



**World  
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# Update on *Wolbachia* mosquito releases in Pacific Island countries

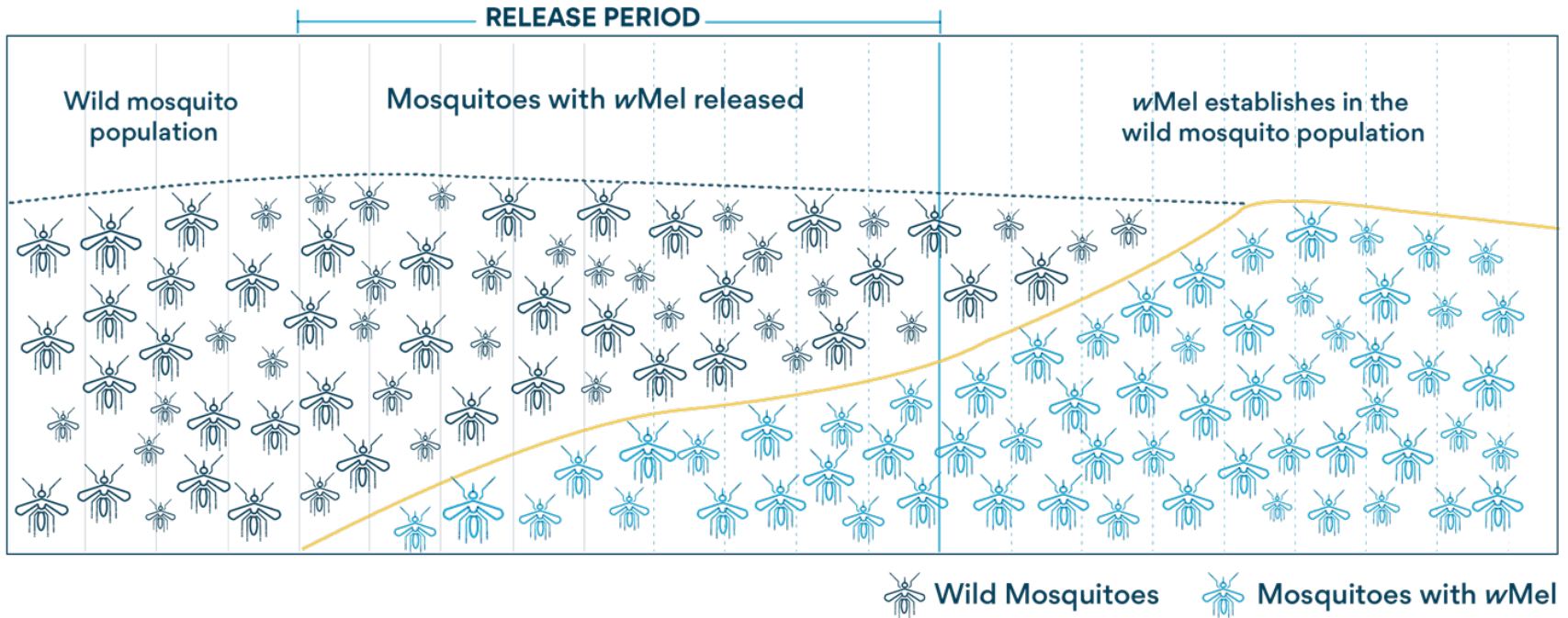
PacMOSSI Inception Meeting  
23 March 2022

# What is *Wolbachia*?

- Naturally occurring bacteria
- Transmitted from parent to offspring through the insect's eggs
- Safe for humans, animals and the environment
- **Reduces ability of *Aedes aegypti* mosquitoes to transmit disease (dengue, Zika, chikungunya)**



