

Measures to Mitigate Landfill Site Controversy

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For disposing the solid waste from Kathmandu City, the Nepal government identified a landfill site in the outskirts of Kathmandu, in the Gokarna Village. Public opposition to this landfill site started after the local people realized that they were not involved in the planning process. They felt that they were caught by surprise about the government's decision to establish a compost plant in their neighborhood. The only good news given to them was the possible opportunity for some jobs for the local residents. The needs for compensation were not identified at the local level. There were complaints about inadequate compensation, which violated an earlier agreement between the local people and the government.

To address the issue, a study was initiated by the author to examine the causes of public unrest related to the Gokarna landfill site. The outcome of the study was a report that carried the following measures for the selection and operation of the potential landfill sites within Greater Kathmandu by minimizing public opposition:

1. The affected residents are one of the influential stakeholders of public opposition. Therefore, they should not be ignored while preparing the plan for a landfill site. There might arise three different groups of directly affected community: (i) the area considered for the landfill sites (ii) the area set aside for the buffer zones and (iii) the surrounding community. Attention thus needs to be given for the involvement of the people from all the three groups during the site selection process and for exploring the alternatives for the utilization of their land for the purpose of landfill.
2. If the land area is completely Government owned, as in the case of Gokarna landfill site, then, opposition from the first group, as mentioned above, will not arise. However, the other two groups should be consulted for the selection of the site because they would be directly affected by locating a landfill site within their vicinity.

If the land area for the landfill site is privately owned, the concerned authority should be able to negotiate with the affected residents to use the land area for the purpose of the landfill site. It might be difficult to purchase the entire land area because the affected residents may demand a high value for their land. It differs from person to person according to their need and demand. The Government usually assigns its own land value for different areas, which is very low compared to the existing market value of land. Therefore, in practice, a committee including the Chief District Officer, Mayor, VDC Chairman, representatives of concerned villages etc. is formed to fix the value of the land that is to be negotiated.

In order to minimize the cost of purchasing the land by the Government, resettlement of the affected residents to a Government owned land could be taken up. However, some parameters need to be taken into consideration that affect the local people and their life style. Some of these are: location of the property, the monetary and emotional value that the local people give to their property, distance of the resettled land from their original place of residence and other factors which affect the local people directly or indirectly.

Obtaining approval from all the affected residents is a difficult task. There will always be some one who will disagree. If the site is found to best fit for the purpose of landfill among the alternative sites from other aspects (technical, financial and environmental etc.), then the Government need to help for acquisition of the land area using Land Acquisition Act, 1977.

Involving the affected residents thus becomes necessary to help the responsible authority to find out the best possible way to minimize opposition from the affected people for utilizing their land for public purpose.

3. A buffer zone around the boundaries of the landfill site will act as a separation between the surrounding areas and the landfill site. Under financial constraints, it might not be necessary to own the land area set-aside for the buffer zone. Further development could be controlled within that area by using land use regulations.

Providing buffer zone for a landfill site is not a common practice in Nepal, because there is a lack of specific rules and regulations for the provision of a buffer zone for a landfill site. Therefore, there is a need to incorporate rules and regulations related to buffer zones for a landfill site to minimize public opposition.

A landfill site affects the people of the area set aside for the buffer zones in terms of the negative environmental impact due to the operation of the landfill site, and, in terms of the restricted land use due to development of the buffer zone.

Where rules and regulations can not be efficiently enforced, a set of disincentives can discourage people who have already settled within the buffer zone. Some of the policies that can be recommended for this purpose are:

- Further settlement should be restricted by controlling the building permit within the buffer zone.
- The provision of basic infrastructures like water supply, electricity, drainage, sewerage, road network etc. should not be allowed within the buffer zone. Enforcing this demands proper co-ordination among different sectors.
- When a particular area is set aside for a buffer zone, the information should be publicized to make the general public aware of it before any land transaction within that area starts.
- Local people should be given incentives if they maintain the buffer zone, e.g., by encouraging them if they want to utilize the land for producing compost by windrow or providing free seedlings if they want to develop it as a green zone.

4. Residents of the surrounding community need to be involved during the site selection process to reduce public opposition. They should be encouraged to air the problems the community is facing and prioritize them according to their needs.

If the problems are identified at the grass-root level and compensations provided accordingly, the opposition can be minimized rather than providing compensation to the people without knowing their needs and priorities.

However, it is not possible to satisfy all the affected residents. There will always be some people who will oppose the siting of a landfill within their community. In case, if the majority of people agree with proper compensation measures, and the site is comparatively suitable, then, the Government needs to be empowered to implement the project.

Thus, although total involvement of the affected residents may not work in all the cases, it provides the picture of the actual situation that the affected people are facing at the site. It would help the concerned agency to differentiate between the actual "need" and "demand" of the people affected. By analyzing the situation, an appropriate site needs to be selected among the alternative.

5. A proper management plan must be developed to for the landfill site to mitigate public opposition. Since SWM services are being provided free of cost, the lack of funding has become one of the major problems for proper management of a landfill site.

It is necessary to apply appropriate and, as far as possible, low-cost technologies suitable for the local condition to manage a landfill site. There are several technical factors that influence the management of a landfill site, eg: geological and hydrogeological situation at a chosen site; application of a sealing system; appropriate maintenance and operation of the landfill etc. A small fill area need to be used to reduce the consumption of covering, increase the degree of compaction, reduce the risk of the wind blowing paper and plastics, reduce the bird hazards etc.

In this context, it needs to be recognized and acknowledged that consideration of the technical aspects of managing the landfill site is one of the significant measures to be taken up to reduce public opposition at a landfill site.

Conclusion: At this crucial situation when the Kathmandu Valley is facing severe waste disposal problem, selection of a landfill site should not be enforced to a particular community. Rather, the choice of site alternatives and participation of local people in selection of a site need to be encouraged.