Global Climate Change Alliance: Pacific Small Island States Case Study

- **Kiribati SODIS campaign - What it takes to change behaviour.**

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1. INTRODUCTION

This case study is one of three produced as part of the Global Climate Change Alliance: Pacific Small Island States post-project evaluation[1].

The Global Climate Change Alliance: Pacific Small Island States (GCCA: PSIS) Project is a European Union (EU) funded initiative to assist nine smaller Pacific Island states (Cook Islands, Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Niue, Palau, Tonga and Tuvalu) to adapt to climate change. The project was implemented by the Pacific Community (SPC), with an implementation period from July 2011 through to November 2016[2].

The overall objective of the project was to support the governments of nine small island states of the Pacific in their efforts to tackle the adverse effects of climate change.

The GCCA: PSIS project consisted of on-ground climate change adaptation activities in specific sectors – coastal protection, marine resources, health, agriculture, and freshwater; supported by mainstreaming of climate change into national and sectoral policies, plans, budgets and procedures. The project also provided technical assistance, capacity building and supported regional collaboration.

The four components and key result areas (KRA) of the project were:

1. Climate change mainstreamed into national and/or sector response strategies.
2. Well-articulated sectoral adaptation strategies that address budget support criteria.
3. National climate change adaptation projects implemented.
4. Streamlined technical assistance that supports national adaptation responses delivered by regional organisations in a collaborative manner.

The case study presented below capture key best practices found by the evaluation consultants during their field trip to Kiribati.

[1] The evaluation report is presented as a full report containing all sections, as well as separate executive summary, individual country evaluation summaries and case studies.
[2] The project was granted a one-year extension.

2. KIRIBATI SODIS CAMPAIGN - WHAT IT TAKES TO CHANGE BEHAVIOUR

The effectiveness of the SODIS community behaviour change communications campaign in Kawan Bairiki stood out as a key achievement in the SPC GCCA: PSIS Kiribati project. This case study reviews the factors that made the SODIS campaign successful.

Solar Water Disinfection System (SODIS)

SODIS is an effective, environmentally sustainable, low-cost solution for drinking water treatment at a household level.

The process of SODIS uses solar energy to destroy pathogenic micro-organisms that cause waterborne diseases. Untreated water is poured into clean PET plastic bottles and exposed to the sun's UV rays for a prescribed period of time.

Many development projects seek to change the behaviour of a target group. Their plans often include an 'information and awareness campaign' that is thought to be enough to drive behaviour change. Such campaigns may help increase awareness and knowledge about an issue, but they are rarely effective in changing behaviours. This case study demonstrates a more effective approach based on behavioural change.

2.1 Background

The SODIS community behaviour change communications campaign (SODIS campaign) was one component of the broader SPC GCCA: PSIS Kiribati project that aimed to contribute to the prevention and control of climate sensitive diseases through improving environmental health surveillance and response. The campaign was designed by a technical expert from SPC who was experienced in behaviour change and aware of the need to allow sufficient time and cost to do behaviour change properly. The campaign started in November 2014 and it was facilitated by the Environmental Health Unit (EHU) of the Ministry of Health and Medical Services (MHMS).

The SODIS campaign was designed and implemented in the Kawan Bairiki community in South Tarawa during 2014/2015. The campaign encouraged community members to use SODIS to treat water for potable use. The campaign also encouraged the use of tippy-taps with soap to improve hygiene standards. Prior to SODIS, the community would boil water sourced from the main water reticulation system and underground wells or drink untreated rainwater. The desired outcome from using SODIS was a reduction in the incidence of water-related diseases and associated deaths in children with specific focus on reducing the prevalence of diarrhoea.

2.2 Results Summary

The campaign was highly effective and a summary of results is presented below:

- 76% of households in Kawan Bairiki were using SODIS four months after the campaign started, and 85% after seven months. In some selective areas the uptake was as high as 90%.

- Preliminary health clinic data indicates a reduction in reported cases of diarrhoea (235 cases per month baseline, reduced to 163 cases per month with intervention[3]).

Other secondary benefits from using SODIS include:

- increased school attendance as a result of reduced sickness in school-aged children;
- increased household savings as a result of reduced expenditure on kerosene used for boiling water;
- reduced time women need to manage the boiling of water; and
- increased eye health of women and reduced skin rashes and respiratory disease (coughing) in the absence of kerosene/firewood smoke.

The adoption of SODIS should continue to grow with it being promoted by key government departments, other aid projects and through its inclusion in the Year 5 school curriculum. Community groups and kava bars are also being used as venues to promote SODIS.

2.3 Why was the SODIS campaign effective?

The SODIS campaign was effective because it followed best practice behaviour change theories and frameworks in its design and implementation. Theories and frameworks that the campaign drew from include the Stages of Change model[4]; Theory of Planned Behaviour model[5]; and Community Based Social Marketing framework[6].

Best practices demonstrated by the SODIS campaign are documented in the table below.

Best practices	**SODIS campaign**
High degree of community engagement in project design and implementation.	Five workshops held to build capacity in behaviour change and to develop the actual campaign.
Clearly identify the behaviour the project wishes to encourage or discourage.	Community identified the use of SODIS and tippy-taps as the desired behaviours to achieve a decrease in water-related disease. SODIS was selected after exploring and trialling alternative solutions.
Identify target audience.	Mothers and fathers of children (under five years) aged between 20 – 35 years.
Identify and reduce barriers for the uptake of the new behaviour[7].	Audience research was conducted. Knowledge of and trust in SODIS were identified as key barriers.
Increase and promote the benefits from undertaking the desired behaviour.	Multiple health benefits of using SODIS were promoted. Time and cost savings benefits were also communicated.
Develop, test and refine communications messages and tools to encourage the new behaviour.	Culturally appropriate communications tools in i-Kiribati language to embed the communications messages were created.

