

## Evaluation of Transfer of Development Rights (TDR) Scheme in BBMP

### Bruhat Bangalore Mahanagara Palike (BBMP) and Urban Development Ministry

#### Findings

The study has successfully brought out the various opportunities and issues related to TDR. On a macro scale we have looked at the TDR policies in various Indian cities. Some interesting concepts of incentivizing TDR using land value and FAR grading have emerged. On a micro scale, TDR policy in Mumbai has been studied which is one of the most successful cities in terms of implementation of TDR. The study resulted in important knowledge about spatialising the TDR concept through integrated landuse and policy planning. Furthermore, Bangalore was examined in detail through secondary data, primary data, interviews and site visit to identify the issue and gaps in TDR policy. The gaps and issues identified in the TDR market mechanism can be summarized as below through a set of evaluation questions given in the ToR.

Table 24: Road Wise Conducted Survey Samples

<b>Sl. No</b>	<b>Evaluation Question</b>	<b>Findings</b>
1	What should be the desired outcomes of the TDR scheme?	Desired outcome of the TDR scheme is to have a fair & transparent tool for land acquisition for the government. It is also desired to be a fair compensation tool for the land losers.
2	What were the expected outcomes in Bangalore and the extent to which these outcomes have been achieved?	TDR was conceptualized as a tool for land acquisition with a special focus to road widening and new road formation. Out of 216 notified roads, 55 roads have been executed using TDR scheme. Hence the desired outcomes have been partially achieved.

3 a. What is the implementation mechanism in vogue for TDR?

a. TDR is implemented by the BBMP (Bruhat Bangalore Mahanagara Palike) in Bangalore as per the provisions specified by the section (14) of KTCP Act, 1961 and the guidelines given by the Revised Master Plan 2015.

The TDR scheme is being implemented in Bangalore by the BBMP land acquisition department. The details of the process is explained in Section 7.2

b. Whether the implementation mechanism has been fair and transparent?

b. The concept of TDR, in principle is fair as it gives the owner rights of development in return of the acquired land. As seen in table 1, the compensation provided by the TDR policy is fair to land losers as one gets almost equivalent or more value when the DRCs are utilized.

TDR implementation in Bangalore has not been entirely transparent.

- Annual list of road widening project to be taken up is not published. There is a lack of substantial notice before acquisition.
- There is lack of transparency in the TDR market. Land owners are not aware of the current value of TDR in market.
- TDR purchasers are not aware of the TDR owners in the market.
- List of TDR availability status is not published by the BBMP, periodically (monthly, quarterly)

c. What are the gaps in implementation, if any?

c. The following are the gaps in implementation observed in the TDR process:

- TDR market is not transparent at present for sellers as well as buyers. The Govt. can act to increase transparency.
- TDR process at present is substantially

time taking. The institutional process can be modified to reduce the time taken to reduce TDR.

- In many cases it was found that the land owners are not aware about facts and details of TDR. Public awareness is vital for successful implementation of TDR.

4 How has the TDR been utilized by land losers who opted for it?

TDR utilization status as derived from the statistics availed from the BBMP is as follows:

- Out of 2168 DRCs issued, 1067 DRCs have been utilized. In terms of area, out of 22.66 lakh sqm of DRC granted, 11.01 lakh sqm have been utilized.
- Out of 1102 DRCs that have been utilized, 946 have been transferred to real estate companies and used by them, 119 have been transferred to individuals and used by them and 2 have been self-used.

5 What has been the response of real estate market? What category of land users have opted for TDR? Where has the TDR been deployed?

- Out of 1102 DRCs that have been utilized, 946 have been transferred to real estate companies and used by them, 119 have been transferred to individuals and used by them and 2 have been self-used. Hence, the majority of DRCs have been purchased and utilized by the real estate developers.
- Out of 1102 DRCs that have been utilized, 338 have been used in east division, 233 in Mahadevpura, 142 in south, 126 in west, 102 in Yelahanka, 30 in RR Nagara and 1 in Dasarahalli.

- 6 What mechanism is available in BBMP to monitor the use of TDR and check misuse if any? How is the TDR scheme that has been implemented in Bangalore different from other cities like Mumbai and Hyderabad etc.?
- At present that TDR issue and utilization is only documented but not monitored.
- The TDR scheme in Bangalore varies from other cities in terms of the compensation and the utilization norms. Section 5.7 gives a comparison of the TDR policies in the various cities.
- 7 What could be the possible reasons for difference in response to TDR observed between Bangalore and above mentioned cities?
- TDR is considered successful in Mumbai amongst all Indian cities. In Mumbai, 70% of TDR generation is accounted for by those used in Slum redevelopment. Slum TDR being highly popular for real estate reasons is generated in huge numbers. Hence TDR generated is more. Also, the FAR in Mumbai ranges from 1 to 1.5, land is also scarce, hence TDR is considered beneficial and used more in real estate development.
- In Bangalore, the concept of TDR for Slum development is non-existent, it is used only for road widening. Hence the amount of TDR generation is low. In terms of utilization, the FAR in Bangalore ranges from 1.5 to 4. Due to the already high development rights in the city, developers are not motivated to buy extra development rights. Hence TDR utilization is less.
- 8 What could be the impact of new land acquisition Act on the demand for TDR?
- The new land acquisition has the maximum compensation benefits compare to the TDR and it will directly impact on the demand of the TDR in the market. It will reduce the number of land loser opting for the TDR and impact on the TDR value in the market.
- 9 Whether the proposed amendments to Town and Country Planning Act (attached) suffice in making TDR
- As per the existing TCP Act the compensation value is very less compared to the market value, so there is less demand for TDR in the market, there

scheme more effective?

is a need of modification of act for effective TDR scheme.

