



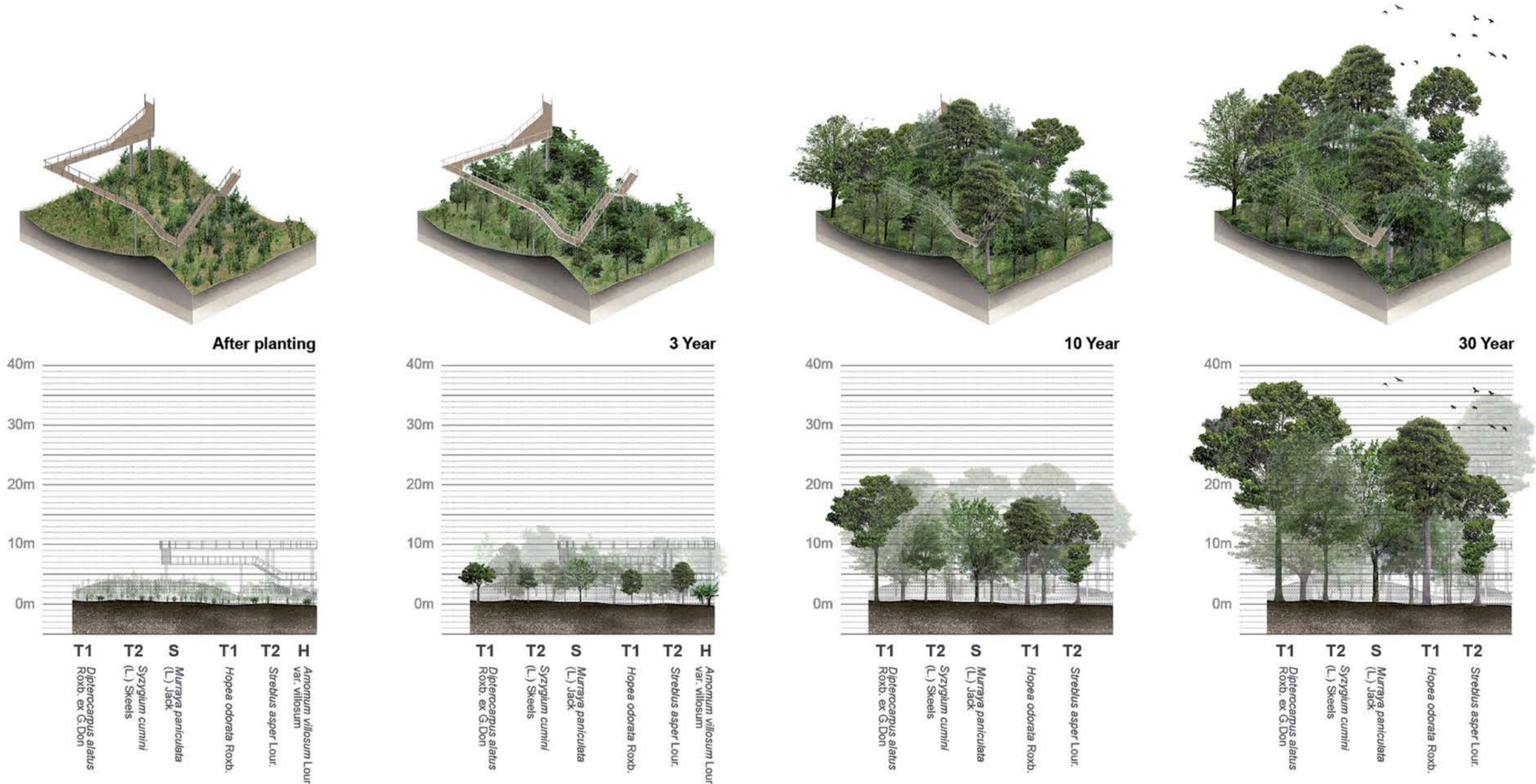
**DESIGN CONCEPT**

The Metro-Forest Project is situated in Prawet district which is a suburban sprawl at eastern fringe of Bangkok, and approximately 6 kilometers from the Suvarnabhumi International Airport. The whole district is located in a low land and designated as flood-prone zone protecting flooding of eastern Bangkok areas. Under initiatives set by the Petroleum Authority of Thailand (PTT) to increase forest areas for the whole country, and in commemoration to the forest stewardship efforts by the Royal Family and Her Royal Highness, Princess Maha Chakri Sirindhorn's, an urban forest that reflected Bangkok's former landscape was planned.

To create diverse forest ecology and stimulate plant growth, the reforestation technique of Dr. Akira Miyawaki was implemented to create optimal growing environments of lowland Dipterocarp and other plants species. Through collaboration with the landscape architects, forest ecologists, and contractors, raised berms were designed, engineered and constructed to provide porosity and prevent compaction. A pre-mixture of highly fertile, organic soil was used as a soil medium suitable for the lowland species saplings. The layout of the species was carefully grouped according to successional rate and appropriate water to ground surface level growing conditions.

Approximately 60,000 trees of more than 279 unique species were planted on approximately 75% of the overall site. Planting locations for the trees were also carefully selected based on the type of coverage each successional group would provide. For the initial planting of saplings, a planting density of approximately 4 trees per square meter or a spacing of 50 centimeters was used to encourage natural selection, following Darwinian evolutionary theory "the survival of the fittest". The planting design intent also looked to create multiple layers of forest canopy as appear in nature, which could be created through selection of plant species with various heights with the same community.

**SUCCESSIONAL GROWTH OF THE LOWLAND DIPTEROCARP FOREST OVER TIME**



**VEGETATION DISTRIBUTION DIAGRAM**



**FOREST SECTION**



**CONSTRUCTION TIMELINE**

