

COMBINED CIVIL SERVICES EXAMINATION-I

Group - I Services (Main Examination) (Degree Standard)



PAPER – III - General studies
UNIT II: ENVIRONMENT, BIODIVERSITY AND DISASTER MANAGEMENT

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Tiger Reserves of India

- ➤ There are 51 tiger reserves in India which are governed by Project Tiger which is administrated by the **National Tiger Conservation Authority** (NTCA).
- ➤ India is home to 80 percent of tigers in the world. In 2006, there were 1,411 tigers which increased to 1,706 in 2010, 2,226 in 2014 and **2967 in 2018**.
- ➤ The Indian increase played a big role in driving up global populations as well; the number of wild tigers globally rose from 3,159 in 2010 to 3,890 in 2016 according to World Wildlife Fund and Global Tiger Forum.
- ➤ Project Tiger was launched by the Government of India in the year 1973 to save the **endangered species** of tiger in the country.
- ➤ The Status of Tigers, Co-Predators and Prey in India, 2018' summary report published by the National Tiger Conservation Authority (NTCA) and Wildlife Institute of India (WII) based on the fourth cycle of the National Tiger Census in 2018 has set a Guinness World Record as the Largest Camera Trap Wildlife Survey in the World.

Tigers in India



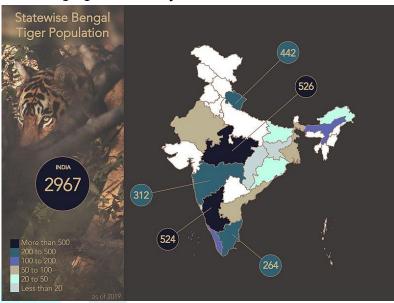
- ➤ Madhya Pradesh has the maximum number of tigers at 526.
- ➤ Tamil Nadu has 264 tigers.
- ➤ Starting from nine reserves in 1973-74 the number is grown up to fifty one. A total area of 72043.67 km2is covered by these project tiger areas.
- ➤ The existing tiger reserves represent around **one-third of India's high density forest area.**



Why is International Tiger's Day celebrated?

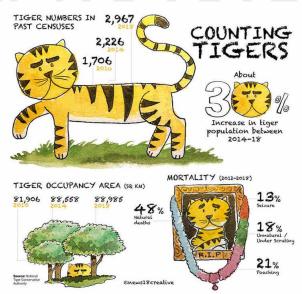
- ➤ International Tiger's Day is held every year on 29th July to raise public awareness and support regarding several issues related to tiger conservation. The idea behind such an event came up at the St. Petersburg Tiger Summit in 2010.
- ➤ It was also decided that 29th July would also be known as Global Tiger Day. During the summit, a panel of experts declared a goal towards tiger conservation, which was to double its population by 2022.





Economic value of tiger reserves

➤ The government had also conducted a study to understand the economic value of tiger reserves to the country. After analysing 10 of them, it reached the conclusion that the benefits, both from the environmental and socioeconomic point of view, amounted to almost 4,200 crores to 16,000 crores annually.





Tiger Reserves of India

S.No	Name of Tiger Reserve	State	Area of the core / critical tiger habitat (In Sq. Kms.)	Area of the buffer / peripheral (In Sq. Kms.)	Total area (In Sq.Kms.)
1.	Bandipur	Karnataka	872.24	584.06	1456.3
2.	Corbett	Uttarakhand	821.99	466.32	1288.31
	Amangarh (buffer of Corbett TR)	Uttar Pradesh		80.60	80.60
3.	Kanha	Madhya Pradesh	917.43	1134.361	2051.791
4.	Manas	Assam	840.04	2310.88	3150.92
5.	Melghat	Maharashtra	1500.49	1268.03	2768.52
6.	Palamau	Jharkhand	414.08	715.85	1129.93
7.	Ranthambore	Rajasthan	1113.364	297.9265	1411.291
8.	Similipal	Odisha	1194.75	1555.25	2750.00
9.	Sunderbans	West Bengal	1699.62	885.27	2584.89
10.	Periyar	Kerala	881.00	44.00	925.00
11.	Sariska	Rajasthan	881.1124	332.23	1213.342
12.	Buxa	West Bengal	390.5813	367.3225	757.9038
13.	Indravati	Chhattisgarh	1258.37	1540.70	2799.07
14.	Namdapha	Arunachal Pradesh	1807.82	245.00	2052.82
15.	Dudhwa	Uttar Pradesh	1093.79	1107.9848	2201.7748
16.	Kalakad- Mundanthurai	Tamil Nadu	895.00	760.542	1601.542
17.	Valmiki	Bihar	598.45	300.93	899.38
18.	Pench	Madhya Pradesh	411.33	768.30225	1179.63225