- 10 What should be the mechanism to regulate and monitor the trading of TDR?

TDR can be monitored by creating a platform for transaction of TDR as described in point 13.

TDR market can be regulated to prevent cartel formation and unfair trading by creating a web based TDR transaction portal. Such portals can be used to act as real time TDR database and along with function of selling of TDR and finally tracking of utilization.

- 11 Is there a requirement to specify a validity period for TDR?

DRCs should be ideally specified with a validity period for better implementation of Statutory plans. DRCs generate virtual real estate space within the city. The accumulation of such spaces over long periods of time and their utilization might contradict planning vision of the city. Real estate speculation is not beneficial for a health, market.

- 12 What policy norms should be put in place to ensure that TDR is utilised in consonance with the larger objective of the State?( if the larger objective of the State is to prevent urban sprawl, use of TDR should not lead to the contrary)

The TDR concept can be integrated with the larger planning vision of the state. For eg, if the govt, desires densification of certain areas, it can mark such areas in the master plan document as densification areas with higher FAR. The FAR could be achieved by use of certain percentage of TDR.

- 13 What kind of institutional/market mechanisms must be put in place for Ensuring fair trading of TDR, monitoring changes in value of TDR, ensuring guaranteed purchase of TDR from land owners who are unable to sell TDR in market for some reason or other etc.,

TDR transactions can be made fair and transparent if it is traded in a online public platform, quite like the share market. In such a market the availability and price of every TDR/DRC is publicly known. Hence it allows the owners to get a fair price for their TDR. Simultaneously, it allows buyers to buy as per their needs.

In similar lines, TDR bank can also be created by the govt. or group of financial institutions. TDRs

can be bought from the owners and subsequently sold at an online platform by the Bank.

14 How should the possibility of cartel formation and unfair trading be curtailed?

Cartel formation and unfair trading happens when there is lack of transparency in the market. If TDR is brought in an open platform, it would give everyone a fair chance. Even if an entity wants to possess a large number of DRCs, it would have to compete in the open market, hence owners or other buyers won't be cheated. This will also prevent cartel formation.

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## **Recommendations**

### **TDR MODEL**

The existing TDR compensation – utilisation policy has been examined. Based on the results, three models have been examined to see how TDR could be made more attractive.

(a) factor based model

(b) land value based model

(c) FAR based model

### **FACTOR BASED MODEL**

The following section illustrates the factor based model. It is based on the existing TDR model in Bangalore which is essentially a factor based model, and analyse the benefits and disadvantages of the compensation received by the land losers.

#### **EVALUATION OF EXISTING FACTOR MODEL**

The evaluation of the existing TDR model was demonstrated in section 8.1.1. The analysis shows that for every ring, TDR gives higher compensation than the original value of the land; i.e. Value of 150 sqm of compensated land is higher than the original 100 sqm, irrespective of TDR Ring of generation and zone of utilisation.

The highest value in each case is achieved in its own ring of generation. But from the study of maps of generating and utilisation zones, it had been observed that the use of TDR does not necessarily happen in its zone of generation. When DRC is transferred from one zone to other, its value might reduce in certain cases. Also the process of TDR is lengthy. To compensate for the time taken for the compensation to reach the land loser, it is advisable to increase the benefits arising from TDR.

Hence to provide larger benefits to the owners of land, the following modified model has been proposed.

#### **MODIFIED FACTOR MODEL**

In this model the utilization factor of TDR has been modified, to increase the compensation of for the land owners

**Compensation factor = 1.5**

**Utilisation factor for zone as follows:**

Table 25: Proposed Utilisation factor for zones

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	Zone 1	Zone 2	Zone 3
Zone 1	1	1.8	2.5
Zone 2	0.9	1	2
Zone 3	0.6	0.8	1

Hence under this model, when 100 sq m of land is surrendered, 150 sqm is received as compensation. The value of 150 sqm when used in different TDR zones has been worked out based on the revised utilization factor. The average guidance value of the zones has been considered while deriving the value.

