



## Flood Vulnerability of Karnataka, River Basin Approach

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### ABSTRACT:

Flood impacts have gained immense importance and attention due to their adverse effects. More than half of global flood destruction and damages occur in the Asia region, which causes losses of life, damages infrastructure, and creates panic conditions among the communities. To provide a better understanding of flood hazard management, flood vulnerability assessment is the primary objective. In this case, vulnerability is the central construct in flood analysis and assessment. Many researchers have defined different approaches and methods to understand vulnerability assessment and how geographic information systems assess flood vulnerability and their associated risk. Geographic information systems track and predict the disaster trend and mitigate the risk and damages. This study systematically reviews the methodologies used to measure floods and their vulnerabilities by integrating geographic information systems.

Improving vulnerability measurement is a necessary initial stage towards studying its main causes and the formulation of more accurate descriptions that can better decrease loss of life, and possessions.

**Keywords:** Flood Vulnerability, hazard management, geographic information system, vulnerability assessment.

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### I. Introduction:

The main aim of this paper is to evaluate the current knowledge of flood vulnerability in Karnataka state. Flooding is a natural event that causes widespread destruction, adversely affects daily life and raises vulnerability, including physical, social, economic, and environmental exposure. Flood has been identified as an upward condition of water levels in coastal areas, reservoirs, streams, and canals (Abah and Clement, 2013). About 350 million people in the world are affected by floods. It is also predicted that the flood destruction will be double by the end of 2050. It is one of society's most catastrophic environmental hazards and has drawn many researchers' interest to see it in the light of the growing effects of ecological alteration. The ever-increasing population and the combination of properties in built-up areas also increased flooding potential. In the future, the impact of flooding will increase as the population increases (Walker and Burningham, 2011).

#### 1.2 Floods in Karnataka

In past two decades Karnataka has been frequently confronted and faced extreme weather events with various disasters such as drought, flood, hailstorm, etc., causing enormous loss and damage to life, property. Karnataka has experienced 8 years of flood situation including recent 4<sup>th</sup> consecutive years of floods of 2018, 2019, 2020 and 2021 in last decade. The rare severity floods carrying huge river flows were of rare severity.

The frequency range of flood in Karnataka is 2-8 years during 2005-2021. Floods are common in the districts of Coastal and Malnad region in the range 6-8 years followed by some taluks of north Karnataka in districts of Bidar, Yadgir, Kalaburagi and Raichur districts. North interior Karnataka districts more vulnerable flood compared to south interior districts, the flood frequency of Karnataka during 2005-2021 is shown in the **Map- 1**.

The rivers in Karnataka are not perennial in nature and they usually flow to their full capacity only when the catchment areas get good amount of rainfall during the SW Monsoon season. In the events of Excess rainfall during the season, an extreme volume of water is carried by rivers, creeks, and many other geographical features into areas where the water cannot be drained adequately therefore the flood occurs. The cause of flood mainly

due formation low pressure with associated with upper air cyclonic circulation results very heavy to extremely heavy rainfall and also seasonal monsoon heavy rainfall in part of western Ghats and also associated with huge discharges released from the upper reservoirs of Maharashtra has compounded effects and damages and causing flood situation in Karnataka.

During 2005 State received moderate to heavy rainfall in the months of June and July. The spell of heavy rainfall in the State commenced from 23rd July, 2005 and lasted for about three weeks. These heavy rains filled up almost all reservoirs and caused unprecedented floods in the major rivers of the State.

All reservoirs in the State (KRS, Harangi, Kabini, Tungabhadra, Hemavathi, Almatti, Narayanpur, Hidkal, Bhadra) are overflowing and the excess water is being released into the rivers leading to flood in the villages downstream. A total of 1290 villages have been affected of which 184 villages are submerged, about 29.05 lakh population are affected and cause of 123 human death and loss of 11,596 cattles/livestock. Its estimated About 74,027 houses are damages and about 1.63 lakh ha. agriculture area affected by flood.

During 2006 the successive flood situation continued in the districts of Bagalakote, Belagavi, Vijayapura, Kalaburagi and Raichur and about 127 villages are flood affected in districts of Kalaburagi, Vijayapura, and Belagavi districts. About 21,017 people from 5,094 families have been evacuated. Road communication was cut off in approximately 21 villages.

Due to deep depression during 21<sup>st</sup> June 2007 create havoc flood situation in districts of Dakshina Kannada, Shimoga, Chickmagalur, Kodagu, Udupi, Hassan, Uttara Kannada, Raichur, Kodagu, Bagalkote, Mangalore, Mysore, & Koppal. 39 deaths were reported from districts of Belgaum, Madikeri, Bellary, Shimoga, Gulbarga, Karwar and Koppal. 831 houses were fully damaged.

During 2009, the state received heavy rainfall of 377 mm in 24hrs which is highest in 100 years and 70% of the annual rainfall and departure ranges from 177 to 924% in five days in 15 districts of 84 taluks of north interior Karnataka which covers 63% of the state total area affected by heavy rainfall and severe flood and estimated loss of 19 thousand crores. Due to influence of well-marked low-pressure area over east central Arabian Sea and adjoining coastal areas of Karnataka during 2014 from 3rd week of August to till the end of August recorded high rainfall with 251% departure from normal which is highest in the last 43 years. During 2016 well marked low pressure area along with an associated upper air cyclonic circulation caused flood situation arises in north interior districts which comprises of black cotton soils which could not withstand the heavy downpour causes overland flows of rivers caused extreme damage for harvested crops to the farming community.

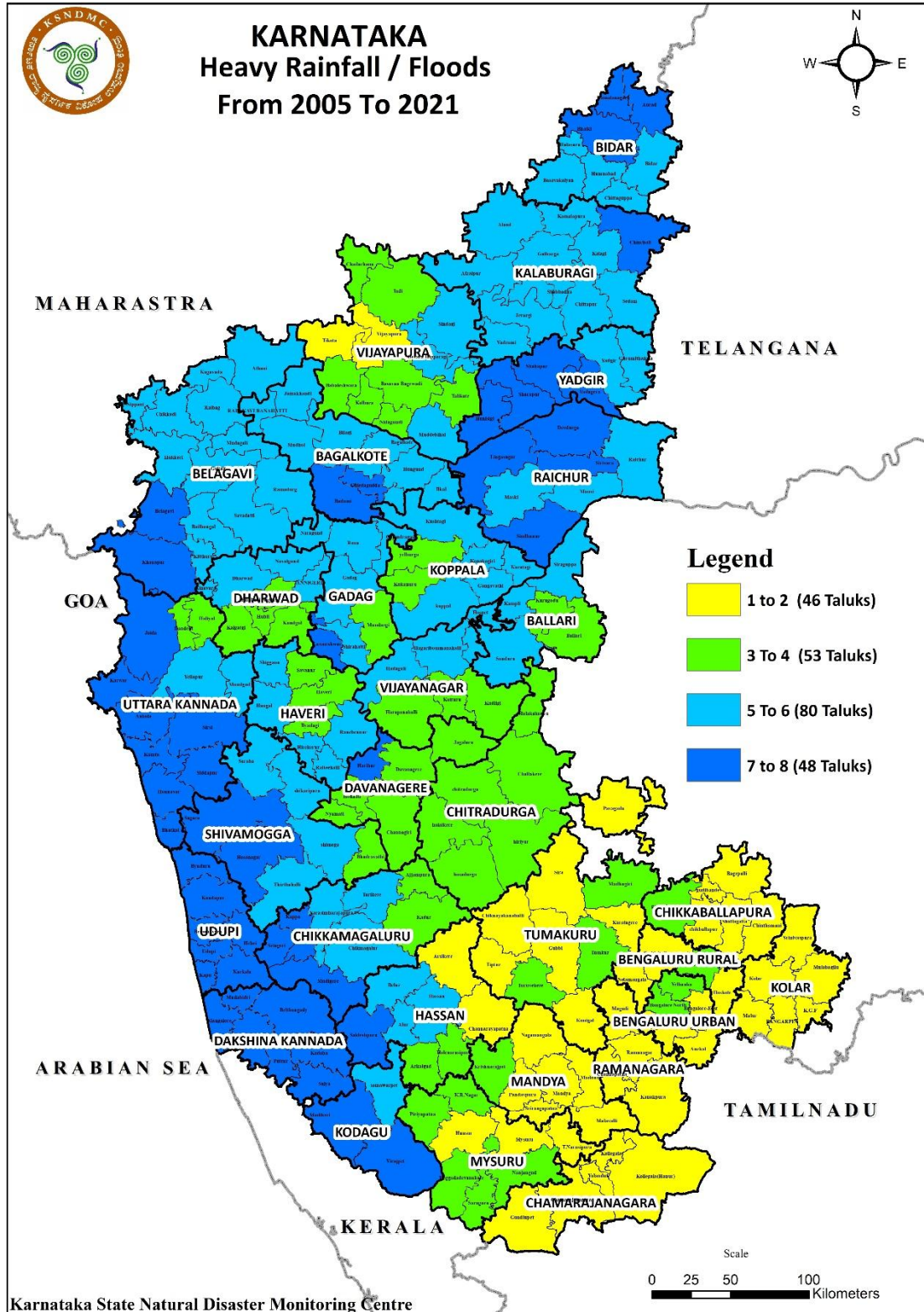
During 2018 the flood and rainfall induced Landslides occurred in Malnad (Kodagu, Chikmagaluru, Hassan, Shivamogga) and Coastal Districts (Dakshina Kannada, Udupi & Uttara Kannada) of Karnataka due to above the normal rainfall. After 2018 flood followed by 2019 flood incident due to heavy downpour of 224 mm (3rd to 10th August) and some of the district received more than 700% departure from normal especially in North interior, Malnad and coastal region the situation further intensified by record discharge of water release caused extreme flooding and landslides in 103 taluks of 22 districts. Under the influence of cyclonic circulation, the state faced 3rd consecutive flood situation in part of north interior district, Malnad and coastal districts during 2nd fortnight of august, September and October 2020 as many 23 districts have been affected due to heavy rain, floods, and landslides.

