

# Payatas Controlled Disposal Facility, Quezon City

Area B Barangay Payatas 1119

Students  
Reinventing  
Cities

The Payatas Controlled Disposal Facility (PCDF) is located in the Northeast of Quezon City. The closure of the disposal facility between 2010 and 2017 presents an opportunity to use this land in an innovative and climate friendly way that provides new economic opportunities for the community.

The closure and redevelopment of the PCDF site will improve environmental and health outcomes in the longer term. However, surrounding communities have recently faced economic adversity due to the loss of employment and livelihood opportunities after the closure of the site.

To address this, it is expected that the site will be redeveloped as an open space where people can relax, an agriculturally productive site that will

increase livelihoods, and transport corridor for people to shortcut through the city.

There is also an area near the disposal site that is currently occupied by informal settlers. These families are exposed to environmental risks from the site and the project needs to repurpose this land for non-residential use – such as industry and commercial activity. Some options will need to be explored as to how these people can be rehoused outside of the site.

The PCDF is currently undergoing Post Closure Care Management with the aim of removing toxic gases and soils for safe development to occur. The planning for the future use of the site has not yet started. With this competition, the City aims to receive from students creative vision and fresh ideas to reimagine what the future of the site could look like.



## Approx. site area:

30ha of the PCDF site + 4ha of nearby land currently occupied by informal settlers.

## Demographics:

The total population of Barangay Payatas, Quezon City is 130,333 -4.4% of the city's total population. Some of the population are currently

housed in informal settlements, while others also experience poverty and social adversity.

## Priority areas & main City expectations:

The proposed redevelopment of PCDF should look for ways to continue to improve environmental and health outcomes – taking ambitious action to reduce GHG emissions, improve climate resilience and restore ecosystems and biodiversity.

## Presentation of the site



Figure 1 Border of PCDF site

Area not used as disposal facility but occupied by informal settlers' family. This is the area we recommend to be developed as Agro-industrial zone. It is approximately 4 hectares.



Figure 2 Border of informal settlement also included in the competition

The Payatas Controlled Disposal Facility (PCDF) is located in the Northeast of Quezon City. The waste disposal facility historically attracted informal settler families who resided on the land and scavenged water materials from the garbage as a means of livelihood. In July 2000, a portion of the garbage mound collapsed and caused a landslide, killing more than 200 individuals. After the incident the Quezon City Local Government took over the management and control of the facility to regulate the disposal operation and remove informal settlers' families for their safety. The closure of the disposal facility in 2017 presents an opportunity to use this land in an innovative way.

Today the site is designated to become an open space, an economically productive natural environment through activities such as agriculture and native tree nursery, and a green movement corridor to short cut through the city. Because of the stability of the site, no intensive permanent development can occur on the land. Instead design responses need to be predominantly natural such as trees, with only small light structures to support activities (such as a nursery).

The site for this competition includes the 30ha of the former waste disposal site as well as 4ha immediately adjacent to the site, shown in Figure 2. These 4ha were not part of the waste disposal facility but are currently occupied by informal families who are potentially exposed to dangerous gases. For this reason it is not safe to reside on this land and these families will need to be relocated to another area.

The site is surrounded by residential development, mostly of informal settlers' families. The area surrounding the site is multicultural – many of whom are immigrants, and a lot of whom live in significant poverty. An inventory of the facilities and establishments within a 1km radius of the site is currently being developed. This inventory may help participants understand the needs of the neighbourhood and how these could be accommodated within the site to help achieve 15-minute principles. The main transport system is by Public Utility Jeepney and tricycles in the main roads and secondary streets. The Mayor has recently distributed electric vehicles as alternative modes of transportation

The site is part of the [National Greening Programme](#)<sup>1</sup> which aims to plant a range of trees across the country. For the purposes of this site trees and planting should look to enhance economic activity, such as through a native tree nursery, or growing rubber trees. However, focus should still be on promoting biodiversity and improving carbon sequestration opportunities and providing stabilizing functions to the land.

The site is currently undergoing Post-Closure Care Management and is being maintained and monitored by the city. It is currently closed to the public. A design for the development of the site has not yet commenced, however a Post Closure Plan was created over 10 years ago. Students should look for ways to build on and develop this plan.