# Release of *Wolbachia* mosquitoes



Adult releases



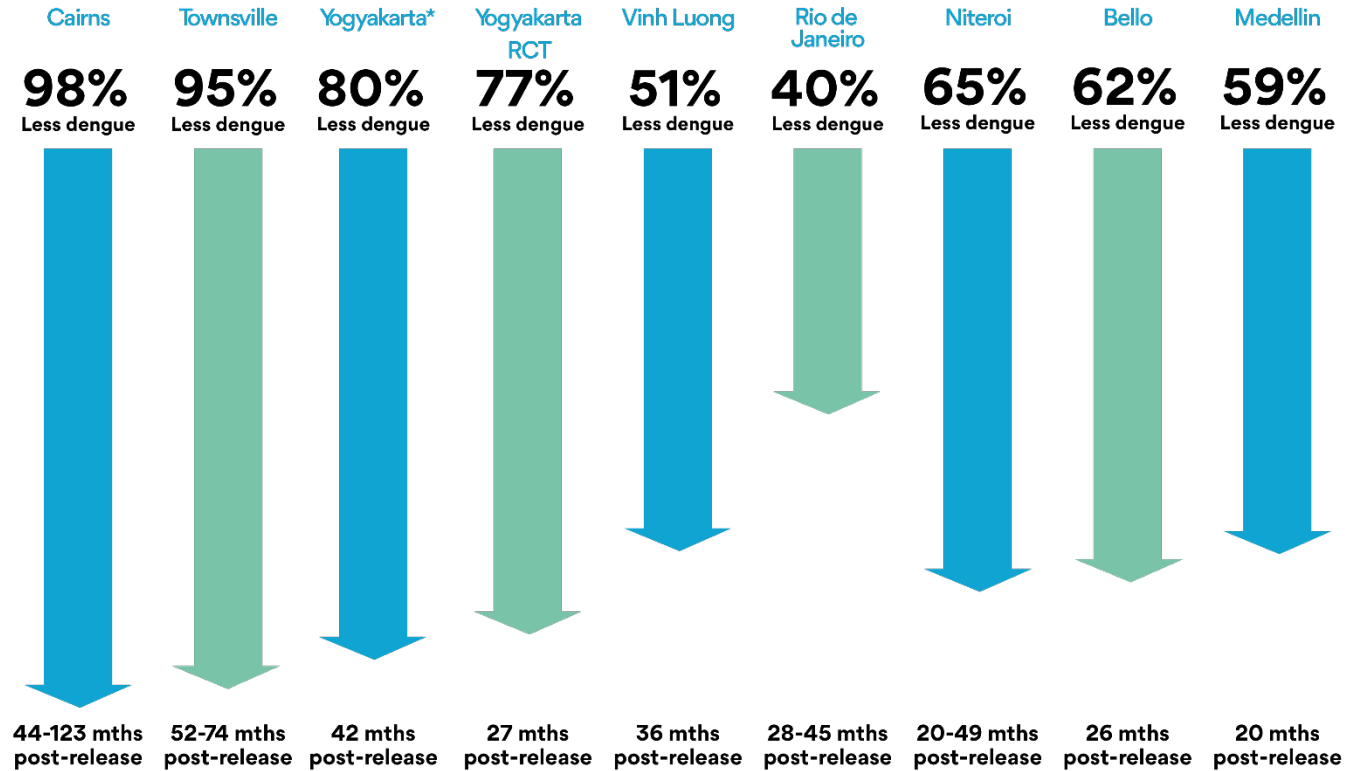
Egg releases



# Current Project sites



# Reduced dengue incidence in project sites



Preliminary results indicate that **chikungunya** is also significantly reduced with results showing a **54% reduced incidence in Niteroi, Brazil.**

# WHO Vector Control Advisory Committee\* recommends WHO commence policy guidance on the *Wolbachia* Method

- 1) *“Based on the evidence provided by the applicants, VCAG concludes that the evidence presented by applicants on wMel introgression into populations of *Aedes aegypti* demonstrates public health value against dengue. “*
- 2) *“.... VCAG considers that there are sufficient data for WHO to initiate the guidelines development process required to formulate a policy recommendation on the use of this wMel intervention for dengue control.”*
- 3) *The meeting marked the first time that VCAG has provided a positive assessment of the public health value of a novel vector control intervention class (reduced pathogen transmission induced by *Wolbachia*)...*

**\*Thirteenth meeting of the WHO Vector Control Advisory Group.**  
8 March 2021 | Meeting report



# Pacific Projects

- Vanuatu
  - Port Vila
- Kiribati
  - South Tarawa
- Fiji
  - Suva
  - Nadi
  - Lautoka
- New Caledonia
  - Noumea
  - Mont Dore & Dumbea