Improving vulnerability measurement is a necessary initial stage towards studying its main causes and the formulation of more accurate descriptions that can better decrease loss of life, and possessions

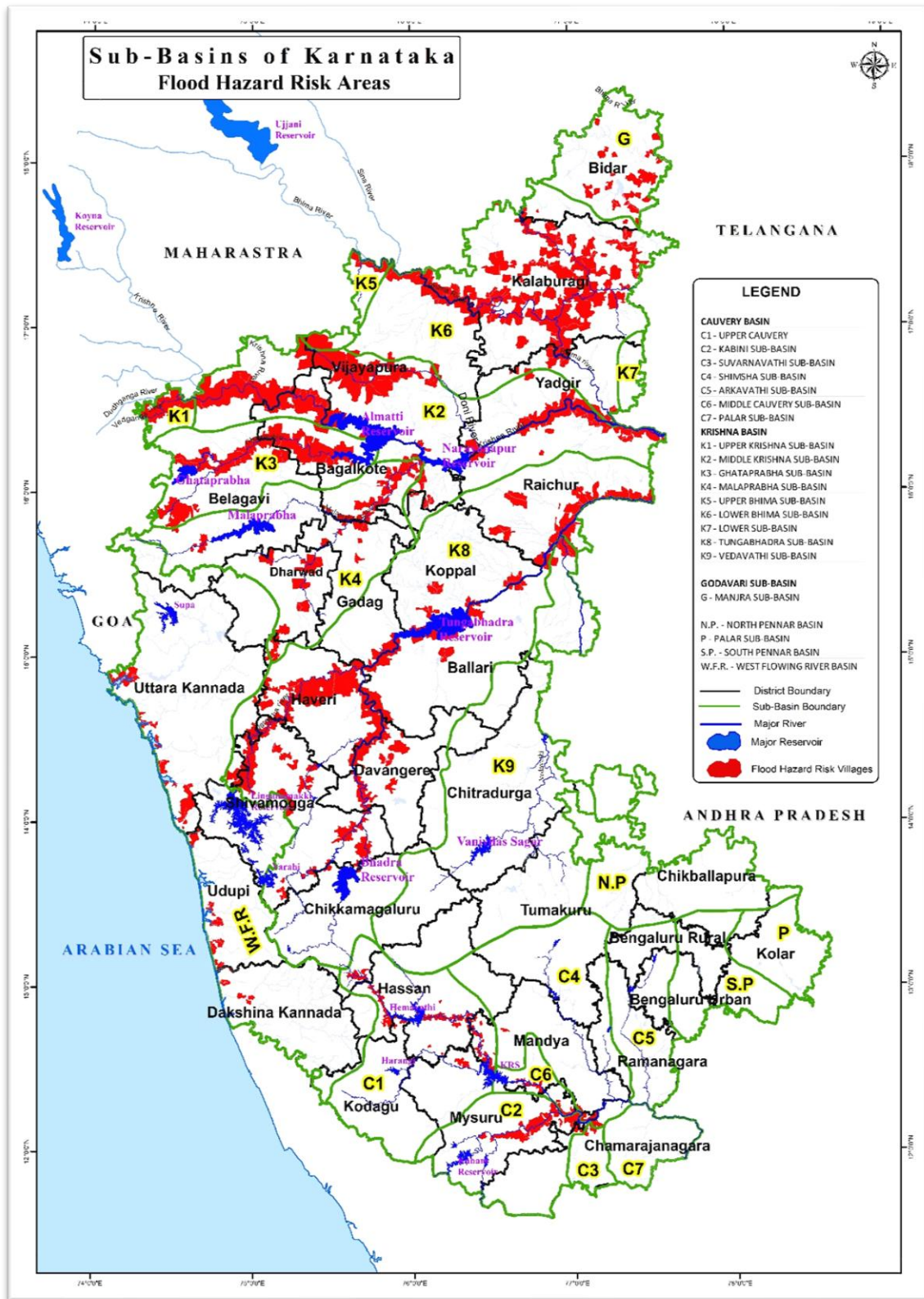
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Map –1 Flood Frequency of Karnataka



Map – 2 Flood risk areas of Karnataka

### 1.3 Flood hazard zonation Basin Approach

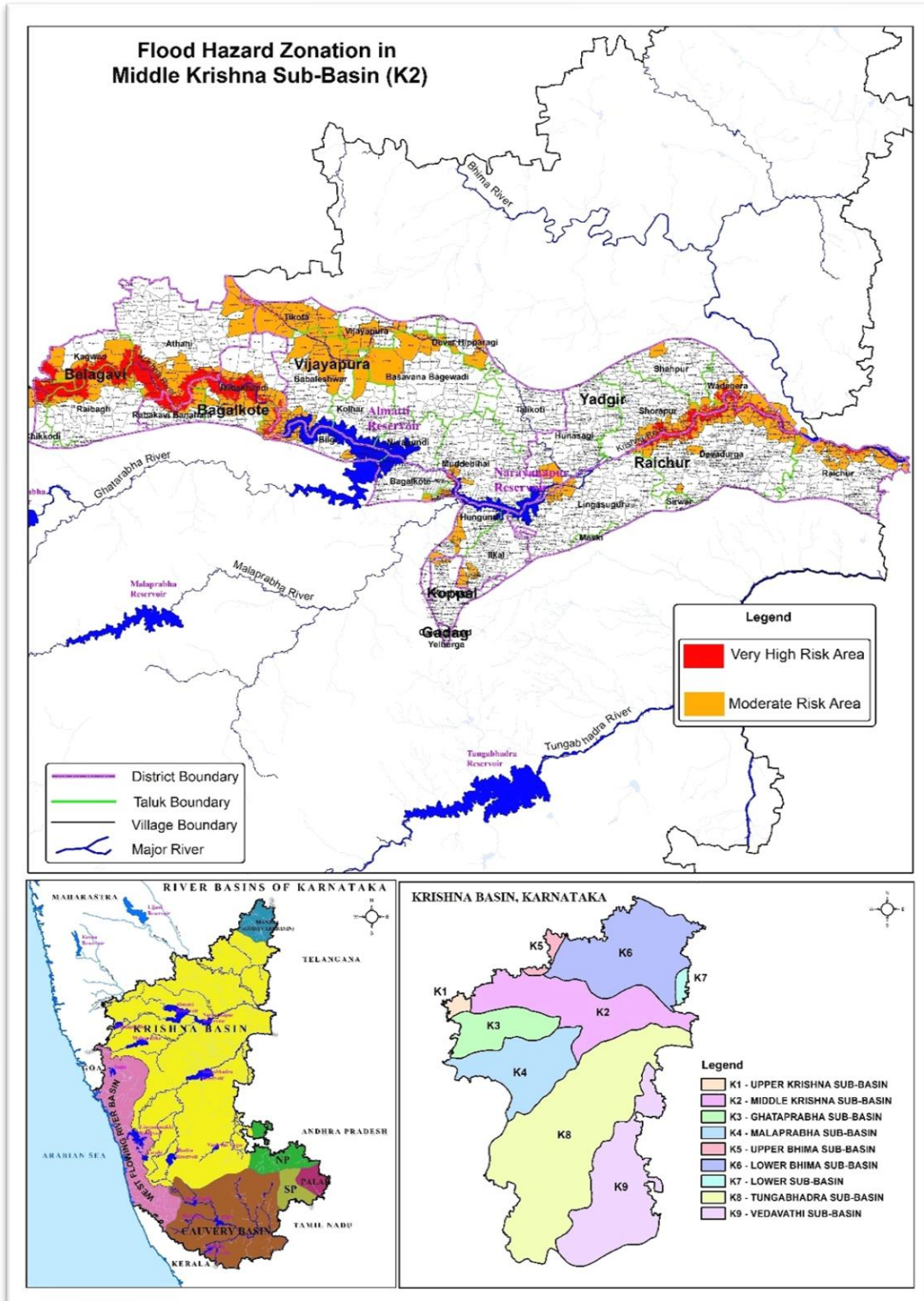
#### 1.3.1 The Middle Krishna Sub-basin-K2:

The K2 Middle Krishna Sub Basin is a part of Krishna basin which comprises of 07 watersheds extending over an area of about 1438.60 Sq kms. The Middle Krishna Sub Basin is covered by Deccan Trap lava flows and laid in the districts of Belagavi, Vijayapura, Bagalakote, Koppala, Raichur and Yadgir districts of Karnataka.

Groundwater and geohydrology is controlled by topography, geomorphology, and lithology. The basin is under rain shadow zone and having water scarcity. The annual rainfall in the basin varies between 488 mm to 544mm. Due to release of large amount of water from Koyna reservoir of Maharashtra and associated with heavy to very heavy rainfall cause flood situation in this basin. The Middle Krishna basin most vulnerable riverine flooding and its identified 274 villages are prone very high risk (90 villages) to moderate risk area (184 villages) prone to flood.

**Middle Krishna Sub-basin-K2: Flood Prone Districts**

| Sl.No.       | District Name | No. of Taluks | No. of Hoblis | No. of Gram Panchayats | No. of Villages |               | Total Villages |
|--------------|---------------|---------------|---------------|------------------------|-----------------|---------------|----------------|
|              |               |               |               |                        | Very High Risk  | Moderate Risk |                |
| 1            | Koppal        | 1             | 1             | 1                      | —               | 1             | 1              |
| 2            | Raichur       | 3             | 8             | 23                     | 49              | 11            | 60             |
| 3            | Belagavi      | 4             | 7             | 48                     | 51              | 14            | 65             |
| 4            | Bagalkote     | 5             | 7             | 32                     | 34              | 25            | 59             |
| 5            | Vijayapura    | 7             | 9             | 32                     | 19              | 33            | 52             |
| 6            | Yadgir        | 4             | 7             | 14                     | 31              | 5             | 36             |
| <b>Total</b> |               | <b>24</b>     | <b>39</b>     | <b>150</b>             | <b>184</b>      | <b>89</b>     | <b>273</b>     |