With the above model, the table appears as follows:

Table 26: Value of TDR in different zone as per proposed TDR model

Zone	Ward	Area	Guidance value (per sqm)	Land surrendered (sqm)	Compensation received (sq m)	Value of 100 sqm property	Value in Ring I/ Zone I (lakhs)	Value in Ring II/ Zone II (lakhs)	Value in Ring III/ Zone III (lakhs)
							<b>Value of 150 sqm when used in different TDR zones</b>		
<b>Ring I/ Zone I</b>	Gandhinagar	Ananda Rao extension	112980	100	150	112.98	169.47	172.86	130.13
	Chickpet	Utradi mut road	75320	100	150	75.32	112.98	172.86	130.13
	Shivajinagar	Central Street	86080	100	150	86.08	129.12	172.86	130.13
	Sudham Nagar	Mission Road	69617	100	150	69.62	104.43	172.86	130.13
	Mysore Road	Mysore Main Road	58448	100	150	58.45	87.67	172.86	130.13
<b>Ring II/ Zone II</b>	Malleswaram	Maruthi Extension	64560	100	150	64.56	80.41	96.84	104.10
	Jayanagar	Jaynagar 3rd block	96840	100	150	96.84	80.41	145.26	104.10
	Rajajinagar	Industrial Town	43040	100	150	43.04	80.41	64.56	104.10
	Koramangala	Jakkasandra Main Road	59180	100	150	59.18	80.41	88.77	104.10
	Hebbala	Varthula Road	56490	100	150	56.49	80.41	84.74	104.10
<b>Ring III/ Zone III</b>	Mahadevpura	Bagmane MTB Techpark	47021	100	150	47.02	60.37	76.83	70.53
	Yelahanka New Town	Yelahanka New Town LIC Office Road	38897	100	150	38.90	60.37	76.83	58.35
	Kengeri	Kengeri Golahalli (B.D.A.	17754	100	150	17.75	60.37	76.83	26.63



<b>III</b>	Peenya	Layout) Peenya Industrial Area (C.M.C. /(Converted Sites)	27223	100	150	27.22	60.37	76.83	40.83
	BTM Layout	B.T.M.Layout t 4th Stage Main road	42610	100	150	42.61	60.37	76.83	63.91

With the new model, the difference in value when used in various zones is reduced in most of the cases other than some very high land value areas like Gandhinagar and Jaynagar. However, since such occurrences are less and it satisfies the other zones, this can be adopted.

The study also proposes a scenario keeping in view the New Land Acquisition Act. The new Act suggests 2 times monetary compensation for urban lands. To make TDR attractive comparative to that, the following model is proposed.

Even though the model demonstrated in the previous section gives a higher value than the existing TDR model in Bangalore, it is not comparable to the compensation offered by the New Land Acquisition Act. The new Act proposes two times monetary compensation for acquired urban lands.

The following table shows the comparison of the monetary compensation with those received from the TDR as per the modified factors as described above.

Comparison of compensation received from New Land Acquisition act and modified TDR factor.

Zone	Ward	Area	Compensation received (sq m)	Guidance value (per sqm)	Value of 100 sqm property	Value in Ring I/ Zone I (lakhs)	Value in Ring II/ Zone II (lakhs)	Value in Ring III/ Zone III (lakhs)	Compensation As per New Land Acquisition Act
						Value of 150 sqm when used in different TDR zones			
<b>Ring I/ Zone I</b>	Gandhinagar	Ananda Rao extension	150	112980	112.98	169.47	172.86	130.13	225.96
	Chickpet	Utradi mut road	150	75320	75.32	112.98	172.86	130.13	150.64
	Shivajinagar	Central Street	150	86080	86.08	129.12	172.86	130.13	172.16
	Sudham Nagar	Mission Road	150	69617	69.62	104.43	172.86	130.13	139.23
	Mysore Road	Mysore Main Road	150	58448	58.45	87.67	172.86	130.13	116.90
<b>Ring II/ Zone II</b>	Malleswaram	Maruthi Extension	150	64560	64.56	80.41	96.84	104.10	129.12
	Jayanagar	Jaynagar 3rd block	150	96840	96.84	80.41	145.26	104.10	193.68
	Rajajinagar	Industrial Town	150	43040	43.04	80.41	64.56	104.10	86.08
	Koramangala	Jakkasandra Main Road	150	59180	59.18	80.41	88.77	104.10	118.36
	Hebbala	Varthula Road	150	56490	56.49	80.41	84.74	104.10	112.98
<b>Ring III/ Zone III</b>	Mahadevpur a	Bagmane MTB Tech park	150	47021	47.02	60.37	76.83	70.53	94.04
	Yelahanka New Town	Yelahanka New Town LIC Office Road	150	38897	38.90	60.37	76.83	58.35	77.79
	Kengeri	Kengeri Golahalli (B.D.A. Layout)	150	17754	17.75	60.37	76.83	26.63	35.51
	Peenya	Peenya Industrial Area	150	27223	27.22	60.37	76.83	40.83	54.45

	BTM Layout	B.T.M.Layout 4th Stage Main road	150	42610	42.61	60.37	76.83	63.91	85.22
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AS seen in this table, the compensation received from modified TDR factor is not comparable with that of the New Land acquisition act. Hence to increase the compensation of TDR the following model is proposed.

### PROPOSED FACTOR MODEL

In the proposed factor model, the compensation as well as the utilisation factors have been increased as follows.