Rimon Photography

# Port Vila, Vanuatu

Releases July 2018 – March 2019



number of people reached

**54,000**

total area reached

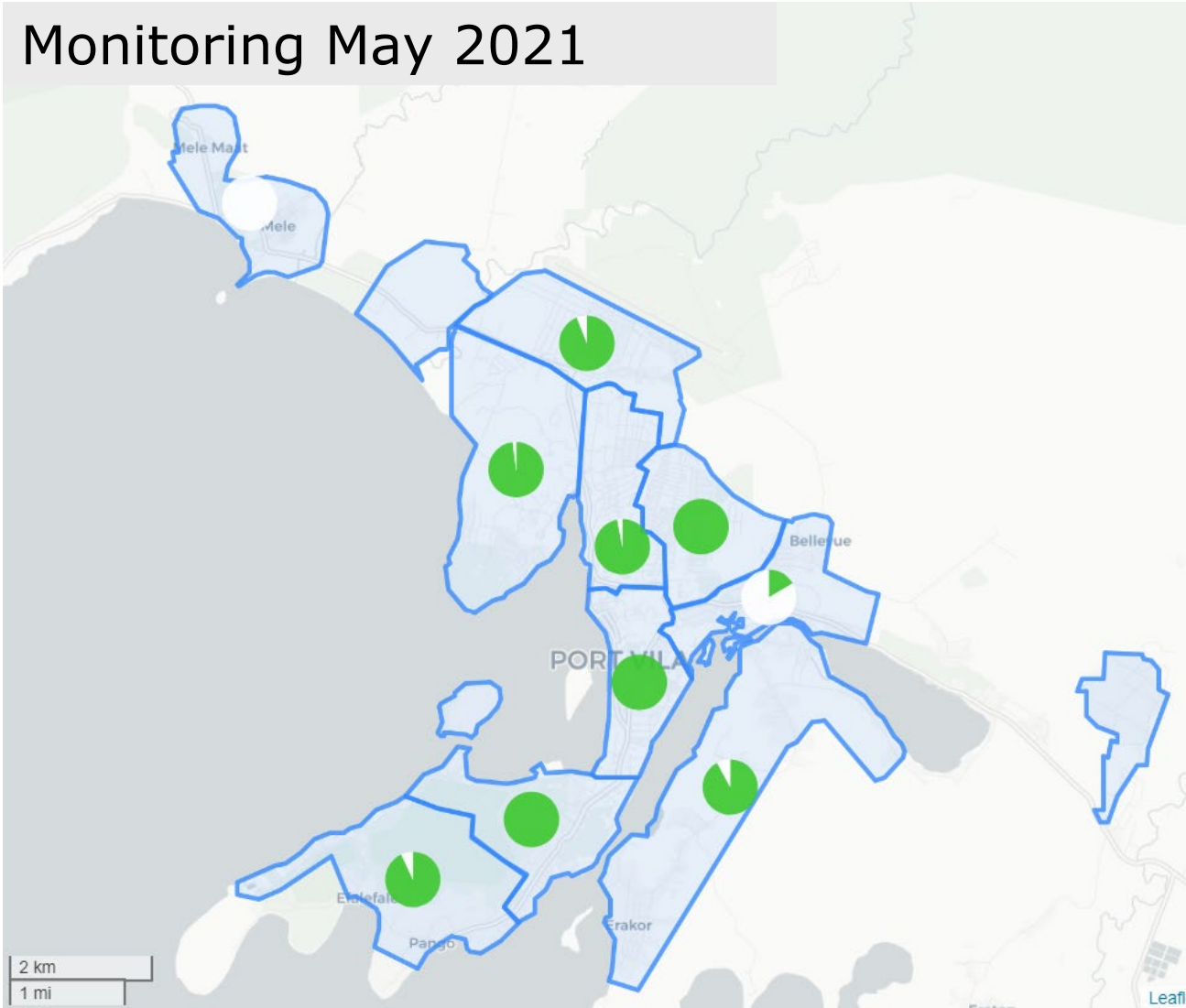
**38 km2**



**PUBLIC ACCEPTANCE**

**93%** measured by survey

## Monitoring May 2021





# Suva, Fiji

Releases July 2018 – August 2019



number of people reached

**244,000**

total area reached