19. Tadoba-Andhari Maharashtra 625.82 1101.7711 1727.5911 20. Bandhavgarh Madhya Pradesh 716.903 820.03509 1598.10 21. Panna Madhya Pradesh 576.13 1021.97 1578.55 22. Dampa Mizoram 500.00 488.00 988.00 23. Bhadra Karnataka 492.46 571.83 1064.29 24. Pench Maharashtra 257.26 483.96 741.22 25. Pakke Arunachal Pradesh 683.45 515.00 1198.45 26. Nameri Assam 200.00 144.00 344.00 27. Satpura Madhya Pradesh 1339.264 794.04397 2133.30797 28. Anamalai Tamil Nadu 958.59 521.28 1479.87 29. Udanti-Sitanadi Chattisgarh 851.09 991.45 1842.54 30. Satkosia Odisha 523.61 440.26 963.87 <						
21. Panna Madhya Pradesh 576.13 1021.97 1578.55 22. Dampa Mizoram 500.00 488.00 988.00 23. Bhadra Karnataka 492.46 571.83 1064.29 24. Pench Maharashtra 257.26 483.96 741.22 25. Pakke Arunachal Pradesh 683.45 515.00 1198.45 26. Nameri Assam 200.00 144.00 344.00 27. Satpura Madhya Pradesh 1339.264 794.04397 2133.30797 28. Anamalai Tamil Nadu 958.59 521.28 1479.87 29. Udanti-Sitanadi Chattisgarh 851.09 991.45 1842.54 30. Satkosia Odisha 523.61 440.26 963.87 31. Kaziranga Assam 625.58 548.00 1173.58 32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54	19.	Tadoba-Andhari	Maharashtra	625.82	1101.7711	1727.5911
22. Dampa Mizoram 500.00 488.00 988.00 23. Bhadra Karnataka 492.46 571.83 1064.29 24. Pench Maharashtra 257.26 483.96 741.22 25. Pakke Arunachal Pradesh 683.45 515.00 1198.45 26. Nameri Assam 200.00 144.00 344.00 27. Satpura Madhya Pradesh 1339.264 794.04397 2133.30797 28. Anamalai Tamil Nadu 958.59 521.28 1479.87 29. Udanti-Sitanadi Chattisgarh 851.09 991.45 1842.54 30. Satkosia Odisha 523.61 440.26 963.87 31. Kaziranga Assam 625.58 548.00 1173.58 32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 <	20.	Bandhavgarh	Madhya Pradesh	716.903	820.03509	1598.10
23. Bhadra Karnataka 492.46 571.83 1064.29 24. Pench Maharashtra 257.26 483.96 741.22 25. Pakke Arunachal Pradesh 683.45 515.00 1198.45 26. Nameri Assam 200.00 144.00 344.00 27. Satpura Madhya Pradesh 1339.264 794.04397 2133.30797 28. Anamalai Tamil Nadu 958.59 521.28 1479.87 29. Udanti-Sitanadi Chattisgarh 851.09 991.45 1842.54 30. Satkosia Odisha 523.61 440.26 963.87 31. Kaziranga Assam 625.58 548.00 1173.58 32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 <td>21.</td> <td>Panna</td> <td>Madhya Pradesh</td> <td>576.13</td> <td>1021.97</td> <td>1578.55</td>	21.	Panna	Madhya Pradesh	576.13	1021.97	1578.55
24. Pench Maharashtra 257.26 483.96 741.22 25. Pakke Arunachal Pradesh 683.45 515.00 1198.45 26. Nameri Assam 200.00 144.00 344.00 27. Satpura Madhya Pradesh 1339.264 794.04397 2133.30797 28. Anamalai Tamil Nadu 958.59 521.28 1479.87 29. Udanti-Sitanadi Chattisgarh 851.09 991.45 1842.54 30. Satkosia Odisha 523.61 440.26 963.87 31. Kaziranga Assam 625.58 548.00 1173.58 32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76	22.	Dampa	Mizoram	500.00	488.00	988.00
25. Pakke Arunachal Pradesh 683.45 515.00 1198.45 26. Nameri Assam 200.00 144.00 344.00 27. Satpura Madhya Pradesh 1339.264 794.04397 2133.30797 28. Anamalai Tamil Nadu 958.59 521.28 1479.87 29. Udanti-Sitanadi Chattisgarh 851.09 991.45 1842.54 30. Satkosia Odisha 523.61 440.26 963.87 31. Kaziranga Assam 625.58 548.00 1173.58 32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662	23.	Bhadra	Karnataka	492.46	571.83	1064.29
25. Pakke Pradesh 683.45 515.00 1198.45 26. Nameri Assam 200.00 144.00 344.00 27. Satpura Madhya Pradesh 1339.264 794.04397 2133.30797 28. Anamalai Tamil Nadu 958.59 521.28 1479.87 29. Udanti-Sitanadi Chattisgarh 851.09 991.45 1842.54 30. Satkosia Odisha 523.61 440.26 963.87 31. Kaziranga Assam 625.58 548.00 1173.58 32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662	24.	Pench	Maharashtra	257.26	483.96	741.22
