# miniSASS – Citizen Biomonitoring for Indicator 6.3.2

## Background

**miniSASS** allows non-specialists to determine the quality of water in streams and rivers. By counting the different groups of **macroinvertebrates**, users can generate a score that reflects the **health of the river** for that location at a point in time.

miniSASS was **developed** from the South African Scoring System (**SASS**) and uses a streamlined taxonomic system that reduces the required classification skills to easily identifiable features such as the number of tails or pairs of legs.

The method has been **rigorously tested** and it was found that miniSASS can reliably predict a SASS score.

This method is widely used in South Africa and neighbouring countries. **Globally**, it has been effectively applied in India at high altitude, in Vietnam, Canada, Germany and Brazil.

The miniSASS platform is maintained by the organisation **GroundTruth** which verifies the incoming data and is supported by the **Water Research Commission**. More information can be found here: www.minisass.org website.

## Method

Biomonitoring methods such as miniSASS have been used for decades to assess water quality. These methods rely on presence/absence or abundance of which are driven by a species' tolerance to water quality. Some species are **more sensitive than others** and are not found where water quality is poor.

Samples are collected by disturbing the river substrate and collecting the macroinvertebrates in a net. The sample is emptied into a white tray, and using a simple dichotomous key, users are guided through the **classification process**. More sensitive groups such as stoneflies are scored higher than tolerant ones such as leeches or worms.

There are five possible categories ranging from "**Natural**" through to "**Very poor**".

## Potential

Efforts to engage citizens in water quality data collection programmes can accelerate Target 6.3 progress by simultaneously **filling data gaps** and by **engaging citizens** actively by creating ownership of the SDGs.

Empowering citizens with the **tools of scientific data collection** and providing **education** in water quality concepts establishes a connection between local knowledge of the pressures on water bodies and the observed in-stream water quality. This connection can be a **powerful motivation** to help drive change.

## Future

**Acceptance** of citizen-derived data for official SDG reporting is rare. To build confidence, **upscaling and testing** of these methods is needed to ensure these data are suitable, and equally important, that they are *seen to be suitable*.

This method has **global potential**, but further testing is needed to ensure the method is **optimised** for local conditions – it works, but could performance be improved?

miniSASS has the potential to **complement** physico-chemical data currently used for indicator 6.3.2 to provide a **comprehensive picture** of water quality.

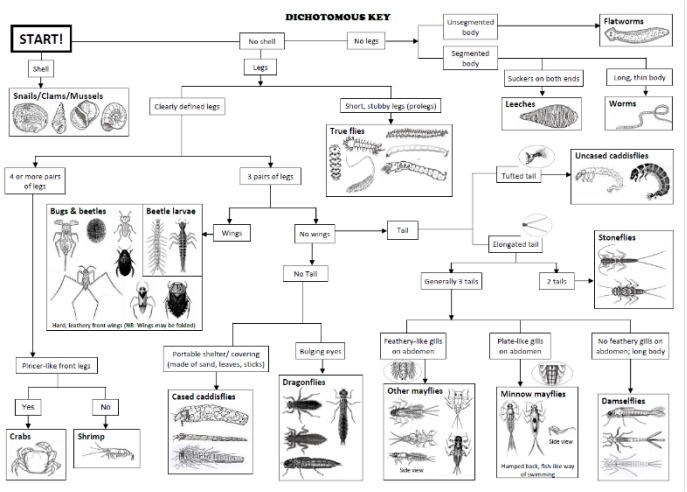


Figure 1: miniSASS dichotomous key

SUSTAINABLE DEVELOPMENT GOALS