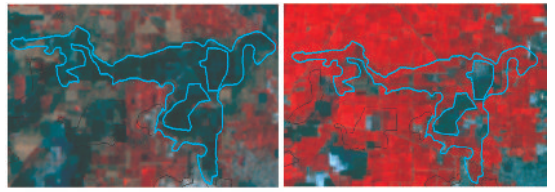


## Salient Features

- A net Decrease of wastelands area by 279.15 sq. km.
  - **Sand (desertic)** decreased to 84.60 sq. km. from 242.84 sq. km. (158.24 sq. km.).
  - 242.74 sq. km. of wastelands area converted to cropland of which maximum contribution is from **desertic sand** (132.40 sq. km.); **waterlogged (permanent)** 19.51 sq. km.
  - Bhatinda district has a decrease in wastelands area by 62.52 sq. km. Contributed by reduction of **sand desertic** by 61.59 sq. km.
  - Ferozpur district has a decrease in wastelands area by 51.59 sq. km.
- No district witnessed increase in wastelands.

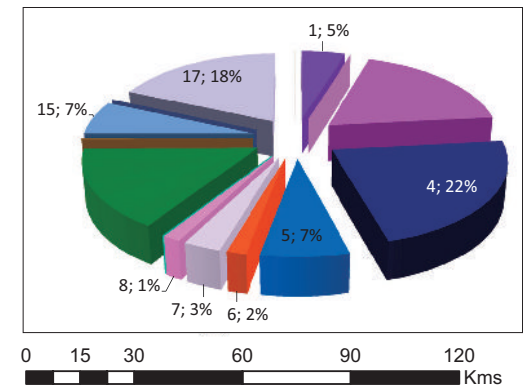
# PUNJAB Spatial Distribution of Wastelands 2015-16



Lat : 30°14'23.19"N Long : 74°37'27.956"E ,  
District: Muktsar  
08-09 : Waterlogged and Marshy land(Permanent) ;  
15-16 : Cropland



Lat : 30°1'24.297"N Long : 74°20'23.63"E ,  
District: Firozpur  
08-09 : Sands-Desertic; 15-16 : Cropland



**Legend**

- Gullied and/ or ravinous land (Medium)
- Gullied and/ or ravinous land (Deep)
- Land with Dense Scrub
- Land with Open Scrub
- Waterlogged and Marshy land (Permanent)
- Waterlogged and Marshy land (Seasonal)
- Land Affected by salinity / alkalinity (Moderate)
- Land Affected by salinity / alkalinity (Strong)
- Shifting Cultivation - Current Jhum
- Shifting Cultivation - Abandoned Jhum
- Under-utilised/degraded forest (Scrub domin)
- Under-utilised/degraded forest (Agriculture)
- Degraded pastures/grazing land
- Degraded land under plantation crop
- Sands - Riverine
- Sands - Coastal
- Sands - Desertic
- Sands - Semi Stab:- Stab > 40m
- Sands - Semi Stab:- Stab 15-40m
- Mining Wastelands
- Industrial Wastelands
- Barren Rocky Area
- Snow Covered/ Glacial Area
- Non Wasteland Area
- Water ways
- District Boundary
- Railways
- Major Roads

**Partner Inst.**  
Punjab Remote Sensing Application Centre  
Punjab Agricultural University Campus  
Ludhiana – 141 004

**Executed By**  
Land Use & Cover Monitoring Divn.  
LRUMG, Remote Sensing Application  
National Remote Sensing Centre  
ISRO, Dept. of Space, GOI  
Balanagar, Hyderabad - 500037

**Sponsored by**  
Dept. of Land Resources  
Min. of Rural Development  
G - Wing, Nirman Bhawan  
GOI, New Delhi - 110 011

Total Geog. Area (TGA): 50362.00 sq. km.  
Total wasteland area : 462.37 sq. km.  
Wasteland Percentage: 0.92