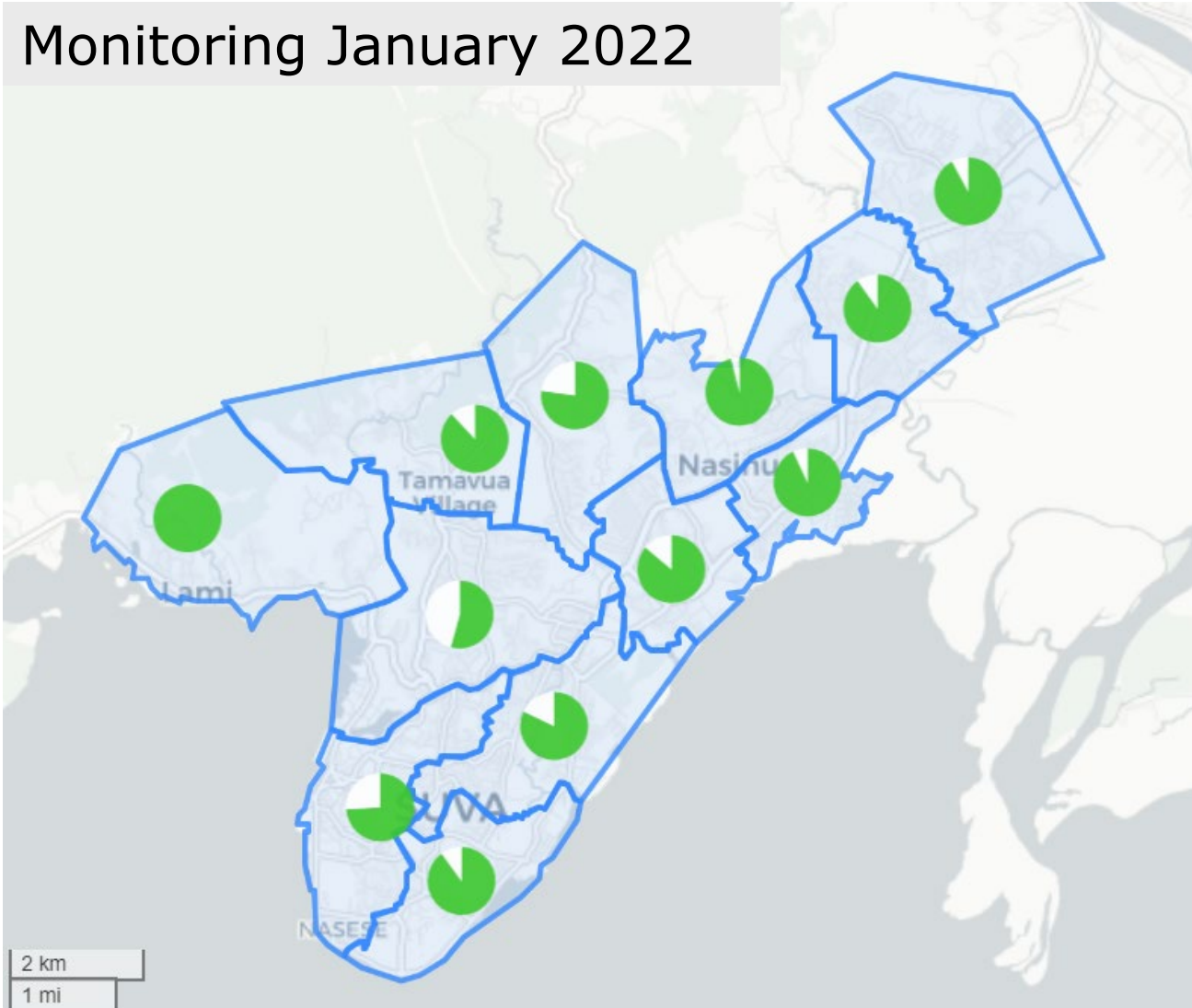
**74 km2**



**PUBLIC ACCEPTANCE**

**98%** measured by survey

## Monitoring January 2022



# Lautoka, Fiji

Releases May – December 2019



number of people reached

**53,000**

total area reached

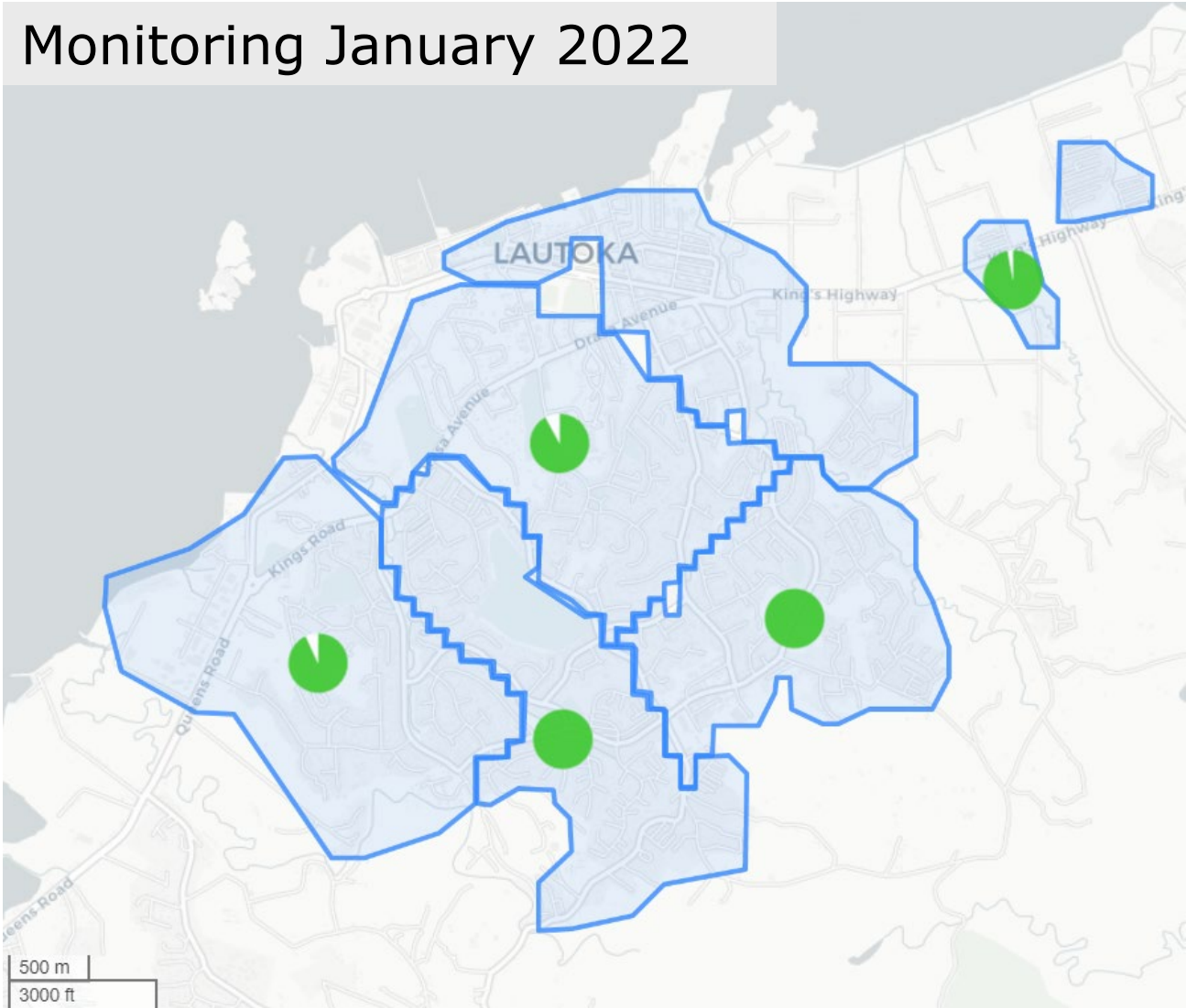
**15 km2**



**PUBLIC ACCEPTANCE**

**96%** measured by survey

## Monitoring January 2022



# Nadi, Fiji

Releases May – December 2019



