

## DPZ-05 Tongi Pourashava

Tongi Pourashava was established in 1974 and by now it is an important industrial town and a railway junction. Outside the industrial estate, the town is naturally developed and most developments are single storied katcha and semi-pucca structures. Tongi is located about 15km north of Dhaka, within the southern flank of the Bhawal Tracks. The Pourashava has an overall area of 33.68 sq.km. and a core urban area of approximately 13 sq.km. The eastern part of Dhaka-Mymensingh road is experiencing a development pressure which is very low and expected to remain low for a long time but recently the western part of the Tongi Pourashava is developing rapidly in an unplanned way. Rapid urbanization over the last two decades, along with a lack of control over the urban growth and lack of financial and institutional resources has adversely affected development and environmental conditions, resulting in undue pressure on available urban services and infrastructures of the Pourashava. Tongi harbors the site of the annual congregation of the followers of Tabligi Jamaat. Annual congregation is usually attended by more than a million people and is known as Biswa Estama for which a site has been reserved in the western periphery of the zone.

The area covered by the Detailed Area Plan within Tongi Pourashava is 8567 acres and comprises of 12 Wards. Out of total 8567 acres, 5770 acres is urban area.

Population of the area as recorded in the year 2005 was 308874. After 2005, projected population in the year 2010 and 2015 will be 378525 and 456921 respectively based on the average annual growth rate (compounded) over 2.1.

**Table-3.24: Administrative boundary and population of the DPZ-5**

Ward No.	Area in acre	Population				Population Density Per Acre			
		2001	2005	2010	2015	2001	2005	2010	2015
Ward-01	2214.459	8160	14327	17535	21143	4	6	8	10
Ward-02	1294.9	13089	15276	18722	22601	10	12	14	17
Ward-03	493.658	30053	25103	30766	37140	61	51	62	75
<b>Sub-total</b>	<b>4003.017</b>	<b>51302</b>	<b>54707</b>	<b>67023</b>	<b>80883</b>	<b>13</b>	<b>14</b>	<b>17</b>	<b>20</b>
Ward-04	474.861	16140	28852	35361	42687	34	61	74	90
Ward-05	299.182	23235	27121	33238	40124	78	91	111	134
Ward-06	138.629	29083	31189	38225	46144	210	225	276	333
<b>Sub-total</b>	<b>912.672</b>	<b>68458</b>	<b>87162</b>	<b>106824</b>	<b>128955</b>	<b>75</b>	<b>96</b>	<b>117</b>	<b>141</b>
Ward-07	153.716	29766	31921	39122	47227	194	208	255	307
Ward-08	722.825	31432	31850	39035	47121	43	44	54	65
Ward-09	683.745	22131	20963	25692	31014	32	31	38	45
<b>Sub-total</b>	<b>1560.286</b>	<b>83329</b>	<b>84734</b>	<b>103849</b>	<b>125363</b>	<b>53</b>	<b>54</b>	<b>67</b>	<b>80</b>
Ward-10	175.22	10758	13765	16870	20365	61	79	96	116
Ward-11	1169.743	33646	39029	47833	57744	29	33	41	49
Ward-12	96.282	25788	29477	36126	43611	268	306	375	453
<b>Sub-total</b>	<b>1441.245</b>	<b>70192</b>	<b>82271</b>	<b>100829</b>	<b>121720</b>	<b>49</b>	<b>57</b>	<b>70</b>	<b>84</b>
<b>Gross total</b>	<b>8421.22</b>	<b>273281</b>	<b>308874</b>	<b>378525</b>	<b>456921</b>	<b>35</b>	<b>39</b>	<b>48</b>	<b>58</b>

Source: BBS, 2001.

### Existing Landuse

The study area exhibits an admixture of a variety of landuses. Broadly, these areas, served by good road facilities have experienced spatial growth of urban character comprising of housing, commerce, industries, institutions and services. Inaccessible remote areas away from major roads remain with their original rural character comprising of homestead, farmland, fallow land and areas of water bodies. Table-3.25 shows the existing landuse features of the study area.

Present dominant landuses of the area are residential, agriculture, water body and industrial. Amount of land occupied by all the use is 8571.2 acres. Residential land covers 36%, 39% agriculture, 9% water body and 7% land goes to industrial use

**Table-3.25: Existing landuse of the DPZ-5**

Types	Area (acre)	Percentage
Residential	3076.54	35.92
Agriculture	3315.88	38.68
Water body	765.06	8.93
Manufacturing & Processing Activity	556.73	6.50
Transport & Communication	298.94	3.49
Commercial Activity	205.29	2.40
Open Space	144.06	1.68
Vacant Land	111.94	1.31
Service Activity	47.86	0.56
Governmental Services	14.78	0.17
Mixed Use	14.14	0.16
Education & Research	10.16	0.12
Community Service	6.16	0.07
Recreational Facilities	2.38	0.03
<b>Total</b>	<b>8567.92</b>	<b>100.00</b>

Source: Landuse survey, 2006.