Source: Wasteland Maps: 2008-09 on 1:50,000 scale,  
Three seasons IRS P6 LISS-III data of Kharif(Oct/Nov-2015),  
Rabi (Jan/Feb-2016) and Zaid (April/May-2016) & Ground truth

**PUNJAB**  
Wastelands Area Change Matrix : 2008-09 and 2015-16

Area in sq.km

| WL Categories            | WL 2008-09 becoming non_WL in 2015-16 |       |        |       |      |       |      |       |      |       |       |      |      |       | 2008-09 |        |      |      |      |    |      |                |             |  |  |
|--------------------------|---------------------------------------|-------|--------|-------|------|-------|------|-------|------|-------|-------|------|------|-------|---------|--------|------|------|------|----|------|----------------|-------------|--|--|
|                          | 1                                     | 3     | 4      | 5     | 6    | 7     | 8    | 11    | 12   | 15    | 17    | 19   | 20   | 24    | 25      | 26     | 27   | 28   | 29   | 30 | 32   | Category Total | Grand Total |  |  |
| 1                        | 22.06                                 |       | 0.71   |       |      |       |      | 0.28  | 0.32 |       |       |      | 0.09 | 0.38  | 0.31    | 7.69   | 0.24 |      |      |    |      | 32.08          | 741.51      |  |  |
| 3                        |                                       | 84.80 | 8.52   |       |      |       |      |       |      |       |       |      |      | 0.40  | 0.29    | 17.02  |      | 0.13 |      |    | 1.54 | 112.70         |             |  |  |
| 4                        |                                       | 0.09  | 86.62  |       |      |       |      |       |      |       |       |      |      | 2.38  | 0.80    | 15.14  | 0.07 | 0.20 |      |    | 0.43 | 105.73         |             |  |  |
| 5                        |                                       | 0.34  | 0.41   | 32.41 |      |       | 1.04 |       |      |       |       |      |      | 0.02  |         | 19.51  | 0.12 | 0.06 |      |    | 0.40 | 54.30          |             |  |  |
| 6                        |                                       |       | 0.27   | 0.11  | 6.78 | 1.93  |      |       |      |       |       |      |      | 0.18  |         | 13.18  |      |      |      |    | 0.66 | 23.11          |             |  |  |
| 7                        |                                       | 0.01  | 1.60   | 0.12  | 0.07 | 9.22  |      |       |      |       |       |      |      | 1.58  | 0.31    | 10.79  | 0.16 |      |      |    | 0.02 | 23.88          |             |  |  |
| 8                        |                                       |       |        | 0.03  |      | 0.14  | 6.36 |       |      |       |       |      |      | 0.74  | 0.30    | 5.58   |      |      |      |    | 0.07 | 13.22          |             |  |  |
| 11                       |                                       |       |        |       |      |       |      | 72.65 |      |       |       |      |      |       | 0.79    | 1.08   |      | 0.08 | 0.60 |    | 0.06 | 75.26          |             |  |  |
| 12                       |                                       |       |        |       |      |       |      |       | 0.24 |       |       |      |      |       |         |        |      |      |      |    |      | 0.24           |             |  |  |
| 15                       |                                       | 0.54  | 1.82   |       |      |       |      |       |      | 28.47 |       |      |      | 0.35  | 0.03    | 20.33  | 0.35 | 0.80 |      |    | 5.36 | 58.05          |             |  |  |
| 17                       |                                       |       | 1.26   |       |      |       |      |       |      |       | 83.71 |      |      | 15.67 | 6.44    | 132.40 | 0.20 | 3.14 |      |    | 0.02 | 242.83         |             |  |  |
| 20                       |                                       |       |        |       |      |       |      |       |      |       |       |      | 0.10 |       |         |        |      |      |      |    |      | 0.10           |             |  |  |
| 999                      |                                       | 0.02  | 2.72   | 0.57  | 0.62 | 1.75  | 0.23 | 0.14  |      | 2.30  | 0.90  | 0.02 |      |       |         |        |      |      |      |    |      |                |             |  |  |
| Category Total (2015-16) | 22.06                                 | 85.81 | 103.93 | 33.24 | 7.46 | 14.07 | 6.59 | 73.07 | 0.57 | 30.77 | 84.60 | 0.02 | 0.19 | 21.71 | 9.26    | 242.74 | 1.14 | 4.41 | 0.60 |    | 8.55 |                |             |  |  |
| Grand Total (2015-16)    | 462.37                                |       |        |       |      |       |      |       |      |       |       |      |      |       |         |        |      |      |      |    |      |                |             |  |  |