number of people reached

**42,000**

total area reached

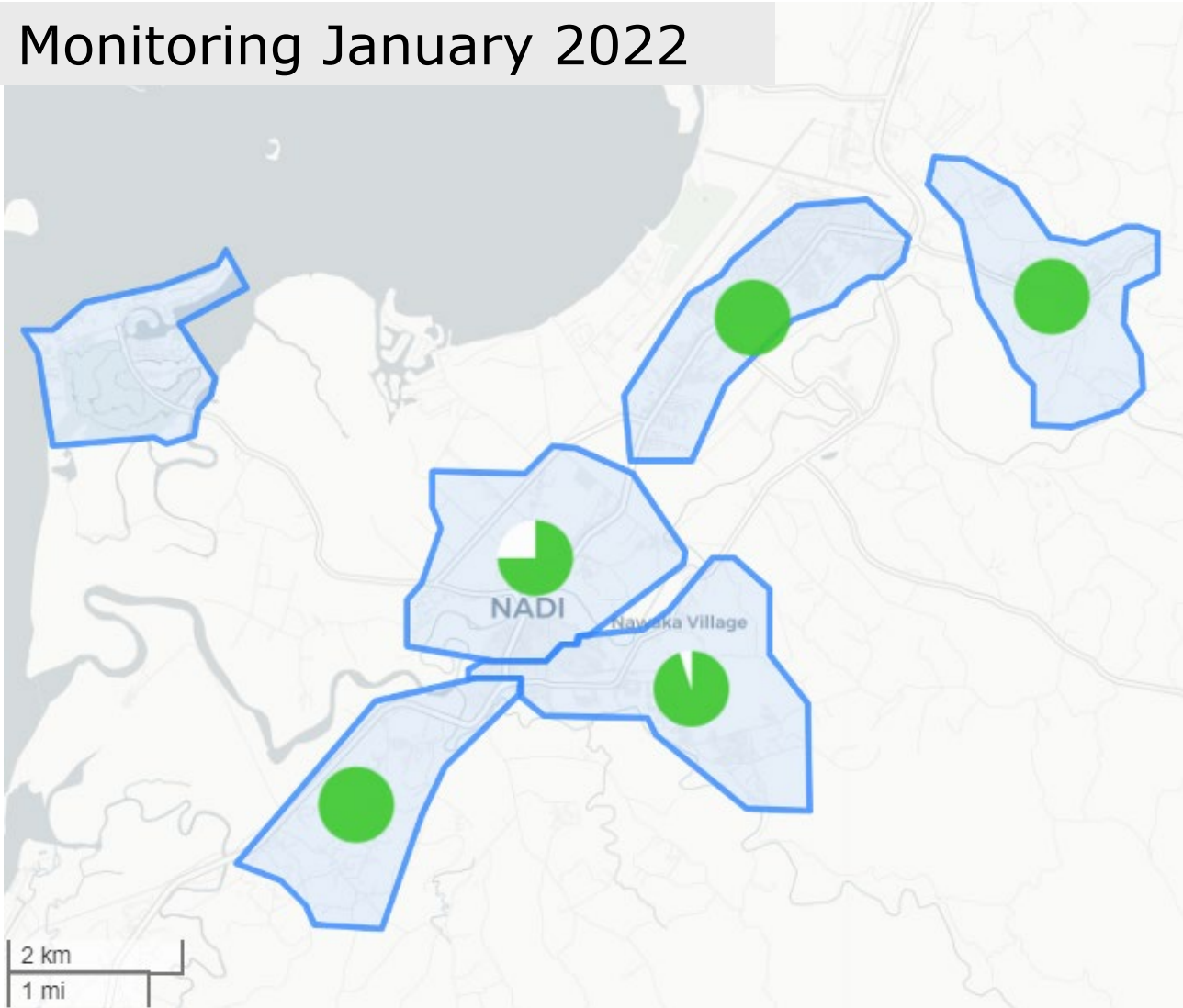
**27 km2**



**PUBLIC ACCEPTANCE**

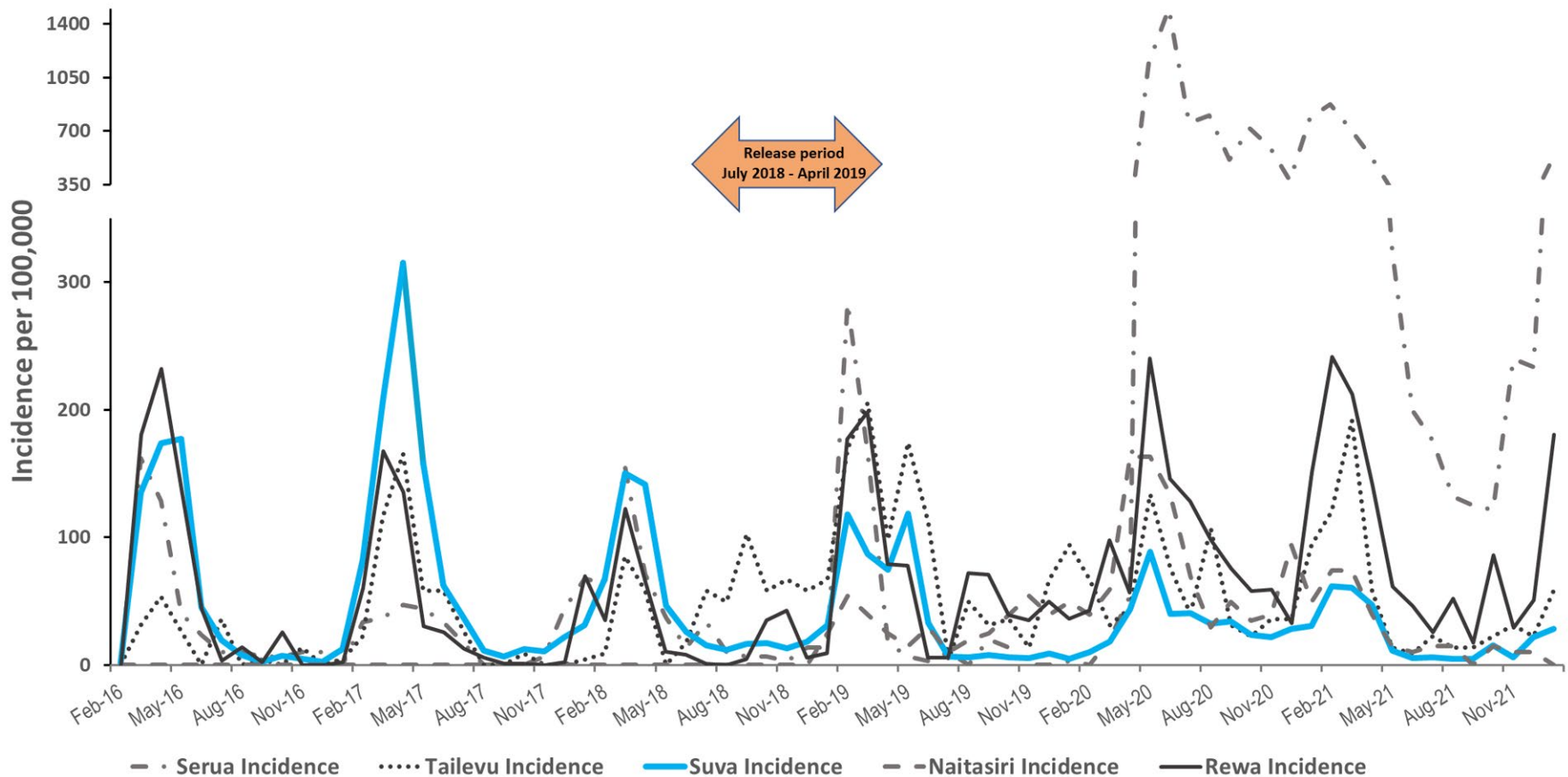
**97%** measured by survey

## Monitoring January 2022



**Dengue incidence in Suva has been lower in 2020-2022 than any time in last 6 years, and lowest among all Central subdivisions, whereas Suva