#### Major Problems

- The outlying areas of the zone are low lying and need landfill for development
- The industrial estates established by RAJUK and BSCIC are not fully occupied and still substantial number of plots are vacant.
- Poor development of road network and utility services.
- Housing for industrial workers is required.
- Inadequate road network in the zone.
- Frequent flooding in low-lying areas in eastern and western part of the zone.
- Traffic congestion in Tongi - Gazipur highway.
- Inadequate drainage network.
- Lack of industrial effluent treatment plant.
- Insufficient nos. of graveyard.
- Lack of sport/game infrastructures.
- Inadequate solid waste management.
- Inadequate recreational facility.
- Insufficient water and gas supply network.
- Lack of required space for educational institutions.

#### Opportunities

- The area has a fair number of unutilized industrial plots for the promotion of industrial development.
- DPHE has undertaken a project to supply piped water in urban areas.
- The FAP-8A has identified Tongi to be included in its schemes to protect Dhaka from external flooding. The priority is however low, but the expected development of the Eastern By-pass / link road to Jamuna Bridge may raise the priority.

- The area has potential for vertical expansion rather than horizontal.
- Tongi-Banani Road is included in a development and widening scheme. On implementation, it may provide efficient and smooth connection with central Dhaka.

#### Action Required

- All on going projects related with the development of various utility services should be able to fulfill the need of the existing and future population.
- Timely action is needed to realize retention areas as envisaged by FAP proposals and indicated on the UAP maps. Management Boards should be installed to guard the retention ponds from encroachment.
- Stop haphazard development of garment industry and encourage using the proposed industrial zone for future development.
- Timely action is needed to provide for realistic retention areas, which are proposed by this plan.
- The proposed flood flow zone must be free from any kind of construction.
- Embankment is must in the west side of the Pourashava before any kind of development takes up in this region.
- Strictly stop the unauthorized construction along the Turag River, Vadam and Hyderabad khal.
- Implement afforestation schemes along the proposed embankment.

#### Detailed Area Development Proposals

Due to the new urban area, people from different part of the Dhaka city are being attracted. Day by day industries are coming up and people are coming to live in these areas. As a result, haphazard growth of housing and industries are noticed. Under the present study of Detailed Area Plan for Zone 05, an attempt is taken to identify the proper location of future housing developments for the working people under some guidelines. It may be mentioned that most of the land in these area is built-up excepting the western part of the Pourashava As such vertical expansion can take off in existing built-up areas and horizontal expansion in the low-density areas. Private sectors are encouraged to construct low-cost housing schemes for industrial workers.

**Table-3.26: Proposed Landuse of the DPZ-5**

Proposed Land use Type	Area (acre)	%
Urban Residential Zone	3869.6	45.2
Flood Flow Zone	1690.5	19.7
Heavy Industrial Zone	713.2	8.3
Waterbody	485.5	5.7
Proposed Road Network	420.7	4.9
General Industrial Zone	300.7	3.5
Water Retention Area	191.8	2.2
Open Space	176.1	2.1
Rural Settlement Zone	174.7	2.0
Transportation & Communication	155.8	1.8
Mixed Use Zone (Residential-Commercial)	155.2	1.8
Overlay Zone	137.1	1.6
Agricultural Zone	62.3	0.7
Institutional Zone	16.0	0.2
Mixed Use Zone (Residential+Commercial+General Ind.	13.7	0.2
Non-Conforming Use	4.3	0.0
Administrative Zone	0.5	0.0
<b>Total</b>	<b>8567.9</b>	<b>100.0</b>

### Industrial Area

It is observed that many industrial activities are already exists in the southern part of the Pourashava and this zone is suitable for industrial development and finally it is proposed as industrial or industry related use (not scatter development of residence).

### Mixed-use

In future, lot of commercial activities will be needed to support this area. Considering this demand some specific places have been recognized for commercial and mixed uses in various parts of the study area mainly within 100 feet both sides of existing and proposed primary and secondary road and near the Tongi bazar. It will ensure commercial facility within ½ km distance from dwelling unit.

### Recreational use

There are many khal around and inside the area but there is no sufficient facility for recreational activities. For better mental and health improvement of the local people it is mandatory to provide land for different types of recreational activities like parks, playground, etc. The *Vadam khal* must be preserved for Model Park as recreational use.

### Community Facility

For the future development of these area 58 educational institutions, 15 health facilities, 29 recreational facilities including two stadiums, 5 graveyards, 32 service facilities, 19 hat / bazar, 1 dumping site and 2 industrial treatment plants are necessary. To provide above facilities about 369 acres of land will be needed. Detailed of existing and recommended facilities covered by the zone are shown in the Table-3.27.