| WL Category | Reduction from 0809 to 1516 |                | Increase from 0809 to 1516 |                |
|-------------|-----------------------------|----------------|----------------------------|----------------|
|             | Area                        | No of polygons | Area                       | No of polygons |
| 1           | 8.63                        | 121            |                            |                |
| 3           | 19.39                       | 211            | 0.02                       | 1              |
| 4           | 19.02                       | 323            | 2.72                       | 54             |
| 5           | 20.11                       | 94             | 0.57                       | 14             |
| 6           | 14.02                       | 88             | 0.62                       | 6              |
| 7           | 12.86                       | 194            | 1.75                       | 32             |
| 8           | 6.68                        | 141            | 0.23                       | 8              |
| 11          | 2.61                        | 36             | 0.14                       | 1              |
| 12          |                             |                |                            |                |
| 15          | 27.22                       | 340            | 2.30                       | 29             |
| 17          | 157.86                      | 2270           | 0.90                       | 28             |
| 20          |                             |                | 0.02                       |                |
| Total       | 288.41                      | 3818           | 9.26                       | 173            |

Wastelands becoming Non-wastelands (-) **288.41**  
 Non-wastelands becoming Wastelands (+) **9.26**  
 NET Change (2015 - 16)- (2008 - 09) (-) **279.20**

**Green** denotes Change from wasteland to non-wasteland  
**Red** denotes change from non-wasteland to wastelands  
**Blue** denotes no change in the wasteland category  
 2008 - 09 Wastelands statistics are revised version.  
 Area under category total is rounded to nearest decimal.

| Wasteland Classes                                | Wasteland Classes                                | Wasteland Classes                | Non-Wasteland Classes |
|--|--|----------------------------------|-----------------------|
| 1. Gullied and/ or ravinous land (Medium)        | 9. Shifting Cultivation - Current Jhum           | 17. Sands-Desertic               | 24. Built-up          |
| 2. Gullied and/ or ravinous land (Deep)          | 10. Shifting Cultivation - Abandoned Jhum        | 18. Sands-Semi Stab.-Stab>40m    | 25. Industrial Area   |
| 3. Land with Dense Scrub                         | 11. Under-utilised/degraded forest (Scrub domin) | 19. Sands-Semi Stab.-Stab 15-40m | 26. Cropland          |
| 4. Land with Open Scrub                          | 12. Under-utilised/degraded forest (Agriculture) | 20. Mining Wastelands            | 27. Fallow Land       |
| 5. Waterlogged and Marshy land (Permanent)       | 13. Degraded pastures/ grazing land              | 21. Industrial wastelands        | 28. Plantation        |
| 6. Waterlogged and Marshy land (Seasonal)        | 14. Degraded land under plantation crop          | 22. Barren Rocky/Stony waste     | 29. Forest-Dense/Open |
| 7. Land affected by salinity/alkalinity (Medium) | 15. Sands-Riverine                               | 23. Snow covered /Glacial area   | 30. Forest Plantation |
| 8. Land affected by salinity/alkalinity (Strong) | 16. Sands-Coastal                                | 999. Non-Wasteland Area          | 31. Grasslands        |
|  |  |                                  | 32. Waterbodies       |

