ICAR-NBSS&LUP Sujala SWS-LRI Atlas No. 83

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किसानों का हमसफर
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Land Resource and Hydrological Inventory of Padasavli Sub-watershed for Watershed Planning and Development Aland Taluk, Kalaburagi District, Karnataka (AESR 6.2)

Sujala – III
Karnataka Watershed Development Project- II
Funded by World Bank

ICAR - National Bureau of Soil Survey and Land Use Planning, Regional Centre, Bangalore
Watershed Development Department, Govt. of Karnataka, Bangalore

About ICAR - NBSS&LUP

The National Bureau of Soil Survey and Land Use Planning (NBSS&LUP), Nagpur, a premier Institute of the Indian Council of Agricultural Research (ICAR), was set up during 1976 with the objective to prepare soil resource maps at national, state and district levels and to provide research inputs in soil resource mapping and its applications, land evaluation, land use planning, land resource management, and database management using GIS for optimising land use on different kinds of soils in the country.

The Bureau has been engaged in carrying out soil resource survey, agro-ecological and soil degradation mapping at the country, state and district levels for qualitative assessment and monitoring the soil health towards viable land use planning. The research activities have resulted in identifying the soil potentials and problems, and the various applications of the soil surveys with the ultimate objective of sustainable agricultural development. The Bureau has the mandate to correlate and classify soils of the country and maintain a National Register of all the established soil series. The Institute is also imparting in-service training to staff of the soil survey agencies in the area of soil survey, land evaluation and soil survey interpretations for land use planning. The Bureau in collaboration with Panjabrao Krishi Vidyapeeth, Akola is running post-graduate teaching and research programme in land resource management, leading to M.Sc. and Ph.D. degrees.

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PART – A

Land Resource Inventory of Padasavli Sub-watershed for Watershed Planning and Development,

Aland Taluk, Kalaburagi District, Karnataka (AESR 6.2)

CONTENTS

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How to read and use the Atlas

The Land Resource Inventory of Padasavli Sub-watershed (Aland Taluk, Kalaburagi District) for Watershed Planning (AESR 6.2) was undertaken to provide comprehensive site- specific cadastral level information useful for farm level planning and integrated development of the area under Sujala – III, Karnataka Watershed Development Project- II.

This atlas contains the basic information on kinds of soils, their geographic distribution, characteristics and classification. The soil map and soil based thematic maps derived from soils data on soil depth, soil gravelliness, slope, land suitability for various crops and land use management maps are presented on 1:12,500 scale. The maps of fertility status (soil reaction, organic carbon, available phosphorus, available potassium, available sulphur, available calcium, available copper, available manganese, available zinc, available iron, available boron and salinity (EC) on 1:12,500 scale were derived from grid point sampling of the surface soils from the watersheds.

The atlas illustrates maps and tables that depict the soil resources of the watershed and the need for their sustainable management.

The user, depending on his/her requirement, can refer this atlas first by identifying his/her field and survey number on the village soil map and by referring the soil legend which is provided in tabular form after the soil map for details pertaining to his/her area of interest.

The atlas explains in simple terms the different kinds of soils present in the watershed, their potentials and problems through a series of thematic maps that help to develop site-specific plans as well as the need to conserve and manage this increasingly threatened natural resource through sustainable land use management. The Land Resource Atlas contains database collected at land parcel/ survey number level on soils, climate, water, vegetation, crops and cropping patterns, socio-economic conditions, marketing facilities *etc.* helps in identifying soil and water conservation measures required, suitability for crops and other uses and finally for preparing a viable and sustainable land use options for each and every land parcel.

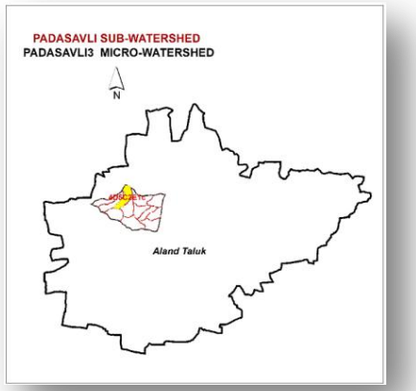
For easy map reading and understanding the information contain in different maps, the physical, cultural and scientific symbols used in the maps are illustrated in the form of colors, graphics and tables.

Physical, Cultural and Scientific symbols used in the Atlas

Each map in the atlas sheet is complemented with the physical, cultural and scientific symbols to facilitate easy map reading.

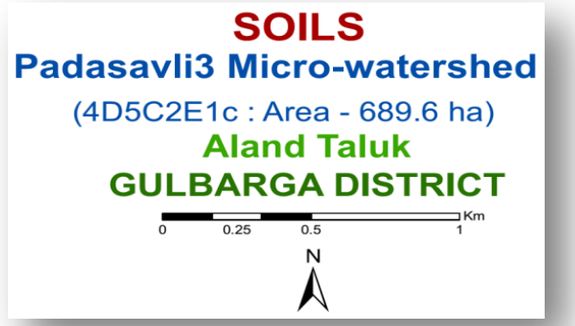
Inset map

Inset provided in each map conveys its strategic location i.e. Taluk, Sub-watershed and Micro-watershed.



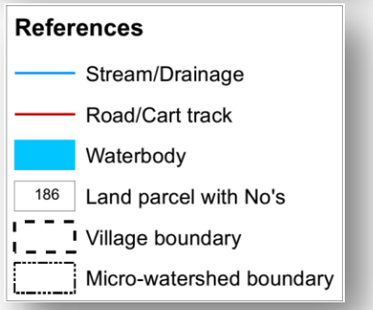
Map title

Map title conveys the relevance of thematic information presented along with a graphical scale, geographical location and watershed details in text form.



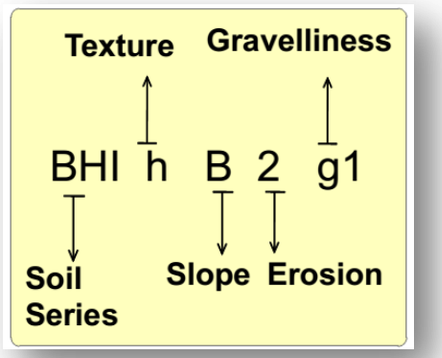
Legends and symbols

*Two legends accompany each map, a **map reference**, which depicts geographic features and a **thematic legend** which portrays spatial information. Picking up the symbol and colour of a particular enables one to go to the legends to obtain the required information.*



Soil Units

The soil map may be read at different levels. The most detailed level is that of the soil phase. Soil phases are distinguished within soil series mainly based on differences in surface of soil texture, slope, gravelliness , erosion ,etc.



Map colours

Different shades of colours are used as an aid to distinguish the different classes of soils, crop suitability and other maps.

Soil Phases	Area in ha (%)	Soil Phases	Area in ha (%)
1, MGThD3g2	5 (0.72)	16, BHImB2	10 (1.44)
2, MGTmB1	28 (4.04)	17, BHImB2g1	13 (1.88)
3, MGTmB1g1	17 (2.4)	18, BHImB3	20 (2.93)
4, MGTmB2g1	29 (4.21)	19, NHAmB1	95 (13.8)
5, MGTmB2g2	8 (1.12)	20, NHAmB1g1	16 (2.35)
6, MGTmB3	3 (0.41)	21, NHAmB2	48 (6.92)
7, MGTmB3g1	73 (10.52)	22, NHAmB2g1	16 (2.39)
8, MGTmC2	14 (2.0)	23, DSImB1	6 (0.82)
9, MGTmC3g1	18 (2.55)	24, GTTmB1	34 (4.89)
10, KNHmC3g2	13 (1.95)	25, KMPmB1	22 (3.25)
11, BHIhB2g1	7 (1.06)	26, KMPmB2	2 (0.32)
12, BHIiB2g1	17 (2.42)	27, KMPmB2g1	23 (3.37)
13, BHImB1	44 (6.39)	28, KMPmC3g1	3 (0.47)
14, BHImB1g1	15 (2.23)	29, MANmB1	75 (10.84)
15, BHImB1g2	12 (1.78)	30, Others*	4 (0.51)

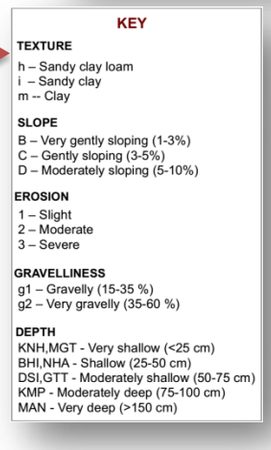
Land Management Units (LMU)

Grouping of similar soil areas based on their soil-site characteristics into management units that respond similarly for a given level of management are designated as land management units

Legend	Area in ha (%)
LMU-1	36 (5.21)
LMU-2	170 (24.71)
LMU-3	315 (45.60)
LMU-4	90 (13.10)
LMU-5	75 (10.84)
Others*	4 (0.51)

Map key

There are many thematic types to be differentiated on the map solely based on colour. Therefore soils and suitability types and their limitations are distinguished by colours with a combination of alpha-numeric characters.



Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N- Not Suitable

Limitations
g- gravelliness
r- rooting condition

Soil and plot boundaries

Soil units shown on the map are represented by both the color and a numeral. The soil boundaries are superimposed on land parcel with revenue survey number boundaries to visualize its spatial extent.

LAND RESOURCE INVENTORY OF PADASAVLI SUB-WATERSHED FOR PLANNING
ALAND TALUK, KALABURAGI DISTRICT
A pilot study by ICAR-NBSS&LUP, Bangalore

INTRODUCTION

Land is a scarce resource and basic unit for any material production. It can support the needs of the growing population, provided they use land in a rational and judicious manner. But what is happening in many areas of the state is a cause for concern to anyone involved in the management of land resources at the grassroots level. In India the area available for agriculture is about 51 per cent of the total area and more than 60 per cent of the people are still relying on agriculture for their livelihood. The limited land area is under severe stress and strain due to increasing population pressure and competing demands of various land uses. Due to this, every year there is a significant diversion of farm lands and water resources for non-agricultural purposes. Apart from this, due to lack of interest for farming among the farmers in many areas, large tracts of cultivable lands are turning into fallows and this trend is continuing at an alarming rate.

The watershed management programs are aimed at designing suitable soil and water conservation measures, productivity enhancement of existing crops, crop diversification with horticultural species, greening the wastelands with forestry species of multiple uses and improving the livelihood opportunities for landless people.

The objectives can be met to a great extent when an appropriate Natural Resources Management (NRM) plan is prepared and implemented. It is essential to have site specific Land Resources Inventory (LRI) indicating the potentials and constraints for developing such a site specific plan. LRI can be obtained by carrying out detailed characterization and mapping of all the existing land resources like soils, climate, water, minerals and rocks, vegetation, crops, land use pattern, socio-economic conditions, infrastructure, marketing facilities and various schemes and developmental works of the government. From the data collected at farm level, the specific problems and potentials of the area can be identified and highlighted, conservation measures required for the area can be planned on a scientific footing, suitability of the area for various uses can be worked out and finally viable and sustainable land use options suitable for each and every land holding can be prescribed to the farmer and other land users of the area.

Gulbarga popularly known as Kalaburgi is located in the Northern part of the state and lies between 17 º 35’ and 17º 45’ North latitude and between 76 º 10’ and 77 º 45’ east longitude. The district is biggest district in the state covering 8.49 % of the area. It has Bijapur district and Sholapur district of Maharastra on the West, Bidar district and Osmanabad district of Maharastra on the North, Raichur district on the South. The district has total geographical area of 16174 sq. kms. Major food crops grown in the district are pigeon pea, sorghum, bajra, and paddy. Commercial crops are sugarcane and cotton. Oilseed crops are groundnut and sunflower. The district economy is dominantly agricultural and nearly 75 per cent of population living in the rural areas are dependent on agriculture. Major geology in the district comprise of Deccan trap (basalt), followed by limestone. Laterite and shale were also noticed in patches.

As a pilot study, **ICAR- NBSSLUP, Bangalore** carried out the generation of LRI for the Padasavli sub-watershed in Aland taluk, Kalaburagi district. It was selected for data base generation under batch V of Sujala III project. This sub-watershed encompasses of 12 MWs namely, Padasavli-3 (4D5C2E1c), Hubli-2 (4D5C2E2b), Padasavli-2 (4D5C2E1b), Aland Tanda (4D5C2E2a), Padasavli-1 (4D5C2E1a), Khanapur-3 (4D5C2E1e), Hubli-1 (4D5C2E2c), Shekhapur-3 (4D5C2E2d), Shekhapur-2 (4D5C2E2e), Khanapur-1 (4D5C2E1d), Khanapur-2 (4D5C2E1f) and Shekhapur-1 (4D5C2E2f) micro watersheds. Land Resource Inventory (LRI) was generated for three among the twelve micro-watersheds.

To be continued….

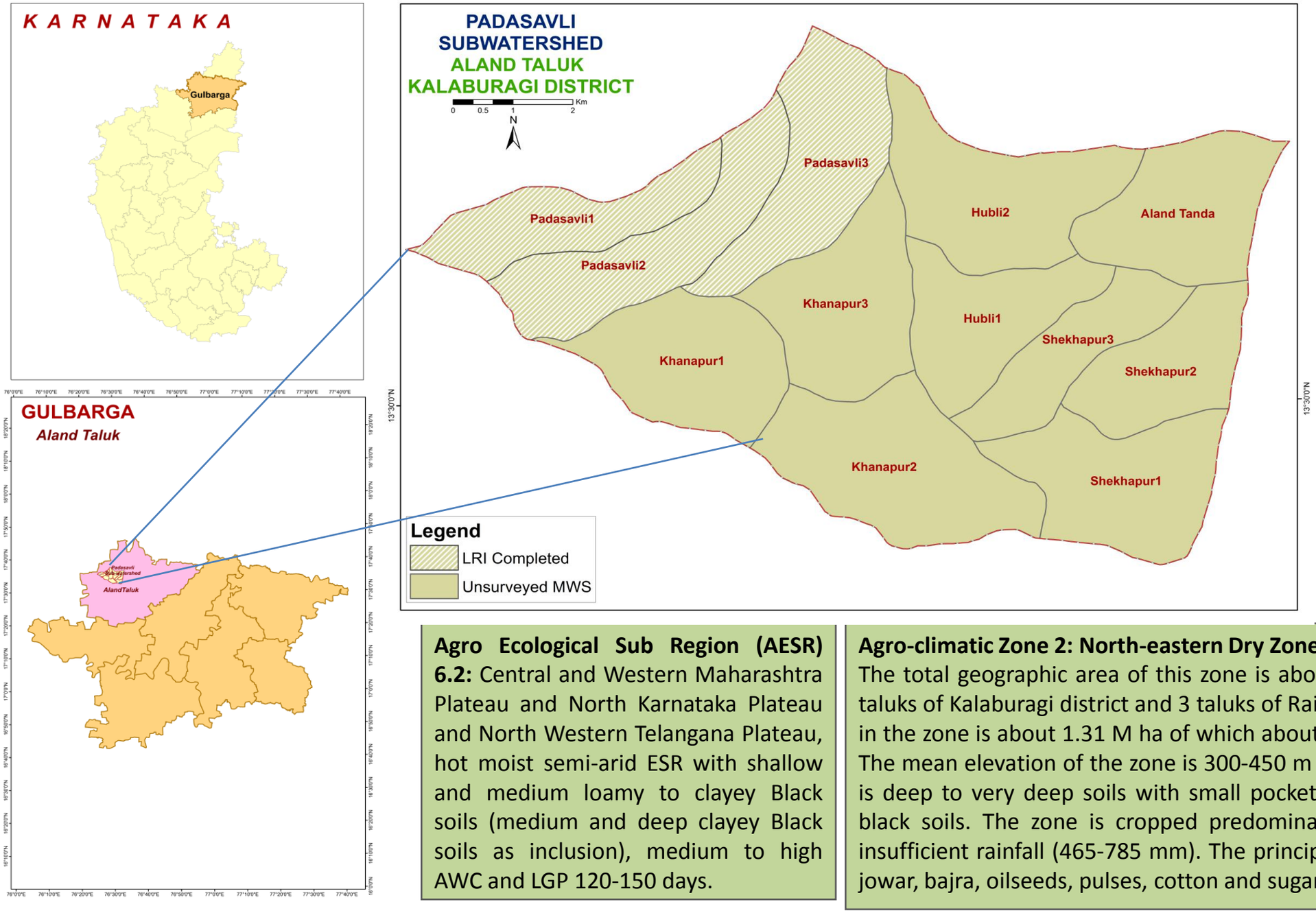
The major landforms identified in the sub-watershed are uplands and low lands. The database was generated by using cadastral map of the village as a base along with high resolution satellite imagery (IRS LISS IV and Cartosat-1). The objectives of the land resource survey, carried out in the Padasavli Sub-watershed covering an area of 7541 ha during February-March 2015 are indicated below.