27. Satpura Madhya Pradesh 1339.264 794.04397 2133.30797 28. Anamalai Tamil Nadu 958.59 521.28 1479.87 29. Udanti-Sitanadi Chattisgarh 851.09 991.45 1842.54 30. Satkosia Odisha 523.61 440.26 963.87 31. Kaziranga Assam 625.58 548.00 1173.58 32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662 38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Rigigiri Ranganatha Temple Karnataka 359.10 215.7	25.	Pakke		683.45	515.00	1198.45
28. Anamalai Tamil Nadu 958.59 521.28 1479.87 29. Udanti-Sitanadi Chattisgarh 851.09 991.45 1842.54 30. Satkosia Odisha 523.61 440.26 963.87 31. Kaziranga Assam 625.58 548.00 1173.58 32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662 38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	26.	Nameri	Assam	200.00	144.00	344.00
29. Udanti-Sitanadi Chattisgarh 851.09 991.45 1842.54 30. Satkosia Odisha 523.61 440.26 963.87 31. Kaziranga Assam 625.58 548.00 1173.58 32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662 38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Ranganatha Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	27.	Satpura	Madhya Pradesh	1339.264	794.04397	2133.30797
30. Satkosia Odisha 523.61 440.26 963.87 31. Kaziranga Assam 625.58 548.00 1173.58 32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662 38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Biligiri Ranganatha Temple Karnataka 359.10 215.72 574.82	28.	Anamalai	Tamil Nadu	958.59	521.28	1479.87
31. Kaziranga Assam 625.58 548.00 1173.58 32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662 38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Biligiri Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	29.	Udanti-Sitanadi	Chattisgarh	851.09	991.45	1842.54
32. Achanakmar Chattisgarh 626.195 287.822 914.017 33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662 38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Biligiri Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	30.	Satkosia	Odisha	523.61	440.26	963.87
33. Dandeli-Anshi Karnataka 814.884 282.63 1097.54 34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662 38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Biligiri Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	31.	Kaziranga	Assam	625.58	548.00	1173.58
34. Sanjay-Dubri Madhya Pradesh 812.571 861.931 1674.502 35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662 38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Biligiri Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	32.	Achanakmar	Chattisgarh	626.195	287.822	914.017
35. Mudumalai Tamil Nadu 321.00 367.59 688.59 36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662 38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Biligiri Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	33.	Dandeli-Anshi	Karnataka	814.884	282.63	1097.54
36. Nagarahole Karnataka 643.35 562.41 1205.76 37. Parambikulam Kerala 390.89 252.772 643.662 38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Biligiri Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	34.	Sanjay-Dubri	Madhya Pradesh	812.571	861.931	1674.502
37. Parambikulam Kerala 390.89 252.772 643.662 38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Biligiri Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	35.	Mudumalai	Tamil Nadu	321.00	367.59	688.59
38. Sahyadri Maharashtra 600.12 565.45 1165.57 39. Biligiri Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	36.	Nagarahole	Karnataka	643.35	562.41	1205.76
39. Biligiri Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	37.	Parambikulam	Kerala	390.89	252.772	643.662
39. Ranganatha Temple Karnataka 359.10 215.72 574.82 40. Kawal Telangana 893.23 1125.89 2019.12	38.	Sahyadri	Maharashtra	600.12	565.45	1165.57
	39.	Ranganatha	Karnataka	359.10	215.72	574.82
41. Sathyamangalam Tamil Nadu 793.49 614.91 1408.40	40.	Kawal	Telangana	893.23	1125.89	2019.12
	41.	Sathyamangalam	Tamil Nadu	793.49	614.91	1408.40