# Punjab

Wastelands Area Changes – 2008-09 and 2015-16

| District    | WL_Class | 1     | 2  | 3     | 4     | 5      | 6      | 7     | 8     | 9  | 10 | 11    |
|-------------|----------|-------|----|-------|-------|--------|--------|-------|-------|----|----|-------|
| Amritsar    | 2008-09  | 5.89  | -- | 9.30  | 1.03  | 0.84   | 0.93   | 0.60  | 0.35  | -- | -- | 1.72  |
|             | 2015-16  | 4.08  | -- | 8.15  | 0.76  | 0.67   | 0.58   | 0.08  | 0.12  | -- | -- | 1.72  |
|             | Change   | -1.81 | -- | -1.16 | -0.26 | -0.17  | -0.35  | -0.52 | -0.23 | -- | -- | 0.00  |
| Bathinda    | 2008-09  | --    | -- | --    | 3.62  | --     | --     | 1.60  | 0.14  | -- | -- | --    |
|             | 2015-16  | --    | -- | --    | 3.92  | --     | --     | 0.41  | 0.12  | -- | -- | --    |
|             | Change   | --    | -- | --    | 0.30  | --     | --     | -1.20 | -0.02 | -- | -- | --    |
| Faridkot    | 2008-09  | --    | -- | --    | 1.26  | 0.44   | 1.30   | 0.27  | 0.13  | -- | -- | 15.05 |
|             | 2015-16  | --    | -- | --    | 0.72  | 0.15   | 1.10   | 0.12  | 0.03  | -- | -- | 15.03 |
|             | Change   | --    | -- | --    | -0.54 | -0.29  | -0.20  | -0.16 | -0.09 | -- | -- | -0.02 |
| Fatehgarh   | 2008-09  | --    | -- | 0.08  | 0.36  | 0.33   | --     | --    | --    | -- | -- | --    |
|             | 2015-16  | --    | -- | 0.02  | 0.33  | 0.30   | --     | --    | --    | -- | -- | --    |
|             | Change   | --    | -- | -0.06 | -0.03 | -0.03  | --     | --    | --    | -- | -- | --    |
| Firozpur    | 2008-09  | --    | -- | 3.56  | 5.67  | 3.67   | 2.78   | 4.78  | 8.14  | -- | -- | --    |
|             | 2015-16  | --    | -- | 2.49  | 4.57  | 1.66   | 0.27   | 4.55  | 3.32  | -- | -- | --    |
|             | Change   | --    | -- | -1.07 | -1.10 | -2.01  | -2.51  | -0.24 | -4.82 | -- | -- | --    |
| Gurdaspur   | 2008-09  | 8.69  | -- | 9.54  | 6.15  | 15.72  | 2.47   | 0.13  | --    | -- | -- | 8.83  |
|             | 2015-16  | 8.59  | -- | 9.45  | 6.15  | 14.38  | 1.51   | 0.11  | --    | -- | -- | 8.08  |
|             | Change   | -0.11 | -- | -0.09 | 0.00  | -1.34  | -0.96  | -0.02 | --    | -- | -- | -0.75 |
| Hoshiarpur  | 2008-09  | 5.32  | -- | 32.04 | 16.63 | 1.62   | 2.05   | 0.02  | --    | -- | -- | 15.35 |
|             | 2015-16  | 5.21  | -- | 28.55 | 15.57 | 1.48   | 1.44   | 0.02  | --    | -- | -- | 15.24 |