**Compensation factor = 2.2**

**Utilisation factor for zone as follows:**

Table 28: Proposed Utilisation factor for zones

	Zone 1	Zone 2	Zone 3
Zone 1	1	1.8	2.5
Zone 2	0.9	1	2
Zone 3	0.6	0.8	1

Hence under this model, when 100 sq m of land is surrendered, 220 sqm is received as compensation. The value of 220 sqm when used in different TDR zones has been worked out. The average guidance value of the zones has been considered while deriving the value.

Table 29: Land value comparison as per the new model

Zone	Ward	Area	Guidance value (per sqm)	Land surrendered (sqm)	Compensation received (sq m)	Value of 100 sqm property	Value in Ring I/ Zone I (lakhs)	Value in Ring II/ Zone II (lakhs)	Value in Ring III/ Zone III (lakhs)	Compensation As per New Land Acquisition Act
							Value of 220 sqm when used in different TDR zones			
Ring I/ Zone I	Gandhinagar	Ananda Rao extension	112980	100	220	112.98	248.56	253.53	190.86	225.96
	Chickpet	Utradi mut road	75320	100	220	75.32	165.70	253.53	190.86	150.64

	Shivajinagar	Central Street	86080	100	220	86.08	189.38	253.53	190.86	172.16
	Sudham Nagar	Mission Road	69617	100	220	69.62	153.16	253.53	190.86	139.23
	Mysore Road	Mysore Main Road	58448	100	220	58.45	128.59	253.53	190.86	116.90
<b>Ring II/ Zone II</b>	Malleswararam	Maruthi Extension	64560	100	220	64.56	181.10	142.03	152.68	129.12
	Jayanagar	Jaynagar 3rd block	96840	100	220	96.84	181.10	213.05	152.68	193.68
	Rajajinagar	Industrial Town	43040	100	220	43.04	181.10	94.69	152.68	86.08
	Koramangala	Jakkasandra Main Road	59180	100	220	59.18	181.10	130.20	152.68	118.36
	Hebbala	Varthula Road	56490	100	220	56.49	181.10	124.28	152.68	112.98
<b>Ring III/ Zone III</b>	Mahadevpura	Bagmane MTB Techpark	47021	100	220	47.02	120.73	112.68	103.45	94.04
	Yelahanka New Town	Yelahanka New Town LIC Office Road	38897	100	220	38.90	120.73	112.68	85.57	77.79
	Kengeri	Kengeri Golahalli (B.D.A. Layout)	17754	100	220	17.75	120.73	112.68	39.06	35.51
	Peenya	Peenya Industrial Area	27223	100	220	27.22	120.73	112.68	59.89	54.45
	BTM Layout	B.T.M. Layout 4th Stage Main road	42610	100	220	42.61	120.73	112.68	93.74	85.22

With this model of compensation, it can be seen that except very high land value areas like Gandhinagar and Jaynagar, the TDR compensation can be matched to that of the New Land Acquisition Act.

### **ADVANTAGES & DISADVANTAGE OF THIS MODEL**

The advantages of the model are as follows:

- a. The compensation availed by the owners are higher than the value of the original land
- b. Administration of the model is easy as it involves simpler formulas and conversion factors.
- c. The disadvantage of this formula lies in its inability to control densification. In order to increase fairness to the land owners, larger amount of developable space is being generated. When these get used randomly in various zones it might defy and negate the planning vision of the city.

## FAR BASED MODEL

The second model based on FAR has been proposed based on the Mumbai and Pune model.

The philosophy of this model can be described as:

***“The compensation is equal to the buildable rights in the acquired land”***

It can be explained by the following formula.

**Compensation area = area surrendered x FAR of the generating site**

The concept of Utilisation factor does not exist in the model. The compensation can be used freely in all zones.

The compensation of the acquired land in different zones as per this formula is given in the table below:

Land value comparison as per the new model

	Area	Micro Area	Landuse Zone	Far	Area Surrendered (Sqm)	Compensation (Sqm)
<b>Ring I/ Zone I</b>	Gandhinagar	Ananda Rao extension	Comm (Business)	3.25	100	325
	Chickpet	Utradi mut road	Res ( main)	2.25	100	225
	Shivajinagar	Central Street	Comm (Business)	3	100	300
	Sudham Nagar	Mission Road	Comm (Business)	3	100	300
	Mysore Road	Mysore Main Road	Res (mix)	3	100	300
<b>Ring II/ Zone II</b>	Malleswaram	Maruthi Extension	Res (main)	2.5	100	250
	Jayanagar	Jaynagar 3rd block	Res (main)	2.5	100	250
	Rajajinagar	Industrial Town	Industrial	1.5	100	150
	Koramangala	Jakkasandra Main Road	Res (main)	3.25	100	325
	Hebbala	Varthula Road	Res (main)	3	100	300
<b>Ring III/ Zone III</b>	Mahadevpura	Bagmane MTB Techpark	Industrial	1.5	100	150
	Yelahanka New Town	Yelahanka New Town LIC Office Road	Industrial	1.5	100	150
	Kengeri Golahalli	Kengeri Golahalli (B.D.A. Layout)	Res (main)	3	100	300
	Peenya	Peenya Industrial Area	Industrial	1.5	100	150
	BTM Layout	B.T.M.Layout 4th Stage Main road	Res (mix)	3.25	100	325

The value of compensation received by each owner remains constant irrespective of the zone they are originating or being utilized. The compensation is guided by the FAR of the generating land which is a factor of its potential and land prices. However, Bangalore had a very dynamic FAR system based on road width. The model which is quite successful in Mumbai is based on the fact that in Mumbai FAR is zone based, eg, the entire 'eastern suburbs' has one FAR of 1.5 irrespective of the road width.

