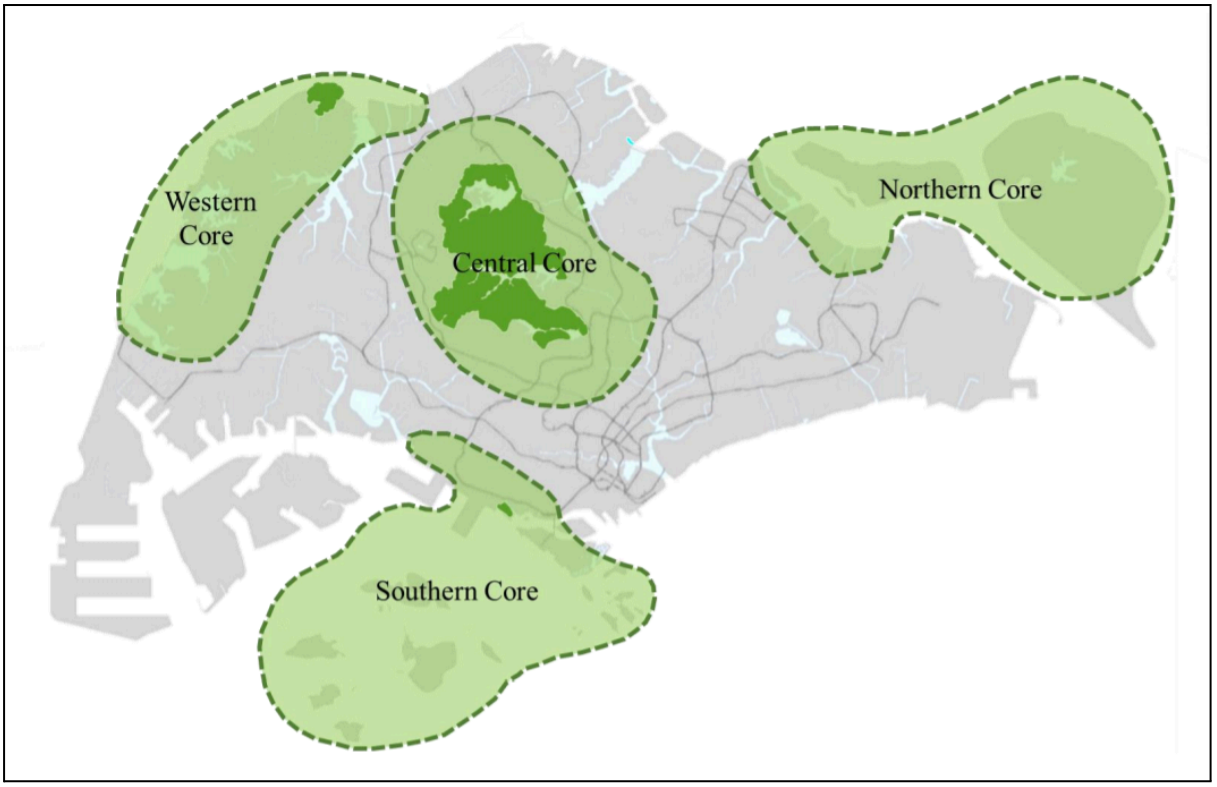
Tree Planting Info Kit (Sep 2021)

Introduction

Launched in April 2020, the One Million Trees movement is a nationwide effort to increase the number of trees planted throughout the whole of Singapore, including our streetscapes, gardens, parks and park connectors, nature reserves and nature parks, and more. NParks currently plants around 50,000 trees annually. By ramping up our efforts, this will improve our urban environment and enhance our resilience towards climate change, ultimately transforming Singapore into a City in Nature.

Singapore's natural areas harbour a rich diversity of flora and fauna. The survival of these species and ecosystems in our highly urbanised environment requires coordinated efforts, and larger natural habitats and interconnected landscapes would improve the odds of survival for native species. Formulated in late 2015, the Nature Conservation Master Plan (NCMP) thus focuses on the conservation of Singapore's natural areas, aiming to maintain ecosystem integrity and health over time. This would in turn facilitate extant native species' continued survival.