|             | Change   | -0.11 | -- | -3.49 | -1.06 | -0.13  | -0.61  | 0.00  | --    | -- | -- | -0.11 |
| Jalandhar   | 2008-09  | --    | -- | 0.05  | 0.33  | 0.08   | 0.04   | --    | --    | -- | -- | --    |
|             | 2015-16  | --    | -- | 0.05  | 0.17  | 0.08   | 0.03   | --    | --    | -- | -- | --    |
|             | Change   | --    | -- | 0.00  | -0.16 | 0.00   | 0.00   | --    | --    | -- | -- | --    |
| Kapurthala  | 2008-09  | 0.08  | -- | 7.67  | 2.19  | 3.51   | 0.58   | 0.25  | 0.42  | -- | -- | --    |
|             | 2015-16  | 0.08  | -- | 1.77  | 1.62  | 3.29   | 0.16   | 0.11  | 0.12  | -- | -- | --    |
|             | Change   | 0.00  | -- | -5.89 | -0.56 | -0.23  | -0.41  | -0.14 | -0.30 | -- | -- | --    |
| Ludhiana    | 2008-09  | --    | -- | 1.44  | 3.40  | 0.91   | 0.64   | --    | --    | -- | -- | --    |
|             | 2015-16  | --    | -- | 1.15  | 4.54  | 0.74   | 0.23   | --    | --    | -- | -- | --    |
|             | Change   | --    | -- | -0.28 | 1.14  | -0.17  | -0.41  | --    | --    | -- | -- | --    |
| Mansa       | 2008-09  | --    | -- | --    | 1.84  | 0.07   | 0.43   | 0.04  | --    | -- | -- | --    |
|             | 2015-16  | --    | -- | --    | 2.08  | 0.07   | 0.42   | --    | --    | -- | -- | --    |
|             | Change   | --    | -- | --    | 0.25  | 0.00   | 0.00   | -0.04 | --    | -- | -- | --    |
| Moga        | 2008-09  | --    | -- | --    | 0.72  | --     | 0.01   | 0.06  | --    | -- | -- | --    |
|             | 2015-16  | --    | -- | --    | 0.42  | --     | 0.01   | --    | --    | -- | -- | --    |
|             | Change   | --    | -- | --    | -0.30 | --     | 0.00   | -0.06 | --    | -- | -- | --    |
| Muktsar     | 2008-09  | --    | -- | --    | 3.36  | 26.17  | 11.22  | 5.71  | 4.04  | -- | -- | --    |
|             | 2015-16  | --    | -- | --    | 2.13  | 10.09  | 1.20   | 5.06  | 2.88  | -- | -- | --    |
|             | Change   | --    | -- | --    | -1.23 | -16.09 | -10.02 | -0.65 | -1.16 | -- | -- | --    |
| NawanShehar | 2008-09  | 3.37  | -- | 5.39  | 4.47  | 0.02   | --     | --    | --    | -- | -- | 11.05 |
|             | 2015-16  | 0.27  | -- | 4.16  | 2.67  | --     | --     | --    | --    | -- | -- | 11.13 |
|             | Change   | -3.10 | -- | -1.23 | -1.80 | -0.02  | --     | --    | --    | -- | -- | 0.08  |

