## Environmental Management Plan - DRAFT CDWAI Phase II Kirapim Kaikai na Maket

# 5 Sustainable Development Goals for Phase II Kirapim Kaikai na Maket

SDG 1 End poverty in all its forms everywhere

SDG 2 End hunger, achieve food security and improved nutrition, promote sustainable agriculture

SDG 3 Ensure healthy lives and promote wellbeing for all at all ages

SDG 4 Ensure inclusive, equitable quality education and promote lifelong learning opportunities for all

SDG 5 Achieve gender equality and empower all women and girls

# Planetary Health

The 17 Sustainable Development Goals are a set of priorities and aspirations to guide all countries in tackling the world’s most pressing challenges, including ending poverty and hunger; protecting the planet from degradation and addressing climate change; ensuring that all people can enjoy prosperous, healthy and fulfilling lives and fostering peaceful, just and inclusive societies free of fear and violence. [[1]](#footnote-1)

The SDGs continue the work of the Millennium Development Goals, MDGs, which were the 8 [international development](https://en.wikipedia.org/wiki/International_development) [goals](https://en.wikipedia.org/wiki/Goal) adopted at the Year 2000 United Nations [Millennium Summit](https://en.wikipedia.org/wiki/Millennium_Summit) in the [Millennium Declaration](https://en.wikipedia.org/wiki/United_Nations_Millennium_Declaration). All 191 [United Nations member states](https://en.wikipedia.org/wiki/United_Nations_member_states), and at least 22 [international organizations](https://en.wikipedia.org/wiki/International_organizations), committed to help achieve the MDGs by 2015.

In 2015 the Sustainable Development Goals replaced the MDGs. The SDGs cover a much broader range of challenges and emphasise the inter-linkages between the social, economic and environmental dimensions of sustainable development. They are relevant and applicable to all countries or vulnerable groups within countries.[[2]](#footnote-2)

Around the same time the SDGs were approved in 2015, the academic community launched the concept of Planetary Health, which received attention at the UN General Assembly as a potential framework for achieving SDG implementation. Planetary Health, put simply, is *the health of human civilization and the natural systems on which it depends*. At the heart of enacting this Planetary Health concept is a belief that divorcing economic growth from ecological impact is possible. Many find this difficult to reconcile, but precisely because of this challenge our research and practice must seek to understand the range of positive and negative connections among SDGs and ensure that progress made in some areas is not made at the expense of lack of progress in others.[[3]](#footnote-3)

The Environmental Management Plan below sets out to ensure that CDWAI activities in Phase II of 'Kirapim Kaikai na Maket' strengthen the health of both the Tsak Valley communities and their natural ecological systems. We are planning for a flourishing socio-ecology in the Tsak Valley.

# Environmental Management Plan, EMP

The EMP covers the design, setup, procedures and maintenance phase of each project activity with environmental impact. Having identified the key environmental impacts or issues across those project activities the EMP provides strategies and plans for managing them effectively. It identifies community seminars for the purpose of bringing communities to consider ongoing environmental management plans and finally, defines the family and community obligations for each of the activities.

# CDWAI Activities with Environmental Impact

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| Activity | Potential Environmental Impacts | Strategic Response |
| Tsak Enga  Yield Assessment trials | Overharvesting of wild sunflower fallows for garden mulch and compost hygeine | Seek community agreement for   * Family rights to wild sunflower fallows * Community fire management |
| Soil Saved trials | Buildup of topsoil through erosion control | Demonstrate yield response to top soil retention |
| Contour Hedgerow Trial | Spread of native and feral contour hedgerow species | Build community awareness of:   * Reafforestation kickoff by pioneer species * Value of local fire bylaws |
| Trial insect-proof nets for kaukau weevil control | Waste netting fouling streams and swamps causing degradation of aquatic environment esp' nurseries | Request community and TRWEF leaders to convene meetings to discuss plastic waste damage |
| Safanaka EHP  EHP Drought Adaptation Training | Contested use of swales & valley bottoms for drought avoidance irrigated gardens | Seek community agreement for   * Family rights to swales & valley bottoms * Floodway management |
| Contour Hedgerow Trial | Spread of native and feral contour hedgerow species | Build community awareness of:   * Reafforestation kickoff by pioneer species * Value of local fire bylaws |

# Background/ Socio-Ecological Problem

In many areas of the Highlands, the increasing population and therefore the decreasing area of arable land is becoming a major issue to many clans and their resident families. In areas of high population density like the Tsak Valley families have limited land for which they have rights to garden (usufructuary rights) so that the fallow periods of shifting agriculture have become shortened.

