

SAMOA NATIONAL ENERGY PLAN – STRATEGIC ACTION PLAN

PIEPSAP Project Report 80

July 2008

~ Participating Pacific Islands Countries ~

*Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, **Samoa**, Solomon Islands, Tonga, Tuvalu and Vanuatu*

PIEPSAP
PACIFIC ISLANDS ENERGY POLICY
AND STRATEGIC ACTION PLANING

MINISTRY OF FOREIGN AFFAIRS OF DENMARK
UDENRIGSMINISTERIET





Government of Samoa

SAMOA NATIONAL ENERGY POLICY

STRATEGIC ACTION PLAN

ACRONYMS

1. AG	:	Attorney General
2. BOC	:	British Oxygen Corporation
3. BOS	:	Bureau of Statistics
4. CBS	:	Central Bank of Samoa
5. COC	:	Chamber of Commerce
6. DMU	:	Disaster Management Unit
7. EPC	:	Electric Power Corporation
8. MAF	:	Ministry of Agriculture and Forestry
9. MES	:	Ministry of Education, Sports and Cultural Affairs
10. MFAT	:	Ministry of Foreign Affairs and Trade
11. MFAT-STSC	:	Ministry of Foreign Affairs and Trade – Staff Training and Scholarship Committee
12. MNREM	:	Ministry of Natural Resources, Environment and Meteorology
13. MOF - CSSD	:	Ministry of Finance – Corporate Strategic Services Division
14. MOF – ED	:	Ministry of Finance – Energy Division
15. MOF – ITD	:	Ministry of Finance – Information Technology Division
16. MOH	:	Ministry of Health
17. MOR	:	Ministry for Revenue
18. MWCS	:	Ministry of Women, Community and Social Development
19. MWTI	:	Ministry of Works, Transport and Infrastructure
20. NEC	:	National Energy Committee
21. NGOs	:	Non Government Organizations
22. NHS	:	National Health Services
23. NUS	:	National University of Samoa
24. OCs	:	Oil Companies
25. OE	:	Origin Energy
26. PLTF	:	Petroleum License Task Force
27. PPS	:	Petroleum Products Supplies
28. PSC	:	Public Service Commission
29. RDI	:	Research and Development Institute of Samoa
30. SAA	:	Samoa Airport Authority
31. SAME	:	Samoa Association of Manufacturers and Exporters
32. SBC	:	Samoa Broadcasting Corporation
33. SFA	:	Samoa Fire Services Authority

34. SQA	:	Samoa Qualifications Authority
35. SSC	:	Samoa Shipping Corporation
36. SSS	:	Samoa Shipping Services
37. STA	:	Samoa Tourism Authority
38. SUNGO	:	Samoa Umbrella of Non-Government Organizations
39. SWA	:	Samoa Water Authority
40. UNESCO	:	United Nations Educational Scientific Cultural Organizations
41. WIB	:	Women in Business

42. Key Energy Stakeholders means:

: **MNREM**
: **MWCSD**
: **EPC**
: **RDIS**
: **SAME**
: **COC**
: **NUS**

43. Relevant Stakeholders means:

: **EPC**
: **MOR**
: **BOS**
: **OE**
: **BOC**
: **PPS**

VISION

To enhance the quality of life for all through access to reliable, affordable and environmentally sound energy services and supply

GOALS

- 1. To increase the share of mass production from renewable sources to 50% by year 2030**
- 2. To increase the contribution of Renewable Energy for energy services and supply by 70% by year 2030.**

1. Planning and Management

OBJECTIVE: **Efficient and effective coordination and management of the Energy Sector.**

<u>Strategy 1.1:</u> Ensure that the Energy Division has a firm institutional structure including a Regulatory Body in place, the capacity and sufficient resources to plan, manage and coordinate the energy policy with effective participation from all relevant stakeholders.					
<i>Activities</i>	<i>Leading Agency</i>	<i>Participating Agency(ies)</i>	<i>Performance Indicators</i>	<i>Time Frame</i>	<i>Budget/ Source</i>
1.1.1 Review existing structure (Review ToR will identify appropriate structure, skill levels, etc)	MOF – CSSD MOF – ED	PSC, AG, Consultant	A new structure is proposed and report available.	2008 2009	ST\$10,000 govt financing/TA (ADB)
1.1.2 Seek Public Service Commission approval for new structure	MOF – CSSD	CSSD-MOF, PSC	PSC approved new Structure	2008	Govt financing/ TA
1.1.3 Identify capacity needs and resources required for planning, management, coordination and supervision of the implementation of energy policy. (link to 1.1.1)	MOF – ED	MWSCD	Capacity Needs and Resources Identified	2008 2009	Govt financing/ TA(ADB)
1.1.4 Recruit appropriate skill staff	MOF – ED	PSC, CSSD-MOF	New staff in posts	2009 to 2011	ST\$250,000 (salary, etc) Govt Financing

