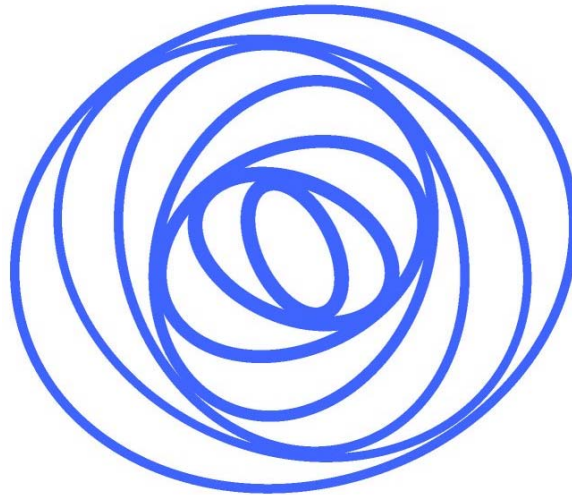


Exchange of Early Career Scientists in the Pacific Region

Feasibility Study

Scientifiques Sans Frontières Australia

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Executive Summary

This details the development of an exchange program of early career scientists between educational and research institutions in the Pacific Region. Scientifiques Sans Frontières Australia is dedicated to creating an extensive exchange network of early career scientists, as part of the backdrop of SSF Australia's overall key objectives of enhancing scientific learning in the Asia-Pacific region. This document covers the initial feasibility study to determine the requirements of the exchange program, details of the exchange proper and funding arrangements. It is aimed that the exchange will transfer its first proper early career scientists within two years. The outcome of which is for scientists from developed institutions to undertake teaching, research and out reach in their host institution and scientists from developing institutions to undertake research and outreach in their host institution. The goal of the exchange is to educate scientists at all levels of the expertise and needs of various institutions throughout the Pacific region.

Program Overview

The purpose of the exchange is to develop scientific research and education in the Pacific region, and to encourage scientists to dedicated time in their career towards improving scientific endeavours in the developing world. Focusing on the Pacific region, many of the tertiary educational and research institutions suffer from a range of problems. These stem from isolation and funding of these institutions, as well as their limited international profile. The isolation in particular is a major problem, with educators and researchers limited in their face to face contact with peers, restricting their ability to develop skills, exchange ideas and seek advice. Furthermore, they do not readily able to engage in development, such as attend conferences or engage in fundamental research, due to funding restrictions. While some of the issues of isolation have been overcome with the application of technology, a good example of this is the University of South Pacific USPNet; limited access to international science is still a major obstacle in the development of a scientific community in the Pacific.

The framework of the program is dedicated to invest in the transfer of knowledge to developing scientific institutions in the Pacific region. This will be achieved through the exchange mechanism. Developing institutions will have increased access to world class research, improved contact with scientific knowledge and educational material, potential for research collaborations, and provide increased opportunities for their graduates. Developed institutions will have potential for collaborative research, access to a wider body of motivated scientists and allow their scientists to utilise their skills in a compassionate manner.

The feasibility study / trial exchange has been undertaken to determine the viability of the program, as well as the necessary resources and skills required to conduct a successful exchange. The feasibility study will consist of two parts; discussions with the various institutions to determine requirements and a trial exchange, where the participant will undertake a research and/or out reach role.

The exchange proper is envisaged to consist of two early career scientists from both developed and developing countries undergoing a 2-6 month placement. The time period is dependent on position, availability and commitment of candidate, as well as financial support.

Scientifiques Sans Frontières Involvement

This program meets the twin aims of SSF Australia, that of development of science in the Asia-Pacific region, and the transfer of scientific knowledge. SSF Australia is expected to be the liaison organisation between the institutions, organising and coordinating the participants, timeframe and resources required. It is expected that the program be only open to SSF members initially. This is because the program will be the international flagship of SSF, and a good membership recruitment advertisement.

SSF Australia current commitment is to develop the exchange program at the trial level. This includes both financial and logistical support to the member undertaking the study. Technical, educational and possible out research support is to come from existing research institutions, the details of which are still to be determined. Evaluation of the feasibility study will determine the direction of the exchange program proper in terms of resources and support from SSF Australia.

Feasibility Study of Exchange Program

The purpose of the feasibility study is to evaluate the possibility of an exchange and the required resources to ensure a successful ongoing exchange program. The study will determine the likely roles participants will have in their exchange institution, e.g. research, education and outreach, the discipline and level of expertise needed to meet the expectations of the exchange, as well as other external support.

The study had two components; firstly a tour of the various scientific institutions in the developing countries of the Pacific. This allowed detailed discussion on requirements, commitments and criteria of participants. A significant outcome is expected to be the desire of the participating institutions.

The second part of the feasibility study was a trial exchange, where the participant will assist in educational outreach and if possible research. This will allow direct evaluation of the role and therefore the needs, problems and resources of the exchange program proper.

The timeframe of the feasibility study was two months, during which the following objectives were met:

- Evaluated the scope of the exchange program.
- Determined the expectations of participating institutions.
- Assessed the expected positions/roles of exchange participants.
- Determined initial goals of the first exchanges, and expected timeframe to meet these.
- Evaluated the level of expertise required of candidates in each position/role.
- Determined the financial commitment required, as well as other logistical support.
- Evaluated the performance of the trial exchange, especially methods of improvement.
- Established benchmarks for exchange success and review process.

Associated Problems at Feasibility level

Two sources of problems were highlighted during the feasibility study that would impact on the success of the program; the candidate's expertise and experience are not adequate to the task they are expected to fulfill, and the necessary resources are not in place. These problems can seriously affect the success of the program, since they can result in the candidate essentially achieving nothing, especially during the trial exchange period.

Procedures to overcome this:

- Selection of candidates must be detailed, with expertise and knowledge evident in the field to which they are being sent, with international travel experience vital.
- Induction training of candidates before the exchange, to make aware of both the expectations and possible shortcomings.
- Linkage with another organisation that can provide support.
- Detailed determination of resources SSF can provide, and the logistics behind getting them to the necessary institutions.

Other factors may pose problems to the success of the exchange, some are; reduced funding, political instability and health emergency.

These can be a liability for SSF Australia, and a proper risk management procedure needs to be enacted before the study begins. The easiest way to mitigate the liability is to associate with a government organisation or another funding source which takes on the responsibility. SSF Australia may not be in a financial position to cover the insurance premium if the program is run independently.