ranked 1<sup>st</sup> or 2<sup>nd</sup> highest in all previous years**

**EWARS incidence of suspected dengue in Central subdivisions 2016 – Jan 2022**



# New Caledonia

Monitoring December 2021

## Mont Dore & Dumbea

Releases started January 2022



## City of Noumea

Releases Aug 2019 – June 2021

 number of people reached  
**100,000**

total area reached  
**49 km<sup>2</sup>**





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*Wolbachia*  
deployments in  
Kiribati

# South Tarawa, Kiribati

Releases August 2018 – August 2019

Monitoring December 2019



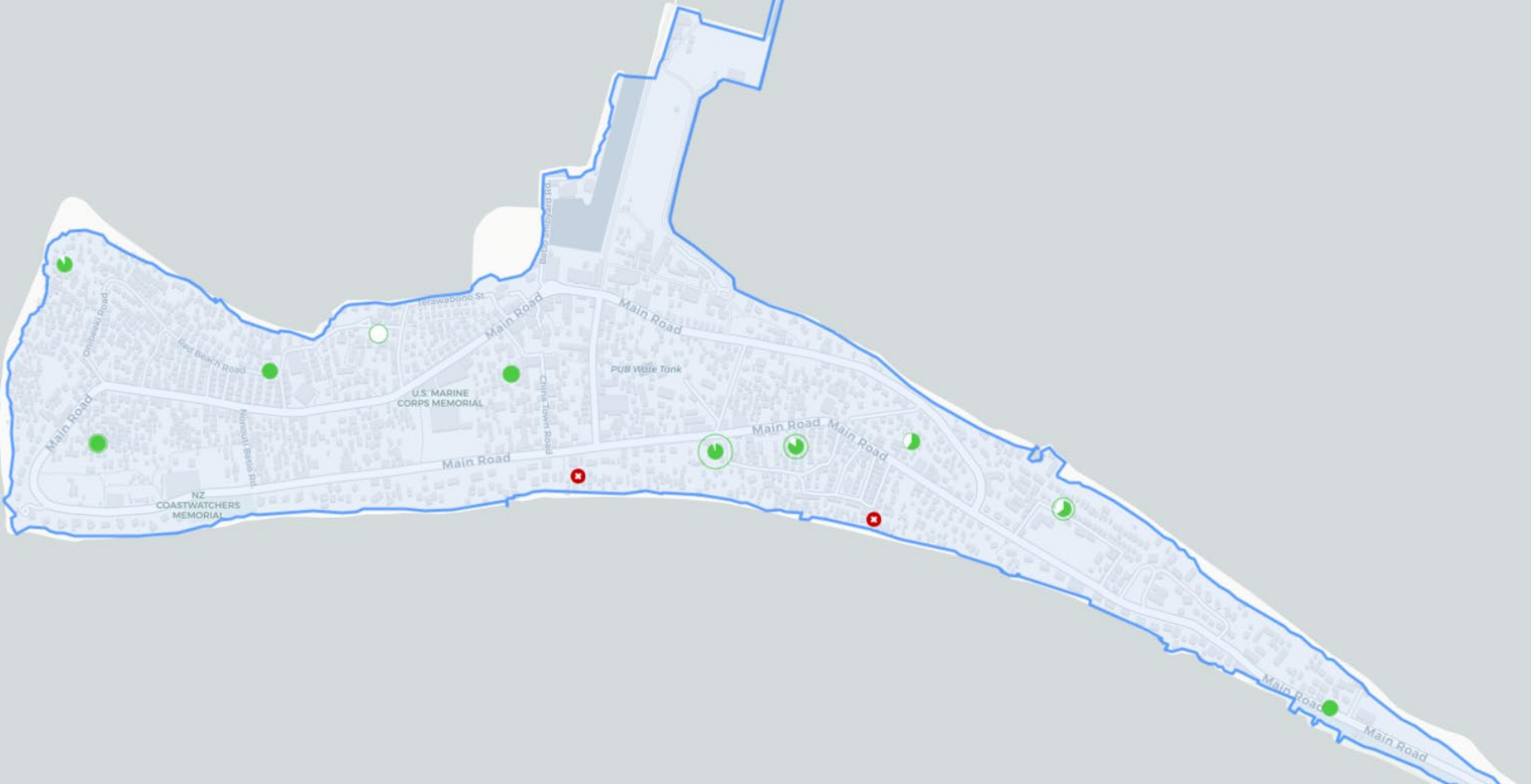
- Screened Collections
- Identified Collections
- Completed Collections
- Can't collect
- No Aegypti Collections
- Failed Collections
- Releases occurred
- Egg Releases