Map-3 Middle Krishna Sub-basin -K2

**Table List of Flood Prone Villages in Middle Krishna Sub basin -K2**

| Middle Krishna Sub-Basin (K2)      |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             |                     |              |            |                     |                     |
|------------------------------------|---------------|--------------|---------------------|--------------|---------------------|-------------|---------------------|---------------------|--------------|---------------------|---------------------|-------------|---------------------|--------------|------------|---------------------|---------------------|
| List of Flood Hazard Risk Villages |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             |                     |              |            |                     |                     |
| Dist. Sl.No.                       | District Name | Taluk Sl.No. | Taluk Name          | Hobli Sl.No. | Hobli Name          | GP Sl.No.   | Gram Panchayat Name | Sl.No.              | Village Name | Flood Hazard Class  |                     |             |                     |              |            |                     |                     |
| 1                                  | 2             | 3            | 4                   | 5            | 6                   | 7           | 8                   | 9                   | 10           | 11                  |                     |             |                     |              |            |                     |                     |
| 2                                  | Koppal        | 1            | Kushtagi            | 1            | Hanamsagar          | 1           | Antarathana         | 1                   | Kadoor       | Moderate Risk Area  |                     |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     | 2           | Karidigudda         | 3                   | Nilvanji     | Very High Risk Area |                     |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     | 3           | Karegudda           | 4                   | Anjal        | Very High Risk Area |                     |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     | 5                   | Gopalpur     | Very High Risk Area |                     |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     | 6                   | Anchesugur   | Very High Risk Area |                     |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     | 4           | Gugal               | 7                   | Herur        | Very High Risk Area |                     |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     | 8                   | Yatgal       | Very High Risk Area |                     |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     | 2           | Devadurga           | 2                   | Devadurga    | 2                   | Devadurga           | 5           | Dondambli           | 9            | Wagadambli | Very High Risk Area |                     |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             |                     | 10           | Huvinhadgi | Very High Risk Area |                     |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             |                     | 11           | Joladhadgi | Very High Risk Area |                     |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             |                     | 12           | Dondambli  | Very High Risk Area |                     |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             |                     | 13           | Benkal     | Very High Risk Area |                     |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             |                     | 14           | Karkihalli | Very High Risk Area |                     |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             |                     | 15           | Konchapli  | Very High Risk Area |                     |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             |                     | 16           | Mydargol   | Very High Risk Area |                     |
|                                    | 6             | Koppar       | 17                  | Hunur        | Very High Risk Area |             |                     |                     |              |                     |                     |             |                     |              |            |                     |                     |
|                                    |               |              | 18                  | Kopper       | Very High Risk Area |             |                     |                     |              |                     |                     |             |                     |              |            |                     |                     |
|                                    |               |              | 19                  | Kurkihalli   | Very High Risk Area |             |                     |                     |              |                     |                     |             |                     |              |            |                     |                     |
|                                    |               |              | 20                  | Paratpur     | Very High Risk Area |             |                     |                     |              |                     |                     |             |                     |              |            |                     |                     |
|                                    | 3             | Gabbur       | 3                   | Gabbur       | 3                   |             |                     |                     |              |                     |                     | Gabbur      | 7                   | Hemnal       | 21         | Baswantpur          | Very High Risk Area |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             |                     |              | 22         | Apprahal            | Very High Risk Area |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             | 8                   | Shavantagera | 23         | Madarkal            | Very High Risk Area |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     |                     |             |                     |              | 24         | Hireraikumpi        | Very High Risk Area |
|                                    |               |              |                     |              |                     | 25          | Chickraikumpi       | Very High Risk Area |              |                     |                     |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     | 9           | Gugal               | 26                  | Itagi        | Very High Risk Area |                     |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     | 27                  | Gugal        | Very High Risk Area |                     |             |                     |              |            |                     |                     |
|                                    | 4             | Jalihalli    | 4                   | Jalihalli    | 4                   | Jalihalli   | 10                  | Palkanmaradi        | 28           | Devergud            | Moderate Risk Area  |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 29           | Veergot             | Moderate Risk Area  |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 11           | Chinchodi           | 30                  | Bunkaldoddi | Very High Risk Area |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     | 31                  | Chinchodi   | Very High Risk Area |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             | 12                  | Amarapur            | 32           | Lingadhalli         | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 33           | Suladgud            | Moderate Risk Area  |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             | 13                  | Jalahalli           | 34           | Chapalki            | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 35           | Bagur               | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             | 14                  | Karidigudda         | 36           | Mudgot              | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 37           | Herundi             | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    | 38            | Buddinni     | Very High Risk Area |              |                     |             |                     |                     |              |                     |                     |             |                     |              |            |                     |                     |
|                                    | 39            | Roudal Banda | Very High Risk Area |              |                     |             |                     |                     |              |                     |                     |             |                     |              |            |                     |                     |
|                                    | 5             | Lingasuguru  | 5                   | Lingasuguru  | 5                   | Lingasuguru | 15                  | Rodalbanda U.K.P.   | 40           | Jungi-Rampur        | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 41           | Upperi (Small)      | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 42           | Sunkal              | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 43           | Halbhavi            | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    | 6             | Gurgunta     | 6                   | Gurgunta     | 6                   | Gurgunta    | 17                  | Guntgol             | 44           | Jaldurga            | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 45           | Budidipad           | Moderate Risk Area  |             |                     |              |            |                     |                     |
|                                    | 4             | Raichur      | 4                   | Raichur      | 4                   | Raichur     | 7                   | Chandrabanda        | 46           | Athkur              | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 47           | Dongarampur         | Moderate Risk Area  |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 19           | Atkooor             | 48                  | Korvakala   | Moderate Risk Area  |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     | 49                  | Korvakhurd  | Moderate Risk Area  |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     |              |                     | 50                  | Agrahar     | Moderate Risk Area  |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 20           | Yadlapur            | 51                  | Wadloor     | Moderate Risk Area  |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             | 52                  | Ganjhalli           |              |                     | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             | 53                  | Yedlapur            |              |                     | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             | 21                  | Sagamkunta          | 54           | Korvihal            | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 55           | Korthkunda          | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             | 22                  | Devasugur           | 56           | Deosugur            | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 57           | Shaktinagar (CT)    | Moderate Risk Area  |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             | 23                  | Kadlur              | 58           | Kadlur              | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 59           | Gurjapur            | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    |               |              |                     |              |                     |             |                     |                     | 60           | Arshanagi           | Very High Risk Area |             |                     |              |            |                     |                     |
|                                    | 61            | Karekal      | Very High Risk Area |              |                     |             |                     |                     |              |                     |                     |             |                     |              |            |                     |                     |
|                                    | 9             | Kalmali      | 24                  | Chikkasugur  | 62                  | Chicksugur  | Moderate Risk Area  |                     |              |                     |                     |             |                     |              |            |                     |                     |

| Middle Krishna Sub-Basin (K2)      |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  |     |                 |                     |
|------------------------------------|---------------|---------------------|------------|--------------|------------|-----------|---------------------|--------|-----------------|---------------------|--|--|--|--|-----|-----------------|---------------------|
| List of Flood Hazard Risk Villages |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  |     |                 |                     |
| Dist. SI.No.                       | District Name | Taluk SI.No.        | Taluk Name | Hobli SI.No. | Hobli Name | GP SI.No. | Gram Panchayat Name | SI.No. | Village Name    | Flood Hazard Class  |  |  |  |  |     |                 |                     |
| 1                                  | 2             | 3                   | 4          | 5            | 6          | 7         | 8                   | 9      | 10              | 11                  |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            | 25        | Mahishawadagi       | 63     | Mahishwadgi     | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            | 26        |                     | 64     | Janawad         | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            | 27        |                     | 65     | Nandeshwar      | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            | 28        |                     | 66     | Shegunshi       | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 67  | Satti           | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 68  | Dodwad          | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 69  | Naganur P.K.    | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 70  | Avarkhod        | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 71  | Khavatkoppa     | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 72  | Savadi          | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 73  | Chikkud         | Moderate Risk Area  |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 74  | Saptasagar      | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 75  | Teerth          | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 76  | Darur           | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 77  | Radderahatti    | Moderate Risk Area  |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 78  | Nadi-Ingargaon  | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 79  | Halyal          | Moderate Risk Area  |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 80  | Hulagabali      | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 81  | Shinal          | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 82  | Tangadi         | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 83  | Junjarwad       | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 84  | Shirahatti      | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 85  | Nandagaon       | Moderate Risk Area  |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 86  | Telsang         | Moderate Risk Area  |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 87  | Bannur          | Moderate Risk Area  |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 88  | Kakamari        | Moderate Risk Area  |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 89  | Kottalgi        | Moderate Risk Area  |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 90  | Ankali          | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 91  | Manjari         | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 92  | Yadur           | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 93  | Hosa Yedur      | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 94  | Yadurwadi       | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 95  | Manjarwadi      | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 96  | Ingali          | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 97  | Chandur         | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 98  | Chandur - Tek   | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 99  | Kallol          | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 100 | Nasalapur       | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 101 | Diggewadi (Old) | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 102 | Soundatti       | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 103 | Jalalpur        | Very High Risk Area |
|                                    |               |                     |            |              |            |           |                     |        |                 |                     |  |  |  |  | 104 | Chinchali       | Moderate Risk Area  |
| 105                                | Bhiradi       | Very High Risk Area |            |              |            |           |                     |        |                 |                     |  |  |  |  |     |                 |                     |
| 106                                | Khemalapur    | Very High Risk Area |            |              |            |           |                     |        |                 |                     |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 107    | Paramanandwadi  | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 108    | Siddapur        | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 109    | Kudachi (Rural) | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 110    | Kudchi (TP)     | Moderate Risk Area  |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 111    | Shiragur        | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 112    | Gundwad         | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 113    | Molwad          | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 114    | Kusnal          | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 115    | Shahapur        | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 116    | Shiraguppi      | Moderate Risk Area  |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 117    | Krishna Kittur  | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 118    | Ugar Budruk     | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 119    | Ugar Khurd      | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 120    | Jugul           | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 121    | Mangavati       | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 122    | Banajawad       | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 123    | Shedbal         | Moderate Risk Area  |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 124    | Ainapur         | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 125    | Katral          | Very High Risk Area |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 126    | Kagawad         | Moderate Risk Area  |  |  |  |  |     |                 |                     |
|                                    |               |                     |            |              |            |           |                     | 127    | Mole            | Moderate Risk Area  |  |  |  |  |     |                 |                     |

| Middle Krishna Sub-Basin (K2)      |               |                    |                    |              |            |           |                     |        |                   |                     |
|------------------------------------|---------------|--------------------|--------------------|--------------|------------|-----------|---------------------|--------|-------------------|---------------------|
| List of Flood Hazard Risk Villages |               |                    |                    |              |            |           |                     |        |                   |                     |
| Dist. Sl.No.                       | District Name | Taluk Sl.No.       | Taluk Name         | Hobli Sl.No. | Hobli Name | GP Sl.No. | Gram Panchayat Name | Sl.No. | Village Name      | Flood Hazard Class  |
| 1                                  | 2             | 3                  | 4                  | 5            | 6          | 7         | 8                   | 9      | 10                | 11                  |
| 4                                  | Bagalkote     | 13                 | Rabakavi Banahatti | 23           | Terdal     | 104       | Hipparagi           | 128    | Gulbal            | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 129    | Budihal(S.G.)     | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 130    | Budihal(S.G.)     | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 131    | Badgi             | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 132    | Ballur            | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 133    | Galagali          | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 134    | Hanchinal(Inam)   | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 135    | Gudadinni         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 136    | Girgaon           | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 137    | Rabkavi           | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 138    | Chowdapur         | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 139    | Chickhanchinal    | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 140    | Kolur             | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 141    | Mundaganur        | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 142    | Girisagar         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 143    | Nagur             | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 144    | Hungund (Rural)   | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 145    | Hungund (Rural)   | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 146    | Hungund (TP)      | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 147    | Sangam            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 148    | Valakaladinni     | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 149    | Bisaladinni       | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 150    | Jamkhandi (Rural) | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 151    | Jamkhandi (CMC)   | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 152    | Chingundi         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 153    | Jakanur           | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 154    | Kunchanur         | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 155    | Kumbarhal         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 156    | Jamkhandi (Rural) | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 157    | Sanal             | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 158    | Alagur            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 159    | Kankanawadi       | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 160    | Kadacol           | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 161    | Shiraguppi        | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 162    | Maigur            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 163    | Muttur            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 164    | Bidari            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 165    | Janawad           | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 166    | Kavatagi          | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 167    | Chikkapadasalagi  | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 168    | Naganur           | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 169    | Hirepadasalagi    | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 170    | Jambagi.(B.K.)    | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 171    | Takkalaki         | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 172    | Takkod            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 173    | Shurpali          | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 174    | Jambagi.(K.D.)    | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 175    | Tubachi           | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 176    | Ishwarnagar       | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 177    | Hireupnal         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 178    | Balakundi         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 179    | Hanamanal         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 180    | Ilkal (CMC)       | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 181    | Madanamatti       | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 182    | Asangi            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 183    | Halingali         | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 184    | Kulhalli          | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 185    | Tamadaddi         | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 186    | Hipparagi         | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 73     | Badagi            | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 74     | Teggi             | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 75     | Galagali          | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 76     | Inam-Hanchinal    | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 77     | Kolur             | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 78     | Girisagar         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 79     | Nagur             | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 80     | Hungund (Rural)   | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 81     | Hungund (TP)      | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 82     | Kudalasangam      | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 83     | Bisaladinni       | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 84     | Jamkhandi (Rural) | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 85     | Jamkhandi (CMC)   | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 86     | Kunchanur         | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 87     | Kumbar-Hall       | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 88     | Alagur            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 89     | Kankanavadi       | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 90     | Maigur            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 91     | Muttur            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 92     | Bidari            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 93     | Chikkapadasalagi  | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 94     | Hirepadasalagi    | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 95     | Jambagi-B.K       | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 96     | Shurpali          | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 97     | Balakundi         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 98     | Hire Kodagali     | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 99     | Balakundi         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 100    | Asangi            | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 101    | Halingali         | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 102    | Kulhalli          | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 103    | Tamadaddi         | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 104    | Hipparagi         | Very High Risk Area |
|                                    |               |                    |                    |              |            |           |                     | 17     | Bilgi             | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 18     | Anagvadi          | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 9      | Bilgi             | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 10     | Hungund           | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 11     | Jamakhadi         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 12     | Ilkal             | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 19     | Hungund           | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 20     | Jamakhadi         | Moderate Risk Area  |
|                                    |               |                    |                    |              |            |           |                     | 21     | Savalagi          | Moderate Risk Area  |
| 22                                 | Ilkal         | Moderate Risk Area |                    |              |            |           |                     |        |                   |                     |