1.1.5 Identify key energy stakeholders and establish a National Energy Committee (link to 1.1.1 and 1.1.3)	MOF – ED	Key Energy Stakeholders Consultants	National Energy Committee established	2009	Govt financing/ TA
1.1.6 Establish a technical and economic regulator for the provision of energy services within an existing appropriate agency	MOF – ED	PSC, Attorney General, Cabinet, SWA, EPC, Consultants	An independent regulator is established	2010	Govt financing/TA ADB
Strategy 1.2: Ensure that a firm legal framework is established with a relevant Act for the Energy Sector.					
Activities	Leading Agency	Participating Agency(ies)	Performance Indicators	Time Frame	Budget/ Source
1.2.1 Review existing relevant Acts/regulations	MOF – ED	AG, Consultants	Review of existing Acts/regulations completed	2009	ST\$10,000 Govt financing/ TA (ADB)
1.2.2 Develop appropriate energy bill.	MOF – ED	MNREM AG Consultant	Energy bill developed and endorsed by Parliament	2009	ST\$80,000 Govt Financing/ TA (ADB)
Strategy 1.3: Explore and identify relevant training opportunities and ensure that a human resource capacity development plan is in place for the Energy Division.					
Activities	Leading Agency	Participating Agency (ies)	Performance Indicators	Time Frame	Budget/ Source
1.3.1 Conduct a Training Needs Assessment (TNA) for the Energy division	MOF – ED	MOF – CSSD	TNA completed and relevant training needs identified	2009	Govt Financing/TA
1.3.2 Develop a training programme (Human Resource Development Plan) for the Energy Division	MOF – ED	MOF – CSSD NUS, MFAT, PSC	Training programme approved by CEO	2009	Govet Finance and Donors/TA

1.3.3 Support a post-graduate study in energy planning/ engineering for one staff. (link to 1.3.1 & 1.3.2)	MOF – ED	MESC, SQA, MFAT	A staff awarded a scholarship for post-graduate study.	2010	ST\$250,000 Govt financing & donors
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Strategy 1.4: Ensure the establishment of an effective and reliable database management system with effective coordination between all relevant stakeholders in collection and dissemination of information on energy.					
Activities	Leading Agency(ies)	Participating Agency (ies)	Performance Indicators	Time Frame	Budget/ Source
1.4.1 Establish a formal inter-disciplinary network (e.g mailing list) for information sharing and monthly collection of data.	MOF – ED	BOS Relevant stakeholders	A formal network established Monthly collection of data maintained	2008	Govt financing, Regional organisations, Donors
1.4.2 Publish basic energy information (supply and demand) on a regular basis (bi-annual)	MOF – ED	CSSD-MOF MOF – ITD	Bi-annual publication of energy reports	1 st & 3 rd Quarter of every year after 2008	ST\$ xxx – Govt Finance

2. Renewable Energy

OBJECTIVE: **To successfully change from fossil fuel dependency to Renewable Energy investment.**