- Detailed characterization of all the land resources like soil, water, land use, cropping pattern and other resources available at parcel level in the village.
- Delineation of homogenous areas based on soil-site characteristics into management units.
- Collection and interpretation of climatic and agronomical data for crop planning.
- Identification of problems and potentials of the area and strategies for their management.
- Assessment of the suitability of land resources for various crops and other uses.
- Establishment of village level digital land resources database in a GIS framework.
- Enable the watershed and other line departments to prepare an action plan for the integrated development of the watershed.

LOCATION AND EXTENT

Padasavli sub-watershed (Aland taluk, Kalaburagi district) is located between 17^{0}34’13’’–17^{0}38’17’’ North latitudes and 76^{0}25’49’’-76^{0}34’13’’ East longitudes, covering an area of about 7541 ha, bounded by Chincholi Khurd, Khandala, Khanapur, and Nagalogaon villages.

LOCATION MAP OF PADASAVLI SUB-WATERSHED

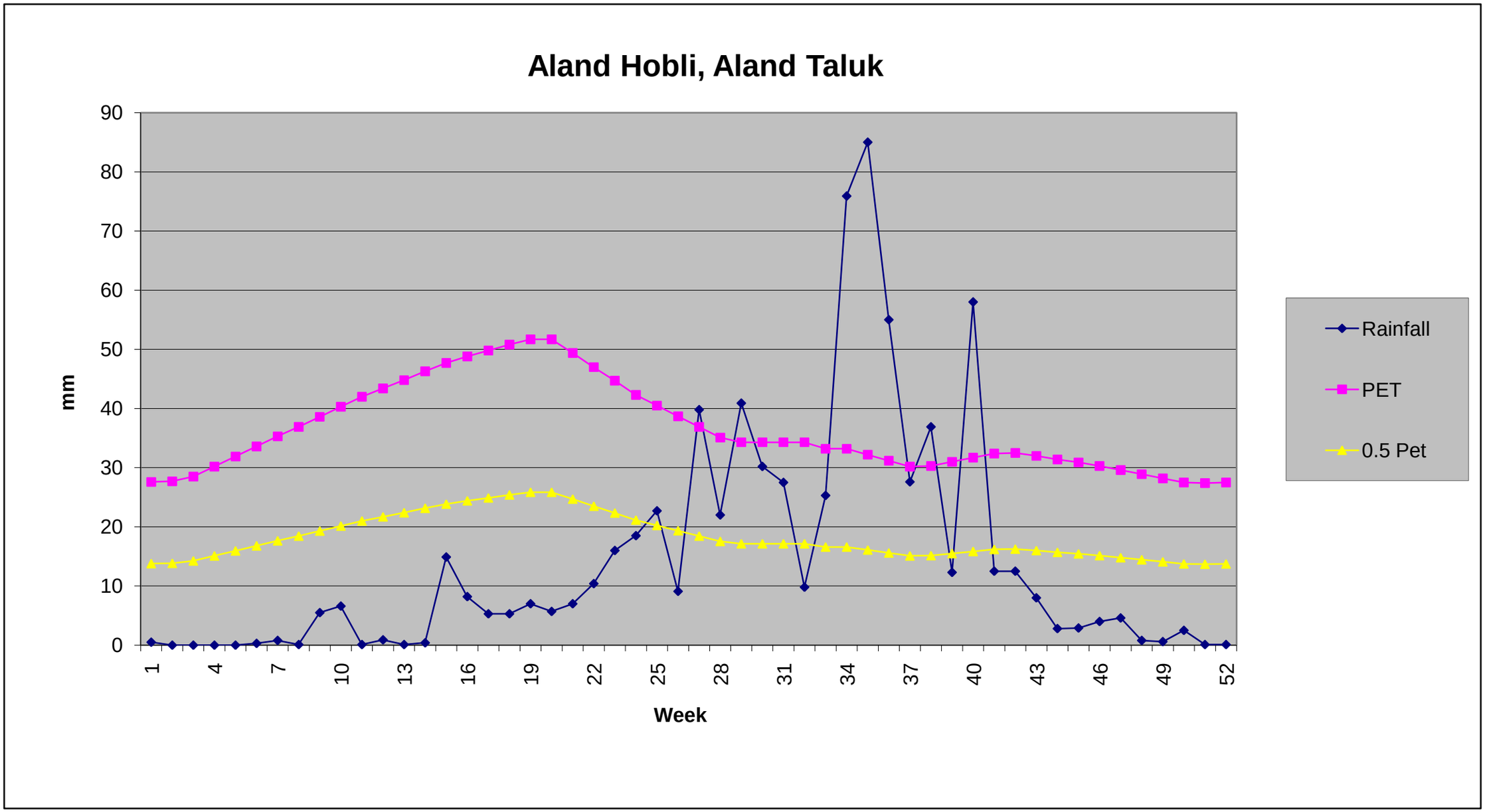


Agro Ecological Sub Region (AESR) 6.2: Central and Western Maharashtra Plateau and North Karnataka Plateau and North Western Telangana Plateau, hot moist semi-arid ESR with shallow and medium loamy to clayey Black soils (medium and deep clayey Black soils as inclusion), medium to high AWC and LGP 120-150 days.

Agro-climatic Zone 2: North-eastern Dry Zone:
The total geographic area of this zone is about 1.76 M ha covering 8 taluks of Kalaburagi district and 3 taluks of Raichur. Net cultivated area in the zone is about 1.31 M ha of which about 0.09 M ha are irrigated. The mean elevation of the zone is 300-450 m MSL. The main soil type is deep to very deep soils with small pockets of shallow to medium black soils. The zone is cropped predominantly during rabi due to insufficient rainfall (465-785 mm). The principal crops of the zone are jowar, bajra, oilseeds, pulses, cotton and sugarcane.

NOTE: In this Sub-Watershed, Land Resource Inventory (LRI) was generated for three micro-watersheds (Padasavli-1 (4D5C2E1a), Padasavli-2 (4D5C2E1b) and Padasavli-3 (4D5C2E1c)) among the twelve micro-watersheds.

Climate

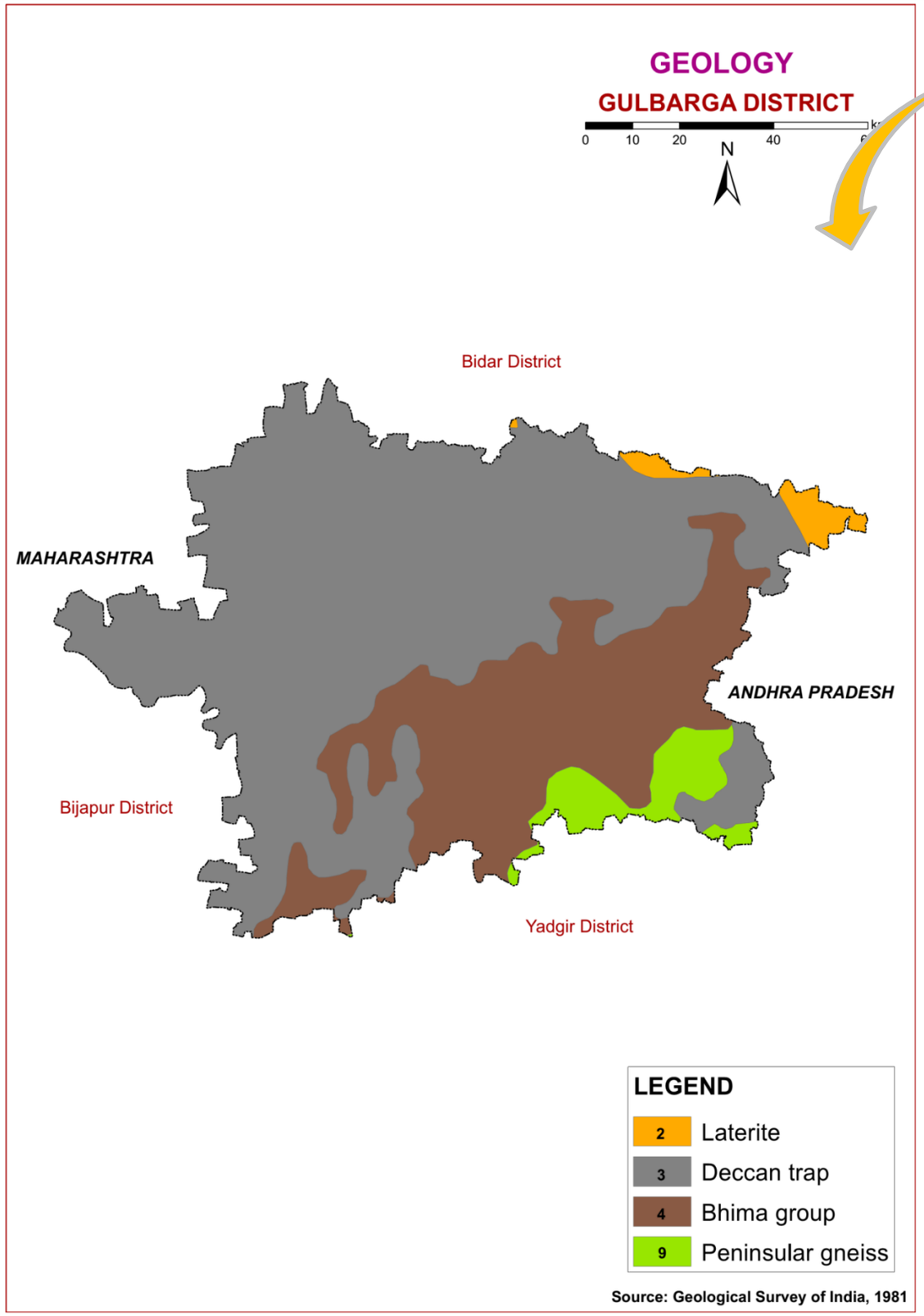


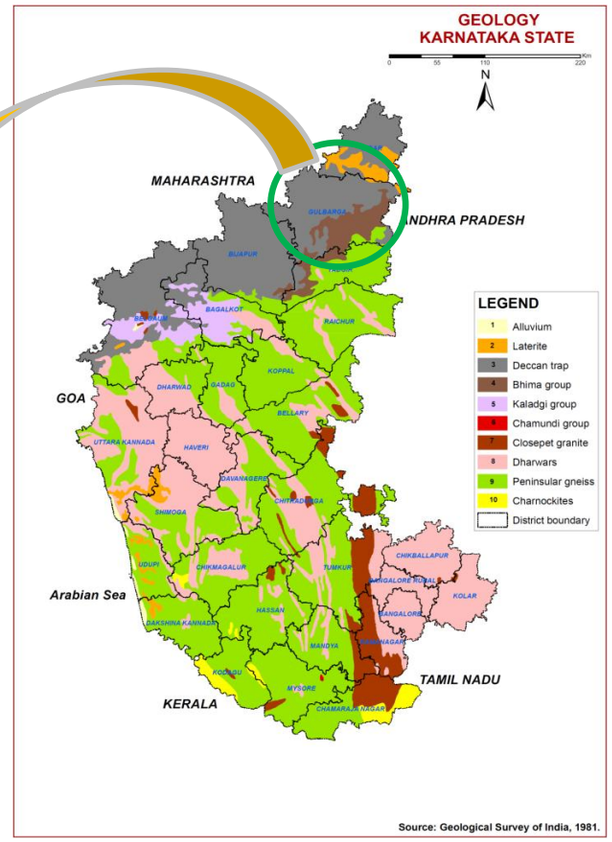
Length of Growing Period (LGP) is varying from June 4th Week to 2nd week of October (120-150 days)

Annual Rainfall : 743 mm. in the Aland taluk, Kalaburagi district

Source: KSNMDC (1980-2011)

Geology





GEOLOGY - KARNATAKA STATE

Karnataka forms part of the Peninsular Shield, which is an ancient stable block of the earth's crust. The shield is composed of geologically ancient rocks of diverse origin. These rocks have undergone various degrees of metamorphism and crushing. Overlying these ancient rocks are Proterozoic, lete Creteceous to Palaeocene, Palaeocene to Recent, and Recent sediments.

In the stratigraphic succession of rocks in Karnataka the Archaean group is the oldest, followed by Proterozoic, Mesozoic and Cainozoic formations.

GEOLOGY - KALABURAGI DISTRICT

Cainozoic Group

The Palaeocene and Recent formations of Karnataka are the laterites and alluvium of marine and riverine origin

Laterite: Laterite is a porous, pitted, clay-like rock with yellow, red, brown, grey and mottled colours, and is composed mainly of hydrated oxides of iron and aluminium.

Mesozoic Group

Towards the end of the Cretaceous Period there was tremendous volcanic activity in the Peninsular part of India with eruption of a series of lava flows which came out through fissures and cracks. This formation is Known as the Deccan Trap.

Deccan Trap: The Deccan Trap covers the whole of Bidar district, and parts of Kalaburagi, Bijapur and Belgaum districts, occupying an area of 25,000 sq. km.

Upper Proterozoic Group

Formations of the Upper Proterozoic in Karnataka are closepet granites, Chamundi granites, Kaladgi series and Bhima series.

Bhima series: This series, equivalent to the Kurnool formations, is named after the Bhima river and occurs in Bijapur and Kalaburagi districts.

Archaean Group

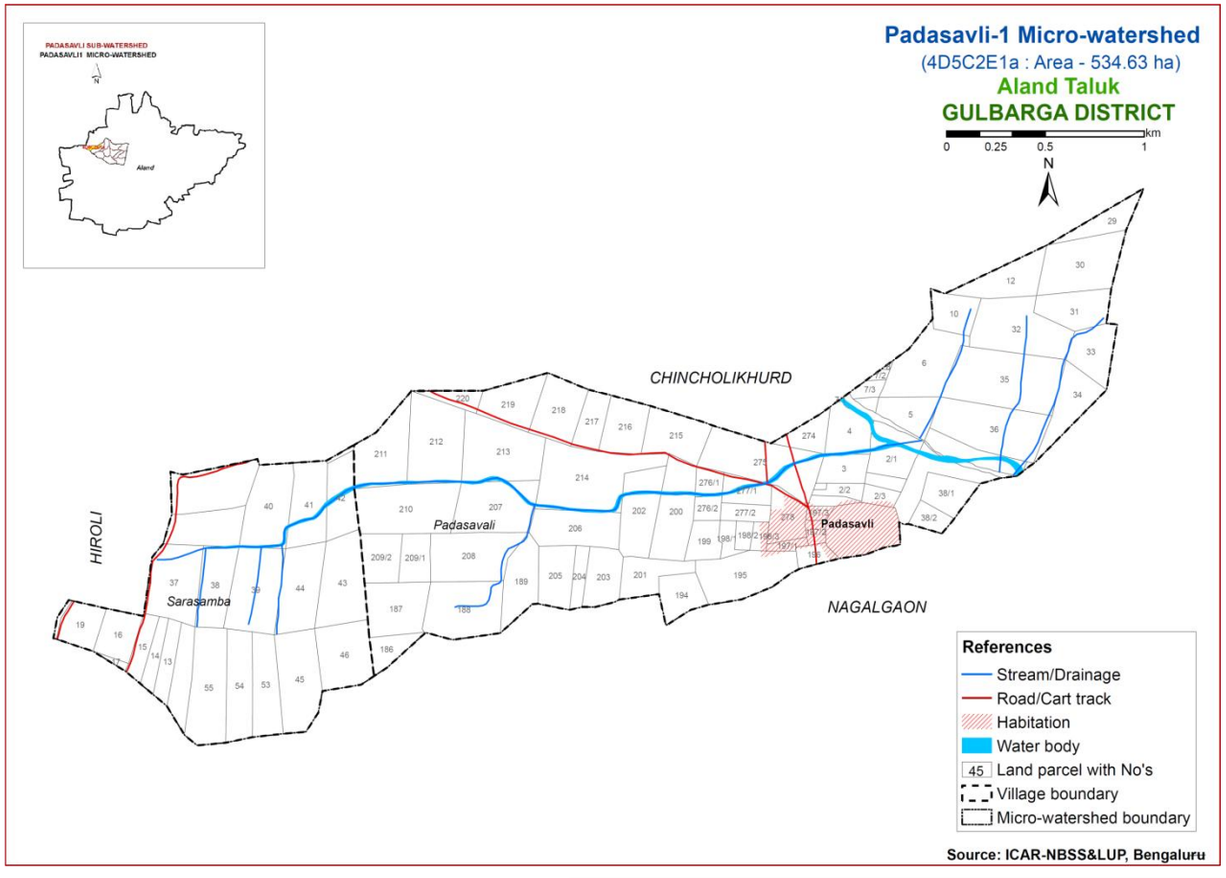
The important formations of this group are Peninsular Gneiss, Dharwar schists, and Charnockites.