# Betio BG trap wMel prevalence

December 2019

number of people reached  
**21,000**

total area reached  
**1.5 km<sup>2</sup>**

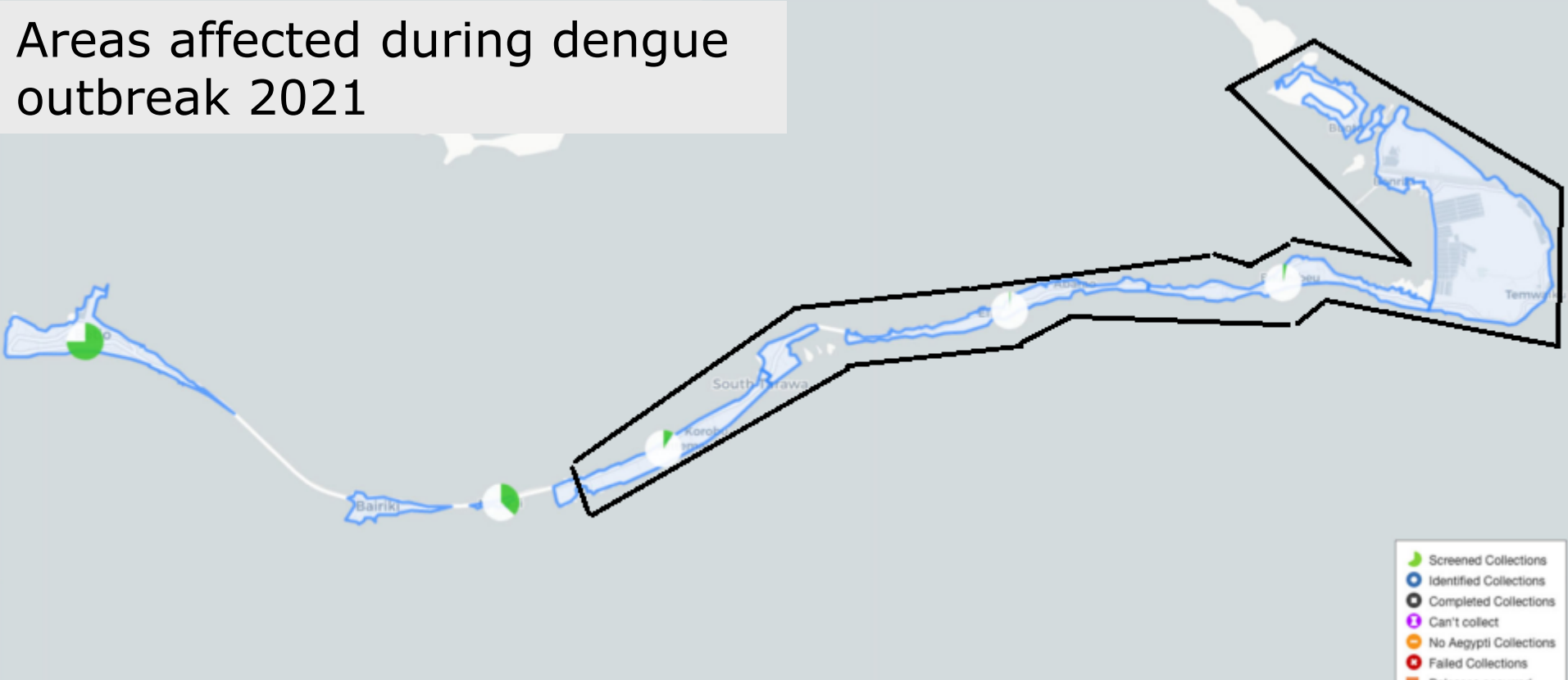




# Dengue in Kiribati

Releases August 2018 – August 2019

Areas affected during dengue outbreak 2021





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# Sth Tarawa wMel prevalence snapshot December 2019