<u>Strategy 2.1:</u> Promote the use of indigenous energy resources and renewable energy technologies.					
<i>Activities</i>	<i>Leading Agency</i>	<i>Participating Agency (ies)</i>	<i>Performance Indicators</i>	<i>Time Frame</i>	<i>Budget/ Source</i>
2.1.1 Review existing reports to Identify energy sources and RE technologies applicable to Samoa	MOF – ED	MNREM, EPC, MWTI, RDIS, MAF, MWCSD, NUS, NHS	Review report available.	2008	Govt financing/P IGGAREP
2.1.2 Carry out resource assessments or pre-feasibility studies for the identified viable sources and RE technologies based on 2.1.1.	MOF – ED	MNREM, EPC, RDIS, MAF, MWCSD, SWA, SUNGO, WIB, NUS, MWTI, SAME Consultants	Resource Assessments/ Pre-feasibility studies completed and reports available.	2008 - 2009	ST\$20,000 Govt financing/ PIGGAREP
2.1.3 Carry out full feasibility studies for identified viable sources and RE technologies identified in 2.1.2	MOF – ED	MNREM, EPC, RDIS, MAF, MWCSD, WIB, SUNGO, SAME, MESC, NUS, MWTI, SWA, Consultants	Full Feasibility studies completed and reports available.	2009-2010	ST\$100,000 Govt financing/P IGGAREP
2.1.4 Develop a Renewable Energy Bill (refer to 1.2.2).	MOF – ED	MNREM, EPC, MAF, MWTI, RDIS, STA, WIB, SUNGO, SWA, MWCSD, MESC, NUS Consultants	Renewable Energy Bill developed and endorsed by Cabinet.	2009	ST\$80,000 Govt financing/P IGGAREP

2.1.5 Develop funding project proposals for appropriate technologies identified in 2.1.3	MOF – ED	MNREM, EPC, MAF, MWTI, RDIS, STA, SUNGO, WIB, MWCSD, MESC, NUS Consultants	<p>Funding project proposals developed and approved.</p> <p>Funding for Implementation of the coco-gen project approved.</p> <p>Funding for PV rural electrification project approved.</p>	2008-2010	<p>ST\$10,000 Govt financing/ PIGGAREP</p> <p>ST\$750,000 - Govt/Donor funding</p> <p>ST\$750,000 – Govt/Donor funding</p>
Strategy 2.2: Promote partnerships with communities and all energy stakeholders especially potential development partners in the development of renewable energy programmes in Samoa.					
Activities	Leading Agency	Participating Agency (ies)	Performance Indicators	Time Frame	Budget/ Source
2.2.1 Conduct a national Energy Awareness Campaign day.	MOF – ED	<p>MNREM, MAF, EPC, MWTI, , MESC, MWCSD, NUS, SSC, SAA, SWA, STA, OCs, OE,BOC, NGOs , RDIS, SAME, COC, SBC</p> <p>Development Partners</p>	National Energy Awareness day conducted annually.	Annually from 2008	ST\$20,000 Govt financing/ PIGGAREP
2.2.2 Prepare a community based RE program. (link to 3.4.1)	MOF – ED	<p>SSC, OCs, OE, BOC, NGOs STA, MESC, EPC, MWTI, SAA</p> <p>MNREM, MAF, MWCSD, NUS, Development partners</p>	RE program prepared	2009	Govt financing/ PIGGAREP

2.2.3 Develop RE funding project proposals based on 2.2.2. (Link to 2.1.5)	MOF – ED	MNREM, MAF, MWSCD, NUS, STA, MESC, EPC, MWTI, SAA, SSC, OCs, OE, BOC, NGOs Development partners	Consultations with communities completed. RE initiatives at the community level developed. At least one donor funded project approved and implemented.	2009	ST\$10,000Govt financing/PIGGAREP
2.2.4 Establish the Designated National Authority (DNA) for CDM activities.	MOF – ED	MNREM, MWTI, MWSCD, EPC, SUNGO, Consultant	DNA established and operational.	2009	ST\$50,000 ADB, Govt
2.2.5 Build capacity in CDM process and implementation	MOF – ED	MNREM, MWTI, MWSCD, EPC, SUNGO, Consultant	Relevant training conducted and completed	2009	ST\$600000 ADB, Govt
2.2.6 Identify potential CDM activities and develop funding proposals (link to 2.2.3, 2.1.5)	MOF – ED	MNREM, MWTI, MWSCD, EPC, RDIS, SUNGO, Consultant	CDM activities identified and funding proposals approved by CDM Executive Board.	From 2010	ST\$100000 ADB, Govt
2.2.7 Establish a Clean Energy Fund	MOF – ED	MNREM, MWTI, MWSCD, EPC, RDIS, SUNGO, Consultant	Clean Energy Fund Established and operational.	2009	ST\$50000 ADB, Govt
2.2.8 Build capacity in Clean Energy Fund operational processes	MOF – ED	MNREM, MWTI, MWSCD, EPC, RDIS, SUNGO, Consultant	Relevant training conducted and completed.	2009	ST\$700000 ADB, Govt
2.2.9 Identify potential projects and develop project funding proposals	MOF – ED	MNREM, MWTI, MWSCD EPC, RDIS, Consultant	Potential project identified and funding proposal approved.	From 2010	ST\$3m, ADB, Govt