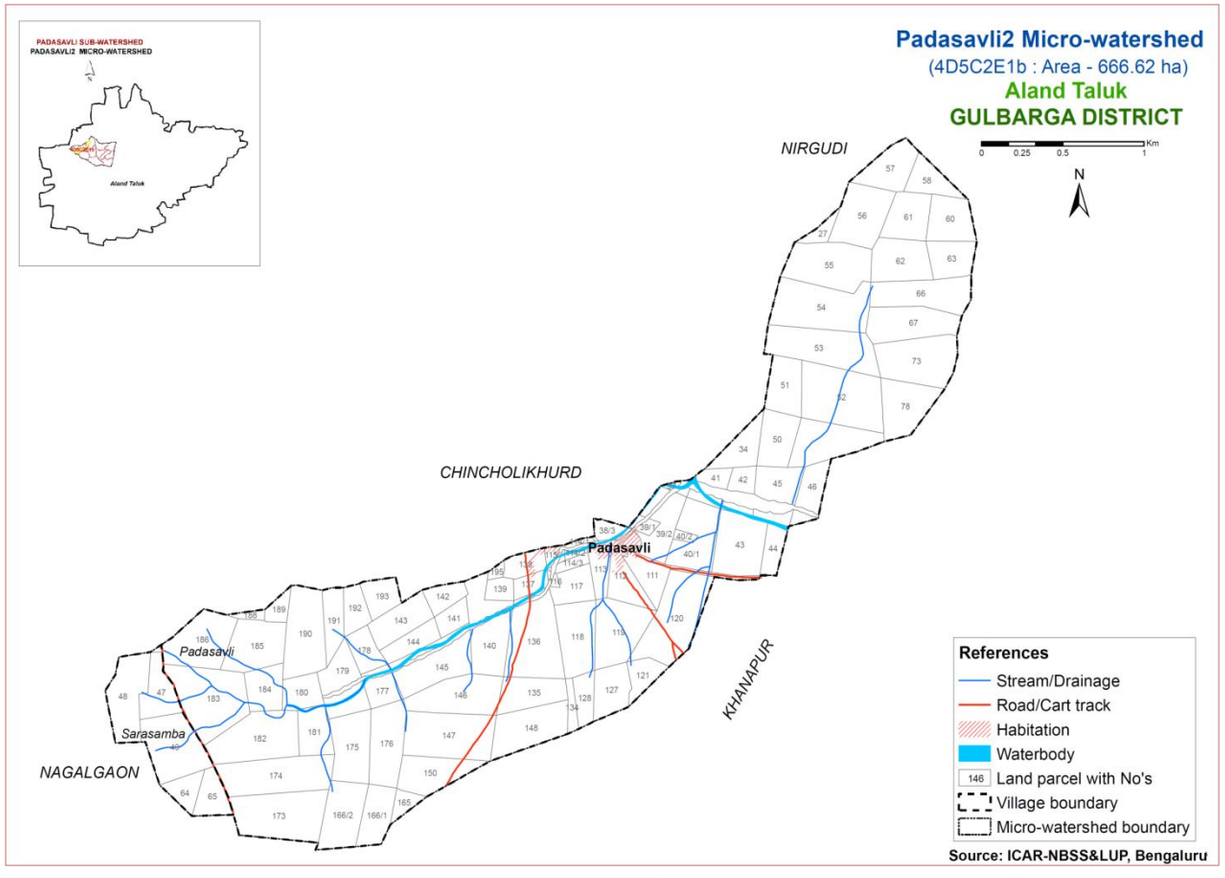
Peninsular Gneiss: Exposed over a large area of Karnataka in all the districts except Bidar is the Peninsular Gneiss which includes granites of all shades with varying composition.

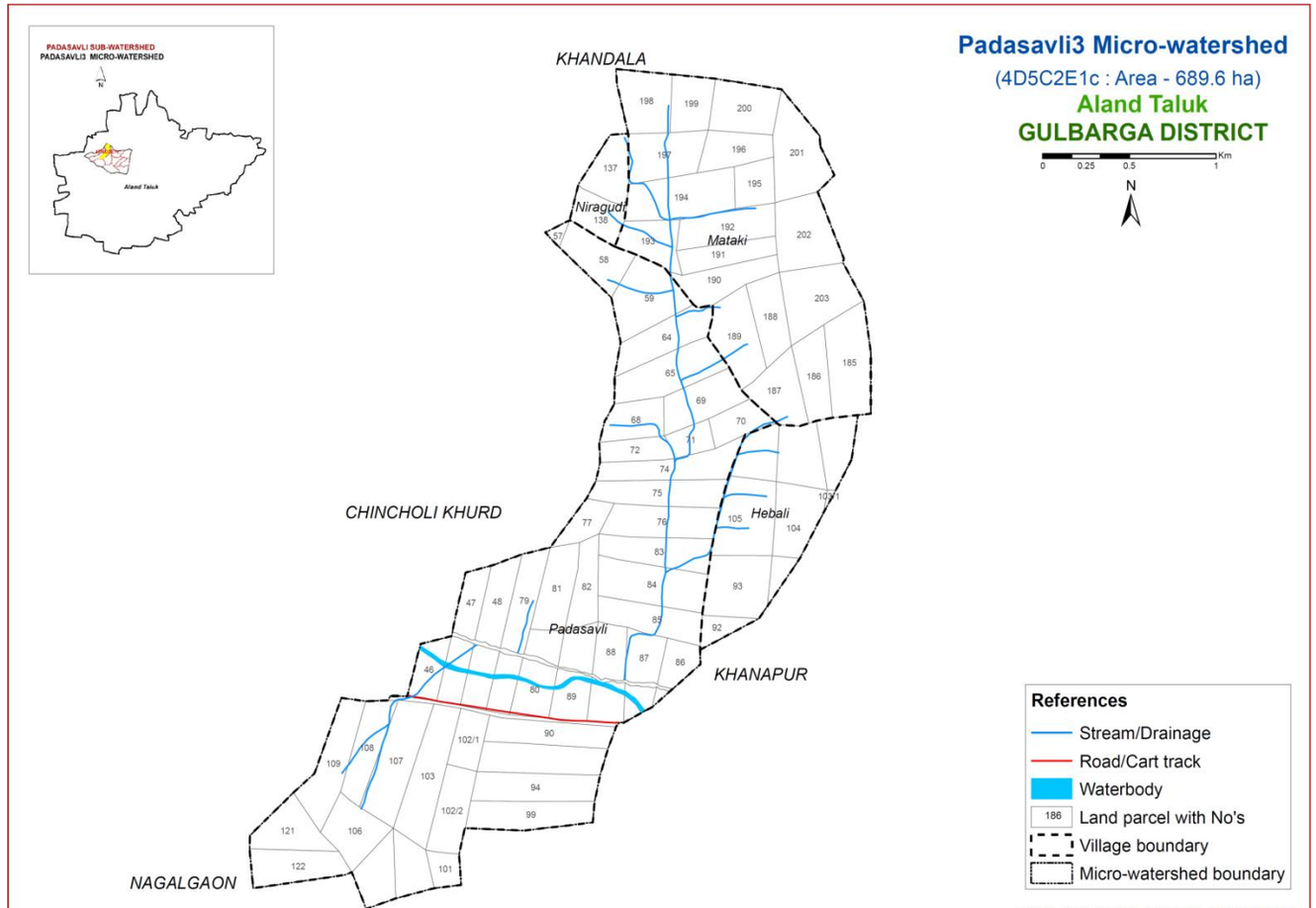
SURVEY METHODOLOGY
Sequence of activities in generation of LRI

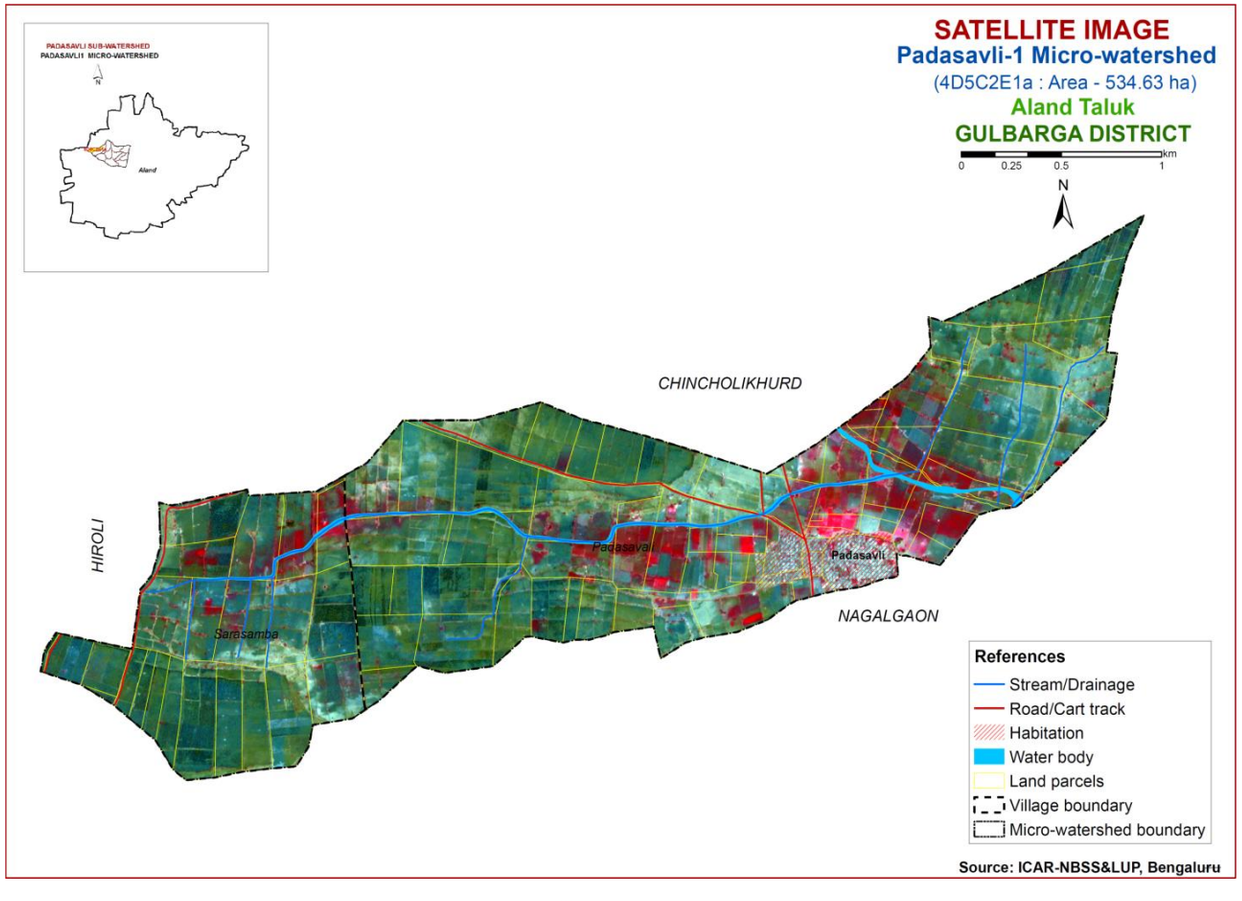
- Traversing the watershed using cadastral maps and imagery as base
- Identifying landforms, geology, land use and other features
- Selecting fields representing land units
- Opening profiles to 2 m depth
- Studying soil and site characteristics
- Grouping similar areas based on their soil-site characteristics into land management units
- Preparation of crop, soil and water conservation plan
- Socio-economic evaluation

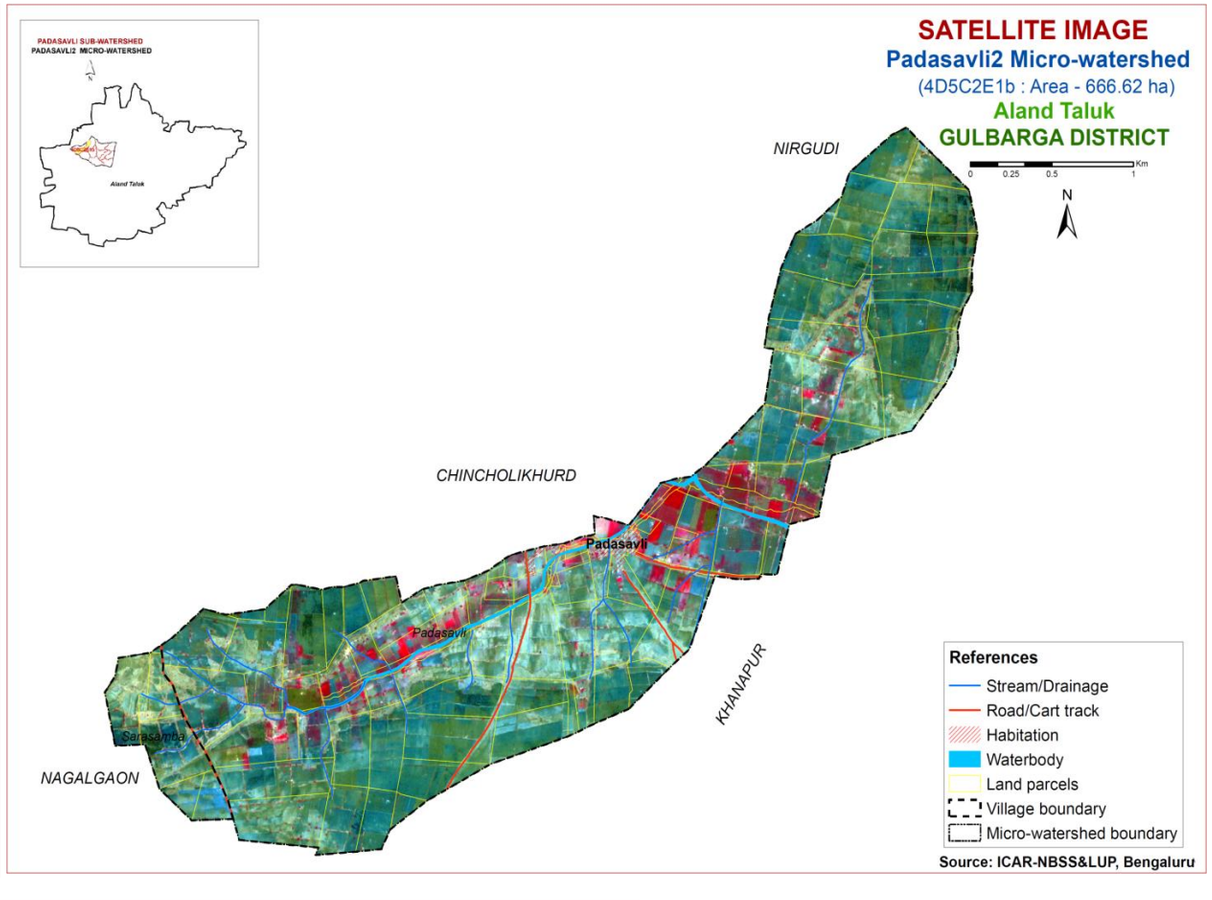
The required site and soil characteristics are described and recorded on a standard proforma by following the protocols and guidelines given in the soil survey manual and field guide. Collection of soil samples from representative pedons for laboratory characterization and collection of surface soil samples from selected fields covering most of the management units for macro and micro-nutrient analysis is being carried out (250m grid intervals). Further processing of data at chemical lab and GIS lab are carried out to generate various thematic maps for each of the study area.