Despite the spatial delineation between these 4 core areas, animals such as the smooth-coated otters and grey herons have been spotted at all 4 core areas suggesting that these 4 core areas are ecologically connected. As such, by planting trees in the Northern Core (comprising of Pulau Ubin, Pulau Tekong, Coney Island and Pasir Ris Mangroves), indirectly we continue to strengthen the ecological connectivity between our green spaces.



Purpose of Reforestation

Reforestation models have shown that it takes a cleared forest 800 years to eventually become a true forest.

By planting trees, we are giving cleared forests a head start – boosting the forest generation rate.

When pioneer trees are big enough to provide shelter and food, animals will start to reside and visit the area. The increased animal activity will help to disperse seeds which in turn speeds up the reforestation process.

What Tree am I planting?



Your sapling will come with an aluminium tag containing its scientific name, in this case, Buchanania Arborescens, more commonly known as the little gooseberry tree or sparrow's mango.

Match the name of your sapling against the planting site on the excel file to find weblink to details of the sapling i.e., characteristics, descriptions, photos of the plant etc.

Planting List 2021 - OBS.xlsx

Planting List

Where do I plant the sapling?

Our allocated planting site is a 5 mins walk from 5 track junction towards Aunty's farm.

How do I plant the sapling?

- Find the planting site. Pick a planting spot. Plant the sapling (labelled by an aluminium tag tied to the sapling) to the planting spot (marked by the wooden stick).
- Avoid planting saplings of the same species right next to each other. (More details in FAQs)
- Estimate the height of the poly bag and dig a hole of similar depth. The hole should just be deep enough to cover the entire contents of the soil bag.
- Flatten the base of the hole so that the sapling can be placed in a stable position.
- When digging, make sure everyone else stands away to prevent injuries.
- When not digging, place the changkol on the ground with the edge of the blade facing downwards to prevent people from stepping onto it and getting injured.
- When the hole is ready, remove the poly bag and place the sapling inside.
- Use the changkol to push the soil to cover the hole. Ensure the sapling is not slanted. Be careful not to hit the sapling when using the changkol (might break the branch).
- Use your hands to compact the soil.
- Gently shake the sapling to check its stability. If the soil comes loose, re-compact the soil further.
- Once compacting is done, leave some space at the bottom root collar for the plant to breathe.

After Planting

- Water the soil around the sapling using 1 full watering can or 1 full water bottle (1 L). Do not water the leaves as water droplets on the leaves may burn the leaves (magnifying glass effect).
- Bring back the poly bag to throw into a rubbish bin
- Consolidate all the wooden sticks and bring them back to the nursery

Logistics

Bring along 1 litre of water for every sapling you'd be planting i.e., if there are a total of 3 saplings to be planted by your watch, you need to have 3 additional litres of water.

Bring along 1 changkol for every sapling.

Possible Debriefing Points

- Theme: Personal Development

  Saplings are delicate and need lots of care and support in order to grow into strong trees, e.g., fertile soil, water, sunshine.

  - What do you think are the nutrients that enable a youth to grow?
  - What are the possible obstacles that will hamper one's potential?
  - How can you reach your fullest potential?

- Theme: Paying Forward, "To serve, to strive and not to yield"

  Singapore is famously known as the Garden City. Trees did not appear in Singapore by chance, introducing tress into our landscape was part of the Garden City vision which was introduced in 1967. Planting a sapling today is not for our own benefit, but for the benefit of others in future, including people and animals.

  - How have you benefitted from your forefathers' contributions?
  - When was the last time you did something purely for the benefit of others?
  - Why is it important to serve others?

- Theme: Commitment

  Your life journey is like a sapling that was just planted. It is young and delicate, with the potential to grow into a big and useful tree. It may also deteriorate under the weather and die. How this sapling may turn out depends on the resilience of the sapling from today onwards, to stand strong during the storms and grow in both good and rough times.
  Create a visual impact either with a leaf, stick or rock for the following questions:

  - What is something you would like to leave (leaf) behind?
  - What is something you would like to stick (stick) with?
  - What is something that rocks (rock or stone) and you're proud of (and you'd like to share with others)?

FAQs

1. **Do we need to add mulch after planting the sapling?** No, there is no need since the planting sites in Ubin already have natural decomposing materials which will provide nutrients to the sapling.

2. **How do we identify a planting spot?** Planting spots are typically a 1 m in diameter area marked by a stick sticking out right in the middle. Planting spots are about 2 m apart from one another.