42.	Mukandra Hills	Rajasthan	417.17	342.82	759.99
43.	Nawegaon- Nagzira	Maharashtra	653.674	-	653.674
44.	Nagarjunsagar Srisailam (part)	Andhra Pradesh	2595.72	700.54	3296/31
45.	Amrabad	Telangana	2166.37	445.02	2611.39
46.	Pilibhit	Uttar Pradesh	602.7980	127.4518	730.2498
47.	Bor	Maharashtra	138.12	-	138.12
48.	Rajaji Tiger Reserve	Uttarakhand	255.63	819.54	1075.17
49.	Orang Tiger Reserve	Assam	79.28	413.18	492.46
50.	Kamlang Tiger Reserve	Arunachal Pradesh	671.00	112.00	783.00
51.	Srivilliputhur– Megamalai Tiger Reserve	Tamil Nadu	641.86	374.70	1016.57
TOTAL			40981.98	31061.68	72043.67

ARUL IAS ACADEMY



State and Number-wise List of Tiger Reserves in India

S.No	State	No. of Tiger reserves	Tiger Reserve
1.	Assam	04	Kaziranga Tiger ReserveManas Tiger ReserveNameri Tiger ReserveOrang Tiger Reserve
2.	Arunachal Pradesh	03	Namdapha Tiger ReservePakke Tiger ReserveKamlang Tiger Reserve
3.	Andhra Pradesh	01	Nagarjunsagar-Srisailam Tiger Reserve
4.	Bihar	01	Valmiki Tiger Reserve
5.	Chhattisgarh	03	Achanakmar Tiger ReserveIndravati Tiger ReservesUdanti & Sitanadi Tiger Reserve
6.	Jharkhand	01	Palamau Tiger Reserve
7.	Karnataka	05	 Bandipur Tiger Reserve Nagarhole (extension) Tiger Reserve Bhadra Tiger Reserve Anshi Dandeli Tiger Reserve Biligiri Rangaswamy Temple Wildlife Sanctuary
8.	Kerala	02	Periyar Tiger ReserveParambikulam Tiger Reserve
9.	Madhya Pradesh	06	 Bandhavgarh Tiger Reserve Satpura Tiger Reserve Kanha Tiger Reserve Panna Tiger Reserve Pench Tiger Reserve Sanjay Dubri Tiger Reserve
10.	Maharashtra	06	 Melghat Tiger Reserve Pench Tiger Reserve Tadoba Andhari Tiger Project Shahayadri Tiger reserve Nagzira-Navegaon Tiger Reserve Bor Tiger Reserve

11.	Mizoram	01	Dampa Tiger Reserve
12.	Odisha	02	Satkosia Tiger ReserveSimlipal Tiger Reserve
13.	Rajasthan	03	Ranthambhore Tiger ReserveSariska Tiger ReserveMukundara Hills Tiger Reserve
14.	Tamil Nadu	05	 Kalakkad Mundanthurai Tiger Reserve Anamalai Tiger Reserve Mudumalai Tiger Reserve Sathyamangalam Tiger Reserve Srivilliputhur-Megamalai Tiger Reserve
15.	Telangana	02	Kawal Tiger ReserveNagarjunsagar-Srisailam Tiger Reserve
16.	Uttar Pradesh	02	Dudhwa Tiger ReservePilibhit Tiger Reserve
17.	Uttarakhand	02	Corbett Tiger ReserveRajaji Tiger reserve
18.	West Bengal	02	Buxa Tiger ReserveSunderbans Tiger Reserve

ARUL IAS ACADEMY

Srivilliputhur-Megamalai Tiger Reserve



- ➤ The proposal seeks to declare 1.48 lakh hectares of land for the reserve, which will be the fifth for the big cats in TN.
- ➤ The Central government has given its approval for the creation of **a fifth tiger reserve in Tamil Nadu.**
- ➤ For nearly a decade now, environmental activists have been seeking a tiger reserve linking these two sanctuaries, adjoining the Periyar Tiger Reserve in Kerala, and then to connect it with the Tirunelveli Wildlife Sanctuary, and then to Kalakkad Mundanthurai Tiger Reserve to make it a contiguous corridor where the big cats can thrive.
- ➤ India presently has 50 tiger reserves and the latest addition in Tamil Nadu will become the country's 51st reserve.
- ➤ The first tiger reserve in Tamil Nadu Kalakkad Mundanthurai was formed around 1988-89, which was followed by Anamalai and Mudumalai in 2008 and 2009.

> Tamilnadu's The fourth reserve - Sathyamangalam - was created around 2013-14.

Other Four Tiger reserves in Tamil Nadu

- ➤ Mudumalai (2008–09)
- > Anamalai (2008–09)
- > Sathyamangalam (2013–14)
- ➤ Kalakad-Mundanthurai (1988–89)

Tiger reserves in TN		
Name	Area (in hectares)	
Mudumalai	32,100	
Kalakad Mundanthurai	70,654	
Anamalai	95,859	
Satyamangalam	79,349	
Srivilliputhur- Megamalai	1,01,657.13	

TN tiger population		
Census	No. of tigers	
2006	76	
2010	163	
2014	229	
2018	264	