Scale Enterprise	Oxfam	25,000,000	232,500	139,500	5	
Immediate assistance to re-establish	FAO, DARD, Act					
food security in affected communities	for Peace	22,674,196	210,870	210,870	7	
Multiplication plot establishment on	Nasi Tuan, Tear					
Tanna	Fund	4,622,570	42,990	12	2	
Planting materials distribution and	Nasi Tuan, Tear					
construction of nursery boxes on Tanna	Fund	3,997,616	37,178	12	2	
Strengthen urban and peri-urban food	MALFFB, Slow					
and nutrition security	Food, USP	21,454,000	199,522	12	2	
	World Vision,					
Food Security and Agricultural Recovery	Activ, USP	51,264,000	476,755	12	2	
Support to the rehabilitation of kava						
plantations of small-holder affected						
households	FAO, MALFBB	80,452,500	748,208	12	2	
	MALFFB, FAO,					
Urban food security	World Bank	220,000,000	2,046,000	18	3	
	DARD, Epi					
	Cocoa Growers					
Cocoa long term recovery	Association	5,000,000	46,500	24	1	
	DARD, FSA,					
	Venui Vanilla,					
	TVET, ACTIV,					
Spices long term production	VARTC	12,500,000	116,250	24	1	
Root crop long term recovery	DARD, USP	16,000,000	148,800	24	1	
Vegetables long term recovery	DARD	65,300,000	607,290	24	1	
Vegetable and fruit tree Nursery						
Rehabilitation	DARD	12,300,000	114,390	24	1	







		World Vision,					
	Tanna coffee reestablishment	Tanna Coffee, DARD	200,000,000	1 800 000	20		
	programme		200,000,000	1,860,000	<u> </u>		
	Coconut long term recovery	DARD, VARTCA	73,000,000	678,900	30		
		DARD, Cocoa					
	Cocoa Hot Stream Drier	Industry Working Group	3,500,000	32,550	36		
	Kava long term recovery	DARD	11,500,000	106,950	36		
	Canarium / Nangai nut recovery and development	Dept of Forestry	10,000,000	93,000	36		
Agriculture	Multi-year agricultural recovery on Tanna	Nasi Tuan, Tear Fund	43,200,000	401,760	36		
Livesteel							
Livestock	Day old chick and feed project	Private sector	67,040,000	623,472	3		
	Live cattle exchange	Livestock, private sector	34,740,000	323,082	3		
	Emergency stock feed	FAO	, ,	-	3		
	Animal Welfare Support for Cyclone						
	Affected Areas	Livestock, WAP	91,511,000	851,052	3		
	Emergency Supplementary Pig Feed						
	project	DARD	9,000,000	83,700	4		
		Livestock,					
	Chicken protein source project	private sector	9,400,000	87,420	6		
	Livestock destocking and restocking	Livestock	79,000,000	734,700	24		
		MSG, Gibson, SPC/GIZ,					
	Honey bee long term recovery	Vanuatu Direct	14,000,000	130,200	24		
	Livestock genetic improvement	Livestock, private sector	70,000,000	651,000	24		







							1	
		Livestock,						
	Pig Improved Genetic Project	private sector	6,000,000	55,800		36		
	Restocking village pigs with improved	Livestock,						
	breeds	private sector	11,000,000	102,300		36		
		Livestock,						
	Locally manufactured stock feeds	private sector	8,000,000	74,400	27,900	36		
	Cattle Genetic upgrade: VARTC Upgrade	VARTC,						
	Project	Livestock	15,600,000	145,080		42		
Forestry	Emergency Saw Mill Support	Dept of Forestry	13,200,000	122,760		6		
	Agricultural rehabilitation through							
	improved technology and capacities	FAO, DARD	128,724,000	1,197,133	300,000	12		
	Nursery rehabilitation	Dept of Forestry	35,000,000	325,500		24		
	Forest seed collection and redistribution	Dept of Forestry	5,000,000	46,500		24		
Fisheries	Emergency Fishing Gear Support	VFD	3,780,000	35,154		3		
	Fisheries infrastructure and fishing							
	technology support (boat, canoe repair							
	and FAD fishing)	VFD	128,300,000	1,193,190		24		
		Vanuatu						
		Agriculture						
Cross	Financial tools, risk sharing and	Development						
industry	insurance	Bank		-		24		
			2,130,305,559	19,813,060				
4. Enhanced	I processing and value adding							
Agriculture	Solar power refrigeration for markets	Sustainable						
	and communities	Energy Services	53,763,441	500,000		6		
	Support to peanut and coffee farming	Nasi Tuan, Tear						
	on Tanna	Fund	16,474,591	153,214		12		
	Vanuatu food processing facilities	Vanuatu Direct	349,396,000	3,249,383	1,132,852	24		
		-						