Strategy 2.3: Explore training opportunities to build up capacity in Renewable Energy Technologies.					
Activities	Leading Agency	Participating Agency (ies)	Performance Indicators	Time Frame	Budget/ Source
2.3.1 Identify capacity building training needs on RETs	MOF – ED	Key Energy Stakeholders, EPC COC, MWCSO, SWA MNREM, RDIS	CB training needs identified	2009	Govt financing/ PIGGAREP
2.3.2 Develop a training programme on RETs based on 2.3.1 above.	MOF – ED	PSC with Energy Stakeholders, SWA, MWCSO MNREM, RDIS	Training programme developed	2009	Govt financing/ PIGGAREP
Strategy 2.4: Encourage the use of renewable energy research findings of the Research and Development Institute of Samoa (RDIS) on a commercial basis.					
Activities	Leading Agency	Participating Agency (ies)	Performance Indicators	Time Frame	Budget/ Source
2.4.1 Coordinate the development of an RE programme with the RDIS	RDIS	MOF – ED, MNREM, EPC, MAF, SWA	RE research programme is in place.	2009	Govt financing/ PIGGAREP
2.4.2 Develop funding projects proposals from RDIS research findings.	MOF – ED	RDIS, MNREM, MAF, MWSCD, NUS, EPC, SWA and other interested stakeholders, Consultant	Project proposals developed and approved. Increased number of initiatives for the use of appropriate renewable energy technologies.	2009	ST\$10,000 Govt financing/ PIGGAREP
2.4.3 Carry out pre-feasibility studies for projects identified (Refer to 2,1,2)	MOF – ED	RDIS, MNREM, MAF, MWSCD, NUS, EPC, SWA and other interested stakeholders, Consultant	Pre-feasibility studies completed and reports available	2010	ST\$10,000 Govt financing/ PIGGAREP

2.4.4 Carry out full feasibility studies for projects identified (Refer to 2,1,3)	MOF – ED	RDIS, MNREM, MAF, MWSCD, NUS, EPC, SWA and other interested stakeholders, Consultant	Full feasibility studies completed and reports available	2010	ST\$100,000 Govt financing/ PIGGAREP
Strategy 2.5: Enhance public knowledge and understanding on Renewable Energy; its Costs and Benefits.					
Activities	Leading Agency	Participating Agency (ies)	Performance Indicators	Time Frame	Budget/ Source
2.5.1 Conduct Public Awareness Campaign on RE and different RETs and energy efficiency measures (refer to 2.2.1 above)	MOF – ED	MNREM, EPC, OCs, MWTI, SAA, SSC, MWSCD, NUS, SWA, OE, BOC, NGOs , RDIS	Public Awareness Campaign on RE conducted.	Annually in conjunction with Activity 2.2.1 From 2008	ST\$20,000 Govt financing/ PIGGAREP, ADB
2.5.2 Develop a RE and energy efficiency programme for schools link to 2.2.1 & 2.5.1	MOF – ED	MESC, NUS, MWCSO, USP, UNESCO	RE programme(s) for schools developed.	Annually 2008 in conjunction with 2.5.1	Govt financing/ PIGGAREP ADB
2.5.3 Coordinate an Earth Day Activity for the Schools (Primary and Secondary) – Link to 2.2.1 & 2.5.1	MOF – ED	MESC, All Schools, COC,(Business Community), SAME, BOC, OE, OCs	An activity for schools for Earth Day (22 April) coordinated and implemented.	Annually From 2008	Govt and SOPAC

3. Electricity

OBJECTIVE: **Efficient, Reliable, Affordable and sustainable electricity services.**