**Table-3.27: Existing and proposed Community Facilities of the DPZ-5**

Facilities	Existing		Proposed	
	Unit / No	Land (Acre)	Unit / No	Land (Acre)
Nursery / Primary school	49	12.805	13	8.069
Secondary School	24	8.227	9	7.929
College	3	5.412	4	6.84
University	0	0	1	19.291
Hospital	2	6.098	1	5.61
Park	0	0	12	185.507
Stadium/Indoor stadium	0	0	2	9.763
<b>Total</b>	<b>2</b>	<b>0.475</b>	<b>29</b>	<b>204.67</b>
Community Centre	1	0.045	2	0.674
Fire station	1	0.753	1	0.205
Bazar/hat	5	0.935	7	3.006
Graveyard	2	5.609	4	18.243
Dumping site	0	0	1	4.661
Industrial Treatment plant	0	0	2	2.523
Terminal	0	0	2	7.52
<b>Total</b>	<b>89</b>	<b>40.359</b>	<b>90</b>	<b>484.511</b>

### Water Supply

Tongi Pourashava provides water supply only for the central part of the Pourashava. About 22 nos. of DTWs pump house and 1 no of overhead water tank (one lac gallon capacity) is located in the Pourashava area for household water supply. There are also 475 Nos. deep-set hand tubewell rendering water supply facilities. But water supply is inadequate and not fulfills the requirements. Some people are using surface water from well, ponds and rivers. More DTW will be needed to meet the demand of water.

## **Drainage Proposal Khals and Waterways**

Khals and waterways are natural channels and act as drainage elements. Khals and waterways carry the excess storm water to the connecting river lying further in the downstream. Most of the areas of Tongi Pourashava are drained water through two primary khals named Vadam and Hyderabad Khals. All those khals are related with the Turag River. But some portions of those khals have been already filled up. To improve drainage efficiency all of those water body should be preserved by regular dragging and protect from unauthorized encroachment and re-excavate the Vadam khal to make it 20 meters width.

## **Flood Embankment**

A flood embankment is proposed in northeast part of Tongi Pourashava includes depressed low laying areas and about 500 meter aligns almost parallel to the *Hyderabad khal*.

## **Road Network**

To promote development in a planned manner in less developed areas, and to improve circulation in the built-up and semi built-up areas, a network of Primary and Secondary roads, as well as tertiary and access roads have been proposed. Please see Map-3.13, to get details of the proposed primary and secondary roads, together with major existing roads. Proposed roads are shown in the detailed map.

## **Road cum embankment**

A road cum embankment is proposed from Pagar to Tongi including Vadam and Palasana areas. The embankment is shifted to western part from the proposed FAP 8A to save about six thousand people from three villages in Gutia, Bakrail, Andaral, Palasana and Bada Palasana.

## **Flood Wall**

A Floodwall is proposed from Tongi -Turag confluence point to Railway Bridge. This part of the alignment passes through a dense area of commercial and industrial area leaving no land for construction of embankment. Hence floodwall is proposed for this length.

## **Water Reservoir**

Comparatively large tanks and ponds, *Dighis* and lakes serve as immediate detention areas for storm water. Those structures are man-made and also natural; and they may be privately owned or government owned or khas land. Those structures are functioning as drainage relief and source of water for emergency use, fisheries, duckeries, environment and nature preservation. The structures should not be disturbed or removed by physical interventions through fillings or other means rather should properly be maintained and preserved.

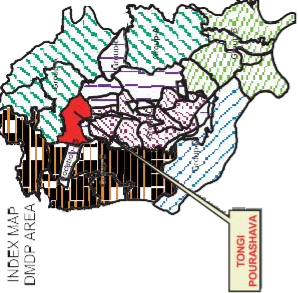
## **Solid Waste**

In Tongi, there are two solid waste dumping sites. The Meghna dumping site is located about one kilometer far from the Pourashava and has an area of 1.5 acre only. In this dumping site, solid waste is being recycled and produces compost. In the compost plant, there are 100 sheets having capacity of producing 3 tons in each. It can produce about 60 tons of fertilizer in every month.

The other dumping site is in Shilmon (1.0 acre) located about 6 kilometer far from the center of the Pourashava is a temporary arrangement, have no provision for producing compost

There is limited arrangement for treatment and recycling of solid waste in the Pourashava, where NGOs (BASA, Practical Action and World Vision) are engaged in preparation of compost for using it in agricultural farms.