3. **Do saplings of the same species need to be planted next to each other?** No, saplings do not have to be planted next to one another. Planting trees of all the same type can limit biodiversity and present biosecurity issues for resilience. Some trees may be genetically identical, with large populations of the same clone potentially more vulnerable to pests and diseases. As such, we encourage saplings of the same species to be planted away from one another.

4. **Should participants return to the trees that they have planted?** No, we will discourage participants from entering the forested areas where their trees were planted previously so as to reduce the environmental impact on the designated planting sites. Participants are welcome to visit the planting sites as long as they remain on the general trail. In that way, they are able to protect and appreciate the natural progress made by the flora and fauna over time.

5. **How are plants selected for the designated reforestation sites?** Plants are selected based on the habitats they strive in i.e., trees commonly found near rivers are selected for the Sungai Teris planting site since it has been identified as a ‘river’ area.

6. **In order for reforestation to take place, planting sites have to get rid of existing flora, that seems counterintuitive to our reforestation efforts? Why does that happen?** Planting sites which are identified for reforestation are often overpopulated by invasive species which are not originally part of the natural habitat (i.e., rubber trees, dumbcane). As such, clearing these planting sites allow native species to be reintroduced into the habitat. Without human intervention, native species will most likely be unable to regenerate by itself.

7. **Are weeds/invasive species a concern?** They are only a cause for concern when they overtake the native species planted in the area.

8. **What is the reason for the One Million Trees movement?** Moving from Singapore being a "City in a Garden", the country's bid to become a "City in Nature" comprises four key thrusts: More nature parks, enhancing the natural environment in new and existing parks and gardens, integrating nature into the built environment and making green spaces more accessible. As such, one million trees will go a long way in facilitating this revitalisation. In addition, trees provide us with a multitude of environmental, social and economic benefits, and are an important foundation for a liveable and sustainable city. Here are some reasons why trees are beneficial to society, and why we should continue to plant and care for them for generations to come.

9. **How many trees are planted in Pulau Ubin each year?** Since the start of the One Million Trees movement, NParks has set a target to plant an average of 2,000 trees per year in Pulau Ubin. For 2021, the targeted number is 3,500 trees – whereby 600 of it will be planted in Sungai Teris and Sungai Asam.

10. **Are mangrove trees part of the One Million Trees movement?** Yes, mangrove trees that are planted are part of the One Million Trees movement. In 2020, mangrove trees planting took place at various parts of Pulau Ubin. In 2021, the mangrove tree plantings will take place mainly at Sungai Puaka.

11. **How many of the trees planted by volunteers were not done properly or result in the demise of the plant?** An estimation of 20% of all trees planted may not survive. Nparks does routine checks to ensure the survivability of newly planted trees, and intervene if necessary. Please plant the saplings properly to reduce that percentage!

12. **Where do the saplings come from?** The saplings come from 3 sources. The first is the fruits and seeds collected from our forest floors, and thereafter, germinated and grown at NParks' nursery. The second is plants salvaged from forests or future development sites. The third is from plant nurseries in our Southeast Asian neighbours like Malaysia or Thailand, either in the form of seeds or actual live saplings.

13. **Where can I find more information on the trees because I want our participants to be able to see its eventual state?** More information on the trees can be viewed on Nparks Official flora & fauna webpage.

14. **Where can I find the videos which explains more about the One Million Trees movement, including the planting demo video?**
https://youtube.com/playlist?list=PL1_Eb2Fa0jUfgsU6bJknStEqG1JgXei8h

15. **Are there materials that I could share with my participants?**

    a. Singapore, a City in a Garden

    b. OBS Planting List - May 2021

16. **Will the time spent for tree planting be part of participants' Values-In-Action (VIA) programme or NYAA award?**

    Values-In-Action (VIA) and Outdoor Adventure Learning (OAL) Cohort Camps are among the various Key Student Development Experiences that all Singapore schools provide for all their students. Other programme and activities include Co-Curricular Activities, Cohort Learning Journeys, National Education Commemorative Days, etc. For each of these programmes and activities, specific Character and Citizenship Education (CCE) Learning Outcomes are articulated and planned activities are incorporated with the intention of realising the identified learning outcomes. In consideration that not all students go through the tree planting activity and different schools focus on different values in their VIA programme, we will not weave the two activities together.