| Middle Krishna Sub-Basin (K2)      |                 |              |                   |                     |                    |                     |                     |                     |                 |                     |                 |                     |
|------------------------------------|-----------------|--------------|-------------------|---------------------|--------------------|---------------------|---------------------|---------------------|-----------------|---------------------|-----------------|---------------------|
| List of Flood Hazard Risk Villages |                 |              |                   |                     |                    |                     |                     |                     |                 |                     |                 |                     |
| Dist. Sl.No.                       | District Name   | Taluk Sl.No. | Taluk Name        | Hobli Sl.No.        | Hobli Name         | GP Sl.No.           | Gram Panchayat Name | Sl.No.              | Village Name    | Flood Hazard Class  |                 |                     |
| 1                                  | 2               | 3            | 4                 | 5                   | 6                  | 7                   | 8                   | 9                   | 10              | 11                  |                 |                     |
| 5                                  | Vijayapura      | 14           | Basavana Bagewadi | 24                  | Managuli           | 105                 | Managuli            | 187                 | Managuli        | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    | 106                 | Ukkali              | 188                 | Ukkali          | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    | 107                 | Markabbinalli       | 189                 | Bisanal         | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 190                 | Bommanahalli    | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    | 108                 | Donur               | 191                 | Donur           | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 192                 | Mullal          | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 193                 | Neginal         | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    | 109                 | Jumanal             | 194                 | Yambatnal       | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 195                 | Jumnal          | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 196                 | Hittinahalli    | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 197                 | Khatijapur      | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 198                 | Bijapur (Rural) | 199                 | Bijapur (Rural) | Very High Risk Area |
|                                    |                 |              |                   |                     |                    |                     |                     |                     |                 | 200                 | Bijapur (Rural) | Moderate Risk Area  |
|                                    |                 |              |                   |                     |                    |                     |                     | 201                 | Hegadihal       | Moderate Risk Area  |                 |                     |
|                                    |                 | 15           | Vijayapura        | 25                  | Vijayapura         | 114                 | Kumatagi            | 201                 | Kumatagi        | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    | 115                 | Kolur               | 202                 | Devoor          | Moderate Risk Area  |                 |                     |
|                                    |                 | 16           | Muddebihal        | 26                  | Muddebihal         | 116                 | Yarazari            | 203                 | Handargall      | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    | 117                 | Khakandaki          | 204                 | Kandaganur      | Moderate Risk Area  |                 |                     |
|                                    |                 | 17           | Babaleshwar       | 27                  | Babaleshwar        | 118                 | Karjol              | 205                 | Kakhandaki      | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    | 119                 | Babaleswar          | 206                 | Tonsyal         | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    | 120                 | Honaganahalli       | 207                 | Babaleshwar     | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 208                 | Adavisangapur   | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    | 121                 | Sarwad              | 209                 | Honaganahalli   | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 210                 | Dadamatti       | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    | 122                 | Nidoni              | 211                 | Sarwad          | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 212                 | Nidoni          | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    | 123                 | Tajpur.H            | 213                 | Kanamuchanal    | Moderate Risk Area  |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 214                 | Dhanyal         | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 215                 | Jambagi(H)      | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 216                 | Chikka-Galagali | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 217                 | Hosur           | Very High Risk Area |                 |                     |
|                                    |                 |              |                   |                     |                    |                     |                     | 218                 | Kanabur         | Very High Risk Area |                 |                     |
|                                    |                 | 219          | Jainapur          | Moderate Risk Area  |                    |                     |                     |                     |                 |                     |                 |                     |
|                                    |                 | 124          | Gunadal           | 220                 | Babalad            | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
|                                    |                 |              |                   | 221                 | Shirabur           | Very High Risk Area |                     |                     |                 |                     |                 |                     |
|                                    |                 |              |                   | 222                 | Sutagundi          | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
|                                    |                 |              |                   | 223                 | Lingadalli         | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
|                                    |                 |              |                   | 224                 | Devara-Gennur      | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
| 18                                 | Tikota          | 29           | Tikota            | 225                 | Atalatti           | Very High Risk Area |                     |                     |                 |                     |                 |                     |
|                                    |                 |              |                   | 226                 | Toravi (Part)      | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
| 19                                 | Kolhar          | 30           | Kolhar            | 227                 | Kotyal             | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
|                                    |                 |              |                   | 228                 | Harnal             | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
| 20                                 | Devar Hipparagi | 31           | Devar Hipparagi   | 229                 | Ratnapura          | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
|                                    |                 |              |                   | 230                 | Malakandevarahatti | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
|                                    |                 |              |                   | 231                 | Honawad            | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
|                                    |                 |              |                   | 232                 | Rampur             | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
|                                    |                 |              |                   | 233                 | Tikota             | Moderate Risk Area  |                     |                     |                 |                     |                 |                     |
| 32                                 | Huvinihiprgi    | 132          | Tikota            | Moderate Risk Area  |                    |                     |                     |                     |                 |                     |                 |                     |
|                                    |                 | 133          | Mulawad           | Very High Risk Area |                    |                     |                     |                     |                 |                     |                 |                     |
| 31                                 | Devar Hipparagi | 32           | Devar Hipparagi   | 134                 | Jalawad            | 234                 | Mulawad             | Very High Risk Area |                 |                     |                 |                     |
|                                    |                 |              |                   | 135                 | Yalawar            | 235                 | Jalwad              | Moderate Risk Area  |                 |                     |                 |                     |
|                                    |                 |              |                   | 136                 | Satihah            | 236                 | Yalwar              | Moderate Risk Area  |                 |                     |                 |                     |
| 32                                 | Huvinihiprgi    | 32           | Huvinihiprgi      | 137                 | Nagaraldon         | 237                 | Nagaraldon          | Moderate Risk Area  |                 |                     |                 |                     |
|                                    |                 |              |                   | 138                 | Satihah            | 238                 | Satihah             | Moderate Risk Area  |                 |                     |                 |                     |

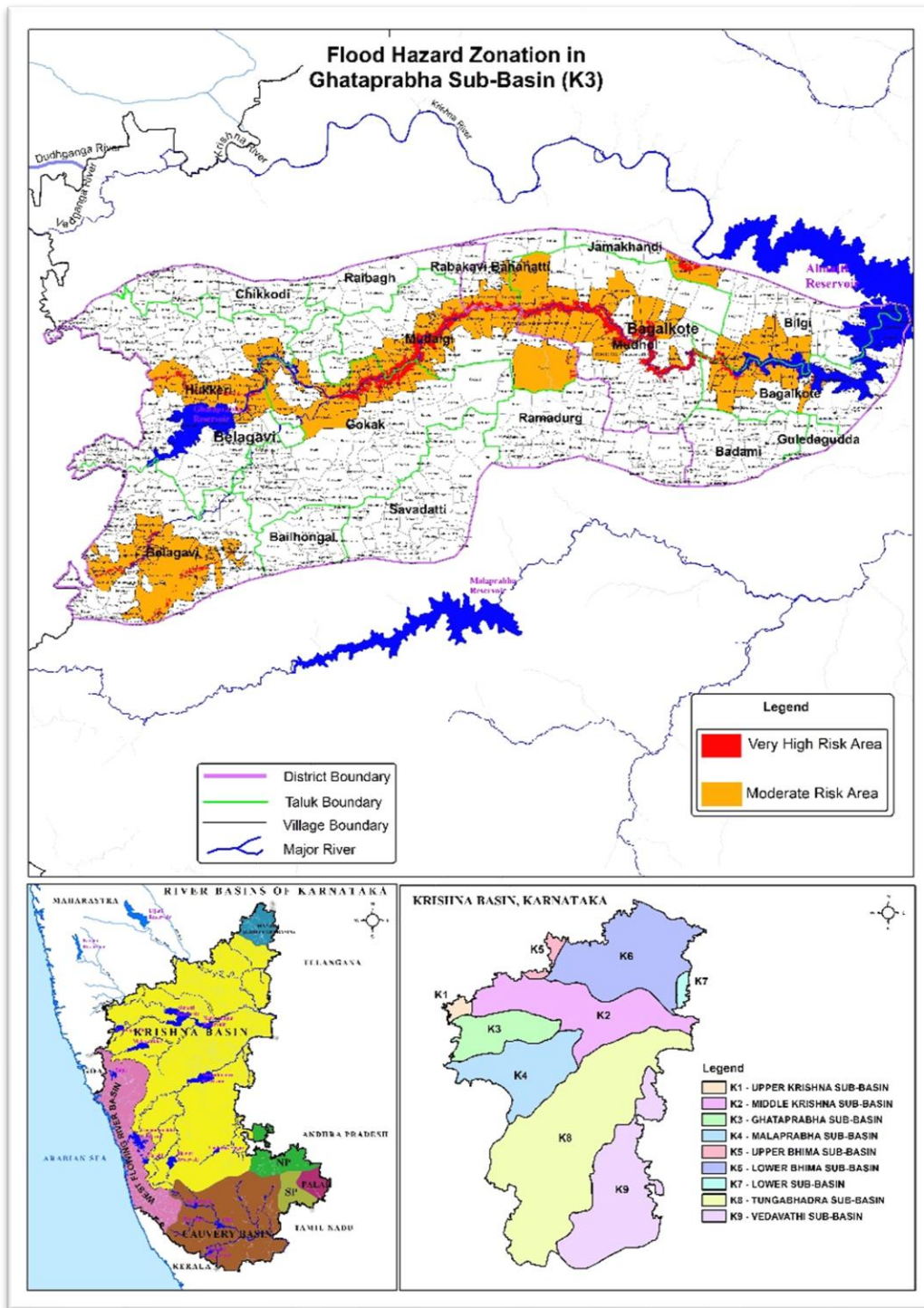
| Middle Krishna Sub-Basin (K2)      |               |              |                |                     |              |           |                     |                     |                |                     |                     |               |                     |
|------------------------------------|---------------|--------------|----------------|---------------------|--------------|-----------|---------------------|---------------------|----------------|---------------------|---------------------|---------------|---------------------|
| List of Flood Hazard Risk Villages |               |              |                |                     |              |           |                     |                     |                |                     |                     |               |                     |
| Dist. Sl.No.                       | District Name | Taluk Sl.No. | Taluk Name     | Hobli Sl.No.        | Hobli Name   | GP Sl.No. | Gram Panchayat Name | Sl.No.              | Village Name   | Flood Hazard Class  |                     |               |                     |
| 1                                  | 2             | 3            | 4              | 5                   | 6            | 7         | 8                   | 9                   | 10             | 11                  |                     |               |                     |
| 6                                  | Yadgir        | 21           | Shahpur        | 33                  | Gogi         | 137       | Gogi (K)            | 239                 | Gogikona       | Moderate Risk Area  |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 240                 | Markal         | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 241                 | Tonnur         | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 242                 | Chandral       | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 243                 | Goudoor        | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 244                 | Kollur         | Very High Risk Area |                     |               |                     |
|                                    |               |              |                | 34                  | Hayyalbuzurg | 138       | Kollur (M)          | 245                 | Mushtalli      | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 246                 | Kagarhal       | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 247                 | Shalgi         | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 248                 | Aralhalli      | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 249                 | Kampapur       | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 250                 | Devapur        | Very High Risk Area |                     |               |                     |
|                                    |               | 139          | Devapur        |                     |              |           |                     | 251                 | Bevinhal       | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 252                 | Hemwadgi       | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 253                 | Sugur          | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 254                 | Adwadgi        | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 255                 | Choudeshwarhal | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 256                 | Karnal         | Moderate Risk Area  |                     |               |                     |
|                                    |               | 35           | Shorapur       | 141                 | Hemanoor     | 257       | Hemnoor             | Very High Risk Area |                |                     |                     |               |                     |
|                                    |               |              |                |                     |              | 258       | Tinthni             | Very High Risk Area |                |                     |                     |               |                     |
|                                    |               | 22           | Shorapur       | 36                  | Kakkeri      | 142       | Tinthni             | 259                 | Kodal          | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     |                     | 260            | Kadrapur            | Very High Risk Area |               |                     |
|                                    |               |              |                |                     |              |           |                     |                     | 261            | Habshihal           | Moderate Risk Area  |               |                     |
|                                    |               |              |                |                     |              |           |                     |                     | 262            | Itga Simt Wadgera   | Very High Risk Area |               |                     |
|                                    |               |              |                |                     |              |           |                     |                     | 144            | Tumakura            | 263                 | Tumkur        | Very High Risk Area |
|                                    |               |              |                |                     |              |           |                     |                     |                |                     | 264                 | Channur Jagir | Very High Risk Area |
|                                    |               |              |                |                     |              |           |                     |                     |                |                     | 265                 | Konkal        | Very High Risk Area |
| 266                                | Gondenoor     |              |                |                     |              |           |                     |                     |                |                     | Very High Risk Area |               |                     |
| 267                                | Ekchinti      |              |                |                     |              |           |                     |                     |                |                     | Very High Risk Area |               |                     |
| 268                                | Hayyal (B)    |              |                |                     |              |           |                     |                     |                |                     | Very High Risk Area |               |                     |
| 37                                 | Wadagera      |              |                |                     |              |           |                     |                     | 145            | Konkal              | 269                 | Aneksugur     | Very High Risk Area |
|                                    |               |              |                |                     |              |           |                     |                     |                |                     | 270                 | Alkur         | Very High Risk Area |
|                                    |               | 271          | Jangangaddi    | Very High Risk Area |              |           |                     |                     |                |                     |                     |               |                     |
| 23                                 | Wadagera      | 38           | Hayyala Buzurg | 146                 | Haiyal (B)   | 272       | Kotigud             | Moderate Risk Area  |                |                     |                     |               |                     |
|                                    |               |              |                |                     |              | 273       | Rayangola           | Very High Risk Area |                |                     |                     |               |                     |
|                                    |               |              |                |                     |              | 274       | Jogandabhavi        | Moderate Risk Area  |                |                     |                     |               |                     |
|                                    |               |              |                |                     |              | 147       | Konkal              | 275                 | Aikur          | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 276                 | Narayanpur     | Very High Risk Area |                     |               |                     |
|                                    |               |              |                |                     |              |           |                     | 277                 | Narayanpur     | Very High Risk Area |                     |               |                     |
| 24                                 | Hunasagi      | 39           | Kodekal        | 150                 | Jogundbhavi  | 278       | Jogandabhavi        | Moderate Risk Area  |                |                     |                     |               |                     |
|                                    |               |              |                |                     |              | 279       | Jogandabhavi        | Moderate Risk Area  |                |                     |                     |               |                     |