The same piece of garden land is used after only a period of rest, 1 or 2 or 3 years, during which regrowth of trees and shrubs for the bush fallow stage of shifting agriculture is inadequate for the buildup of humus, topsoil and accumulation of mineral nutrients from the subsoil. As a result the land cannot regain fertility so becomes unproductive and is plagued by weeds, especially kunai grass, *Imperata cylindrica*. Furthermore, patches of kunai are frequently burned or harvested leading to rapid soil erosion, drying up of springs, and disappearance of habitat for birds and predator insects important for pollination and control of insect pests.

Community Management Plans

In Phase I of 'Kirapim Kaikai na Maket' Tsak women gained awareness of the for safeguarding yields as climate forcing causes frequent droughts of one to several weeks duration with associated frosts, often followed by severe rainfall events. The women have begun using and educating other women and families to practice better garden hygiene (particular using clean vegetation for composting), to prepare and use their own sprays to control insect infestations and fungal infections and to use mulching, as well as composting, to build soil fertility. Some families are also beginning to practise soil conservation.

In Phase II a major concern of the CDWAI team will be to facilitate the Tsak Rural Women's Empowerment Foundation leadership to hold seminars with the women's group members and local leaders to reach community agreements and support from Village Court Magistrates, LLG Councilors and other clan big-men to pro-actively settle and prevent conflict between clans and families that would destroy family, or community, labour invested in soil conservation structures, drains and ponds dug for irrigation or drought avoidance food crops and planting and maintenance of contour hedgerows.

# The following table describes these key issues for community discussion to protect the positive gains that are resulting from CDWAI activities and to forestall the risks associated with the soil fertility and conservation activities that could lead to the indirect effect of further competition for garden land.

# Environmental Safeguards to follow during Activity Setup

In the set up stage for these project activities the CDWAI team will present to and discuss with TRWEF leadership, including the Ward Women Group Chairs, the potential direct and indirect environmental impacts of each activity. From there the TRWEF leaders, with the team, would convene discussions with the women's groups and wider community leadership. This will ensure that the women themselves will participate in the final design of activities and how the team will carry them out.

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| Activity | Key issues for Community Discussion | Environmental Safeguards |
| Tsak Enga  Yield Assessment trials | Chronic troubles of families contesting for gardening rights | * Protection of family labour investment in building soil fertility * Community Fire Management Plans |
| Soil Saved trials | Preservation of soil conservation structures in following fallow periods | * Protection of family labour investment in soil conservation |
| Contour Hedgerow Trial | Protection of hedgerows in fallows | * Protection of family labour investment in contour hedgerows * Fire Management Plans |
| Trial insect-proof nets for sweet potato weevil control | General ecological threat of plastic waste, especially to aquatic life forms | Education for disposal of plastic litter and waste |
| Safanaka EHP  EHP Drought Adaptation Training | Chronic troubles of families contesting for gardening rights | * Protection of family labour investment in irrigation blocks * Ensuring equitable access to low-lying land, swales & valleys |
| Contour Hedgerow Trial | Protection of hedgerows in fallows | * Protection of family labour investment in contour hedgerows * Fire Management Plans |

# CDWAI Team Objectives for the Environmental Management Plans

Almost all negative impacts from Phase II project activities are potential community conflict. For that reason our CDWAI team objectives are to work with the TRWEF to make all community leaders aware of what might happen in the worst case scenarios of risk for loss of labour and materials invested in soil improvement and conservation when families compete for garden land. To manage these risks and strengthen overall sense of community, and common vision for the future, we will encourage the clans and ward communities to debate and prepare 4 plans for keeping the community safe.

1. Negotiate clan agreements to keep fair and ongoing access by families to their fallow garden land, especially wild sunflower and other improved fallows
2. Draw up clan agreements for Councilors and Magistrates to register or recognise ongoing ownership of contour hedgerow blocks especially once they are in fallow gardens are harvesting
3. Negotiate clan agreements for fair and equitable access by families to swales and valley bottoms for irrigated drought avoidance food crops
4. Draw up Ward, Clan or Community Fire Management Plans

Since families and ward groups carry out project activities it is the responsibility of CDWAI to facilitate the families and ward women's groups to fulfil mutual obligations to one another.

1. ACFID Australia must go beyond business as usual on Sustainable Development Goals: New ACFID report, 2016 8 March https://acfid.asn.au/media-releases/australia-must-go-beyond-business-usual-sustainable-development-goals-new-acfid [↑](#footnote-ref-1)
2. SDNS, Getting Started with the SDGs in Universities, 2017 p6 [↑](#footnote-ref-2)
3. ## Dr Aaron Jenkins, Managing floods, faeces and fishes in Fiji: a nexus approach to achieving sustainable development goals.

   ## 2018 13 March, https://acfid.asn.au/blog-post/managing-floods-feces-and-fishes-fiji-nexus-approach-achieving-sustainable-development

   [↑](#footnote-ref-3)