Strategy 3.1: Strengthen management efficiency, quality, production, transmission and distribution to ensure reliable and affordable supply and safe distribution of electricity to all consumers;					
<i>Activities</i>	<i>Leading Agency</i>	<i>Participating Agency (ies)</i>	<i>Performance Indicators</i>	<i>Time Frame</i>	<i>Budget/ Source</i>
3.1.1 Develop and implement a structural reform programme for EPC.	EPC,	MOF – ED, Consultant, AG,	Structural reform programme developed and implemented	2008	ST\$ 10,000,000, Govt financing/ (ADB)
3.1.2 Carry out a consultancy for the establishment of an independent regulator for electricity services (Link to 1.1.6).	EPC,	MOF – ED Consultant, AG,	An independent regulator is established.	2009	ST\$30,000 – Govt/Donor funding (ADB)
3.1.3 Conduct a training needs analysis for EPC staff	EPC		TNA completed and report available	2008	Govt financing/ TA, ADB
3.1.4 Develop a Training programme for EPC staff (guided by the results of 3.1.2)	EPC		Training programme completed	2008 - 2009	Govt financing/ TA, ADB

Strategy 3.2: Set an appropriate tariff structure;					
Activities	Leading Agency	Participating Agency (ies)	Performance Indicators	Time Frame	Budget/ Source
3.2.1 Review the current tariff structure.	EPC,	AG Relevant Stakeholders Consultants,	Tariff review completed and report available. New Tariff Structure developed and completed	2008	ST\$10,000 Govt Financing /TA, ADB
Strategy 3.3: Strengthen (Review) the EPC Act to allow private sector involvement in power production;					
Activities	Leading Agency	Participating Agency	Performance Indicators	Time Frame	Budget/ Source
3.3.1 Review the EPC Act (link to 1.2.1)	EPC,	AG, Consultants	EPC Act Review completed	2008	ST\$20,000 Govt financing / TA, ADB
3.3.2 Develop a framework for private sector participation in the power sector.	EPC,	AG, Consultants, COC	A framework is in place.	2009	ST\$20,000 Govt financing / Donor (ADB) funding
Strategy 3.4: Strengthen partnership between EPC and the private sector and all relevant stakeholders including community on electricity data and relevant projects.					
Activities	Leading Agency	Participating Agency (ies)	Performance Indicators	Time Frame	Budget/ Source
3.4.1 Develop a framework for community/land owners participation in power sector.	EPC,	MOF – ED Relevant stakeholders MNREM (Lands), MWCSO consultants,	A framework is in place.	2009	ST\$20,000 Govt financing / TA

3.4.2 Develop a programme for data collection and information dissemination. Link to 1.4.1	EPC	Energy Division, relevant stakeholders & consultants	Programme developed and implemented	2008	ST\$5,000 Govt financing / TA
Strategy 3.5: Promote electricity generation from proven renewable energy technologies (hydro, wind, solar, biomass, geothermal etc) and ensure that environment regulations are adhered to;					
Activities	Leading Agency	Participating Agency(ies)	Performance Indicators	Time Frame	Budget/ Source
3.5.1 Identify and assess potential RE sources for electricity generation . (Link to 2.1.2)	EPC,	MOF – ED, RDIS, Consultants	Potential RE sources for electricity generation identified and assessed Pre-feasibility studies completed for potential RE sources	2008 2009	ST\$10,000 Govt financing / TA
3.5.2 Develop funding proposals based on 3.5.1.	EPC,	MOF – ED, Consultants	Funding project proposals approved and project implemented.	2009	ST\$10,000 Govt financing / UNDP
Strategy 3.6: Promote implementation of demand-side-management strategies for increased efficiency for all consumers;					
Activities	Leading Agency	Participating Agencies	Performance Indicators	Time Frame	Budget/ Source
3.6.1 Conduct a consultancy to identify DSM activities relevant for Samoa and identify agencies that best address these activities.	EPC	MOF – ED, MNREM, NUS, Consultant	DSM activities and relevant agencies identified.	2009	ST\$10,000 Govt/PIGGAREP , Donors
3.6.2 Develop DSM strategies for major (top 10) electricity users	EPC,	Consultants, MOF – ED, NEC	DSM developed strategies	2009	ST\$10,000 Govt financing / TA/ UNDP, SOPAC, PIGGAREP, ADB

3.6.3 Develop and implement DSM activities based on 3.6.1 above	EPC,	MOF – ED Consultants, NEC	DSM activities developed	2009	ST\$10,000 Govt financing / TA/ UNDP, SOPAC, PIGGAREPADB
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4. Petroleum

OBJECTIVE: **Access for all to reliable, affordable and safe petroleum products.**