### 1.3.2 Ghataprabha Sub-basin-K3:

The Ghataprabha River originates in the Western Ghats at an altitude of 884 meters and flows eastward for a distance of 283 kilometers before its confluence with the Krishna River at Almatti. The catchment area of Ghataprabha lies between latitude 15° 45' and 16° 25' N and longitude 74° 00' and 75° 55' E. The Ghataprabha River flows eastwards for a distance of 283 km before joining Krishna at Kudalasangama, about 35 km north-east of Kaladgi at an elevation of 500 m. The river flows for about 60 km in the Ratnagiri and Kolhapur Districts of Maharashtra before entering the Belgaum District of Karnataka. In Karnataka, it flows through Belgavi and Bagalakote districts and joins the Krishna about 16 km from Almatti. The catchment area of Ghataprabha including its tributaries is 8,829km<sup>2</sup>. The Ghataprabha sub basin is also high variable in rainfall ranging from 6500mm in upper catchment and 500 mm in lower catchment. There are 12 watershed and major project in sub basin. The basin experienced flash floods in last decades and also heavy release of water from the upper basin of Krishna basin cause flood situation all along the adjacent regions and villages of Belagavi and Bagalakote district. In Belagavi district the taluks of Belagavi, Gokak, Hukkeri, Mudalagi, and in Bagalakote district taluks of Bagalakote, Bilagi, Jamakandi, Mudhol, Rabakavibanahatti taluks are prone to flood conditions and also the storage of huge flood water and backwater of Alamatti reservoirs inundates a large portion of villages and create flood situation. The flood hazard zonation of high risk area to moderate risk area are depicted in **Map-4**. There are 45 villages are prone high risk and 117 villages are prone moderate risk, flood prone villages..

**Ghataprabha Sub-basin-K3: Flood Prone Districts**

| Sl.No.       | District Name | No. of Taluks | No. of Hoblis | No. of Gram Panchayats | No. of Villages |               | Total Villages |
|--------------|---------------|---------------|---------------|------------------------|-----------------|---------------|----------------|
|              |               |               |               |                        | Very High Risk  | Moderate Risk |                |
| 1            | Belagavi      | 4             | 11            | 56                     | 20              | 72            | 92             |
| 2            | Bagalkote     | 5             | 7             | 36                     | 25              | 45            | 70             |
| <b>Total</b> |               | <b>9</b>      | <b>18</b>     | <b>92</b>              | <b>45</b>       | <b>117</b>    | <b>162</b>     |



**Map-4 Ghataprabha Sub-basin -K3**

**Table- List of Flood Prone Villages in Ghatpraba Sub basin -K3**

| Ghataprabha Sub-Basin (K3)         |               |              |             |              |              |           |                        |                    |                        |                     |                 |                     |
|------------------------------------|---------------|--------------|-------------|--------------|--------------|-----------|------------------------|--------------------|------------------------|---------------------|-----------------|---------------------|
| List of Flood Hazard Risk Villages |               |              |             |              |              |           |                        |                    |                        |                     |                 |                     |
| Dist. Sl.No.                       | District Name | Taluk Sl.No. | Taluk Name  | Hobli Sl.No. | Hobli Name   | GP Sl.No. | Gram Panchayat Name    | Sl.No.             | Village Name           | Flood Hazard Class  |                 |                     |
| 1                                  | 2             | 3            | 4           | 5            | 6            | 7         | 8                      | 9                  | 10                     | 11                  |                 |                     |
| 1                                  | Belagavi      | 1            | Belagavi    | 1            | Belagavi     | 1         | Peeranwadi             | 1                  | Peeranwadi (CT)        | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 2         | Belgaum (M Corp. + OG) | 2                  | Belgaum (M Corp. + OG) | Moderate Risk Area  |                 |                     |
|                                    |               |              |             | 2            | Hirebagevadi | 3         | Mutaga                 | 3                  | Mutga (CT)             | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 4         | Nilaji                 | 4                  | Nilaji                 | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 5         | Balekundari Kh         | 5                  | Balekundri (K.H)       | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 6         | Sulebhavi              | 6                  | Sulebhavi (CT)         | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 7         |                        | 7                  | Khanagaon (B.K)        | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 8         | Chandur                | 8                  | Chandur                | Moderate Risk Area  |                 |                     |
|                                    |               |              |             | 3            | Kakti        | 7         | Mucchandi              | 9                  | Muchandi               | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 8         | Kalakhamba             | 10                 | Kalakhamb              | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 9         | Ashte                  | 11                 | Aste                   | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 10        | Kangrali Kh            | 12                 | Chandgad               | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 11        | Kangrali Bk            | 13                 | Alatage                | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 12        | Kadoli                 | 14                 | Goundawad (Part)       | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 13        | Kakti                  | 15                 | Jafarwadi              | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 14        | Honaga                 | 16                 | Kadoli                 | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 15        | Sulaga (U)             | 17                 | Devagiri               | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 16        | Turmuri                | 18                 | Kakati (CT)            | Moderate Risk Area  |                 |                     |
|                                    |               |              |             | 4            | Uchagaon     | 17        | Kangrali Kh            | 19                 | Honaga                 | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 18        | Uchagaon               | 20                 | Kallehol               | Moderate Risk Area  |                 |                     |
|                                    |               | 19           | Ambewadi    |              |              | 21        | Sulge (Uchagaon)       | Moderate Risk Area |                        |                     |                 |                     |
|                                    |               | 20           | Kangrali Bk |              |              | 22        | Bachi                  | Moderate Risk Area |                        |                     |                 |                     |
|                                    |               |              |             |              |              | 23        | Turamari               | Moderate Risk Area |                        |                     |                 |                     |
|                                    |               |              |             |              |              | 24        | Kangrali (KH) (CT)     | Moderate Risk Area |                        |                     |                 |                     |
|                                    |               |              |             |              |              | 25        | Uchagaon               | Moderate Risk Area |                        |                     |                 |                     |
|                                    |               |              |             |              |              | 26        | Mannur                 | Moderate Risk Area |                        |                     |                 |                     |
|                                    |               |              |             |              |              | 27        | Ambewadi               | Moderate Risk Area |                        |                     |                 |                     |
|                                    |               |              |             |              |              | 28        | Kangrali (BK) (CT)     | Moderate Risk Area |                        |                     |                 |                     |
|                                    |               | 2            | Gokak       | 5            | Gokak        | 21        | Kolavi                 | 29                 | Gokak (Rural)          | 29                  | Gokak (Rural)   | Moderate Risk Area  |
|                                    |               |              |             |              |              | 30        | Gokak (CMC)            | 30                 | Gokak (CMC)            | Very High Risk Area |                 |                     |
|                                    |               |              |             | 6            | Kowjalgi     | 22        | Melavanki              | 31                 | Adibatti               | 31                  | Adibatti        | Very High Risk Area |
|                                    |               |              |             |              |              | 23        | Udagatti               | 32                 | Melavanki              | 32                  | Melavanki       | Very High Risk Area |
|                                    |               |              |             |              |              | 24        | Talakatnal             | 33                 | Chigadolli             | 33                  | Chigadolli      | Very High Risk Area |
|                                    |               |              |             |              |              | 25        | Lolasur                | 34                 | Kalarkoppa             | 34                  | Kalarkoppa      | Very High Risk Area |
|                                    |               |              |             |              |              | 26        | Nallanatti             | 35                 | Hadiginal              | 35                  | Hadiginal       | Very High Risk Area |
|                                    |               |              |             |              |              | 27        | Dhupadal               | 36                 | Udagatti               | 36                  | Udagatti        | Very High Risk Area |
|                                    |               |              |             | 7            | Arbhavi      | 28        | Nandagaon              | 37                 | Talakatnal             | 37                  | Talakatnal      | Very High Risk Area |
|                                    |               |              |             |              |              | 29        | Balobal                | 38                 | Molmanatti             | 38                  | Molmanatti      | Moderate Risk Area  |
|                                    |               |              |             |              |              | 39        | Shingalapur            | 39                 | Shingalapur            | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 40        | Lolasur                | 40                 | Lolasur                | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 41        | Basaligundi            | 41                 | Basaligundi            | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 42        | Shivapur               | 42                 | Shivapur               | Moderate Risk Area  |                 |                     |
|                                    |               |              |             |              |              | 43        | Nallanatti             | 43                 | Nallanatti             | Moderate Risk Area  |                 |                     |
|                                    |               | 3            | Hukkeri     | 8            | Hukkeri      | 30        | Hospet                 | 44                 | Dhupadal               | 44                  | Dhupadal        | Moderate Risk Area  |
|                                    |               |              |             |              |              | 31        | Mavanur                | 45                 | Mutnal                 | 45                  | Mutnal          | Moderate Risk Area  |
|                                    |               |              |             |              |              | 32        | Godageri               | 46                 | Nandagaon              | 46                  | Nandagaon       | Moderate Risk Area  |
|                                    |               |              |             |              |              | 33        | Hosur                  | 47                 | Khanapur               | 47                  | Khanapur        | Moderate Risk Area  |
|                                    |               |              |             |              |              | 34        | Badakundri             | 48                 | Balobal                | 48                  | Balobal         | Very High Risk Area |
|                                    |               |              |             |              |              | 35        | Bastawad               | 49                 | Beerangaddi            | 49                  | Beerangaddi     | Moderate Risk Area  |
|                                    |               |              |             |              |              | 36        | Beniwad                | 50                 | Shindihatti            | 50                  | Shindihatti     | Moderate Risk Area  |
|                                    |               |              |             |              |              | 37        | Sultanapur             | 51                 | Hospet                 | 51                  | Hospet          | Moderate Risk Area  |
|                                    |               |              |             |              |              | 38        | Kotabagi               | 52                 | Ankalgudikettra        | 52                  | Ankalgudikettra | Moderate Risk Area  |
|                                    |               |              |             |              |              | 39        | Shiradaana             | 53                 | Nadigudikettra         | 53                  | Nadigudikettra  | Moderate Risk Area  |
|                                    |               | 9            | Sankewar    | 9            | Sankewar     | 40        | Gudas                  | 54                 | Yarnal                 | 54                  | Yarnal          | Moderate Risk Area  |
|                                    |               |              |             |              |              | 41        | Hanchinal              | 55                 | Ingali                 | 55                  | Ingali          | Moderate Risk Area  |
|                                    |               |              |             |              |              | 42        | Kurani                 | 56                 | Hosur                  | 56                  | Hosur           | Moderate Risk Area  |
|                                    |               |              |             |              |              | 43        | Kochari                | 57                 | Yargatti               | 57                  | Yargatti        | Moderate Risk Area  |
|                                    |               |              |             |              |              | 44        | Hebbal                 | 58                 | Badkundri              | 58                  | Badkundri       | Moderate Risk Area  |
|                                    |               |              |             |              |              |           |                        | 59                 | Goudawad               | 59                  | Goudawad        | Moderate Risk Area  |