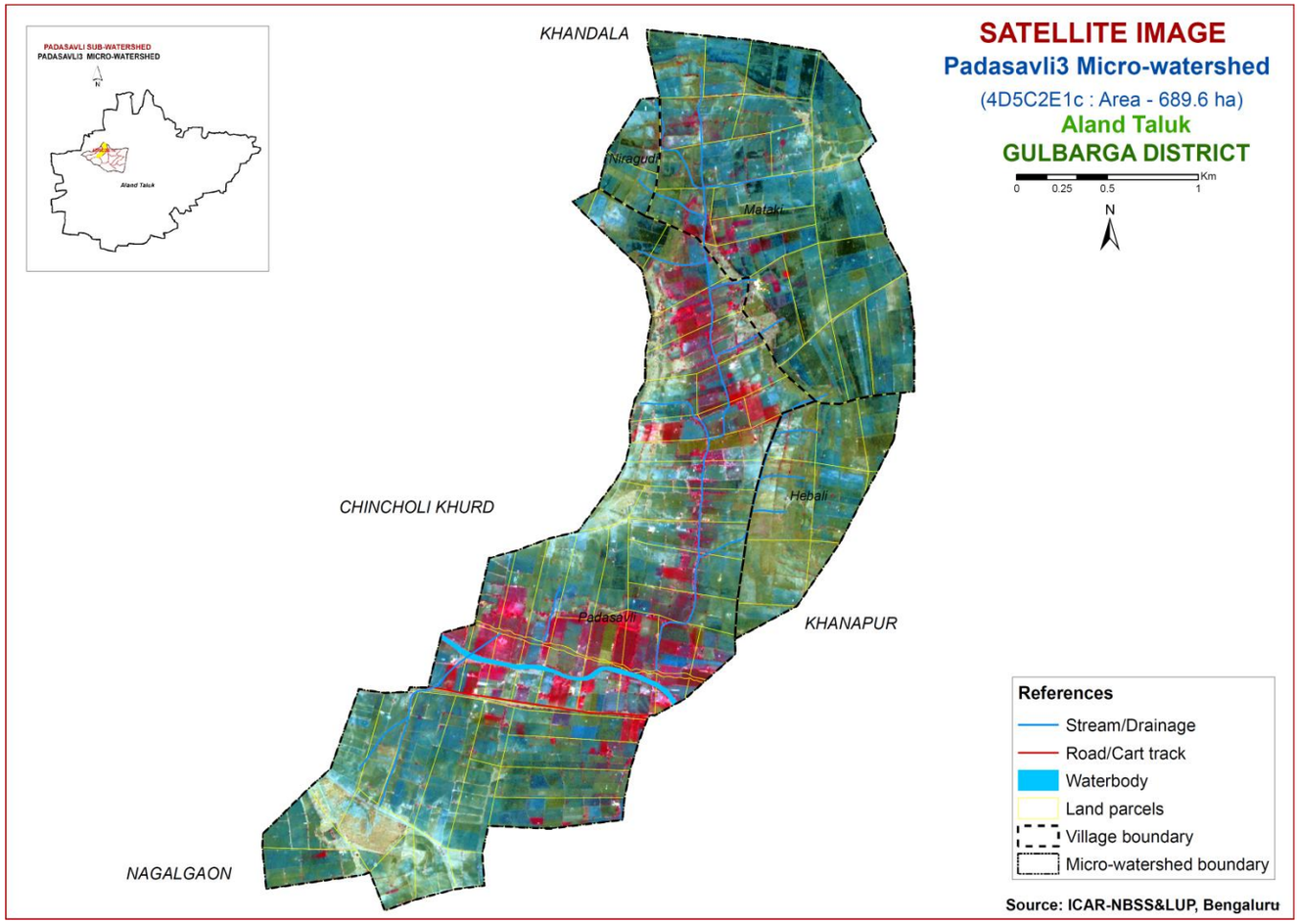

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru

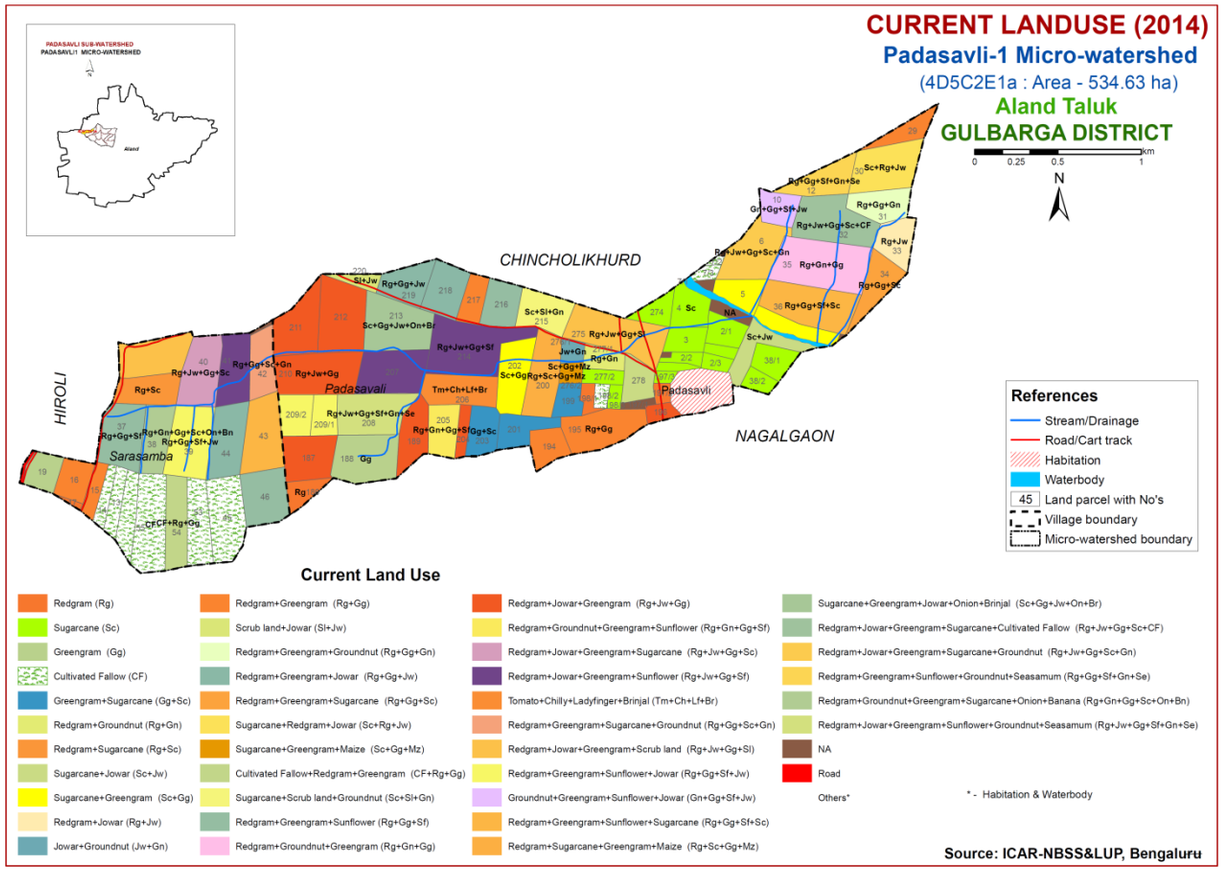

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
Sarasamba
NAGALGAON
KHANAPUR
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru

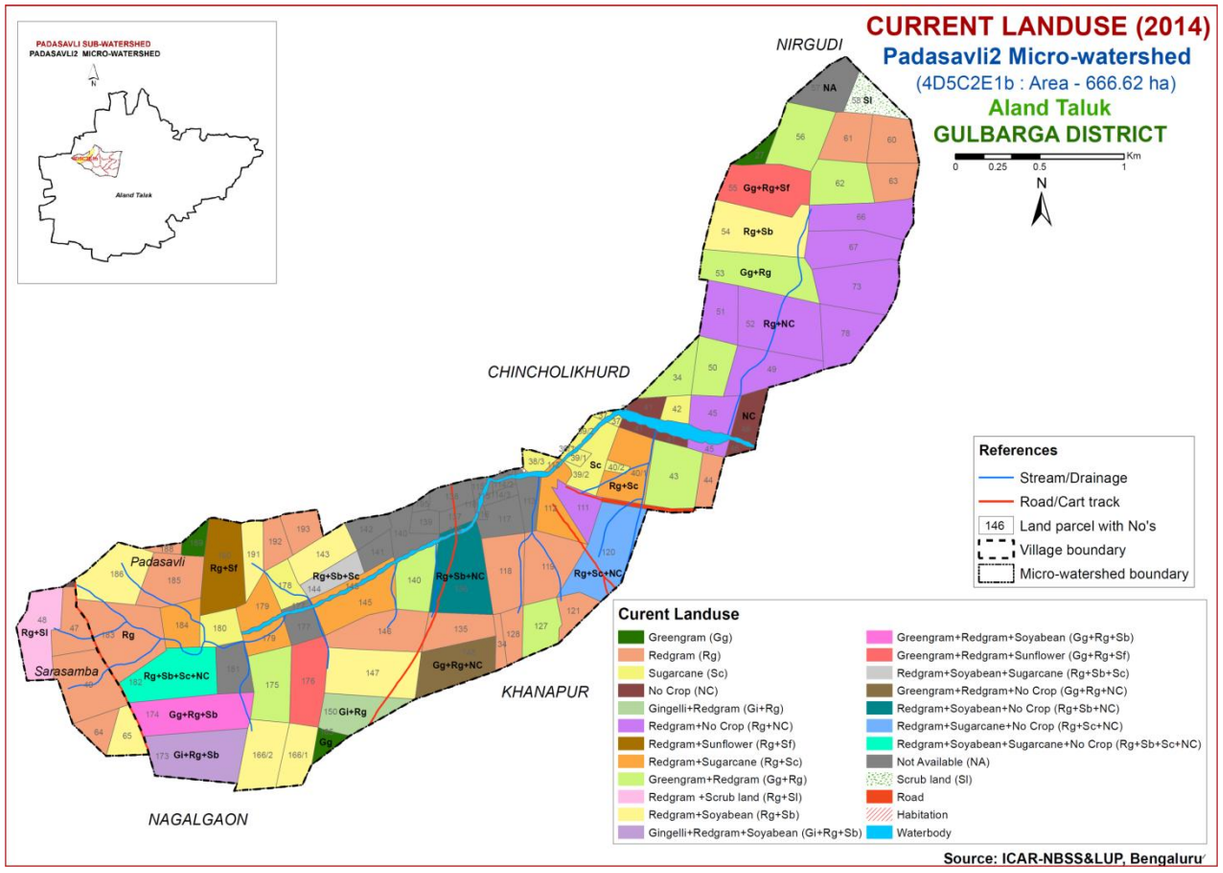

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 Km
N
KHANDALA
Niragudi
Mataki
Hebali
CHINCHOLI KHURD
Padasavli
KHANAPUR
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru

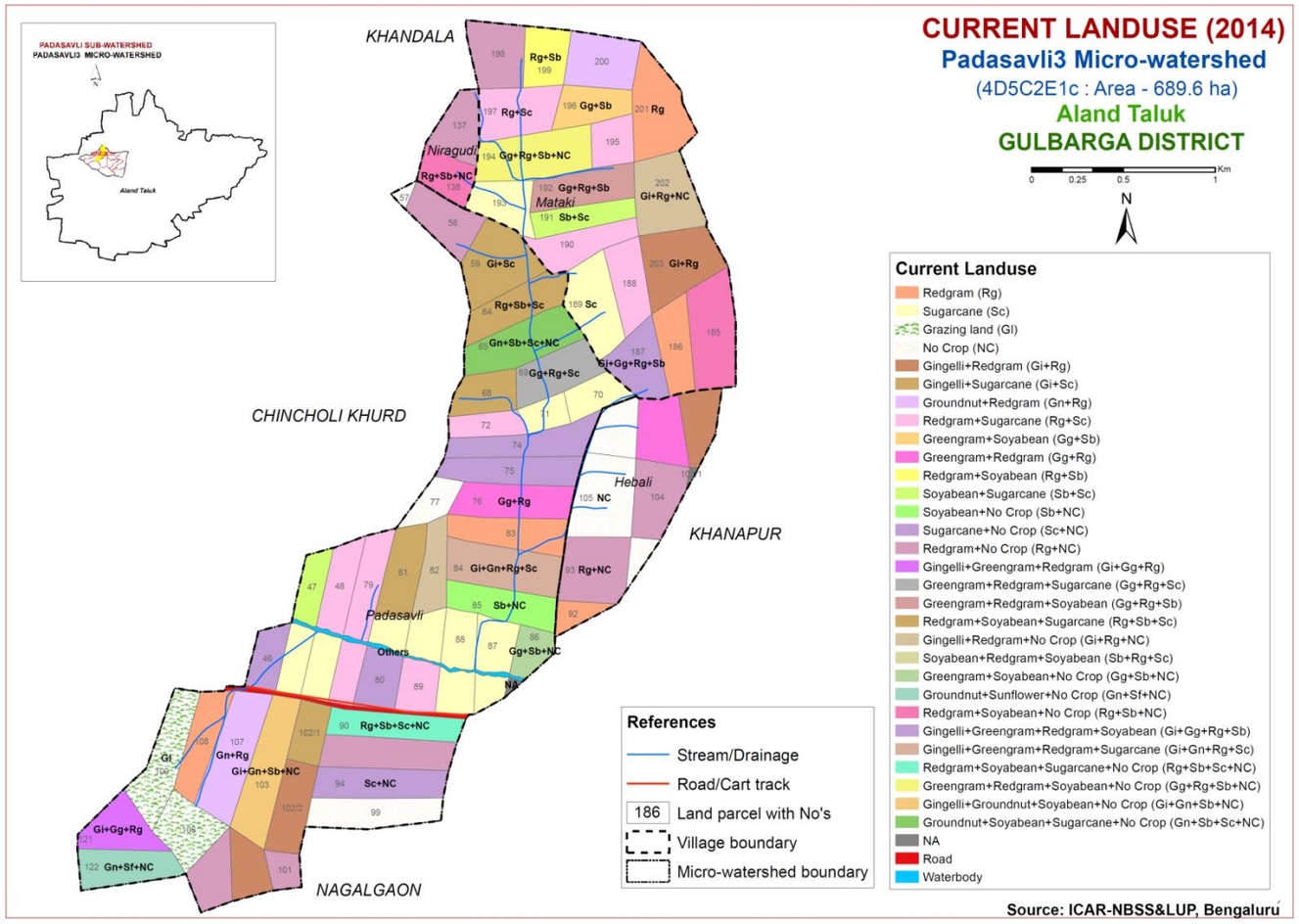

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
SATELLITE IMAGE
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Padasavli
Saresamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
Land parcels
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru

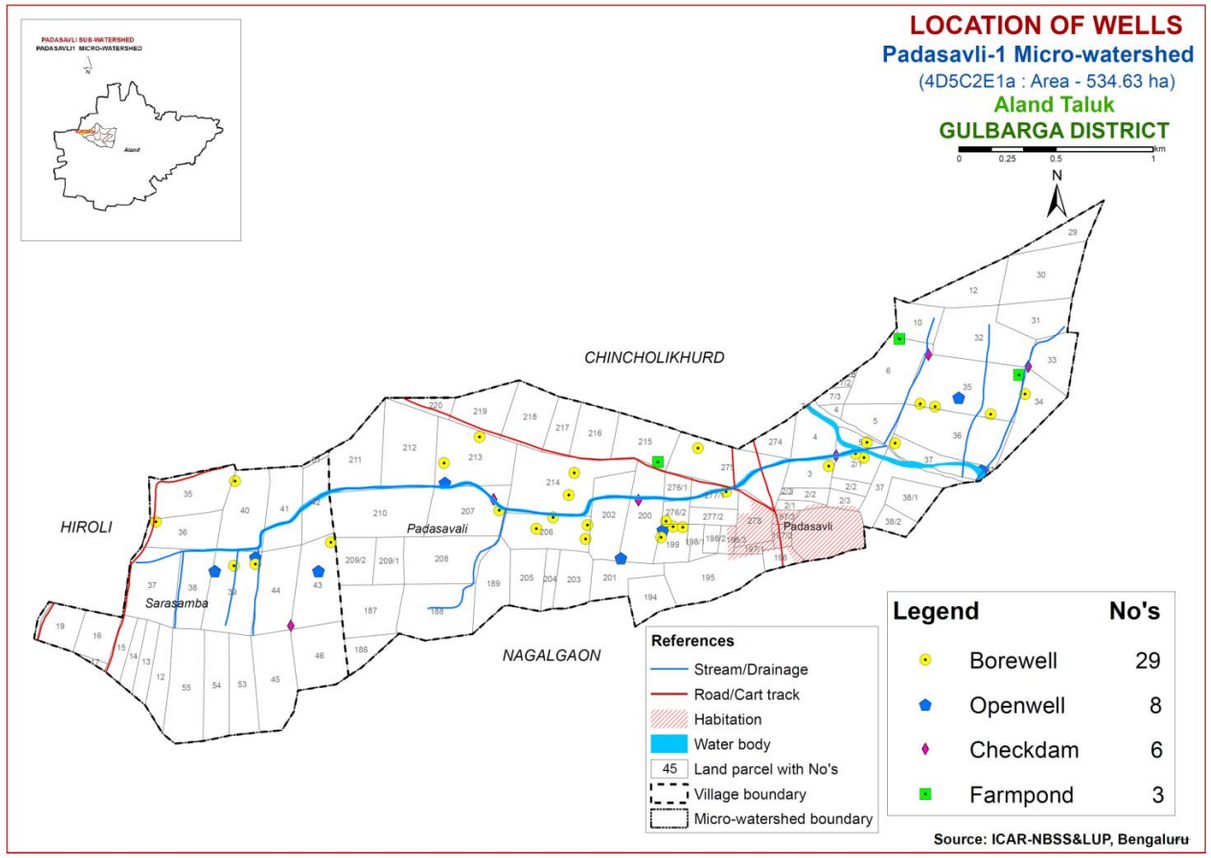

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
SATELLITE IMAGE
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
Padasavli
KHANAPUR
Saresamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
Land parcels
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru

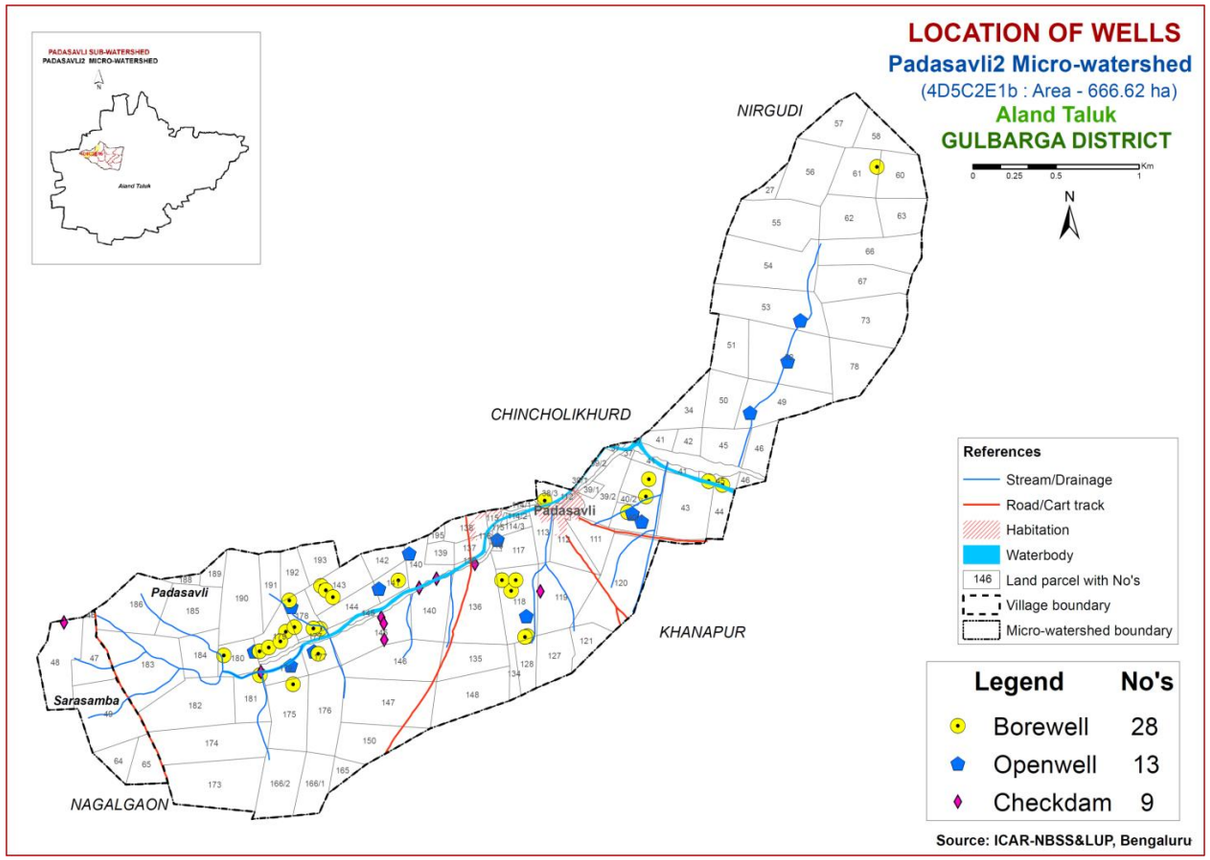

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
SATELLITE IMAGE
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
Hebali
CHINCHOLI KHURD
Padasavli
KHANAPUR
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
Land parcels
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru

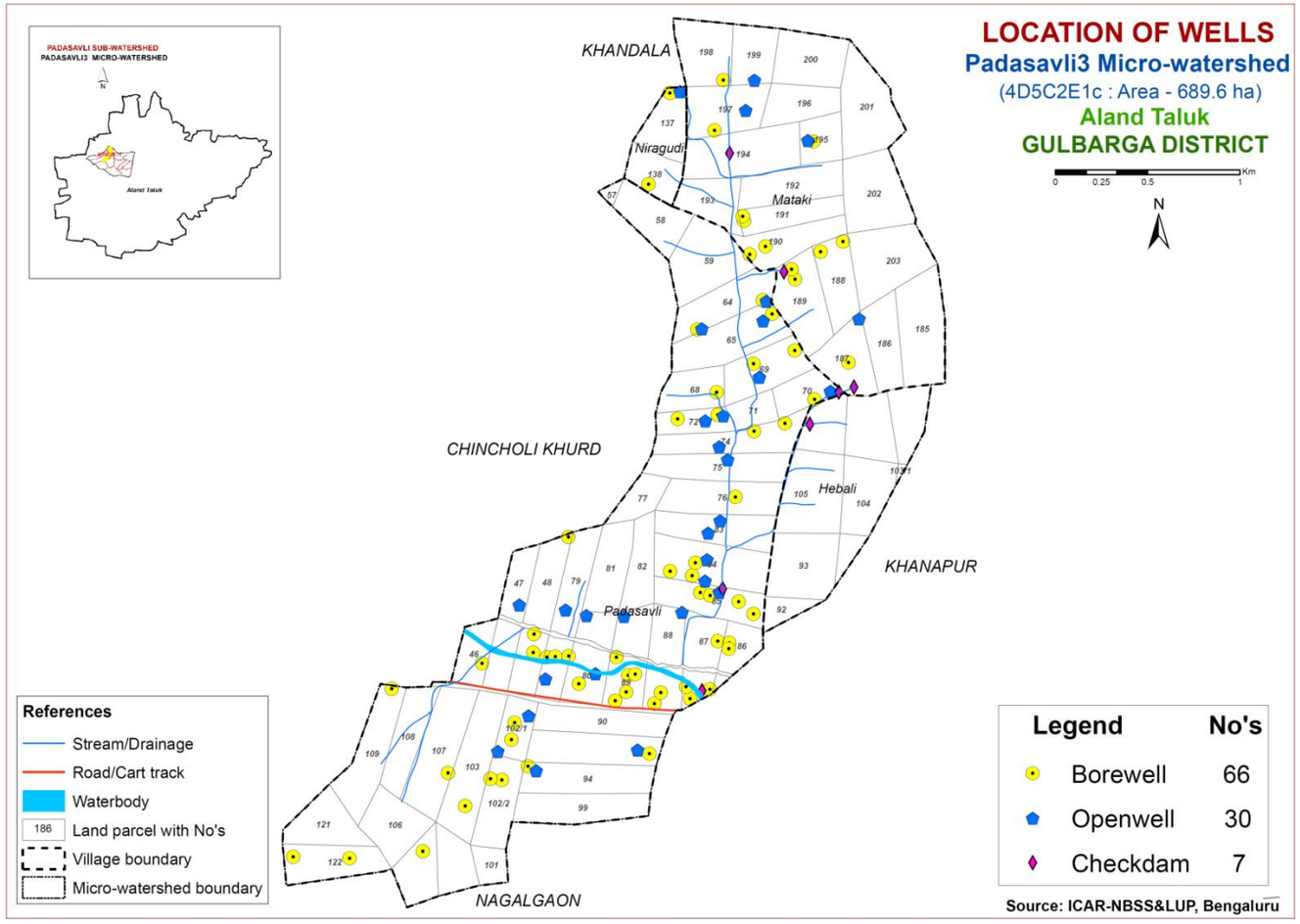

CURRENT LANDUSE (2014)
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
CHINCHOLIKHURD
HIROLI
NAGALGAON
Padasavli
Sarasamba
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Current Land Use
Redgram (Rg)
Redgram+Greengram (Rg+Gg)
Redgram+Jowar+Greengram (Rg+Jw+Gg)
Sugarcane+Greengram+Jowar+Onion+Brinjal (Sc+Gg+Jw+On+Br)
Sugarcane (Sc)
Scrub land+Jowar (Sl+Jw)
Redgram+Groundnut+Greengram+Sunflower (Rg+Gn+Gg+Sf)
Redgram+Jowar+Greengram+Sugarcane+Cultivated Fallow (Rg+Jw+Gg+Sc+CF)
Greengram (Gg)
Redgram+Greengram+Groundnut (Rg+Gg+Gn)
Redgram+Greengram+Sugarcane (Rg+Jw+Gg+Sc)
Redgram+Jowar+Greengram+Sugarcane+Groundnut (Rg+Jw+Gg+Sc+Gn)
Cultivated Fallow (CF)
Redgram+Greengram+Jowar (Rg+Gg+Jw)
Redgram+Jowar+Greengram+Sunflower (Rg+Jw+Gg+Sf)
Redgram+Greengram+Sunflower+Groundnut+Seasamum (Rg+Gg+Sf+Gn+Se)
Greengram+Sugarcane (Gg+Sc)
Redgram+Greengram+Sugarcane (Rg+Gg+Sc)
Tomato+Chilly+Ladyfinger+Brinjal (Tm+Ch+Lf+Br)
Redgram+Groundnut+Greengram+Sugarcane+Onion+Banana (Rg+Gn+Gg+Sc+On+Bn)
Redgram+Groundnut (Rg+Gn)
Sugarcane+Redgram+Jowar (Sc+Rg+Jw)
Redgram+Greengram+Sugarcane+Groundnut (Rg+Gg+Sc+Gn)
Redgram+Jowar+Greengram+Sunflower+Groundnut+Seasamum (Rg+Jw+Gg+Sf+Gn+Se)
Redgram+Sugarcane (Rg+Sc)
Sugarcane+Greengram+Maize (Sc+Gg+Mz)
Redgram+Jowar+Greengram+Scrub land (Rg+Jw+Gg+Sl)
NA
Sugarcane+Jowar (Sc+Jw)
Cultivated Fallow+Redgram+Greengram (CF+Rg+Gg)
Redgram+Greengram+Jowar (Rg+Gg+Sf+Jw)
Road
Sugarcane+Greengram (Sc+Gg)
Sugarcane+Scrub land+Groundnut (Sc+Sl+Gn)
Groundnut+Greengram+Sunflower+Jowar (Gn+Gg+Sf+Jw)
Others*
Redgram+Jowar (Rg+Jw)
Redgram+Greengram+Sunflower (Rg+Gg+Sf)
Redgram+Greengram+Sunflower+Sugarcane (Rg+Gg+Sf+Sc)
* - Habitation & Waterbody
Jowar+Groundnut (Jw+Gn)
Redgram+Groundnut+Greengram (Rg+Gn+Gg)
Redgram+Sugarcane+Greengram+Maize (Rg+Sc+Gg+Mz)
Source: ICAR-NBSS&LUP, Bengaluru


CURRENT LANDUSE (2014)
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
References
Stream/Drainage
Road/Cart track
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Curent Landuse
Greengram (Gg)
Greengram+Redgram+Soyabean (Gg+Rg+Sb)
Redgram (Rg)
Greengram+Redgram+Sunflower (Gg+Rg+Sf)
Sugarcane (Sc)
Redgram+Soyabean+Sugarcane (Rg+Sb+Sc)
No Crop (NC)
Greengram+Redgram+No Crop (Gg+Rg+NC)
Gingelli+Redgram (Gi+Rg)
Redgram+Soyabean+No Crop (Rg+Sb+NC)
Redgram+No Crop (Rg+NC)
Redgram+Sugarcane+No Crop (Rg+Sc+NC)
Redgram+Sunflower (Rg+Sf)
Redgram+Soyabean+Sugarcane+No Crop (Rg+Sb+Sc+NC)
Redgram+Sugarcane (Rg+Sc)
Not Available (NA)
Greengram+Redgram (Gg+Rg)
Scrub land (Sl)
Redgram +Scrub land (Rg+Sl)
Road
Redgram+Soyabean (Rg+Sb)
Habitation
Gingelli+Redgram+Soyabean (Gi+Rg+Sb)
Waterbody
Source: ICAR-NBSS&LUP, Bengaluru