		DARD, Ministry						
	Agricultural Processing and Value Adding	of Trades &						
	Program	Industry	35,500,000	330,150		24		
			546,160,838	5,079,296				
5. Strengthe	ned environmental services and resilier	ice					-	 -
Forestry	Rehabilitation of natural forests, forest	FAO, Dept of						
	plantations and agro-forests	Forestry	107,270,000	997,611		24		
		Dept of						
	Re-establishment of permanent sample	Forestry, SPC,						
	plots	FAO, UNDP	15,000,000	139,500		36		
Cross	Risk mapping for Agriculture, Forestry,							
industry	Fisheries and Livestock Sectors	MALFBB	8,800,000	81,840		7		
			157,284,000	1,462,741				
6. Prioritised	d capacity building, training and entrepr	eneurship						
Agriculture	Technical assistance for rebuilding and							
	institutional capacity building	DARD	1,072,700,000	10,000,000		24		
		Care, Nasi Tuan,						
	Tafea Food Security & Livelihoods	Government,						
	Recovery and Rehabilitation	USP	58,998,500	548,686	80,000	9		
Livestock	Technical assistance for rebuilding and							
	institutional capacity building	Livestock	429,080,000	4,000,000		24		
Fisheries	Technical assistance for rebuilding and							
	institutional capacity building	Fisheries	429,080,000	4,000,000		24		
Forestry	Technical assistance for rebuilding and							
	institutional capacity building	Forestry	321,810,000	3,000,000		24		
Biosecurity	Technical assistance for rebuilding and							
	institutional capacity building	Biosecurity	330,000,000	3,069,000		24		







Cross	SMS Broadcast, Radio and Print Short					
industry	Messaging	FSAC	6,950,000	64,635	3	
		DARD, VFD,				
		DoL, DoF, QB,				
	Expansion of the Extension Service	USP	15,000,000	139,500	6	
	Farmer Training and Support	TVET	9,000,000	83,700	6	
	Fes Napuan Food Security Music Festival	Fes Napuan	8,500,000	79,050	6	
	Skills for Livelihood and Economic Recovery in Agriculture, Livestock and Aquaculture	TVET, DARD, Vanuatu Agricultural College, Rural Training Centres	9,063,000	84,286	10	
	Food preservation training & documentation on Tanna	Nasi Tuan, Tear Fund, USP	5,732,196	53,309	12	
	Strengthening of rural agriculture extension services	FAO, DARD, SPC	32,181,000	299,283	12	
	Establishment of improved research centre, seed and germplasm bank	MALFFB, FAO, VARTC, World Bank	250,000,000	2,325,000	24	
			3,573,713,635	33,295,740		
	ted policy development, coordination a					
Agriculture	National agriculture census	DARD	7,500,000	69,750	24	
Livestock	Vanuatu Livestock Sector Policy	Livestock	3,100,000	28,830	24	
	National Year of Livestock	Livestock	7,000,000	65,100	24	
	National livestock census	Livestock	4,500,000	41,850	24	
Forestry	Assessment of forestry resources - planted and natural	Forestry	40,000,000	372,000	6	







	ecosystem assessment support	VFD	38,200,000	355,260	3		
Cross	Emergency Repair and Replacement of	DARD, VFD,					
industry	Extension Assets	DoL, DoF, QB	98,500,000	916,050	6		
		Government of					
		Vanuatu,					
		GIZ/SPC, FAO,					
	FSAC Secretariat support	USP, SPC-LRD	18,300,000	170,190	6		
	Vanuatu Agriculture Sector Policy	DARD, SPC/GIZ	3,100,000	28,830	24		
		Prime Minister's					
		Office, IUCN,					
	Vanuatu National Sustainable	SPC/GIZ, GGGI,					
	Development Plan	ADB	3,100,000	28,830	 24		
	Agricultural-climate early warning	VMGD, SPREP,					
	systems	NIWA	107,270,000	997,611	24		
	Vanuatu National Climate Change &						
	Disaster Risk Reduction Policy	NAB, USP	12,100,000	112,530	24		
			411,204,000	3,824,197			
Total all							
programmes			7,724,301,672	71,897,427			