Note: "--" Denotes this Class is not existing in the District / State

2008-09 Wastelands statistics are revised version.

- |  |  |
|--|--|
| 1. Gullied and/ or ravinous land (Medium)  | 7. Land affected by salinity/alkalinity (Medium) |
| 2. Gullied and/ or ravinous land (Deep)    | 8. Land affected by salinity/alkalinity (Strong) |
| 3. Land with Dense Scrub                   | 9. Shifting Cultivation - Current Jhum           |
| 4. Land with Open Scrub                    | 10. Shifting Cultivation - Abandoned Jhum        |
| 5. Waterlogged and Marshy land (Permanent) | 11. Under-utilised/degraded forest (Scrub domin) |
| 6. Waterlogged and Marshy land (Seasonal)  | 12. Under-utilised/degraded forest (Agriculture) |

Area in sq.km

| 12   | 13 | 14 | 15    | 16 | 17     | 18 | 19   | 20   | 21 | 22 | 23 | Total  | TGA  |
|------|----|----|-------|----|--------|----|------|------|----|----|----|--------|------|
| --   | -- | -- | 8.31  | -- | --     | -- | --   | --   | -- | -- | -- | 28.96  | 5088 |
| --   | -- | -- | 4.87  | -- | --     | -- | --   | --   | -- | -- | -- | 21.02  |      |
| --   | -- | -- | -3.44 | -- | --     | -- | --   | --   | -- | -- | -- | -7.94  |      |
| --   | -- | -- | --    | -- | 88.79  | -- | --   | --   | -- | -- | -- | 94.16  | 3401 |
| --   | -- | -- | --    | -- | 27.20  | -- | --   | --   | -- | -- | -- | 31.65  |      |
| --   | -- | -- | --    | -- | -61.59 | -- | --   | --   | -- | -- | -- | -62.52 |      |
| --   | -- | -- | --    | -- | 3.04   | -- | --   | --   | -- | -- | -- | 21.48  | 1472 |
| --   | -- | -- | --    | -- | 1.05   | -- | --   | --   | -- | -- | -- | 18.20  |      |
| --   | -- | -- | --    | -- | -1.99  | -- | --   | --   | -- | -- | -- | -3.28  |      |
| --   | -- | -- | --    | -- | --     | -- | --   | --   | -- | -- | -- | 0.77   | 1177 |
| --   | -- | -- | --    | -- | --     | -- | --   | --   | -- | -- | -- | 0.66   |      |
| --   | -- | -- | --    | -- | --     | -- | --   | --   | -- | -- | -- | -0.12  |      |
| --   | -- | -- | 16.65 | -- | 58.31  | -- | 0.00 | --   | -- | -- | -- | 103.55 | 5853 |
| --   | -- | -- | 9.81  | -- | 25.29  | -- | 0.02 | --   | -- | -- | -- | 51.97  |      |
| --   | -- | -- | -6.84 | -- | -33.02 | -- | 0.02 | --   | -- | -- | -- | -51.59 |      |
| --   | -- | -- | 3.97  | -- | --     | -- | --   | --   | -- | -- | -- | 55.51  | 3570 |
| --   | -- | -- | 2.70  | -- | --     | -- | --   | --   | -- | -- | -- | 50.97  |      |
| --   | -- | -- | -1.27 | -- | --     | -- | --   | --   | -- | -- | -- | -4.53  |      |
| 0.11 | -- | -- | 9.91  | -- | --     | -- | --   | 0.10 | -- | -- | -- | 83.05  | 3310 |
| 0.11 | -- | -- | 6.68  | -- | --     | -- | --   | 0.10 | -- | -- | -- | 74.30  |      |
| 0.00 | -- | -- | -3.23 | -- | --     | -- | --   | 0.00 | -- | -- | -- | -8.75  |      |
| --   | -- | -- | 2.10  | -- | 0.74   | -- | --   | --   | -- | -- | -- | 3.33   | 2643 |
| --   | -- | -- | 0.40  | -- | 0.28   | -- | --   | --   | -- | -- | -- | 1.00   |      |
| --   | -- | -- | -1.70 | -- | -0.46  | -- | --   | --   | -- | -- | -- | -2.33  |      |
| --   | -- | -- | 0.63  | -- | 0.27   | -- | --   | --   | -- | -- | -- | 15.60  | 1633 |
| --   | -- | -- | 0.03  | -- | --     | -- | --   | --   | -- | -- | -- | 7.19   |      |
| --   | -- | -- | -0.60 | -- | -0.27  | -- | --   | --   | -- | -- | -- | -8.41  |      |
| --   | -- | -- | 6.18  | -- | 2.61   | -- | --   | --   | -- | -- | -- | 15.17  | 3762 |
| --   | -- | -- | 0.59  | -- | 0.89   | -- | --   | --   | -- | -- | -- | 8.15   |      |
| --   | -- | -- | -5.59 | -- | -1.71  | -- | --   | --   | -- | -- | -- | -7.03  |      |
| --   | -- | -- | 0.14  | -- | 35.80  | -- | --   | --   | -- | -- | -- | 38.31  | 2150 |
| --   | -- | -- | 0.06  | -- | 8.76   | -- | --   | --   | -- | -- | -- | 11.40  |      |
| --   | -- | -- | -0.08 | -- | -27.04 | -- | --   | --   | -- | -- | -- | -26.91 |      |
| --   | -- | -- | 0.25  | -- | 0.58   | -- | --   | --   | -- | -- | -- | 1.63   | 1672 |
| --   | -- | -- | 0.12  | -- | 0.18   | -- | --   | --   | -- | -- | -- | 0.73   |      |
| --   | -- | -- | -0.13 | -- | -0.41  | -- | --   | --   | -- | -- | -- | -0.90  |      |
| --   | -- | -- | --    | -- | 37.39  | -- | --   | --   | -- | -- | -- | 87.89  | 2608 |
| --   | -- | -- | --    | -- | 18.41  | -- | --   | --   | -- | -- | -- | 39.77  |      |
| --   | -- | -- | --    | -- | -18.97 | -- | --   | --   | -- | -- | -- | -48.12 |      |
| --   | -- | -- | 3.23  | -- | --     | -- | --   | 0.00 | -- | -- | -- | 27.52  | 1258 |
| 0.02 | -- | -- | 1.39  | -- | --     | -- | --   | 0.09 | -- | -- | -- | 19.65  |      |
| 0.02 | -- | -- | -1.84 | -- | --     | -- | --   | 0.09 | -- | -- | -- | -7.88  |      |