| Ghataprabha Sub-Basin (K3)         |               |              |                    |                     |            |                  |                     |                     |                 |                     |
|------------------------------------|---------------|--------------|--------------------|---------------------|------------|------------------|---------------------|---------------------|-----------------|---------------------|
| List of Flood Hazard Risk Villages |               |              |                    |                     |            |                  |                     |                     |                 |                     |
| Dist. Sl.No.                       | District Name | Taluk Sl.No. | Taluk Name         | Hobli Sl.No.        | Hobli Name | GP Sl.No.        | Gram Panchayat Name | Sl.No.              | Village Name    | Flood Hazard Class  |
| 1                                  | 2             | 3            | 4                  | 5                   | 6          | 7                | 8                   | 9                   | 10              | 11                  |
|                                    |               | 4            | Mudalgi            | 10                  | Arbhavi    | 45               | Hunashyal.P.G       | 74                  | Hunshyal (P.G.) | Very High Risk Area |
|                                    |               |              |                    |                     |            | 46               | Waderahatti         | 75                  | Waderatti       | Moderate Risk Area  |
|                                    |               |              |                    |                     |            | 47               | Masaguppi           | 76                  | Fulagaddi       | Very High Risk Area |
|                                    |               |              |                    |                     |            | 48               | Patagundi           | 77                  | Masaguppi       | Very High Risk Area |
|                                    |               |              |                    |                     |            |                  |                     | 78                  | Patagundi       | Moderate Risk Area  |
|                                    |               |              |                    |                     |            | 49               | Munyal              | 79                  | Kamaladinni     | Very High Risk Area |
|                                    |               |              |                    |                     |            |                  |                     | 80                  | Rangapur        | Moderate Risk Area  |
|                                    |               |              |                    |                     |            | 81               | Munyal              | Very High Risk Area |                 |                     |
|                                    |               |              |                    |                     |            | 82               | Yadwad              | Moderate Risk Area  |                 |                     |
|                                    |               |              |                    |                     |            | 83               | Tigadi              | Very High Risk Area |                 |                     |
|                                    |               |              |                    |                     |            | 84               | Kopadatti           | Moderate Risk Area  |                 |                     |
|                                    |               |              |                    |                     |            | 85               | Sunadholi           | Very High Risk Area |                 |                     |
|                                    |               |              |                    |                     |            | 86               | Bairanatti          | Moderate Risk Area  |                 |                     |
|                                    |               |              |                    |                     |            | 87               | Hunshyal (P.Y.)     | Very High Risk Area |                 |                     |
|                                    |               |              |                    |                     | 88         | Bisanakoppa      | Moderate Risk Area  |                     |                 |                     |
|                                    |               |              |                    |                     | 89         | Hale Yaragudri   | Moderate Risk Area  |                     |                 |                     |
|                                    |               |              |                    |                     | 90         | Avaradi          | Very High Risk Area |                     |                 |                     |
|                                    |               |              |                    |                     | 91         | Dhavaleshwar     | Very High Risk Area |                     |                 |                     |
|                                    |               |              |                    |                     | 92         | Aralimatti       | Very High Risk Area |                     |                 |                     |
|                                    |               |              |                    |                     | 93         | Gaddanakeri      | Moderate Risk Area  |                     |                 |                     |
|                                    |               |              |                    |                     | 94         | Kaladgi          | Very High Risk Area |                     |                 |                     |
|                                    |               |              |                    |                     | 95         | Chikkashellikeri | Moderate Risk Area  |                     |                 |                     |
|                                    |               |              |                    |                     | 96         | Murana           | Moderate Risk Area  |                     |                 |                     |
|                                    |               |              |                    |                     | 97         | Kesanur *        | Moderate Risk Area  |                     |                 |                     |
|                                    |               |              |                    |                     | 98         | Yadahalli        | Moderate Risk Area  |                     |                 |                     |
|                                    |               |              |                    |                     | 99         | Chebbi           | Moderate Risk Area  |                     |                 |                     |
|                                    |               |              |                    |                     | 100        | Ankalagi         | Moderate Risk Area  |                     |                 |                     |
|                                    |               |              |                    |                     | 101        | Sharadal         | Very High Risk Area |                     |                 |                     |
|                                    |               | 102          | Udagatti           | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 103          | Devana             | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 104          | Sokanadgi          | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 105          | Chikk-Sansi        | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 106          | Hire-Sansi         | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 107          | Yadahalli          | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 108          | Amalzari           | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 109          | Lingapur(S.K)      | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 110          | Katarki            | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 111          | Shiraguppi         | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 112          | Kundargi           | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 113          | Venkatapura        | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 114          | Anagawadi          | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 115          | Budhihal(S.H)      | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 116          | Bavalatti          | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 117          | Kovalli            | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 118          | Koppa(S.K)         | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 119          | Algundi            | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 120          | Gani               | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 121          | Gulagal-Jambagi    | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 122          | Rugi               | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 123          | Uttur              | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 124          | Jaliber            | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 125          | Ranjanagi          | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 126          | Mallapur(P.J)      | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 127          | Mirji              | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 128          | Vantigodi          | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 129          | Channa             | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 130          | Mudhol (TMC)       | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 131          | Akkimara           | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 132          | Nagaral            | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 133          | Malali             | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 134          | Mudhol(Rural)      | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 135          | Belagali           | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 136          | Bhantanur          | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 137          | Hebbal             | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 138          | Chitranukoti       | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 139          | Timmapur           | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 140          | Pettur             | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 141          | Chikkur            | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 142          | Badnur             | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 143          | Junnur             | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 144          | Muddapur           | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 145          | Kasba Jambgi(B.K)  | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 146          | Budni Khurd        | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 147          | Antapur            | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 148          | Baragi             | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 149          | Bidri              | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 150          | Machaknur          | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 151          | Budni (B.K.)       | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 152          | Alagundi(B.K)      | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 153          | 1501006017002      | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 154          | Chinchakhandi(K.D) | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 155          | Jambgi(K.D)        | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 156          | Gulgal Jambagi     | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 157          | Ingalagi           | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 158          | Yadahalli          | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 159          | Vajaramatti        | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 160          | Marapur            | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 161          | Nandagoan          | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 162          | Dhavaleshwar       | Very High Risk Area |            |                  |                     |                     |                 |                     |
|                                    |               | 163          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 164          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 165          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 166          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 167          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
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|                                    |               | 281          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 282          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
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|                                    |               | 296          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 297          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 298          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 299          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 300          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
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|                                    |               | 316          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 317          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
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|                                    |               | 320          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
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|                                    |               | 324          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 325          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
|                                    |               | 326          | Mahalingpur (TMC)  | Moderate Risk Area  |            |                  |                     |                     |                 |                     |
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|                                    |               |              |                    |                     |            |                  |                     |                     |                 |                     |

Chorla Ghats, a section of the Western Ghats, at an elevation of about 792m about 35m south-west of Belgaum District of Karnataka. The river flows east and north-west and joins Krishna at Kapila Sangam in the Bijapur District at an elevation of about 488 m. Malaprabha traverses a length of 306 km before meeting the Krishna River.