In Bangalore however, an area in Gandhinagar as well as Mahadevpur can have the same FAR and receive the same compensation for surrendered area. Since value of the land between the two locations vary greatly, such compensation mechanism is not fair to land losers.

### **ADVANTAGES & DISADVANTAGE OF THIS MODEL**

The major advantage of this model is that it takes into account the potential of the land in the compensation formula without much complication. It would also promote use of TDR in the inner areas of the city as land price in the inner areas are high.

But there are also some disadvantages when this formula is being used in Bangalore.

Unlike Mumbai or Pune, FAR in Bangalore is determined by the width of the road. Whereas that in Mumbai or Pune is zone based, e.g. the entire island city has a single FAR value (1.5) irrespective of the width of the road. Hence in Bangalore this would create a major administrative problem.

### **GUIDANCE VALUE BASED MODEL**

The resistance to TDR has been seen to be generating from difference in land values in different areas of Bangalore, where land losers are not able to receive comparable values for their lost land. Hence, a second model based on Guidance values has been proposed. The philosophy for this model is as follows:

***“Compensation is equal to the amount of land that can be bought using the value of land surrendered “***

This can be explained with the following example.

*Say, Land surrendered in Gandhinagar = 100 sqm*

*Value of 100 sq m of land in Gandhinagar = 100 \* 1,12,980 = 1,12,98,000*

*How much land can be bought in Kengeri in INR 1,12,98,000 ?*

*1,12,98,000 = 636 sqm*

1,77,5400

Hence, compensation received = 636 sqm

The model can be explained by the following formula:

$$\text{Compensation area} = \text{Surrendered area (A)} \times \frac{\text{Guidance value of generating plot}}{\text{Guidance value of receiving plot}}$$

The compensation received in each zone based on this model is described in the table below.

Table 31: Compensation area as per Guidance Value Model

						(Compensation area that can be bought with the value of 100 sqm surrendered land)		
Zone	Ward	Area	Guidance value	Land surrendered (sqm)	Value of 100 sqm property (lakhs)	Ring I/ Zone I (sqm)	Ring II/ Zone II (sqm)	Ring III/ Zone III (sqm)
Ring I/ Zone I	Gandhinagar	Ananda Rao extension	112980	100	112.98	100	176	326
	Chickpet	Utradi mut road	75320	100	75.32	100	118	217
	Shivajinagar	Central Street	86080	100	86.08	100	134	248
	Sudham Nagar	Mission Road	69617	100	69.62	100	109	201
	Mysore Road	Mysore Main Road	58448	100	58.45	100	91	168
Ring II/ Zone II	Malleswaram	Maruthi Extension	64560	100	64.56	80	100	186
	Jayanagar	Jaynagar 3rd block	96840	100	96.84	120	100	279
	Rajajinagar	Industrial Town	43040	100	43.04	53	100	124
	Koramangala	Jakkasandra Main Road	59180	100	59.18	74	100	171
	Hebbala	Varthula Road	56490	100	56.49	70	100	163
Ring III/ Zone III	Mahadevpura	Bagmane MTB Techpark	47021	100	47.02	58	73	100
	Yelahanka New Town	Yelahanka New Town LIC Office Road	38897	100	38.90	48	61	100
	Kengeri Golahalli	Kengeri Golahalli (B.D.A. Layout)	17754	100	17.75	22	28	100
	Peenya	Peenya Industrial Area	27223	100	27.22	34	43	100
	BTM Layout	4th Stage Main road	42610	100	42.61	53	67	100

Hence as per this model, 100 sqm of land surrendered in Gandhinagar receives 176 sqm when used in zone 2 and 326 sqm in zone 3. Since land price is higher in ring 1, larger quantities of land can be purchased for the price of land surrendered. This provides a direct equivalent of the land surrendered. Zone 1 is the highest beneficiary in terms of land received, while zone 3 has the lowest amount of land received. It is observed, that the compensation area increases from when transferred from inner to outer zones and keeps decreasing from outer to inner zones.