The main redevelopment objective for the site is to develop a masterplan for the site, showing sketches and examples of what the future of the area should look like. Students should consider what activities could be, where they will be located, and how they will interact with the broader area. In developing

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<sup>1</sup> Also see: [http://nci.da.gov.ph/index.php/programs-and-projects/national-greening-program-ngp#:~:text=Pursuant%20to%20Executive%20Order%2023,land%20from%202011%20to%202016.&text=For%20more%20information%2C%20visit%20http,denr.gov.ph and https://ngp.denr.gov.ph/index.php?option=com\\_content&view=article&id=29&catid=11&Itemid=144](http://nci.da.gov.ph/index.php/programs-and-projects/national-greening-program-ngp#:~:text=Pursuant%20to%20Executive%20Order%2023,land%20from%202011%20to%202016.&text=For%20more%20information%2C%20visit%20http,denr.gov.ph and https://ngp.denr.gov.ph/index.php?option=com_content&view=article&id=29&catid=11&Itemid=144)

these design responses students may want to articulate a vision for the site, and develop objectives and targets to inform their designs. Content from this document may support this. Final sketches should be developed in a format that could be presented to the Mayor, who would fund the development of the site.

Students will need to develop innovative responses that work within the constraints of the land being unstable and unsuitable for permanent development or occupation to occur. Given that the decontamination of the site is an ongoing activity, students could consider a phased approach where areas are developed as they become safe to do so. More details on the requirements of the design are included in the following sections.

## City climate priorities and specific environmental issues to address

### Climate Plan

The Quezon City Ten-Year Local Climate Change Action Plan for the period 2017 up to 2027 demonstrates the extent of commitment of the City Government to respond to the challenges of Climate Change. Within the plan, climate change is perceived as one of the most severe risks of the future. Therefore, a huge focus of this project should be on building resiliency, while reducing greenhouse gas emissions.

The climate plan identifies seven priority areas for the whole city. Students could look for opportunities for the site to contribute to the cities goals and respond to some of these in the design response:

1. **Food Security** – this priority aims to provide residents ample supply of food as well as proper capacity building towards food production and self-sustenance especially during climate related hazards and disasters. This is also a food sufficiently measures which we learned during the Covid pandemic
2. **Water Sufficiency:** - with the site’s proximity to the Manila Water filter station, it is imperative to identify solutions to avoid water contamination to the said station. Also addressing the current water shortage situation in the City through rainwater harvesting and treatment that aims to provide enough water for the whole barangay. Also, to use other water resource more efficiently by treatment using phytoremediation technology.
3. **Environment and Ecological Stability;** - The site is already being visited by migratory birds as well as it has endemic species of plants and trees, this priority area is currently already being addressed. The aim is that the site should have more diverse ecosystem in order to attract pollinators that will enhance our food security preparedness
4. **Human Security:** - To protect humans from climate change risks such as health and social protection as well as to build adaptive capacity of the local communities within the area. This also include proper shelter and conducive environment to have a healthy citizen
5. **Sustainable Energy;** - To adopt sustainable and renewable energy and ecologically efficient technologies as major components of sustainable development. Rehabilitate and improve energy systems and infrastructures through disaster and climate proofing.
6. **Climate Smart Industries and Services;** -To promote climate-proof Infrastructures in Quezon City, as well as implement an Ecological Solid Waste Management towards Climate Change Mitigation and Adaptation
7. **Knowledge and Capacity Development** – this aims to enhance knowledge on the science of Climate Change, Disaster Risk Reduction, and Solid Waste Management. As well as establish a gender-sensitive climate changes, disaster risk reduction, and solid waste management system

for Quezon City. It also aims to improve the capacity of the community to adapt in the changing climate and improve their well-being

### **Existing Opportunities**

The site presents some immediate opportunities to work to achieve climate goals. For instance, the gas being extracted from the site is currently being used to run a 1.5MW power plant located on the site. Power generated from this is currently used to extract LFG from the closed-disposal facility. However, there is an opportunity to consider how this could continue to be utilised in the power the development and operation of the district and if there is scope to use organic by-products from the community as a fuel.

Alongside this, the site provides an opportunity to increase permeability across the site and the surrounding area to improve active transport and reduce car dependency. It will be important to consider how people living in the surrounding areas access the site by walking and cycling. Alongside this, there is an opportunity to use the area as a connection for people needing to cross the site. Consideration should be given to how biking and walking can be encouraged inside the facility – particularly for children going to school on the other side of the facility and residents whose work is within the site, or across.