CURRENT LANDUSE (2014)
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
KHANDALA
CHINCHOLI KHURD
KHANAPUR
NAGALGAON
Niragudi
Mataki
Hebali
Padasavli
Others
References
Stream/Drainage
Road/Cart track
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Current Landuse
Redgram (Rg)
Sugarcane (Sc)
Grazing land (Gl)
No Crop (NC)
Gingelli+Redgram (Gi+Rg)
Gingelli+Sugarcane (Gi+Sc)
Groundnut+Redgram (Gn+Rg)
Redgram+Sugarcane (Rg+Sc)
Greengram+Soyabean (Gg+Sb)
Greengram+Redgram (Gg+Rg)
Redgram+Soyabean (Rg+Sb)
Soyabean+Sugarcane (Sb+Sc)
Soyabean+No Crop (Sb+NC)
Sugarcane+No Crop (Sc+NC)
Redgram+No Crop (Rg+NC)
Gingelli+Greengram+Redgram (Gi+Gg+Rg)
Greengram+Redgram+Sugarcane (Gg+Rg+Sc)
Greengram+Redgram+Soyabean (Gg+Rg+Sb)
Redgram+Soyabean+Sugarcane (Rg+Sb+Sc)
Gingelli+Redgram+No Crop (Gi+Rg+NC)
Soyabean+Redgram+Soyabean (Sb+Rg+Sc)
Greengram+Soyabean+No Crop (Gg+Sb+NC)
Groundnut+Sunflower+No Crop (Gn+Sf+NC)
Redgram+Soyabean+No Crop (Rg+Sb+NC)
Gingelli+Greengram+Redgram+Soyabean (Gi+Gg+Rg+Sb)
Gingelli+Greengram+Redgram+Sugarcane (Gi+Gn+Rg+Sc)
Redgram+Soyabean+Sugarcane+No Crop (Rg+Sb+Sc+NC)
Greengram+Redgram+Soyabean+No Crop (Gg+Rg+Sb+NC)
Gingelli+Groundnut+Soyabean+No Crop (Gi+Gn+Sb+NC)
Groundnut+Soyabean+Sugarcane+No Crop (Gn+Sb+Sc+NC)
NA
Road
Waterbody
Source: ICAR-NBSS&LUP, Bengaluru


LOCATION OF WELLS
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
0 0.25 0.5 1 Km
N
CHINCHOLIKHURD
HIROLI
Padasavali
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Legend No's
Borewell 29
Openwell 8
Checkdam 6
Farmpond 3
Source: ICAR-NBSS&LUP, Bengaluru


LOCATION OF WELLS
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
Sarasamba
KHANAPUR
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Legend No's
Borewell 28
Openwell 13
Checkdam 9
Source: ICAR-NBSS&LUP, Bengaluru


LOCATION OF WELLS
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Legend No's
Borewell 66
Openwell 30
Checkdam 7
Source: ICAR-NBSS&LUP, Bengaluru

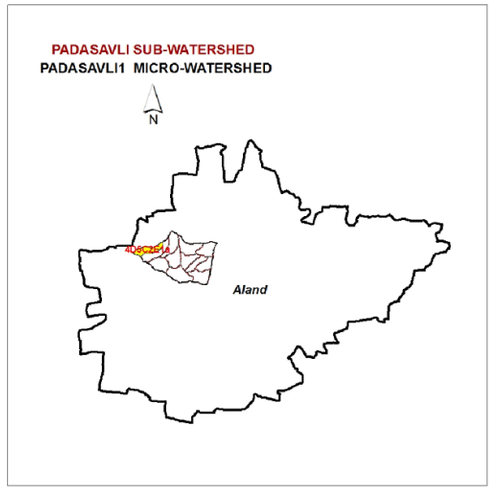
SOILS

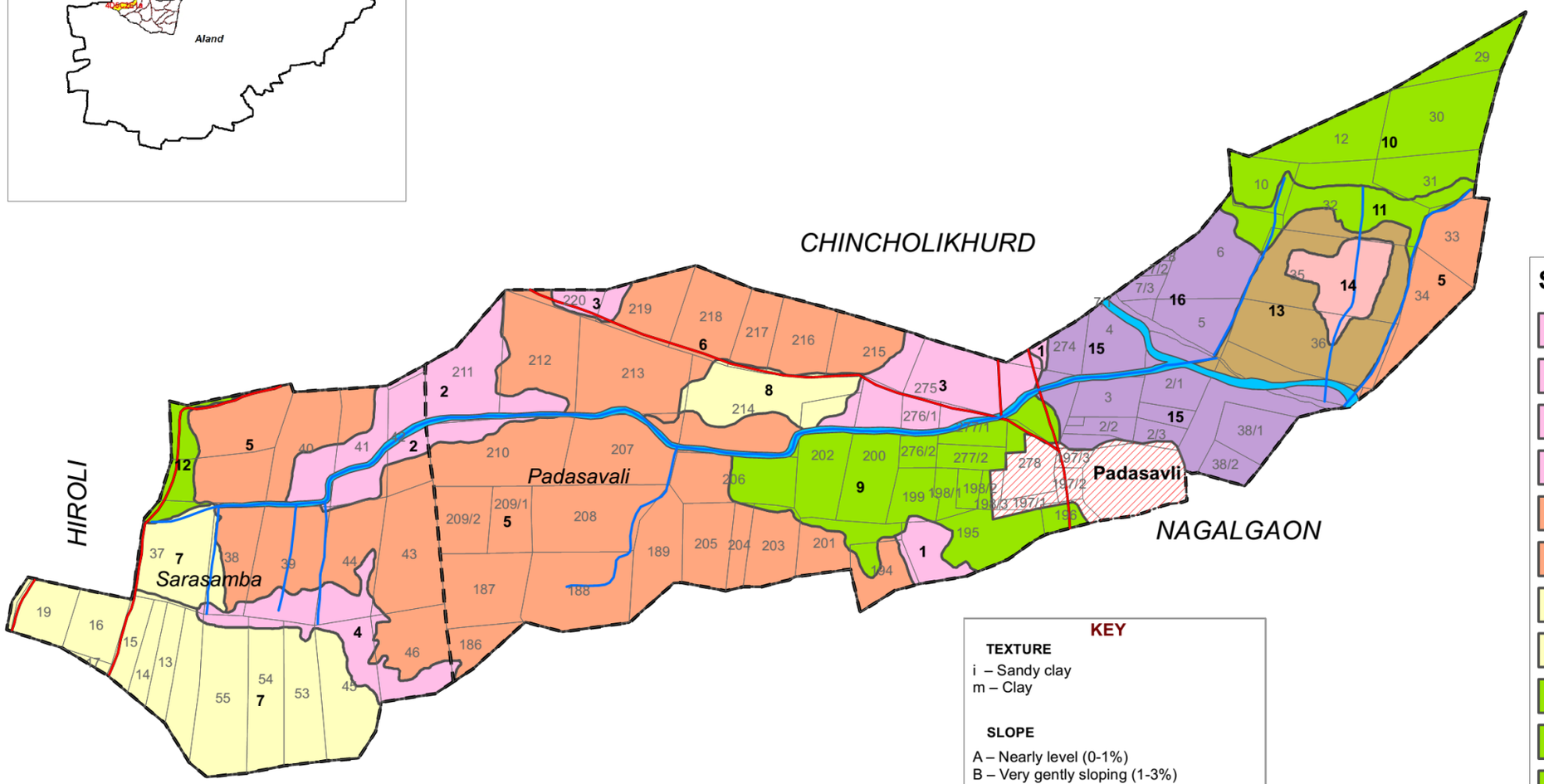
Padasavli-1 Micro-watershed

(4D5C2E1a : Area - 534.63 ha)

Aland Taluk

GULBARGA DISTRICT





Soil Phase	Area in ha (%)
1, MGTiC2g1	4 (0.82)
2, MGTmB2g1	24 (4.41)
3, MGTmB3g1	19 (3.6)
4, MGTmC3g2	14 (2.54)
5, NHAmB2g1	159 (29.79)
6, NHAmB2g2	47 (8.84)
7, BHImB2g2	62 (11.52)
8, BHImC3g1	11 (2.02)
9, DSImB2	41 (7.59)
10, DSImB2g1	31 (5.84)
11, DSImC2g1	11 (1.97)
12, DSImC3g2	5 (0.85)
13, GTTmB2g1	25 (4.64)
14, KMPmB2g1	8 (1.49)
15, MANmA1	33 (6.22)
16, MANmB2	16 (3.06)
17, Others*	26 (4.8)

References

- Stream/Drainage
- Road/Cart track
- Habitation
- Water body
- 45 Land parcel with No's
- Village boundary
- Micro-watershed boundary

KEY

TEXTURE
i – Sandy clay
m – Clay

SLOPE
A – Nearly level (0-1%)
B – Very gently sloping (1-3%)
C – Gently sloping (3-5%)

EROSION
1 – Slight
2 – Moderate
3 – Severe

GRAVELLINESS
g1 – Gravelly (15-35 %)
g2 – Very gravelly (35-60 %)

DEPTH
MGT- Very shallow (<25 cm)
BHI,NHA- Shallow (25-50 cm)
GTT, DSI - Moderately shallow (50-75 cm)
KMP- Moderately deep (75-100 cm)
MAN - Very deep (>150 cm)

Texture Gravelliness
MGT m B 2 g1
Soil Series Slope Erosion

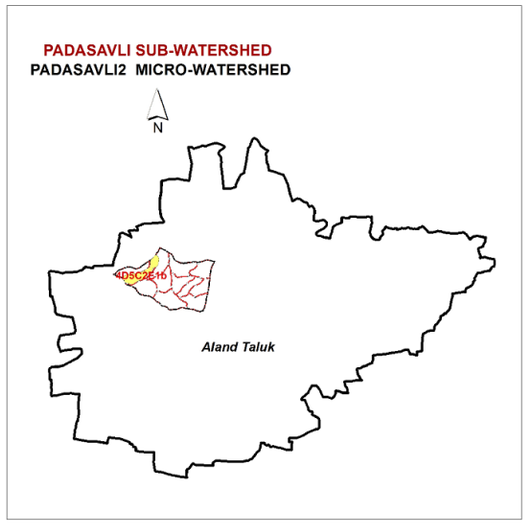
* - Habitation & Waterbody

Source: ICAR-NBSS&LUP, Bengaluru

Table 1. Mapping unit description of Padasavli-1 Micro-watershed in Aland taluk, Kalaburagi district

Sl.No*	Map unit	Description	Area in Ha(%)
1	MGTiC2g1	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; sandy clay surface on 3-5 % slope, severely eroded, slightly gravelly, 15-35 per cent gravels.	4.36 (0.82)
2	MGTmB2g1	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, moderately eroded, slightly gravelly, 15-35 per cent gravels.	23.57 (4.41)
3	MGTmB3g1	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, severely eroded, slightly gravelly, 15-35 per cent gravels.	19.26 (3.60)
4	MGTmC3g2	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5 % slope, severely eroded, moderately gravelly, 35-60 per cent gravels.	13.56 (2.54)
5	NHAmB2g1	Shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, slightly eroded, slightly gravelly, 15-35 per cent gravels.	159.24 (29.79)
6	NHAmB2g2	Shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, slightly eroded, moderately gravelly, 35-60 per cent gravels.	47.26 (8.84)
7	BHImB2g2	Shallow, black clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded, moderately gravelly, 35-60 per cent gravels.	61.59 (11.52)
8	BHImC3g1	Shallow, black clay soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5% slope, severely eroded, slightly gravelly, 15-35 per cent gravels.	10.81 (2.02)
9	DSImB2	Moderately shallow, black clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded	40.56 (7.59)
10	DSImB2g1	Moderately shallow, black clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded, slightly gravelly, 15-35 per cent gravels.	31.20 (5.84)
11	DSImC2g1	Moderately shallow, black clay soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5% slope, moderately eroded, slightly gravelly, 15-35 per cent gravels.	10.52 (1.97)
12	DSImC3g2	Moderately shallow, black clay soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5% slope, severely eroded, moderately gravelly, 35-60 per cent gravels.	4.55 (0.85)
13	GTTmB2g1	Moderately shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded , slightly gravelly, 15-35 per cent gravels.	24.80 (4.64)
14	KMPmB2g1	Moderately deep, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded , slightly gravelly, 15-35 per cent gravels.	7.96 (1.49)
15	MANmA1	Very deep, black clayey soils developed from weathered basalt on nearly level uplands; clay surface on 0-1% slope, slightly eroded	33.27 (6.22)
16	MANmB2	Very deep, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, moderately eroded	16.35 (3.06)
17	Habitation		25.66 (4.80)

*Soil map unit numbers are continuous for the taluk, not the micro-watershed



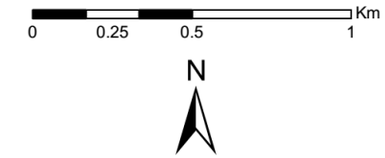
SOILS

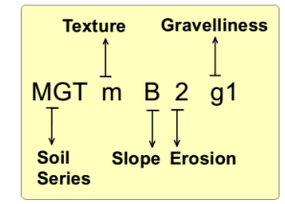
Padasavli2 Micro-watershed

(4D5C2E1b : Area - 666.62 ha)

Aland Taluk

GULBARGA DISTRICT





References

- Stream/Drainage
- Road/Cart track
- Habitation
- Waterbody
- 146 Land parcel with No's
- Village boundary
- Micro-watershed boundary

KEY

TEXTURE
h – Sandy clay loam
i – Sandy clay
m – Clay

SLOPE
A – Nearly level (0-1%)
B – Very gently sloping (1-3%)
C – Gently sloping (3-5%)
D – Moderately sloping(5-10%)

EROSION
1 – Slight
2 – Moderate
3 – Severe

GRAVELLINESS
g0 – Non gravelly (<15%)
g1 – Gravelly (15-35 %)
g2 – Very gravelly (35-60 %)
g3 – Extremely gravelly (60-80 %)

DEPTH
MGT- Very shallow (<25 cm)
BHI,NHA- Shallow (25-50 cm)
GTT - Moderately shallow (50-75 cm)
KMP- Moderately deep (75-100 cm)
MAN - Very deep (>150 cm)

Soil Phase	Area in ha (%)	Soil Phase	Area in ha (%)
1, MGThC3g1	24 (3.61)	16, MGTmC3g2	6 (0.94)
2, MGThC3g2	26 (3.88)	17, NHAiC3g2	15 (2.27)
3, MGThD3	10 (1.45)	18, NHAmB2	132 (19.82)
4, MGThD3g3	4 (0.64)	19, NHAmB2g1	8 (1.17)
5, MGTiB2	3 (0.5)	20, NHAmB2g2	13 (1.98)
6, MGTiB2g1	13 (2.01)	21, NHAmB3g3	8 (1.23)
7, MGTiC3g1	32 (4.78)	22, NHAmC3	29 (4.28)
8, MGTiD3g2	4 (0.54)	23, BHImB1	8 (1.21)
9, MGTmA1	12 (1.82)	24, BHImB1g1	26 (3.92)
10, MGTmB1	106 (15.84)	25, GTTiB3g2	7 (1.04)
11, MGTmB2g1	8 (1.17)	26, GTTmB2g1	13 (1.89)
12, MGTmB2Pb1	17 (2.57)	27, KMPmB1	31 (4.66)
13, MGTmB3	6 (0.96)	28, KMPmB2	27 (4.05)
14, MGTmC3	9 (1.33)	29, MANmB1	30 (4.45)
15, MGTmC3g1	28 (4.25)	30, Others*	12 (1.75)

* - Habitation & Waterbody

Source: ICAR-NBSS&LUP, Bengaluru

Table 2. Mapping unit description of Padasavli-2 Micro-watershed in Aland taluk, Kalaburagi district

Sl.No*	Map unit	Description	Area in ha (%)
1	MGThC3g1	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; sandy clay loam surface on 3-5 % slope, severely eroded, slightly gravelly, 15-35 per cent gravels.	24.06 (3.61)
2	MGThC3g2	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; sandy clay loam surface on 3-5 % slope, severely eroded, moderately gravelly, 35-60 per cent gravels.	25.85 (3.88)
3	MGThD3	Very shallow, black gravelly clay soils developed from weathered basalt on moderately sloping uplands; sandy clay loam surface on 5-10 % slope, severely eroded.	9.65 (1.45)
4	MGThD3g3	Very shallow, black gravelly clay soils developed from weathered basalt on moderately sloping uplands; sandy clay loam surface on 5-10 % slope, severely eroded, highly gravelly, more than 60 per cent gravels.	4.28 (0.64)
5	MGTiB2	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; sandy clay surface on 1-3 % slope, moderately eroded.	3.34 (0.50)
6	MGTiB2g1	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; sandy clay surface on 1-3 % slope, moderately eroded, slightly gravelly, 15-35 per cent gravels.	13.40 (2.01)
7	MGTiC3g1	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; sandy clay surface on 3-5 % slope, severely eroded, slightly gravelly, 15-35 per cent gravels.	31.84 (4.78)
8	MGTiD3g2	Very shallow, black gravelly clay soils developed from weathered basalt on moderately sloping uplands; sandy clay surface on 5-10 % slope, severely eroded, moderately gravelly, 35- 60 per cent gravels.	3.58 (0.54)
9	MGTmA1	Very shallow, black gravelly clay soils developed from weathered basalt on nearly level uplands; clay surface on 1-3 % slope, slightly eroded.	12.12 (1.82)
10	MGTmB1	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, slightly eroded.	105.59 (15.84)
11	MGTmB2g1	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, moderately eroded, slightly gravelly, 15-35 per cent gravels.	7.83 (1.17)
12	MGTmB2Pb1	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, moderately eroded, slightly gravelly, 15-35 per cent pebbles	17.14 (2.57)
13	MGTmB3	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, severely eroded.	6.37 (0.96)
14	MGTmC3	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5 % slope, severely eroded.	8.89 (1.33)
15	MGTmC3g1	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5 % slope, severely eroded, slightly gravelly, 15-35 per cent gravels.	28.30 (4.25)

To be continued….