TGA - Total Geographical Area

|   |                                  |
|---|----------------------------------|
| 13. Degraded pastures/ grazing land     | 19. Sands-Semi Stab.-Stab 15-40m |
| 14. Degraded land under plantation crop | 20. Mining Wastelands            |
| 15. Sands-Riverine                      | 21. Industrial wastelands        |
| 16. Sands-Coastal                       | 22. Barren Rocky/Stony waste     |
| 17. Sands-Desertic                      | 23. Snow covered /Glacial area   |
| 18. Sands-Semi Stab.-Stab>40m           |                                  |



# Punjab

Wastelands Area Changes – 2008-09 and 2015-16

| District    | WL_Class | 1      | 2  | 3      | 4      | 5      | 6      | 7     | 8     | 9  | 10 | 11    | 12   | 13 |
|-------------|----------|--------|----|--------|--------|--------|--------|-------|-------|----|----|-------|------|----|
| Patiala     | 2008-09  | 7.07   | -- | 9.78   | 17.35  | 0.05   | 0.65   | 8.03  | --    | -- | -- | 0.32  | --   | -- |
|             | 2015-16  | 3.07   | -- | 3.74   | 17.93  | 0.07   | 0.43   | 2.85  | --    | -- | -- | 0.25  | --   | -- |
|             | Change   | -4.01  | -- | -6.05  | 0.58   | 0.03   | -0.22  | -5.19 | --    | -- | -- | -0.06 | --   | -- |
| Rupnagar    | 2008-09  | 1.65   | -- | 33.83  | 34.29  | 0.85   | --     | 2.37  | --    | -- | -- | 22.96 | 0.14 | -- |
|             | 2015-16  | 0.77   | -- | 26.27  | 36.85  | 0.26   | 0.07   | 0.76  | --    | -- | -- | 21.62 | 0.44 | -- |
|             | Change   | -0.89  | -- | -7.57  | 2.56   | -0.59  | 0.07   | -1.60 | --    | -- | -- | -1.34 | 0.30 | -- |
| Sangrur     | 2008-09  | --     | -- | 0.02   | 3.07   | 0.02   | 0.02   | --    | --    | -- | -- | --    | --   | -- |
|             | 2015-16  | --     | -- | 0.02   | 3.49   | --     | --     | --    | --    | -- | -- | --    | --   | -- |
|             | Change   | --     | -- | 0.00   | 0.42   | -0.02  | -0.02  | --    | --    | -- | -- | --    | --   | -- |
| Grand Total | 2008-09  | 32.08  | -- | 112.70 | 105.73 | 54.30  | 23.11  | 23.88 | 13.22 | -- | -- | 75.26 | 0.24 | -- |
|             | 2015-16  | 22.06  | -- | 85.81  | 103.93 | 33.24  | 7.46   | 14.07 | 6.59  | -- | -- | 73.07 | 0.57 | -- |
|             | Change   | -10.03 | -- | -26.89 | -1.81  | -21.06 | -15.64 | -9.81 | -6.63 | -- | -- | -2.20 | 0.32 | -- |