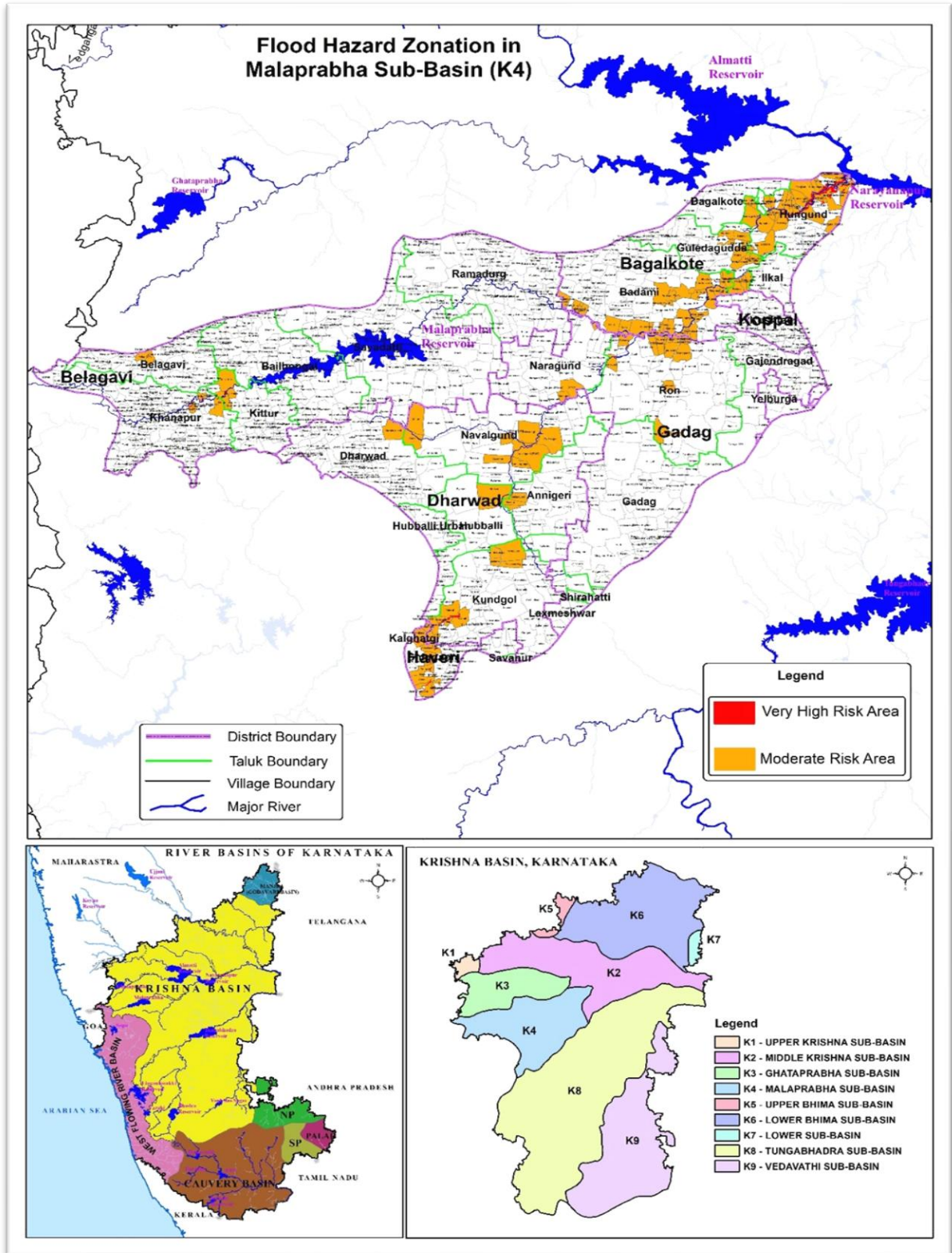
The Bennihalla and the Hirehalla are the principal tributaries of the river Malaprabha. The total catchment area of the Malaprabha including its tributaries is 11,549 sq. km, which lies wholly in the State of Karnataka. It flows for a distance of 304 km and joins the Krishna river at an altitude of 488 meters near Kudal Sangama in Bagalkot district in Karnataka. It also flows through Dharwar District. Hubli city gets the drinking water from this reservoir. The Naviluteertha Dam is constructed near Munavalli in Belgaum District with a storage capacity of 1.07 km<sup>3</sup>. It irrigates more than 2,000 square kilometres of land. This reservoir is called Renukasagar.

The flood situation is commonly noticed in main tributaries of Bennihalla and Hirehalla during the southwest monsoon season due to heavy to very heavy rainfall associated with release of water from the upper basins of Krishna basin and also the storage of Alamatti reservoir and Narayanapura reservoir at full capacity create back water inundation of villages all along the basin of Malaprabha.

From the flood hazard zonation map it is depicted that the Malaprabha sub basin lies in districts Bagalakote, Dharwad, Gadag, Haveri and Belagavi districts. Bagalakote district is most vulnerable district compared to other districts. In Malaprabha sub basin it is identified that 8 villages are high risk and about 114 villages are under moderate risk as shown in the **Map-5**.

**Malaprabha Sub-basin -K4: Flood Prone Districts**

| Sl.No.       | District Name | No. of Taluks | No. of Hoblis | No. of Gram Panchayats | No. of Villages |               | Total Villages |
|--------------|---------------|---------------|---------------|------------------------|-----------------|---------------|----------------|
|              |               |               |               |                        | Very High Risk  | Moderate Risk |                |
| 1            | Belagavi      | 3             | 3             | 7                      | —               | 9             | 9              |
| 2            | Bagalkote     | 3             | 6             | 31                     | 8               | 55            | 63             |
| 3            | Gadag         | 2             | 5             | 12                     | —               | 16            | 16             |
| 4            | Haveri        | 1             | 1             | 5                      | —               | 9             | 9              |
| 5            | Dharwad       | 5             | 6             | 16                     | —               | 25            | 25             |
| <b>Total</b> |               | <b>14</b>     | <b>21</b>     | <b>71</b>              | <b>8</b>        | <b>114</b>    | <b>122</b>     |



Map-5 Malaprabha Sub basin -K4

**Table – List of Flood Prone Villages in Malprabha Sub-basin -K4**

| Malaprabha Sub-Basin (K4)          |                |              |                  |                    |                  |                    |                     |                    |                  |                    |                |                    |
|------------------------------------|----------------|--------------|------------------|--------------------|------------------|--------------------|---------------------|--------------------|------------------|--------------------|----------------|--------------------|
| List of Flood Hazard Risk Villages |                |              |                  |                    |                  |                    |                     |                    |                  |                    |                |                    |
| Dist. Sl.No.                       | District Name  | Taluk Sl.No. | Taluk Name       | Hobli Sl.No.       | Hobli Name       | GP Sl.No.          | Gram Panchayat Name | Sl.No.             | Village Name     | Flood Hazard Class |                |                    |
| 1                                  | 2              | 3            | 4                | 5                  | 6                | 7                  | 8                   | 9                  | 10               | 11                 |                |                    |
| 1                                  | Belagavi       | 1            | Belagavi         | 1                  | Belagavi         | 1                  | Yallur              | 1                  | Yellur (CT)      | Moderate Risk Area |                |                    |
|                                    |                | 2            | Khanapur         | 2                  | Khanapur         | 1                  | Kodachawad          | 2                  | Kagganagi        | Moderate Risk Area |                |                    |
|                                    |                |              |                  |                    |                  | 3                  | Chikadinkop         | 3                  | Chikadinkop      | Moderate Risk Area |                |                    |
|                                    |                |              |                  |                    |                  | 2                  | Itagi               | 4                  | Itagi            | Moderate Risk Area |                |                    |
|                                    |                | 3            | Kittur           | 3                  | Kittur           | 3                  | Hirehattiholi       | 5                  | Hire-Hattiholi   | 5                  | Hire-Hattiholi | Moderate Risk Area |
|                                    |                |              |                  |                    |                  | 4                  | Devarashighalli     | 6                  | Marganakoppa     | 6                  | Marganakoppa   | Moderate Risk Area |
|                                    |                |              |                  |                    |                  | 5                  | Dastikoppa          | 7                  | Veerapur         | 7                  | Veerapur       | Moderate Risk Area |
|                                    |                |              |                  |                    |                  |                    |                     | 8                  | Dastikoppa       | 8                  | Dastikoppa     | Moderate Risk Area |
|                                    |                |              |                  |                    |                  | 6                  | M.K.Hubli           | 9                  | M.K.Hubli        | 9                  | M.K.Hubli      | Moderate Risk Area |
| 2                                  | Bagalkote      |              |                  |                    |                  | 4                  | Badami              | 4                  | Badami           | 7                  | Kataraki       | 10                 |
|                                    |                | 11           | Jakanur          | Moderate Risk Area |                  |                    |                     |                    |                  |                    |                |                    |
|                                    |                | 12           | Neeralagi        | Moderate Risk Area |                  |                    |                     |                    |                  |                    |                |                    |
|                                    |                | 13           | Katharaki        | Moderate Risk Area |                  |                    |                     |                    |                  |                    |                |                    |
|                                    |                | 14           | Thaminal         | Moderate Risk Area |                  |                    |                     |                    |                  |                    |                |                    |
|                                    |                | 15           | Chikkanasabi     | Moderate Risk Area |                  |                    |                     |                    |                  |                    |                |                    |
|                                    |                | 8            | Beloor           | 16                 | Dhanakashirur    |                    |                     |                    |                  | 16                 | Dhanakashirur  | Moderate Risk Area |
|                                    |                | 9            | Cholachagudd     | 17                 | Cholachagudda    |                    |                     |                    |                  | 17                 | Cholachagudda  | Moderate Risk Area |
|                                    |                | 10           | Mangalur         | 18                 | Hirenasabi       |                    |                     |                    |                  | 18                 | Hirenasabi     | Moderate Risk Area |
|                                    |                |              |                  | 19                 | Mangalur         |                    |                     |                    |                  | 19                 | Mangalur       | Moderate Risk Area |
|                                    |                |              |                  | 20                 | Gonal            |                    |                     |                    |                  | 20                 | Gonal          | Moderate Risk Area |
|                                    |                |              |                  | 21                 | Shirabadagi      |                    |                     |                    |                  | 21                 | Shirabadagi    | Moderate Risk Area |
|                                    |                |              |                  | 11                 | Badami (TMC)     |                    |                     |                    |                  | 22                 | Badami (TMC)   | 22                 |
|                                    |                | 12           | Nandikeshwar     | 23                 | Nelwagi          |                    |                     |                    |                  | 23                 | Nelwagi        | Moderate Risk Area |
|                                    |                | 13           | Badami (Rural) * | 24                 | Badami (Rural) * |                    |                     | 24                 | Badami (Rural) * | Moderate Risk Area |                |                    |
|                                    |                | 14           | Nandikeshwar     | 25                 | Nandikeshwar     |                    |                     | 25                 | Nandikeshwar     | Moderate Risk Area |                |                    |
|                                    |                | 15           | Pattadakall      | 26                 | Bachinagudd      |                    |                     | 26                 | Bachinagudd      | Moderate Risk Area |                |                    |
|                                    |                |              |                  | 27                 | Pattadakall      |                    |                     | 27                 | Pattadakall      | Moderate Risk Area |                |                    |
|                                    |                |              |                  | 16                 | Hebballi         |                    |                     | 28                 | Hebballi         | 28                 | Hebballi       | Moderate Risk Area |
| 29                                 | Mumaraddikoppa |              |                  |                    |                  | 29                 | Mumaraddikoppa      | Moderate Risk Area |                  |                    |                |                    |
| 17                                 | Kittali        |              |                  | 30                 | Sulla            | 30                 | Sulla               | Moderate Risk Area |                  |                    |                |                    |
|                                    |                | 31           | Kittali          | 31                 | Kittali          | Moderate Risk Area |                     |                    |                  |                    |                |                    |
|                                    |                | 18           | Alur-Sk          | 32                 | Beeranur         | 32                 | Beeranur            | Moderate Risk Area |                  |                    |                |                    |
| 33                                 | Talakawad      |              |                  | 33                 | Talakawad        | Moderate Risk Area |                     |                    |                  |                    |                |                    |
| 34                                 | Alur .S.K.     |              |                  | 34                 | Alur .S.K.       | Moderate Risk Area |                     |                    |                  |                    |                |                    |
| 19                                 | Kakanur        | 35           | Karakoppa        | 35                 | Karakoppa        | Moderate Risk Area |                     |                    |                  |                    |                |                    |