Sl.No*	Map unit	Description	Area in ha (%)
16	MGTmC3g2	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5 % slope, severely eroded, moderately gravelly, 35-60 per cent gravels.	6.28 (0.94)
17	NHAiC3g2	Shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; sandy clay surface on 1-3% slope, severely eroded, moderately gravelly, 35-60 per cent gravels.	15.12 (2.27)
18	NHAmB2	Shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded.	132.16 (19.82)
19	NHAmB2g1	Shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded, slightly gravelly, 15-35 per cent gravels.	7.81 (1.17)
20	NHAmB2g2	Shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded, moderately gravelly, 35-60 per cent gravels.	13.19 (1.98)
21	NHAmB3g3	Shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, severely eroded, highly gravelly, more than 60 per cent gravels.	8.22 (1.23)
22	NHAmC3	Shallow, black clayey soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5% slope, severely eroded.	28.50 (4.28)
23	BHImB1	Shallow, black clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, slightly eroded.	8.10 (1.21)
24	BHImB1g1	Shallow, black clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, slightly eroded, slightly gravelly, 15-35 per cent gravels.	26.13 (3.92)
25	GTTiB3g2	Moderately shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; sandy clay surface on 1-3% slope, severely eroded, moderately gravelly, 35-60 per cent gravels.	6.92 (1.04)
26	GTTmB2g1	Moderately shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded , moderately gravelly, 35-60 per cent gravels.	12.59 (1.89)
27	KMPmB1	Moderately deep, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, slightly eroded	31.06 (4.66)
28	KMPmB2	Moderately deep, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded	26.98 (4.05)
29	MANmB1	Deep, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, slightly eroded	29.63 (4.45)
30	Habitation		11.69 (1.75)

*Soil map unit numbers are continuous for the taluk, not the micro-watershed

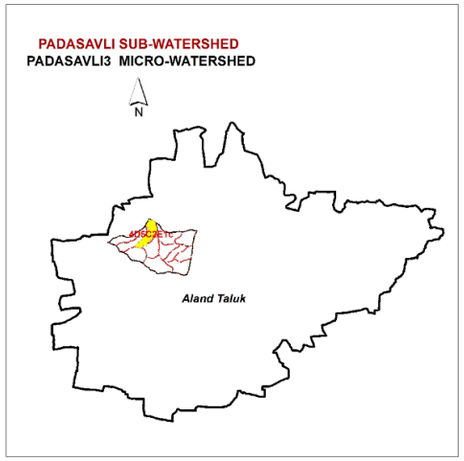
SOILS

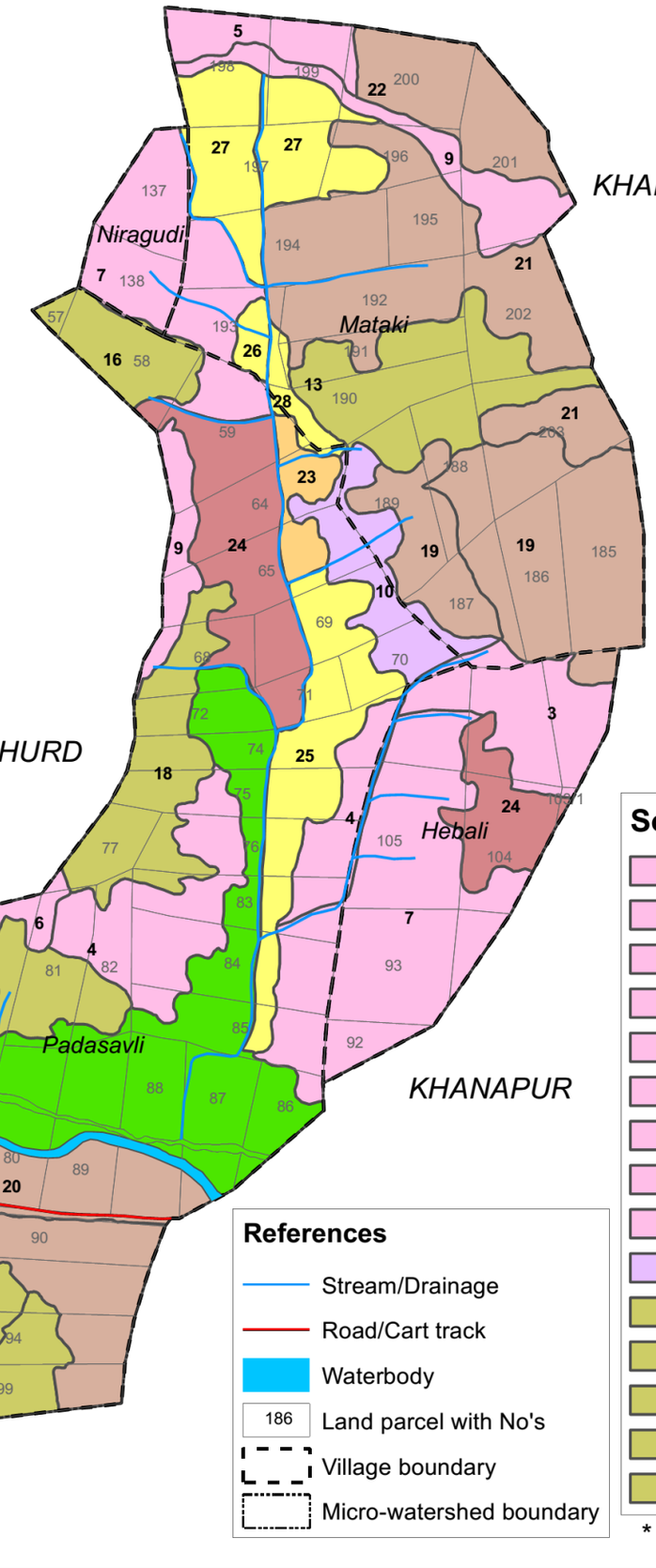
Padasavli3 Micro-watershed

(4D5C2E1c : Area - 689.6 ha)

Aland Taluk

GULBARGA DISTRICT





Km
0 0.25 0.5 1

N

KEY

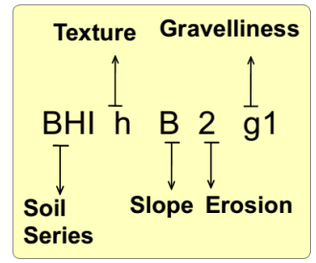
TEXTURE
h – Sandy clay loam
i – Sandy clay
m -- Clay

SLOPE
B – Very gently sloping (1-3%)
C – Gently sloping (3-5%)
D – Moderately sloping (5-10%)

EROSION
1 – Slight
2 – Moderate
3 – Severe

GRAVELLINESS
g1 – Gravelly (15-35 %)
g2 – Very gravelly (35-60 %)

DEPTH
KNH,MGT - Very shallow (<25 cm)
BHI,NHA - Shallow (25-50 cm)
DSI,GTT - Moderately shallow (50-75 cm)
KMP - Moderately deep (75-100 cm)
MAN - Very deep (>150 cm)



References
- Stream/Drainage
- Road/Cart track
- Waterbody
- 186 Land parcel with No's
- Village boundary
- Micro-watershed boundary

Soil Phases	Area in ha (%)	Soil Phases	Area in ha (%)
1, MGThD3g2	5 (0.72)	16, BHImB2	10 (1.44)
2, MGTmB1	28 (4.04)	17, BHImB2g1	13 (1.88)
3, MGTmB1g1	17 (2.4)	18, BHImB3	20 (2.93)
4, MGTmB2g1	29 (4.21)	19, NHAmB1	95 (13.8)
5, MGTmB2g2	8 (1.12)	20, NHAmB1g1	16 (2.35)
6, MGTmB3	3 (0.41)	21, NHAmB2	48 (6.92)
7, MGTmB3g1	73 (10.52)	22, NHAmB2g1	16 (2.39)
8, MGTmC2	14 (2.0)	23, DSImB1	6 (0.82)
9, MGTmC3g1	18 (2.55)	24, GTTmB1	34 (4.89)
10, KNHmC3g2	13 (1.95)	25, KMPmB1	22 (3.25)
11, BHIhB2g1	7 (1.06)	26, KMPmB2	2 (0.32)
12, BHIiB2g1	17 (2.42)	27, KMPmB2g1	23 (3.37)
13, BHImB1	44 (6.39)	28, KMPmC3g1	3 (0.47)
14, BHImB1g1	15 (2.23)	29, MANmB1	75 (10.84)
15, BHImB1g2	12 (1.78)	30, Others*	4 (0.51)

* - Waterbody

Source: ICAR-NBSS&LUP, Bengaluru

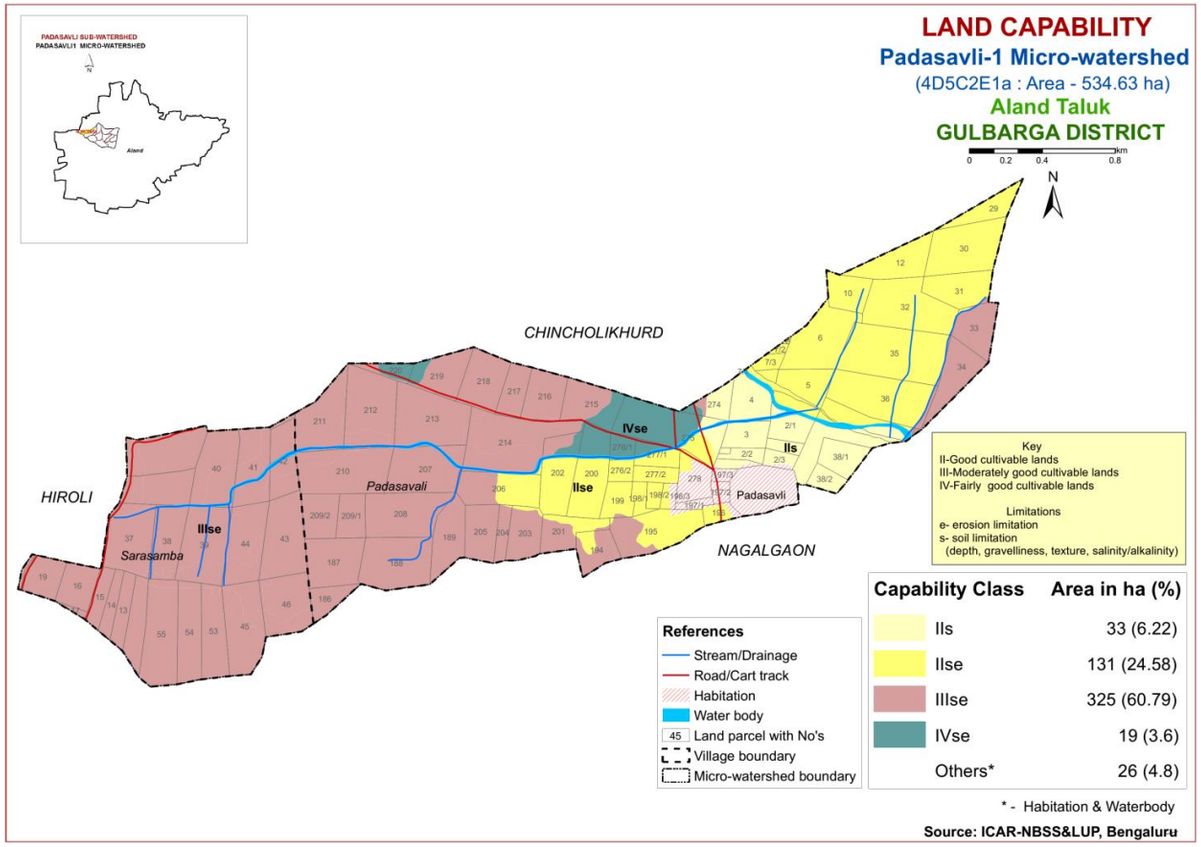
Table 3. Mapping unit description of Padasavli-3 Micro-watershed in Aland taluk, Kalaburagi district