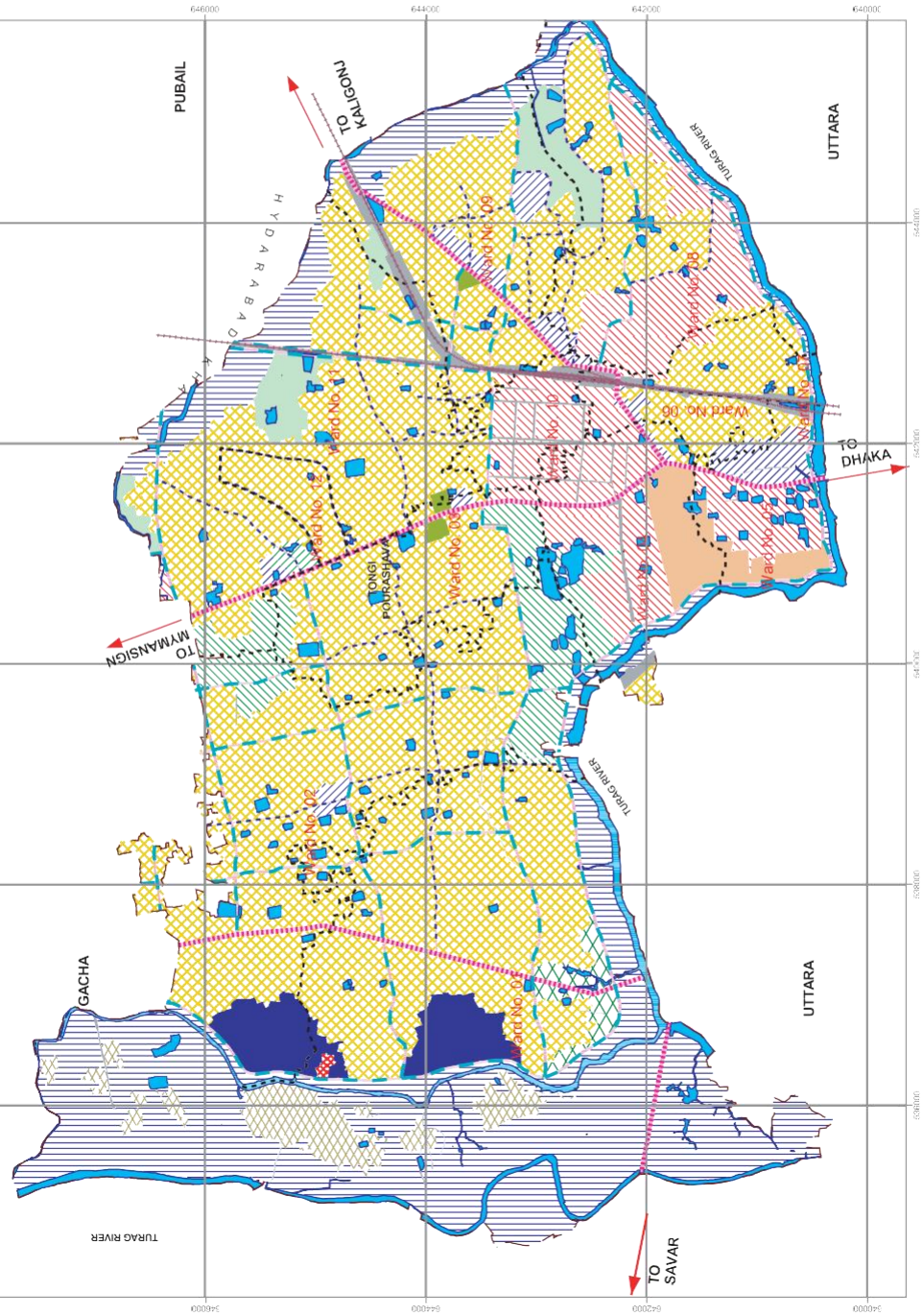
In Dattapara 6.5 acres of land is proposed for waste dumping ground and at the same time it can be used for compost preparation.



**LEGEND**

- Dipz Boundary
- Ward Boundary
- Existing Rail Line
- Proposed Road (Feet)
  - 24
  - 40
  - 60
  - 80
  - 100
  - 120
  - 130
  - 160
  - 170
  - 272
- Proposed Land Use
  - Administrative Zone
  - Agriculture Zone
  - Commercial Zone (Business)
  - Commercial Zone (Office)
  - Transportation & Communication
  - Flood Flow Zone
  - General Industrial Zone
  - Heavy Industrial Zone
  - Institutional Zone
  - Non-Conforming Use
  - Open Space
  - Parkway Zone
  - Proposed Road Network
  - Rural Settlement Zone
  - Transportation Facilities
  - Urban Residential Zone
  - Water Retention Area
  - Waterbody
  - Mixed Use Zone (Commercial-General Industrial)
  - Mixed Use Zone (Residential-Commercial)
  - Mixed Use Zone (Residential-Commercial-General Industrial)
  - Mixed Use Zone (Residential-General Industrial)

**MAP 3.8: PROPOSED LANDUSE OF DPZ 05**



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