Strategy 4.1: Ensure that the Petroleum Act is enforced to govern supply, use, storage, distribution and disposal of fossil fuel and its by-products.					
<i>Activities</i>	<i>Leading Agency</i>	<i>Participating Agencies</i>	<i>Performance Indicators</i>	<i>Time Frame</i>	<i>Budget/ Source</i>
4.1.1 Establish a network with all relevant stakeholders in the enforcement of the Petroleum Act and associated regulations.	MOF – ED,	AG, MOH, NHS and Key Stakeholders	A transparent monitoring process in place.	2009	Govt financing / TA
4.1.2 Conduct EIAs for all proposed petrol stations and major installations for petroleum products	MOF – ED,	PUMA, MOH, NHS MNREM, PLTF	EIAs enforced and conducted.	2009	Govt financing / TA
4.1.3 Review retail licensing procedures for petroleum products.	MOF – ED,	PLTF, Consultants, AG, MOH	Licencing procedures review completed and report available.	2009	Govt financing / TA
4.1.4 Conduct public awareness campaign, on the detrimental impacts of petroleum products and waste oil on the environment. (link to 2.2.1)	MOF – ED,	MNREM, MWCSO, MOH, NHS, NGOs, OCs & All Relevant Stakeholders, SWA,	Public awareness conducted	Annually From 2008	ST\$5000 Govt financing / TA

4.1.5 Develop appropriate procedures for the safe collection, storage and disposal of waste oil.	MOF – ED,	MNREM, NGOs, MOH, NHS, OCs& All Relevant Stakeholders	Consultations conducted with all relevant stakeholders In-country waste oil collection strategy prepared and implemented. Regulatory guidelines developed	2010	Govt financing / TA
4.1.6 Develop contingency plans for management of oil spills	MOF – ED	MNREM, OCs, Consultants, MOH, NHS, AG, DMU	Contingency plans completed	2010	Govt financing / TA
4.1.7 Established a supply and demand database including pricing for petroleum fuels. (link to 1.4.2)	MOF – ED	MAF, MWTI, MWCSD, MESC, MOR, PSC, SAA, EPC, STA, NUS, RDIS,SSC, SSS, CBS, SQA, SUNGO, SAME, WIB, COC, MNREM, NGOs, OCs Consultants	Database developed.	2008 1 st & 3 rd quarter	Govt financing / TA, SOPAC
4.1.8 Publish a biannual publication on petroleum fuels based on information obtained from the database. (link to 1.4.2)	MOF – ED		Database reports distributed	Bi-annual From 2008	Govt financing / TA
4.1.9 Whenever possible use public seminars and the local media for disseminating information related to petroleum fuel prices, supply and usage.(link to 2.2.1)	MOF – ED	Energy Stakeholders, MEDIA MOF-ITD	Public seminar conducted with feedbacks documented. Fuel Prices, supply and usage information for local media published.	Annually From 2008	Govt financing / TA

Strategy 4.2: Encourage competition in the supply and distribution of fuel and ensure that products quality and storage facilities meet the required minimum national and international standards;					
Activities	Leading Agency	Participating Agency	Performance Indicators	Time Frame	Budget/ Source
4.2.1 Review the tender procedures for the Request for Proposals (RFP) with the view to attract more suppliers.	MOF – ED	Consultants	Timely advertisement and wider coverage (including international) of the tender advertisement. Increased number of suppliers bidding for the Fuel supply and distribution.	2008	ST\$40,000 Govt financing / TA
4.2.2 Develop a standard fuel supply contract agreement.	MOF – ED	AG, Potential Oil companies, Consultants	Fuel supply contract agreement in place and enforced.	2008	ST\$40000 - Govt
4.2.3 Conduct awareness training on the safety issues pertaining to handling, transportation, storage, quality and use of petroleum products. (link to 2.2.1)	MOF – ED	SFSA, MWTI, NGOs, OCs, COC, All Relevant Stakeholders	Awareness campaign conducted	Annually From 2008	ST\$5000G ovt financing / TA
4.2.4 Put in place a transparent fuel management system.	MOF – ED	OCs, Consultants	Fuel management system in place. Minimum stock maintained	2008	Govt financing / TA
4.2.5 Identify training opportunities for local staff on contract negotiations including attachments to relevant institutions.	Energy Division,	Consultants, PSC, MFAT - STSC	Energy Division staff complete training in contract negotiations. Short training attachments with relevant institutions	2009	Govt financing / TA