We also consider a scenario where the compensation is desired to be made competitive in comparison with the New Land Acquisition Act. The land acquisition Act gives 2 times the land value of the land surrendered. The compensation factor considered for this scenario is as follows

Table 32: Compensation factor for guidance value based compensation

	Zone 1	Zone 2	Zone 3
Zone 1	2.2	2.2	2.2
Zone 2	2.2	2.2	2.2
Zone 3	2.2	2.2	2.2

Hence the model could be defined as follows:

$$\text{Compensation area} = \text{Surrendered area} \times \frac{\text{Guidance value of generating plot}}{\text{Guidance value of receiving plot}} \times 2.2$$

The compensation area for the zones as per this model is as follows:

Table 33: Compensation area

						Compensation area achieved (sqm)		
Zone	Ward	Area	Guidance value	Land surrendered (sqm)	Value of 100 sqm property (lakhs)	Ring I/ Zone I (sqm)	Ring II/ Zone II (sqm)	Ring III/ Zone III (sqm)
Ring I/ Zone I	Gandhinagar	Ananda Rao extension	112980	100	11298000	220	388	716
	Chickpet	Utradi mut road	75320	100	7532000	220	259	478
	Shivajinagar	Central	86080	100	8608000	220	296	546



		Street						
	Sudham Nagar	Mission Road	69617	100	6961720	220	239	441
	Mysore Road	Mysore Main Road	58448	100	5844832	220	201	371
<b>Ring II/ Zone II</b>	Malleswaram	Maruthi Extension	64560	100	6456000	176	220	409
	Jayanagar	Jaynagar 3rd block	96840	100	9684000	265	220	614
	Rajajinagar	Industrial Town	43040	100	4304000	118	220	273
	Koramangala	Jakkasandra Main Road	59180	100	5918000	162	220	375
	Hebbala	Varthula Road	56490	100	5649000	154	220	358
<b>Ring III/ Zone III</b>	Mahadevpura	Bagmane MTB Techpark	47021	100	4702120	129	162	220
	Yelahanka New Town	Yelahanka New Town	38897	100	3889740	106	134	220
		LIC Office Road						
	Kengeri Golahalli	Kengeri Golahalli (B.D.A. Layout)	17754	100	1775400	49	61	220
	Peenya	Peenya Industrial Area	27223	100	2722280	74	94	220
	BTM Layout	B.T.M. Layout 4th Stage Main road	42610	100	4260960	116	146	220

## ADVANTAGES & DISADVANTAGE OF THIS MODEL

This model makes TDR compensation comparable to New Land Acquisition Act.  
This model

has the following advantages and disadvantages:

1. It helps regulate urban density through a regulation of TDR through land prices.
2. It is however, difficult to administer this process as every road has a different land price.
3. It does not provide concrete compensation at the tenure of acquisition as the owner is not aware where the DRC may be utilized.

## RECOMMENDED MODEL

Based on a comparative analysis of all the 3 models, it is felt that model one is the most practical as well as fair model for implementation. The model in a modified version of the existing factor based model. It can be summarized as follows:

**Compensation factor = 2.2**

**Utilisation factor for zone as follows:**

Table 34: Proposed Utilisation factor for zones

	Zone 1	Zone 2	Zone 3
Zone 1	1	1.8	2.5
Zone 2	0.9	1	2
Zone 3	0.6	0.8	1

## RECOMMENDATION FOR INCREASE TDR UTILISATION

1. **Creating TDR slab in the FAR scheme:** To increase utilization of TDR, it is proposed to include a slab of TDR in the existing TDR scheme. For e.g. if the FAR of a particular plot is 3.25, then the FAR slab can be modified to include a base FAR and the TDR to reach the final FAR.

Total FAR	Base FAR	TDR
3.25	3	.25

2. **Create zones for use of TDR.** The government may choose to identify ***densification zones*** in the city focused with infrastructure and transport development. Such areas could be bestowed with *higher FAR where a part of the FAR can be achieved only through TDR*. These would create high absorption zones for TDR.

Illustrative FAR scheme for densification zones:

Total FAR	Base FAR	TDR
3.5	3.25	.5
4.25	4	.25

**Transit Oriented Development schemes** could be pursued as densification zones.

Such zone should essentially be included in the Revised Master Plan 2031 of Bangalore.

3. For projects like Tannery Road, Avenue Road, Chikpete, etc. where the project involves financial as well as social implications, projects should be brought under integrated development scheme along the lines of integrated urban redevelopment and slum rehabilitation in Mumbai. Such **“integrated urban redevelopment/renewal areas”** should be marked in the Statutory master Plan under the KTCP Act. Such schemes may be taken up by the government or private organisations

In the Mumbai model, a percentage of the rehabilitated area is given to the developer as an incentive. In a similar manner incentive for development of public infrastructure (road) & rehabilitated area can be given as incentive to the party. Detailed study may be taken up by the government to form the guidelines and regulations of such schemes.