| Malaprabha Sub-Basin (K4)          |               |              |             |              |              |           |                     |                    |                   |                     |               |                    |
|------------------------------------|---------------|--------------|-------------|--------------|--------------|-----------|---------------------|--------------------|-------------------|---------------------|---------------|--------------------|
| List of Flood Hazard Risk Villages |               |              |             |              |              |           |                     |                    |                   |                     |               |                    |
| Dist. Sl.No.                       | District Name | Taluk Sl.No. | Taluk Name  | Hobli Sl.No. | Hobli Name   | GP Sl.No. | Gram Panchayat Name | Sl.No.             | Village Name      | Flood Hazard Class  |               |                    |
| 1                                  | 2             | 3            | 4           | 5            | 6            | 7         | 8                   | 9                  | 10                | 11                  |               |                    |
|                                    |               | 5            | Hungund     | 6            | Hungund      | 20        | Chittaragi          | 36                 | Chittaragi        | Very High Risk Area |               |                    |
|                                    |               |              |             |              |              | 21        | Hiremalagavi        | 37                 | Chickmagi         | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              |           |                     | 38                 | Khairwadgi        | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              |           |                     | 39                 | Chickmalagavi     | Very High Risk Area |               |                    |
|                                    |               |              |             |              |              | 22        | Belagall            | 40                 | Belgal            | Very High Risk Area |               |                    |
|                                    |               |              |             |              |              |           |                     | 41                 | Medinapur         | Very High Risk Area |               |                    |
|                                    |               |              |             |              |              |           |                     | 42                 | Huvanur           | Very High Risk Area |               |                    |
|                                    |               |              |             |              |              | 23        | Hiremalagavi        | 43                 | Hiremalagavi      | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              | 24        | Dhannur             | 44                 | Iddalgi           | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              | 25        | Ganjihal            | 45                 | Nandanoor         | Very High Risk Area |               |                    |
|                                    |               |              |             |              |              |           |                     | 46                 | Ganjihal          | Very High Risk Area |               |                    |
|                                    |               |              |             |              |              | 26        | Kudalasangam        | 47                 | Sangam            | Very High Risk Area |               |                    |
|                                    |               |              |             |              |              | 27        | Bisaladinni         | 48                 | Chowdakamaladinni | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              | 7         | Amingarh            | 28                 | Ihole             | 49                  | Nimbalgundi   | Moderate Risk Area |
|                                    |               |              |             | 50           | Aiahole      |           |                     |                    |                   | Moderate Risk Area  |               |                    |
|                                    |               |              |             | 29           | Huvinahalli  |           |                     | 51                 | Ramathal          | Moderate Risk Area  |               |                    |
|                                    |               |              |             | 30           | Hiremagi     |           |                     | 52                 | Hiremagi          | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              |           |                     | 53                 | Bevinal           | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              |           |                     | 54                 | Budihal (Inam)    | Moderate Risk Area  |               |                    |
|                                    |               |              |             | 31           | Kamatgi (CT) |           |                     | 55                 | Kamatgi (CT)      | Moderate Risk Area  |               |                    |
|                                    |               |              |             | 32           | Muganur      |           |                     | 56                 | Kadiwal Kallapur  | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              |           |                     | 57                 | Suralikal         | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              |           |                     | 58                 | Basawanal         | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              | 59        | Basarikatti         | Moderate Risk Area |                   |                     |               |                    |
|                                    |               |              |             |              |              | 60        | Budihal (S.K.)      | Moderate Risk Area |                   |                     |               |                    |
|                                    |               |              |             | 8            | Karadi       | 33        | Dhannur             | 61                 | Kamadatta         | Moderate Risk Area  |               |                    |
|                                    |               |              |             | 6            | Guledagudda  | 9         | Guledagudda         | 34                 | Mangalagudda      | 62                  | Katapur       | Moderate Risk Area |
|                                    |               |              |             |              |              |           |                     |                    |                   | 63                  | Mangalagudda  | Moderate Risk Area |
|                                    |               |              |             |              |              |           |                     |                    |                   | 64                  | Chimmalagi    | Moderate Risk Area |
|                                    |               |              |             |              |              |           |                     | 35                 | Layadagundi       | 65                  | Kataginahalli | Moderate Risk Area |
|                                    |               |              |             |              |              |           |                     |                    |                   | 66                  | Layadagundi   | Moderate Risk Area |
|                                    |               | 67           | Kotnalli    |              |              |           |                     |                    |                   | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              |           |                     | 68                 | Asangi            | Moderate Risk Area  |               |                    |
|                                    |               | 36           | Nagaral-S.P |              |              |           |                     | 69                 | Subbalahunashi    | Moderate Risk Area  |               |                    |
|                                    |               | 37           | Haladur     |              |              |           |                     | 70                 | Allur. S.P.       | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              |           |                     | 71                 | Haradolli         | Moderate Risk Area  |               |                    |
|                                    |               |              |             |              |              |           |                     | 72                 | Haladur           | Moderate Risk Area  |               |                    |

Sub Basin wise Flood prone Districts

| Sub Basin           | Sl. No. | District Name | No. of Taluks | No. of Hoblis | No. of Gram Panchayats | No. of Villages |               | Total Villages |
|---------------------|---------|---------------|---------------|---------------|------------------------|-----------------|---------------|----------------|
|                     |         |               |               |               |                        | Very High Risk  | Moderate Risk |                |
| Upper Krishna - K1  | 1       | Belagavi      | 2             | 3             | 26                     | 16              | 19            | 35             |
| Middle Krishna - K2 | 1       | Koppal        | 1             | 1             | 1                      | —               | 1             | 1              |
|                     | 2       | Raichur       | 3             | 8             | 23                     | 49              | 11            | 60             |

| Sub Basin               | Sl. No.      | District Name   | No. of Taluks | No. of Hoblis | No. of Gram Panchayats | No. of Villages |               | Total Villages |
|-------------------------|--------------|-----------------|---------------|---------------|------------------------|-----------------|---------------|----------------|
|                         |              |                 |               |               |                        | Very High Risk  | Moderate Risk |                |
|                         | 3            | Belagavi        | 4             | 7             | 48                     | 51              | 14            | 65             |
|                         | 4            | Bagalkote       | 5             | 7             | 32                     | 34              | 25            | 59             |
|                         | 5            | Vijayapura      | 7             | 9             | 32                     | 19              | 33            | 52             |
|                         | 6            | Yadgir          | 4             | 7             | 14                     | 31              | 5             | 36             |
|                         | <b>Total</b> |                 | <b>24</b>     | <b>39</b>     | <b>150</b>             | <b>184</b>      | <b>89</b>     | <b>273</b>     |
| <b>Ghataprabhs - K3</b> | 1            | Belagavi        | 4             | 11            | 56                     | 20              | 72            | 92             |
|                         | 2            | Bagalkote       | 5             | 7             | 36                     | 25              | 45            | 70             |
|                         | <b>Total</b> |                 | <b>9</b>      | <b>18</b>     | <b>92</b>              | <b>45</b>       | <b>117</b>    | <b>162</b>     |
| <b>Mallaprabha - K4</b> | 1            | Belagavi        | 3             | 3             | 7                      | —               | 9             | 9              |
|                         | 2            | Bagalkote       | 3             | 6             | 31                     | 8               | 55            | 63             |
|                         | 3            | Gadag           | 2             | 5             | 12                     | —               | 16            | 16             |
|                         | 4            | Haveri          | 1             | 1             | 5                      | —               | 9             | 9              |
|                         | 5            | Dharwad         | 5             | 6             | 16                     | —               | 25            | 25             |
|                         | <b>Total</b> |                 | <b>14</b>     | <b>21</b>     | <b>71</b>              | <b>8</b>        | <b>114</b>    | <b>122</b>     |
| <b>Upper Bhima - K5</b> | 1            | Belagavi        | 2             | 2             | 7                      | 2               | 13            | 15             |
| <b>Lower Bhima - K6</b> | 1            | Kalaburagi      | 11            | 31            | 134                    | 89              | 149           | 238            |
|                         | 2            | Bidar           | 2             | 3             | 4                      | —               | 7             | 7              |
|                         | 3            | Vijayapura      | 4             | 5             | 16                     | 16              | 13            | 29             |
|                         | 4            | Yadgir          | 3             | 6             | 10                     | 7               | 11            | 18             |
|                         | <b>Total</b> |                 | <b>20</b>     | <b>45</b>     | <b>164</b>             | <b>112</b>      | <b>180</b>    | <b>292</b>     |
| <b>Tunghabadra - K8</b> | 1            | Davangere       | 7             | 6             | 46                     | 57              | 30            | 87             |
|                         | 2            | Ballari         | 6             | 13            | 33                     | 29              | 24            | 53             |
|                         | 3            | Koppal          | 3             | 6             | 19                     | 6               | 21            | 27             |
|                         | 4            | Raichur         | 4             | 13            | 35                     | 38              | 39            | 77             |
|                         | 5            | Gadag           | 2             | 2             | 6                      | 10              | —             | 10             |
|                         | 6            | Haveri          | 5             | 10            | 87                     | 62              | 105           | 167            |
|                         | 7            | Shivamogga      | 6             | 24            | 74                     | 65              | 75            | 140            |
|                         | 8            | Chikkamagaluru  | 2             | 2             | 3                      | 1               | 2             | 3              |
|                         | 9            | Uttara Kannada  | 3             | 4             | 11                     | 10              | 20            | 30             |
|                         | <b>Total</b> |                 | <b>38</b>     | <b>80</b>     | <b>314</b>             | <b>278</b>      | <b>316</b>    | <b>594</b>     |
| <b>Vedavati - K9</b>    | 1            | Ballari         | 1             | 2             | 6                      | 1               | 11            | 12             |
| <b>Cauvery Basin</b>    | 1            | Chamarajanagara | 2             | 3             | 7                      | 4               | 7             | 11             |
|                         | 2            | Mysuru          | 5             | 12            | 34                     | 30              | 35            | 65             |
|                         | 3            | Mandya          | 1             | 1             | 2                      | 1               | 2             | 3              |

| Sub Basin          | Sl. No.      | District Name    | No. of Taluks | No. of Hoblis | No. of Gram Panchayats | No. of Villages |               | Total Villages |
|--------------------|--------------|------------------|---------------|---------------|------------------------|-----------------|---------------|----------------|
|                    |              |                  |               |               |                        | Very High Risk  | Moderate Risk |                |
|                    | 4            | Hassan           | 2             | 5             | 13                     | 16              | 12            | 28             |
|                    | 5            | Chikkamagaluru   | 1             | 2             | 4                      | —               | 11            | 11             |
|                    | 6            | Kodagu           | 1             | 1             | 3                      | 3               | 3             | 6              |
|                    | <b>Total</b> |                  | <b>12</b>     | <b>24</b>     | <b>63</b>              | <b>54</b>       | <b>70</b>     | <b>124</b>     |
| West Flowing River | 1            | Shivamogga       | 1             | 2             | 2                      | 1               | 1             | 2              |
|                    | 2            | Dakshina Kannada | 2             | 4             | 11                     | 7               | 7             | 14             |
|                    | 3            | Udupi            | 4             | 5             | 17                     | 19              | 3             | 22             |
|                    | 4            | Uttara Kannada   | 5             | 14            | 38                     | 33              | 25            | 58             |
|                    | <b>Total</b> |                  | <b>12</b>     | <b>25</b>     | <b>68</b>              | <b>60</b>       | <b>36</b>     | <b>96</b>      |

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