			arranged.		
Strategy 4.3: Promote the use of bio-fuels and other alternative energy sources to reduce dependency and emission from fossil fuel.					
Activities	Leading Agency	Participating Agencies	Performance Indicators	Time Frame	Budget/ Source
4.3.1 Investigate and assess potential for bio-fuels and other alternatives available in the country to substitute petroleum products (link to 2.1.2, 3.5.1 and 5.3.1)	MOF – ED	EPC, consultants, RDIS, WIB, MWTI, MWCSO, SUNGO, MNREM, MAF, SWA, SAME	Potential alternative fuels investigated and assessed.	2008 - 2010	Govt financing / TA
Strategy 4.4 : Enhance public knowledge and understanding on efficient use and environmental impacts of fossil fuel and the move to Renewable Energy.					
Activities	Leading Agency	Participating Agencies	Performance Indicators	Time Frame	Budget/ Source
4.4.1 Conduct public awareness campaign, to educate on the efficient use and adverse impacts of fossil fuels and the move to Renewable Energy (link to 2.2.1)	MOF – ED	MNREM, MAF, EPC, MWTI, , MESC, MWCSO, NUS, SSC, SSS, SAA, SWA, STA, OCs, OE, BOC, NGOs , RDIS, SAME, COC, SBC, Development Partners	Public awareness conducted	Annually From 2008	ST\$5000 Govt financing / TA

5. Transport

OBJECTIVE: **Efficient, sustainable and cost-effective transport sector.**

Strategy 5.1: Regulate the importation and use of environmentally friendly and energy efficient vessels, motor vehicles and aircrafts;					
Activities	Leading Agency	Participating Agencies	Performance Indicators	Time Frame	Budget Indication
5.1.2 Review tariff and registration costs for importation and usage of different modes of transportation.	MWTI	MOF – ED , MWTI, AG, MNREM, MOR, Consultant	Review completed and report available.	2008	ST\$10,000 Govt financing/ TA
Strategy 5.2: Promote fuel efficiency in land and sea transport and ensure systems are reliable, efficient and affordable;					
Activities	Leading Agency	Participating Agencies	Performance Indicators	Time Frame	Budget Indication
5.2.1 Conduct an awareness campaign on fuel efficiency in land and sea transport. Link to 2.2.1	MOF – ED	MWTI, MNREM and all transport stakeholders	Awareness campaign conducted	Annually From 2008	ST\$5,000 Govt financing / TA
5.2.2 Review current transport systems on their reliability, efficiency and affordability.	MWTI	MOF – ED, Consultants	Transport system review completed	2009	Govt financing / TA

Strategy 5.3: Promote the use of bio-fuel as a substitute for imported fossil fuels to reduce greenhouse gas emissions and social impacts from fossil fuel;					
Activities	Leading Agency	Participating Agencies	Performance Indicators	Time Frame	Budget Indication
5.3.1 Utilise the results of the assessment in 2.1.2 and 4.3.1 on bio-fuels for transportation.	MOF – ED	MOF, EPC, MWTI, PPS, Consultants	Number of vehicles running on bio-fuel. Bio-fuel used as an alternative fuel for transportation.	2008	Govt financing / TA
5.3.2 Conduct an awareness campaign to promote the use of bio-fuel to reduce GHG and its social impacts compared to fossil fuel (relevant also to RE and Petroleum Sections) (Link to 2.2.1)	MOF – ED	MWTI, MNREM, EPC and all transport stakeholders	Awareness campaign conducted	annually	Govt financing / TA
Strategy 5.4: Enforce national and international safety regulation when storing and refuelling land, sea and air transport.					
Activities	Leading Agency	Participating Agencies	Performance Indicators	Time Frame	Budget Indication
5.4.1 Review National and International safety regulations for storing and refuelling land, sea and air transport	MOF – ED	AG, MNREM, MWTI, PPS, SFSA, SSC, SSS, consultants	National and International safety regulations review completed.	2009	Govt financing / TA
5.4.2 Conduct regular inspection of storage and refuelling facilities (relevant also for petroleum safety standards)	MOF – ED	AG, MNREM, EPC, MWTI, PPS, SFSA, SSC, SSS, consultants	Regular inspections conducted	Bi-annual From 2009	Govt financing / TA