*Such schemes may also be integrated with the National Smart City program.*

## **RECOMMENDATIONS FOR INCREASING TRANSPARENCY IN TDR PROCESS**

1. A **web based portal** should be created to form an operational and transaction platform for TDR. It should perform the function of database creation and maintenance generation, transaction and utilisation of TDR.
  - The platform should consist of real time database of TDR beneficiaries. Details of DRCs (owner, site location, DRC area) should be appended on the portal.
  - It should act as an online transaction portal: It should be modeled to include information of DRC owners with detail of price, DRC area, geographical location etc. The portal would also contain option of registering oneself as potential buyer of TDR. It would help all TDR owners to fetch reasonable price for their TDR.
  - Transaction should essentially happen over the online platform to avoid further black-market formation. Such platform could be maintained by the Government or a government subsidiary or by financial institutions selected by the government.
2. TDR bank: The concept of a transparent TDR transaction portal can be further fortified by creating a TDR Bank. The bank could be owned by the government or it could be handled by a set of selected financial institutions. In this model, the

DRC owners can sell their DRCs to the bank at negotiated prices. The bank can further sell them to the buyers through an online portal.

3. Periodical reports on TDR status should be published by the government.
4. Annual list of projects to be executed using TDR should be published by the government to give ample notice to land losers.

### **OTHER RECOMMENDATIONS**

1. For all the functions detailed above, a separate TDR body should be created to administer and process TDR. The committee should encompass functions of TDR generation, TDR transaction platform and eventually tract the utilisation of such TDRs.
2. The TDR zones in Bangalore were proposed almost a decade ago. The land price gradient and dynamics have changes considerably over the last few years. Hence the TDR zones should be redrawn based on equal land value contours.
3. The KTCP Act should be updated to include the new provisions of TDR & the existing TDR Zoning regulations needs to be updated as per the present market value and demand periodically.
4. TDR should also be used in the Local Planning areas of the BMR. Such measures would help utilisation of TDR.
5. TDR is presently used in Bangalore for the purpose of road widening. The KTCP Act has provisions for use of TDR for purposes other than road widening. Slum rehabilitation, metro rail and lake conservations are recommended to be taken up using TDR. A memorandum or circular delineating the purpose and scope of such work can immediately bring to affect such purposes.
6. Record keeping should be updated as detailed in Annexure 7 on the line of Municipal Corporation of Greater Mumbai.
7. All previous records should be digitized.
8. Undertake capacity building programme to educate staff in the concerned departments to handle TDR process efficiently.
9. Undertake awareness program to educate the general public about the facts, detail and benefits of TDR.

## WAY FORWARD

1. Study should be undertaken to investigate the feasibility and identification of densification zones and increasing FAR in the city.
2. Guidelines should be developed on “Integrated Redevelopment Schemes” to be taken up in dense city areas like Pete, Avenue Road, and Tannery road.
3. The Gov. should initiate to form a committee to pursue the change in TDR model with necessary process and approval.
4. Detail study should be undertaken for detail planning and design of web based portal.
5. Detail study should be undertaken for analyzing feasibility and detail planning of TDR Bank.

## CATEGORISATION OF THE RECOMMENDATIONS AS SHORT TERM, MEDIUM TERM AND LONG TERM

As per the terms of reference of the project, the recommendations have been classified in to short, medium and long term. Short term recommendations are those which can be acted upon without any major policy change and expenditure and can be affected within a year. Medium term recommendations can be acted upon in the next four to five financial years with sizable expenditure or both but does not involve policy changes. Long term recommendations are those involving policy changes.

Short Medium and long terms recommendations for TDR in Bangalore

<b>SL</b>	<b>Short Term proposals</b>	<b>Medium Term Proposals</b>	<b>Long Term Proposals</b>
1	Commencing the use of TDR for purposes other than road widening.	Creation of web based TDR platform	Revision of TDR Model in Bangalore

2	Digitization of previous TDR records	Creation of TDR slab in FAR	Creation of TDR bank
3	Updating of record keeping for TDR.	Identification of densification zones for use of TDR	Updation of the KTCP Act to include the provisions of TDR.
4	Undertake capacity building programme to educate staff in the concerned departments to handle TDR process efficiently.	Identification of redevelopment zones	
5	Undertake awareness program to educate the general public about the facts, detail and benefits of TDR	Creation of TDR management body	
6	Periodical reports on TDR status by the govt.	Permitting the use of BBMP TDR in other local planning areas in BMR	
7	Annual list of projects to be executed using TDR should be published by the government to give ample notice to land losers.		
8	Study should be undertaken to investigate the feasibility and identification of densification zones and increasing FAR in the city.		
9	Guidelines should be developed on “Integrated Redevelopment Schemes” to be taken up in dense city areas like Pete, Avenue Road, Tannery road.		
10	The Gov. should initiate for form a committee to pursue the change in TDR model with necessary process and approval.		

11 Detail study should be undertaken for detail planning and design of web based portal.

12 Detail study should be undertaken for analyzing feasibility and detail planning of TDR Bank

## **INCREASING TRANSPARENCY IN TDR PROCESS: RECOMMENDATIONS**

### **INTRODUCTION AND BACK GROUND**

The process of Transfer of Development Rights in Bangalore is controlled by the Bruhat Bangalore Mahanagara Palike since its introduction in 2005. TDR management is still largely a manual process for all procedures related to TDR certificate generation, utilisation, transaction and record keeping. Till date 2168 TDR certificates have been generated from the BBMP, hence management of the existing TDR certificates as well as new applications requires huge manpower and infrastructure which is considerably cost intensive. At the same time, manual process and decentralized structure also introduces chances of error and bias.

