



CITY OF ANTIPOLO
PROVINCE OF RIZAL
PHILIPPINES

Population and Inclusive Year:
913,712 (POPCEN 2024)
Total Area: 38,504.44 hectares
Main Economic Activities: Service Sector
Name of Local Chief Executive:
Hon. Casimiro A. Ynares III, M.D.

RONIEL B. BARRIOS | MARIZAJIELL G. GALANG | SHIELA G. MONTEZOR



Problem Statement and Vulnerability

Context

In lower-income communities, homes are often overcrowded and poorly adapted to extreme heat, leading to thermal discomfort or higher energy costs. Excessive heat affects community members' comfort, health, and daily activities, making heat reduction a key concern at the household and community levels, especially during the hot-dry season. The project aims to **reduce urban heat through a nature- and community-based intervention** that encourages planting edible vegetation in yards, pots, walls, and other available household spaces. It will provide shade and cool the surroundings while also offering an additional food source, primarily aiming to reduce household heat, especially in areas with closely built houses and limited green spaces.

Proposed Solution/Intervention

The project aims to **implement tailored Nature-Based Solutions (NbS) installations** across five pilot communities to address urban heat and improve climate resilience. **Model 1** introduces household micro-greening and shade interventions such as vertical gardening, space-saving planting, and cool roof treatments. **Model 2** establishes cluster-based pocket spaces on communal areas mixed with household gardens. **Model 3** develops community-scale greening and ventilation systems through pocket forests and green corridors. These models are tailored to each community's typology, density, and available space, ensuring inclusive, practical, and scalable interventions that reduce heat exposure, improve comfort, and promote sustainable, community-driven climate adaptation.

Target Beneficiaries

Targets **urban poor households vulnerable to heat from congestion** across five pilot HOAs, ensuring inclusive participation of women, elderly, youth, PWDs.

Monitoring and Inclusion Indicators

Indicators on awareness, adoption, environmental impact, and sustainability will guide evaluation. To mitigate UHI, one has to measure: **(1) reductions in indoor temperature and heat discomfort; (2) number of Nature-based Solutions (NbS) implemented; and (3) resource efficiency; (4) improved knowledge levels and participation with Gender Equality, Disability, and Social Inclusion (GEDSI) representation, and household adoption of NbS**, as tracked capacity outcomes. Environmental outcomes will be assessed through vegetation condition and related impacts. Community satisfaction and participation will be evaluated along with maintenance of **NbS installations through sustained cycles and community-led greening initiatives, integrating overall economic efficiency, adaptability, and long-term performance of interventions.**

Expected Outcomes and Co-Benefits

The project mainly aims to **mitigate urban heat** by adopting Nature-based Solutions (NbS) and strengthening community awareness, capacity, and planning. It will include orientation on climate change and NbS, an inventory of existing initiatives, and an assessment to identify suitable interventions tailored to local conditions. **Model communities will be developed** to demonstrate effective and sustainable NbS implementation, supported by a performance evaluation report.

The project will promote community ownership, enhance climate-adaptive behaviors, and improve local capacity for heat mitigation and alternative food sources. **Enabled institutionalization of feedback mechanism and replicability for wider adoption** of the established NbS models with similar environmental and socio-economic characteristics.

Indicative Budget and Financing Needs

Estimated total budget is **Php 5,000,000 for the five pilot areas**, assuming all materials are newly procured. The LGU's counterpart contribution will cover maintenance and the deployment of responsible personnel. Replicability of models in 600 urban poor communities may be considered in the future.