Elementi per la stesura del Rapporto del Segretario Generale dell'ONU richiesto dalla risoluzione su Clima e Sicurezza dei Piccoli Stati Insulari del Pacifico.

Italy is carrying out, since May 2007, a Cooperation Programme on climate change and environment with 14 countries of the South Pacific Small Islands Developing States (South Pacific SIDS), namely: the Cook Islands, the Republic of the Fiji Islands, the Republic of Kiribati, the Republic of the Marshall Islands, the Federated States of Micronesia, the Republic of Nauru, Niue, the Republic of Palau, the Independent State of Papua New Guinea, the Independent State of Samoa, the Solomon Islands, the Kingdom of Tonga, Tuvalu, and the Republic of Vanuatu.

The objectives of the program, which reflect the priorities established by the Governments of the Pacific SIDS, are the development of measures to adapt to the adverse effects of climate change, the development of local renewable energy sources and biofuels as well as the wide dissemination of their use to address energy security while increasing access to energy services, reduce emission of green-house gases, and strive for sustainable transport. Moreover, the program is designed to strengthen national capacities for the establishment of national energy policies and strategies, as well as markets, and to ensure sustainability through the development and deployment of specialized human resources at both the national and community levels. The implementation of the program is designed to be carried out with the involvement and support of the beneficiary communities.

Protection from and adaptation to the adverse effects of climate change as well as mitigation of harmful emissions generated by energy utilization, are priorities established by the governments of the Pacific Small Island States. Energy however is a key driver of economic growth, with a significant bearing on education, environment, health and social welfare; thus energy and sustainable development need to be integrated and prioritized in national strategic development plans. The Pacific Small Island States have recognized the need for all to have national energy policy and action plans in place to ensure that energy initiatives are in line with national expectations.

The status of urgency of the South Pacific SIDS consequent to climate change effects is reflected in the following components of the Cooperation Programme that represent the priority areas in which intervene through project's activities:

1. **Development of climate change adaptation measures**

The Pacific region is the site of the most intense and important climate variations that have consequences that impact the whole planet, and is the site of special vulnerability for the small island community and states. The islands are in fact vulnerable to long term climate change, especially sea level rise, land degradation and changes in the intensity, distribution and prevalent paths of tropical cyclones. The sub-programme will include:

- Assessment of current and future climate changes in the tropical cyclones distribution, intensity and frequency;
- Experimental dynamical seasonal forecasts;
- Expansion of the periodic bulletin of climatic information for small islands – the "Island Climate Update" – to include more information and adding a special "Yearly Climate Assessment" of climate change in the region;
- Setup and strengthen early warning systems.

2. **Assessment of energy requirements and strengthening of energy policies and action plans**

- Technology assessment of energy requirements and infrastructure in the mid-and long-term and of the most appropriate renewable energy mix capable of meeting those needs;
- Advise and technical assistance for the development of sustainable transport technologies, including non-motorized solutions, in order to reduce pollutants and GHG emission;
- Development of human resources specialized in the planning, implementation and management of energy policies, strategies and plans;
- Strengthen the participation of all actors in the design and implementation of renewable energy policies and practices, in particular of rural women;
- Strengthen national capacities for the development of national and regional energy markets, as well as of the appropriate financial instruments;
- Energy Data collection and analysis.

3. **Rural Electrification**

There is a pressing need to increase access to electricity for lighting, water pumping, telecommunications, medicine cold storage, etc., especially in the remote communities in the outer islands where there is currently limited or no grid.

- the photovoltaic technology – new installations and rehabilitation of existing facilities – is foreseen as the most suitable technology in those islands where solar energy is the most abundant renewable source;
- other renewable energy technologies – such as minihydro and wind – will be developed in accordance with the local potential;

4. **Development of biofuels**

A variety of locally grown crops have considerable potential for production and utilization of biofuels for the local transportation and power generation – ethanol from sugarcane, cassava and breadfruits; coco diesel from copra.

- Assessment of the viability of biofuel production from diversified local sources;
- Feasibility studies and pilot projects/testing for the utilization of biofuels for local transportation and power generation /;
- Technical studies and process analysis for biofuels production.

5. **Development of renewable energy sources**

The pacific region has in general a considerable potential for a variety of renewable sources – biomass, geothermal, hydro, solar, tide, waves and wind. According to each country priorities, the programme will include the following feasibility studies and pilot projects:

- Photovoltaic stand-alone electrification in urban areas;
- Photovoltaic integration into the national grid;
- Wind energy data collection and resource assessment;
- Biogas from household waste and waste management;
- Assessment of the geothermal, tidal and wave power generation potential;
- Small Hydropower resource assessment.