[3] Figures represent number of cases per month averaged out over the periods January- September 2014 and January- September 2015

[4] http://www.prochange.com/transtheoretical-model-of-behavior-change

[5] http://sphweb.bumc.bu.edu/otlt/MPH-Modules/SB/SB721-Models/SB721-Models3.html

[6] http://www.cbsm.com/

[7] Barriers can also be increased for behaviours a project wishes to discourage.

	Posters were created that act as prompts to perform SODIS and remind people of the steps to follow. Fact sheet provide more detailed information to demonstrate SODIS is effective and safe. Videos help communicate the information in an engaging (visual and oral) medium. T-shirts and bags help create visibility. A card game helps make learning about SODIS fun. All products featured the SODIS logo and tagline. Tools were tested with the target community and improved.
Create an enabling environment to make it possible, easy and convenient to undertake the new behaviour.	SODIS starter kits were handed out to some households. A free supply of PET bottles for SODIS was made available.
Build self-belief (efficacy) that target group can do the behaviour.	Training events in the community help to demonstrate SODIS and have the community practice SODIS. Water champions (discussed in detail below) assisted community members practice SODIS to build their confidence and help enshrine the behaviour into a daily routine[8].
Make the desired behaviour appear to be the 'normal' thing that everyone does. This reinforces the acceptability of doing the behaviour and encourages new people to try it.	Water champions practised SODIS in full view of the community on specially designed and labelled SODIS tables at least three days a week. SODIS is a very publicly visible behaviour and this helps make it appear to be a new normal behaviour that everyone is adopting.
Monitoring and evaluation to identify what works and continually improve.	The effectiveness of the campaign was monitored on a fortnightly basis through water champion reports and reflection meetings. A base-line and post-campaign Knowledge Attitude Practices (KAP) survey helped to quantify the results and obtain lessons. Disease incidence data from the local health clinic was obtained to provide an indication of project impact.

Water Champions

A key element of the behaviour change campaign was the use of six water champions. The water champions were publicly visible with their signed SODIS tables and daily demonstrations. They were present at the SODIS tables for contracted times during the week and explained SODIS to people passing by and helped people start SODIS in their household. Champions also visited near-by homes to persistently promote SODIS. They were able to share success stories from other local community members that the target person knew. Champions were able to answer questions from the community and explain why SODIS worked. Water champions were effective because they were known and trusted members of the community (not outsiders). They were persistently present and visible over a four-month period.

[8] Generally speaking, new behaviours need to be practiced and repeated over a 66 day period before they start to become adopted and the likelihood of continuation is increased. Source: http://www.spring.org.uk/2009/09/how-long-to-form-a-habit.php

2.4 Challenges and responses

The project experienced a number of challenges in its attempt to encourage SODIS.

Trust

SODIS is endorsed by the WHO and been used around the world for decades. This was the first time SODIS has been used in Kiribati or the South Pacific region. There was initial mistrust about the effectiveness of SODIS both at the government and community level.

Common initial government and community perceptions about SODIS:

- How can this work? It is too simple.
- If it works, then why have we not been told about it in the past?
- Promoting SODIS could make health issues worse if it doesn't work. It is a risk for us.

An overseas expert that could be trusted by the government and community was brought in to conduct scientific research in Kiribati to prove SODIS was effective and safe. The expert also helped to communicate the results and explain why SODIS worked. This helped the government gain enough trust in SODIS to endorse it. SODIS videos (local and international) also helped convince community members that SODIS was safe and effective.

Existing behaviours and beliefs

Over many years the community have been told by the government and external experts to boil water to make it safe. Entrenched practices like this are hard to change. The SODIS campaign did not discourage boiling water, but instead encouraged households to try SODIS to see if it worked. During days when there is constant heavy rain and clouds, using SODIS is not effective so other methods (boiling water) for treatment are required and recommended.

Lack of water

Kawan Bairiki, like most communities in South Tarawa, has limited access to water from the Public Utilities Board (PUB) with water available for two hours every second day, but often no water until the third day. This limited access to water remains a barrier for communities to use SODIS or other methods of water disinfection.

2.5 Conclusion

An effective behaviour change campaign needs to be carefully planned following best practice behaviour change processes, models frameworks and tools. Projects need to be prepared for the additional time required to research, design and implement effective behaviour change campaigns.

The Kiribati SODIS campaign demonstrates the power of going beyond 'information and awareness' to change behaviours with assistance from:

- behaviour change professionals (or practitioners) to help set up the programme;
- grass-roots community involvement in selecting the preferred intervention and designing the behaviour change campaign;
- water champions to demonstrate and encourage the new behaviour;
- interventions to create an enabling environment and reduce the barriers to performing SODIS through starter kits and PET bottle supply; and
- making the behaviour visible to the community to establish and communicate that SODIS is a normal behaviour that other people are practicing.

These considerations combined with a carefully designed and effective information and awareness campaign are the ingredients of a successful behaviour change campaign.