Enriching the soil, restoring ecosystems and investing in green solutions can also help to improve soils in a way that will improve the overall resilience of the city. Interventions should consider how the site can be used in this way to manage heavy rainfall events and combat the urban heat island effect.

### **Climate Justice**

It is particularly important to consider climate action is equitable distribute. Some of the informal settlements surrounding the site are vulnerable to flooding as identified in the Local Climate Change Action Plan (LCCAP) and Disaster Risk Reduction Management Plan. Particular attention should be paid to these vulnerable communities.

### **Other environmental considerations**

Soil, water and air quality sampling have not yet been undertaken. It is recognised that students will not be able to do these activities as part of this competition. As such, students can assume that the land will be too contaminated and unstable for any permanent infrastructure to be developed on. Instead, students should look to nature-based solutions and temporary structures that are only occupied for some of the time. However, it is also important to recognise that emissions and discharge from the site may continue for some time. Therefore, it will be important to consider safe activities which can occur on the land, and infrastructure which is required to mitigate risks (such as a wastewater treatment plant).

## **Other expectations for the site's redevelopment**

The redevelopment of the Payatas should prioritise environmental outcomes while also increasing economic opportunities and the quality of life of surrounding neighbourhoods. The site provides an opportunity to provide a natural environment that is economically productive, improves climate resilience, enhances emissions reduction, and enriches the wellbeing of communities.

When developing a design response some key considerations include:

- Some of the families living on the 4ha shown in the site diagram may need to be relocated due to its exposure to toxic gases. Part of the proposal may consider how these groups are safely and respectfully rehomed in a neighboring area. However, rehoming will not be able to occur on the site so students may need to look outside the neighbourhood for alternative options or social programmes.
- Many of the residents of the wider area have lost income since the landfill was closed. This is because they earned their daily sustenance from waste picking activities. Since its closure many of these residents are now living in extreme poverty.
- A major constraint of the project will be budget. Students should look to develop low-cost solutions that can be easily implemented. They may want to consider cheap, quick wins that can be developed in the short term and commercial activities that can help build capital for future investment.
- The objectives of the National Greening Programme
- A focus on agriculturally productive activities, that utilize the good soil quality of the area away from the site – but adopt innovative and creative solutions for the contaminated land
- Temporary or light structures will be necessary as the stability of the ground will be compromised. It will not be appropriate to build heavy large structures in the main site. Alongside this it is expected the site will not be safe for long term habitation.
- Heavier industrial activities can be provided on the adjacent 4ha site – it is recommended this site may be appropriate for agroindustrial purposes.

Some approaches that have been considered so far students could implement for the site include:

- Urban Agriculture and development of small scale agro-industries such as bee farms, aquaponics
- Clean and low impact energy and water systems for the wider district: Solar power, rainwater harvesting
- Eco-Tourism
- A key Biodiversity Area
- Greenhouse and nursery for indigenous trees
- A green corridor and link to improve accessibility across the wider district and promote uptake of walking and cycling
- Preservation of historical and heritage values.

## Specific city planning rules and regulations

The 2011-2025 Quezon City Comprehensive Land Use Plan (CLUP) envisions Payatas to be devoted to open space which must be put under perpetual greenery and protected at all times in order to realize the vision of Quezon City as the “green lung” of Metro Manila.

Payatas is likewise not considered a growth area but a special development area in this revised CLUP. In spite of recent successes by the city government in properly managing the dumpsite, the precautionary principle dictates that no intensive permanent developments should be attempted on and around the area in the immediate to intermediate future. Even if the dumpsite is finally closed down, it is not known for certain how much flammable gas lays trapped beneath the thick layers of garbage that accumulated for decades

The City Ordinance allows the site to be redeveloped as Environment Rehabilitation and Enhancing Facilities and Plant nursery, while the entire Special Urban Development Zone can be the site for the 15minute City as future development.

Students have the opportunity to consider how the site should be zoned for future development. However, it is recommended that given the environmental constraints of the site and its inclusion in the national greening programme, the site is developed under the Agro-Industrial-Estate-Zone.

There are some activities that the site cannot be used for under Quezon City Ordinance No. SP 2502 s 2016 known as “The Comprehensive Zoning Ordinance of 2016. These include Not permissible uses are (i) Gasoline station, (ii) Department stores, Shopping Mall/ centers commercial and sport complexes/ areas. The ordinance explicitly state that maximum height of building shall be 12 meters and required parking slot specified in the ordinance for each use shall apply. I think it applies especially in areas used as disposal site.