



# TIWI ISLANDS SAVANNA BURNING FOR GREENHOUSE GAS ABATEMENT

**Carbon Farming Methodology** - Savana Burning

**Location and Map** - The Tiwi Islands are part of the Northern Territory, Australia, 80 km to the north of Darwin adjoining the Timor Sea. They comprise Melville Island, Bathurst Island, and nine smaller uninhabited islands, with a combined area of 8,320 square kilometres.

**Traditional Owners** - Tiwi people

## PROJECT SUMMARY

In 2009, the Tiwi Land Council commenced the Tiwi Carbon Study to understand Tropical savanna greenhouse gas emissions, above ground and below ground carbon storage, effects of fire management practises on the islands, and how fire abatement might support the Tiwi Islands, environmentally, socially, economically and culturally. This study led to the creation of the Tiwi Islands Savanna Burning for Greenhouse Gas Abatement project which was registered in 2016 with the Australian Government's Emissions Reduction Fund, allowing Tiwi people to earn carbon credits from their fire management.

Tiwi Island rangers conduct the burns as fire is an important land management tool for the Traditional Owners. Tiwi cultural values and knowledge relating to fire practice such as where, how and when to burn guide the project. As a result, the project involves strategic and planned burning of savanna areas in the high rainfall zones during the early dry season to reduce the risk of late dry season wild fires that emit large amounts of greenhouse gases. Specific activities include:

- Ground based burning supported by helicopter early in the dry season to reduce fuel loads and provide patches of burnt country that stop late fires from spreading; and
- Grading firebreaks and early roadside burning around assets such as plantations, outstations and sacred sites

## DIRECT OUTCOMES OF THE PROJECT

- Total Number of Australian Carbon Credit Units (ACCUs) issued to date is 126,035.
- Active fire management mitigates the risk and impacts of late season, destructive wildfires.

## WHAT CO-BENEFITS DOES THE PROJECT DELIVER?

- The income from the project helps provide support to develop sustainable livelihood opportunities for Tiwi people that meet their economic, environmental, and cultural needs.
- Income from carbon sales contributes to the continued employment of Tiwi Rangers (Traditional Owners).
- The project protects Tiwi Islands' exceptional biodiversity values, which are of national significance and remain an integral part of the cultural heritage of Tiwi people.
- Tiwi College students join the Tiwi Rangers in fire management activities, continuing important transfer of Traditional Ecological Knowledge by senior rangers.
- Active fire management protects important Tiwi assets such as plantation forests and cultural and sacred sites of significance.
- Protection of local flora and fauna through removal of weeds that replace native vegetation and produce high fuel loads. These altered landscapes promote high intensity, late dry season fires leading to ecosystem degradation, habitat loss and species declines.

## NATIVE PLANTS

There are 20 different types of grasses and 29 shrubs found on the Tiwi Islands. Eriachne trisetata is the most common grass found at Imalu, Shark Bay and Taracumbi, and two species of Chrysopogon are found at Pickertaramoor. The Cycas armstrongii is also found on the Tiwis and this plant is of significance due to its 'Vulnerable' conservation status throughout the Northern Territory.

## NATIVE ANIMALS

Thirty-two bird species have been found in studies of birds on the Tiwi Islands including the Partridge Pigeon and Australia's rarest bird of prey, the Red Goshawk. The most common birds are the Rainbow Bee-eater, Varied Lorikeet and the Silver-crowned Friarbird.

Three snakes, ten lizards, five frogs and five small mammal species have also been recorded. The most common being the Bynoe's Gecko Heteronotia binoei, the Skink Glaphyromorphus darwinensis and the Delicate Mouse Pseudomys delicatulus. Two mammals of special conservation significance can be found: the Brush-tailed Rabbit Rat Conilurus penicillatus; and the Black-footed Tree Rat Mesembriomys gouldi.

Nearly 100 ant species have been found and some of these are not located anywhere else in the world. The most common ants collected were species of Iridomyrmex, Monomorium, Pheidole and Rhytidoponera.



*"Tiwi people have always understood and cared for country - but now we need to use new knowledge because the world around us is changing."*

Willie Rioli, Tiwi Land Ranger mentor and supervisor

## SUSTAINABLE DEVELOPMENT GOALS



### INCREASED WELL-BEING

For Aboriginal rangers and Traditional Owners whom the project benefits



### JOB OPPORTUNITIES

For local Indigenous communities



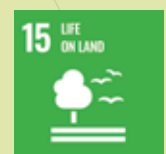
### RESTORING ACCESS

To Traditional Indigenous places of cultural significance



### 126,035+TCO2E

Avoided to date through avoided emissions of late season wildfires



### PROTECTION OF FLORA AND FAUNA

From the mitigation of late season destructive wildfires

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