# Punjab contd...

Wastelands Area Changes – 2008-09 and 2015-16

Area in sq.km

| District    | WL_Class | 14 | 15     | 16 | 17      | 18 | 19   | 20   | 21 | 22 | 23 | Total   | TGA   |
|-------------|----------|----|--------|----|---------|----|------|------|----|----|----|---------|-------|
| Patiala     | 2008-09  | -- | 0.04   | -- | 2.11    | -- | --   | --   | -- | -- | -- | 45.40   | 3627  |
|             | 2015-16  | -- | --     | -- | 0.46    | -- | --   | --   | -- | -- | -- | 28.79   |       |
|             | Change   | -- | -0.04  | -- | -1.65   | -- | --   | --   | -- | -- | -- | -16.61  |       |
| Rupnagar    | 2008-09  | -- | 6.65   | -- | --      | -- | --   | --   | -- | -- | -- | 102.74  | 2117  |
|             | 2015-16  | -- | 4.12   | -- | --      | -- | --   | --   | -- | -- | -- | 91.14   |       |
|             | Change   | -- | -2.54  | -- | --      | -- | --   | --   | -- | -- | -- | -11.60  |       |
| Sangrur     | 2008-09  | -- | --     | -- | 13.19   | -- | --   | --   | -- | -- | -- | 16.32   | 5021  |
|             | 2015-16  | -- | --     | -- | 2.08    | -- | --   | --   | -- | -- | -- | 5.58    |       |
|             | Change   | -- | --     | -- | -11.11  | -- | --   | --   | -- | -- | -- | -10.73  |       |
| Grand Total | 2008-09  | -- | 58.05  | -- | 242.83  | -- | --   | 0.10 | -- | -- | -- | 741.51  | 50362 |
|             | 2015-16  | -- | 30.77  | -- | 84.60   | -- | 0.02 | 0.19 | -- | -- | -- | 462.37  |       |
|             | Change   | -- | -27.28 | -- | -158.22 | -- | 0.02 | 0.09 | -- | -- | -- | -279.15 |       |

Note: “--” Denotes this Class is not existing in the District / State  
TGA - Total Geographical Area

2008-09 Wastelands statistics are revised version.

|  |  |                                  |
|--|--|----------------------------------|
| 1. Gullied and/ or ravinous land (Medium)        | 9. Shifting Cultivation - Current Jhum           | 17. Sands-Desertic               |
| 2. Gullied and/ or ravinous land (Deep)          | 10. Shifting Cultivation - Abandoned Jhum        | 18. Sands-Semi Stab.-Stab>40m    |
| 3. Land with Dense Scrub                         | 11. Under-utilised/degraded forest (Scrub domin) | 19. Sands-Semi Stab.-Stab 15-40m |
| 4. Land with Open Scrub                          | 12. Under-utilised/degraded forest (Agriculture) | 20. Mining Wastelands            |
| 5. Waterlogged and Marshy land (Permanent)       | 13. Degraded pastures/ grazing land              | 21. Industrial wastelands        |
| 6. Waterlogged and Marshy land (Seasonal)        | 14. Degraded land under plantation crop          | 22. Barren Rocky/Stony waste     |
| 7. Land affected by salinity/alkalinity (Medium) | 15. Sands-Riverine                               | 23. Snow covered /Glacial area   |
| 8. Land affected by salinity/alkalinity (Strong) | 16. Sands-Coastal                                |                                  |