From the several primary surveys carried out under this study it has been clear that lack of information with respect to availability of TDR has been one of the major reasons preventing the realization of TDR value, formation of cartels and middlemanship. It has also come out from the study that lack of a digital database also creates opportunities of duplication of compensation.

Government administration as seen from global best practices is largely moving into a digital mode which is more transparent and efficient. From these perspectives it is evident that creating a transparent process for TDR is the way forward in the future.

### **GAPS IN EXISTING SCENARIO**

#### **TDR PROJECT PORTFOLIO**

The portfolio of projects to be taken up by the govt. for execution using TDR is to be notified every year through a public notice or a circular. Annual notice is not being published currently by the BBMP. Hence the potential land losers do not have any

opportunity to plan for such changes in land ownership.

### **TDR ELIGIBILITY DETERMINATION**

After the TDR notification is provided by the road infrastructure department, the all land parcels assigned for acquisition go for an engineering and legal verification. The engineering process included detailed engineering survey and verification of actual acquisition area. The legal process included verification of all legal documents related to the land. No digital copies of the verification documents are maintained at BBMP for auditing or other purposes in future. There are no registered surveyors or legal auditors mandated by the BBMP for this process, putting the entire matter to possible debate and questioning in terms of quality.

### **TDR CERTIFICATE AWARD**

Once the verification of all the documents is successfully completed, the relinquishment deed is signed by the owner at the zonal BBMP offices and then sent to the head office for signing of the TDR certificate by the commissioner. At the head office the verification process is repeated and hereafter after compliance to rules, the TDR certificate is signed by the commissioner.

There is duplication of function at the zonal and head offices as per the present business process. It is also subject to time lag, manual error and other damages. The process can be streamlined by using digital mode of work.

### **TDR CERTIFICATE AND DATABASE MANAGEMENT**

Two copies of the TDR certificate is maintained, one remains with the land loser and the other remains with the BBMP. There are no digital copies and hence the process is subject to damages in handling, calamities etc. and also requires huge space.

There is no unified digital database maintained for record keeping of TDRs generated at the BBMP. Information related to TDR availability does not exist on real-time basis to the general public or to the government. There is some information available in a compiled format on the BBMP website but updation of the same doesn't happen on a regular basis.



## **TDR TRANSACTION**

In the user survey carried out under this study, it was revealed that majority of the TDR transaction happens through liasoners or middle men. There is no direct transaction between the TDR owner and the utilising entity. This can be reasoned with the lack of information availability in the market about potential TDR sellers and potential TDR buyers. Hence it forms a virtual market where the price of TDR can be highly manipulated and skewed for the benefit of the middle men.

## **TDR UTILISATION**

The sanctioning of the TDR being utilized happens at the BBMP town planning division where the existing plan along with the TDR certificate is verified for the sanctioning purpose. Again there is no digital record available to verify the sanctity of the TDR certificate apart from the applicant's copy. There is also no way to digitally update the status of the TDR certificate after the utilisation of the same. Hence this process can be highly susceptible to manipulation and fraud.

## **RECOMMENDATIONS FOR INCREASING TRANSPARENCY IN TDR PROCESS**

To address the above mentioned gaps and especially stress upon prevention of cartel

formation the following recommendation have been proposed.

5. A **web based portal** should be created to form an operational and transaction platform for TDR. It should perform the function of database creation and maintenance generation, transaction and utilisation of TDR.
  - The platform should consist of real time database of TDR beneficiaries. Details of DRCs (owner, site location, DRC area) should be appended on the portal.
  - It should act as an online transaction portal: It should be modeled to include information of DRC owners with detail of price, DRC area, geographical location etc. The portal would also contain option of registering oneself as

potential buyer of TDR. It would help all TDR owners to fetch reasonable price for their TDR.

- Transaction should essentially happen over the online platform to avoid further black-market formation. Such platform could be maintained by the Government or a government subsidiary or by financial institutions selected by the government.
  - All previous TDR records should be updated as per these standards.
6. TDR bank: The concept of a transparent TDR transaction portal can be further fortified by creating a TDR Bank. The bank could be owned by the government or it could be handled by a set of selected financial institutions. In this model, the DRC owners can sell their DRCs to the bank at negotiated prices. The bank can further sell them to the buyers through an online portal.
  7. The business process of TDR generation is proposed to be automatized. A centrally accessible Enterprise Resource Management System (digital platform) can be created to accommodate the same. Such platforms are generally multi login enabled where officers with pre-assigned login-id and password can login and carry out the task of engineering validation, legal validation, notice generation etc. It also comes with the option of uploading relevant documents hence saving space requirement and harm from damages. This also saves time for manual file transfer between the zonal and head offices, prevents manual error and bias.
  8. Periodical reports on TDR status should be published by the government.
  9. Annual list of projects to be executed using TDR should be published by the government to give ample notice to land losers.