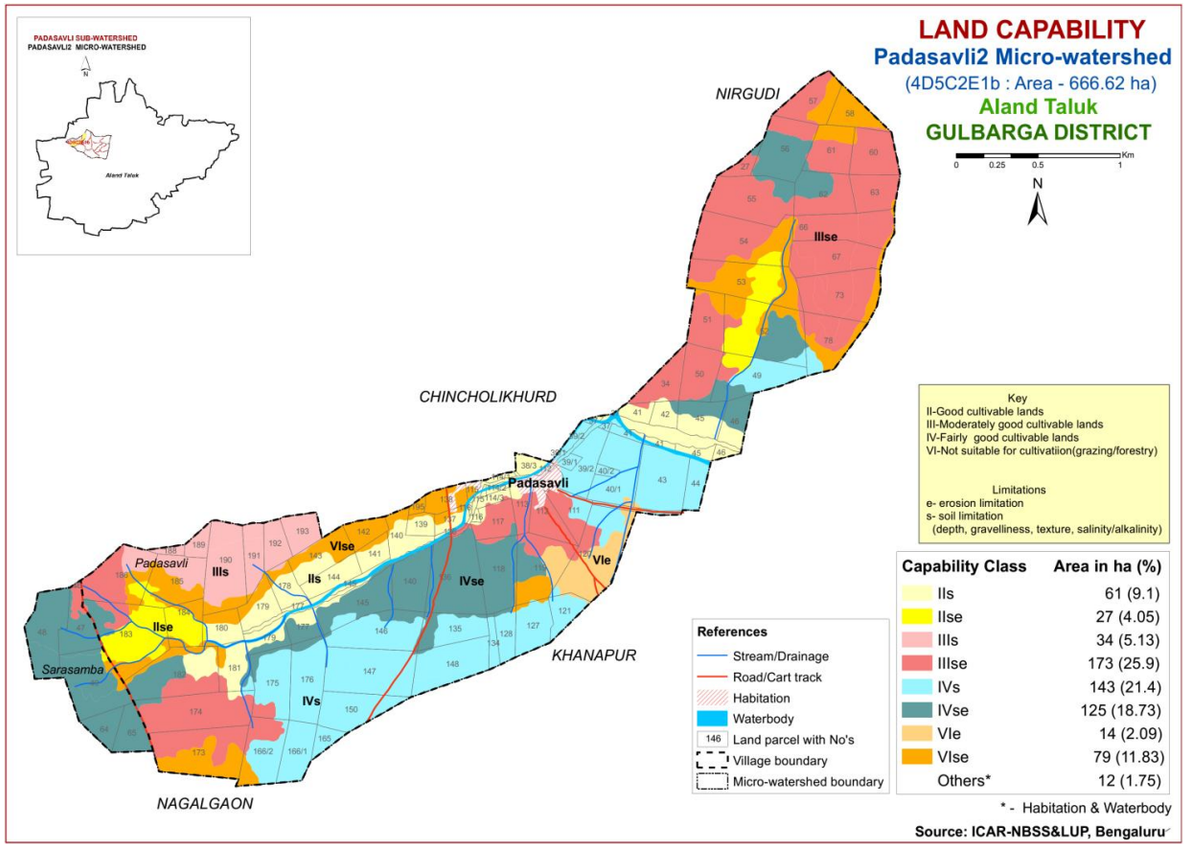
Sl. No*	Map unit	Description	Area in ha (%)
1	MGThD3g2	Very shallow, black gravelly clay soils developed from weathered basalt on moderately sloping uplands; sandy clay loam surface on 5-10 % slope, severely eroded, moderately gravelly, 35-60 per cent gravels.	4.96 (0.72)
2	MGTmB1	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, slightly eroded.	27.87 (4.04)
3	MGTmB1g1	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, slightly eroded , slightly gravelly, 15-35 per cent gravels.	16.55 (2.40)
4	MGTmB2g1	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, moderately eroded , slightly gravelly, 15-35 per cent gravels.	29.02 (4.21)
5	MGTmB2g2	Very shallow, black gravelly clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, moderately eroded , moderately gravelly, 35-60 per cent gravels.	7.75 (1.12)
6	MGTmB3	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5 % slope, severely eroded.	2.86 (0.41)
7	MGTmB3g1	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5 % slope, severely eroded, slightly gravelly, 15-35 per cent gravels.	72.56 (10.52)
8	MGTmC2	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5 % slope, moderately eroded.	13.82 (2.00)
9	MGTmC3g1	Very shallow, black gravelly clay soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5 % slope, severely eroded, slightly gravelly, 15-35 per cent gravels.	17.58 (2.55)
10	KNHmC3g2	Very shallow, black gravelly clay soils developed from weathered laterite on gently sloping uplands; clay surface on 3-5 % slope, severely eroded, moderately gravelly, 35-60 per cent gravels.	13.45 (1.95)
11	BHIhB2g1	Shallow, black clay soils developed from weathered basalt on very gently sloping uplands; sandy clay loam surface on 1-3% slope, moderately eroded, slightly gravelly, 15-35 per cent gravels.	7.34 (1.06)
12	BHIiB2g1	Shallow, black clay soils developed from weathered basalt on very gently sloping uplands; sandy clay surface on 1-3% slope, moderately eroded, slightly gravelly, 15-35 per cent gravels.	16.69 (2.42)
13	BHImB1	Shallow, black clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, slightly eroded.	44.10 (6.39)
14	BHImB1g1	Shallow, black clay soils developed from weathered basalt on very gently sloping uplands; sandy clay surface on 1-3% slope, slightly eroded, slightly gravelly, 15-35 per cent gravels.	15.39 (2.23)
15	BHImB1g2	Shallow, black clay soils developed from weathered basalt on very gently sloping uplands; sandy clay surface on 1-3% slope, slightly eroded, moderately gravelly, 35-60 per cent gravels.	12.31 (1.78)

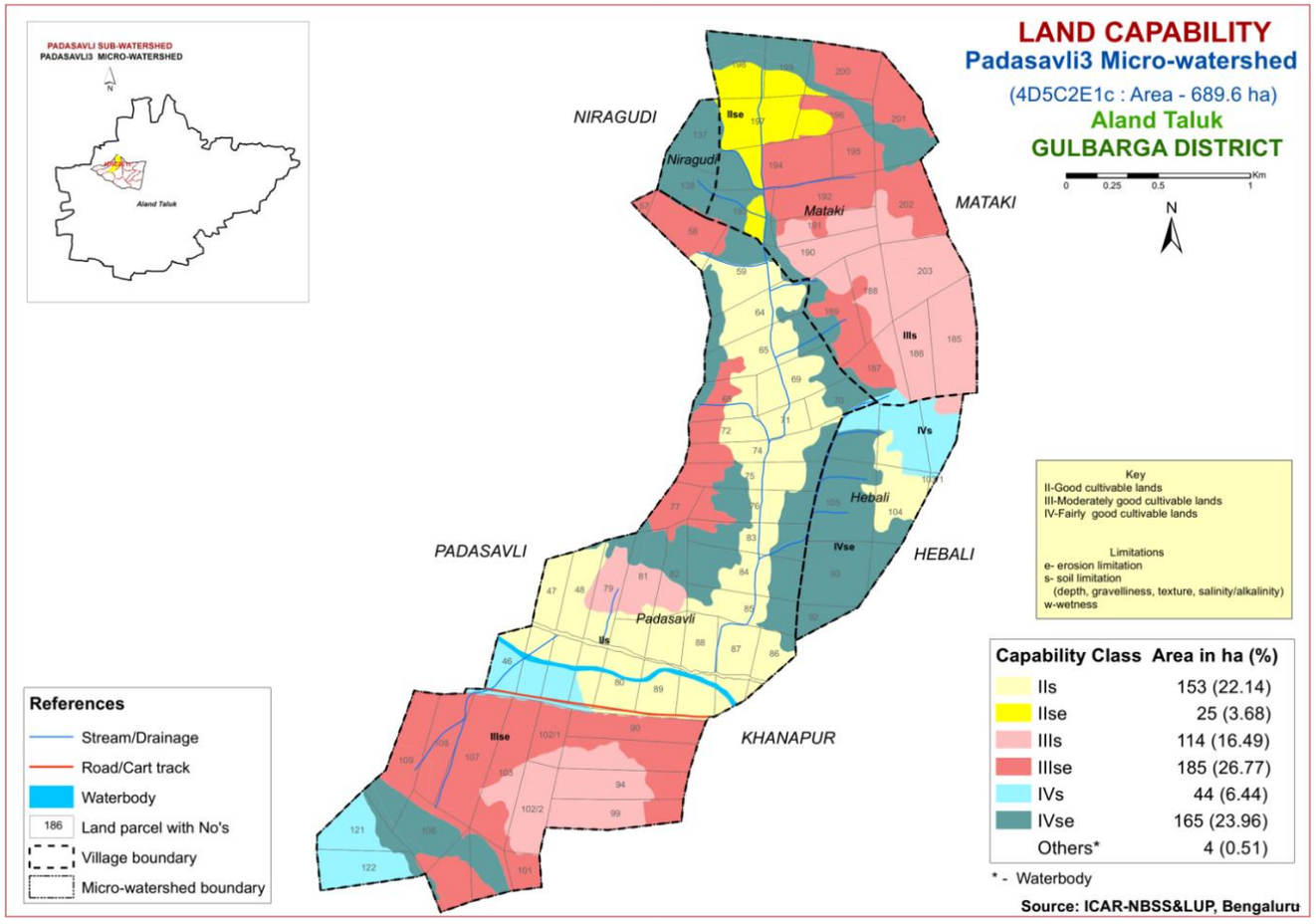
To be continued….

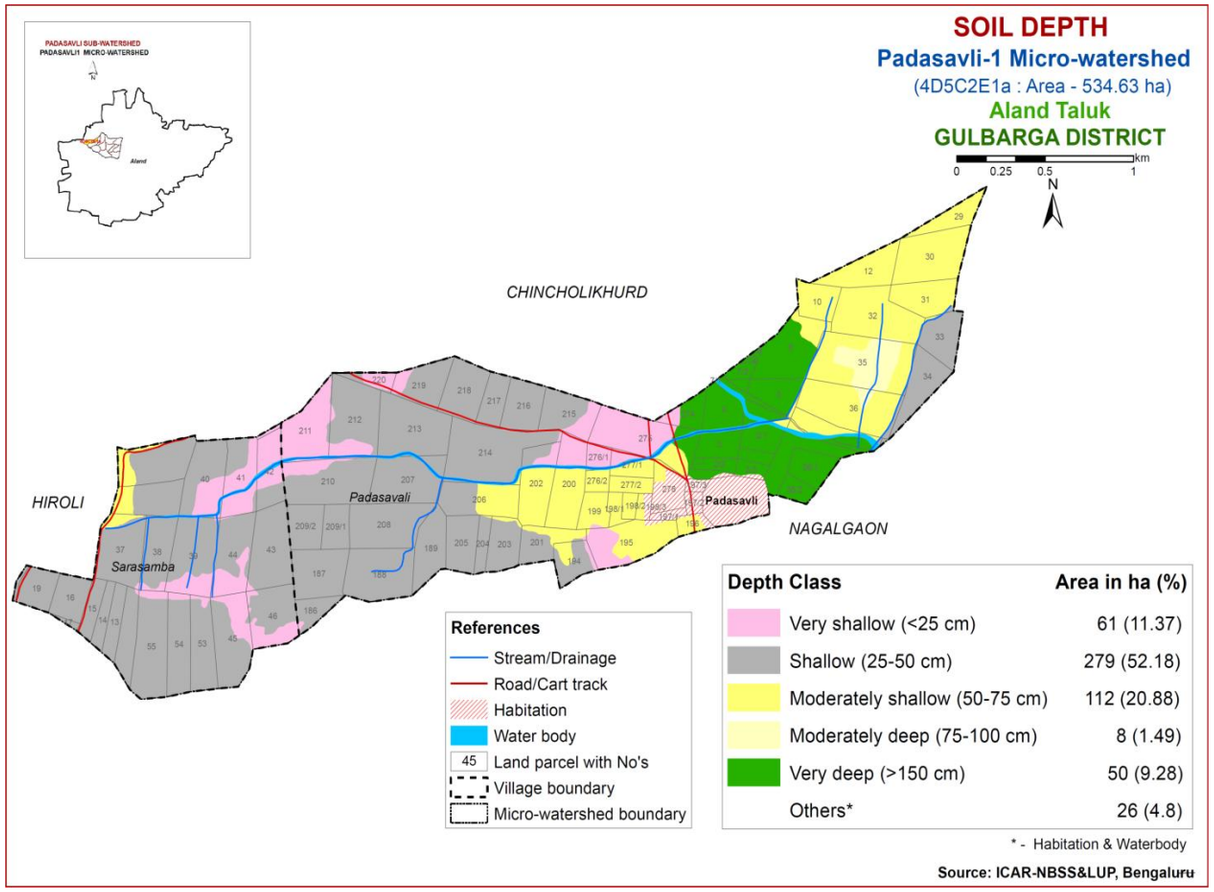
Sl. No*	Map unit	Description	Area in ha (%)
16	BHImB2	Shallow, black clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded	9.90 (1.44)
17	BHImB2g1	Shallow, black clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded, slightly gravelly, 15-35 per cent gravels.	12.95 (1.88)
18	BHImB3	Shallow, black clay soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, severely eroded	20.22 (2.93)
19	NHAmB1	Shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, slightly eroded.	95.17 (13.80)
20	NHAmB1g1	Shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, slightly eroded, slightly gravelly, 15-35 per cent gravels.	16.22 (2.35)
21	NHAmB2	Shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded.	47.71 (6.92)
22	NHAmB2g1	Shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded, slightly gravelly, 15-35 per cent gravels.	16.50 (2.39)
23	DSImB1	Moderately shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, slightly eroded.	5.65 (0.82)
24	GTTmB1	Moderately shallow, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, slightly eroded.	33.69 (4.89)
25	KMPmB1	Moderately deep, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, slightly eroded	22.38 (3.25)
26	KMPmB2	Moderately deep, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded	2.20 (0.32)
27	KMPmB2g1	Moderately deep, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3% slope, moderately eroded, slightly gravelly, 15-35 per cent gravels.	23.21 (3.37)
28	KMPmC3g1	Moderately deep, black clayey soils developed from weathered basalt on gently sloping uplands; clay surface on 3-5% slope, severely eroded, slightly gravelly, 15-35 per cent gravels.	3.23 (0.47)
29	MANmB1	Deep, black clayey soils developed from weathered basalt on very gently sloping uplands; clay surface on 1-3 % slope, slightly eroded	74.76 (10.84)
30	Water body	Water body	3.55 (0.51)

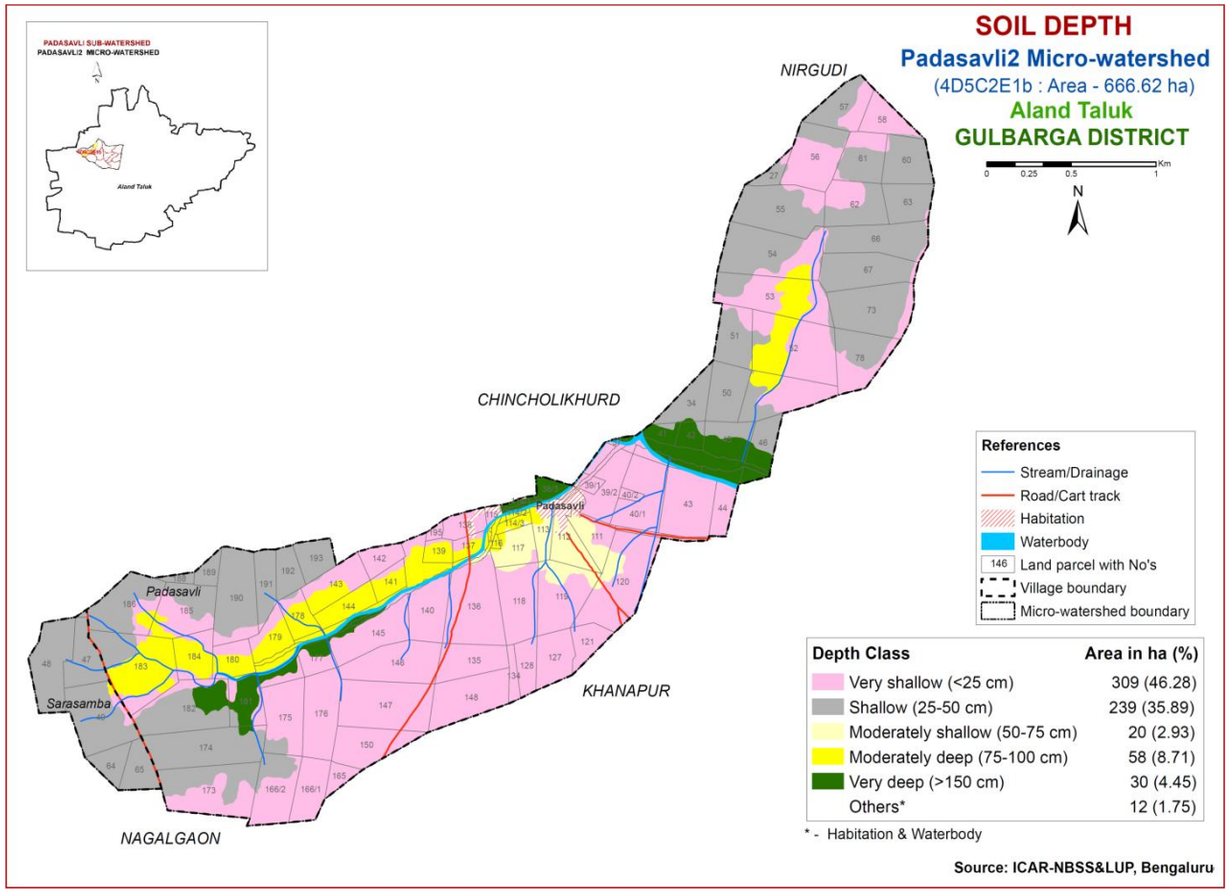
*Soil map unit numbers are continuous for the taluk, not the micro-watershed

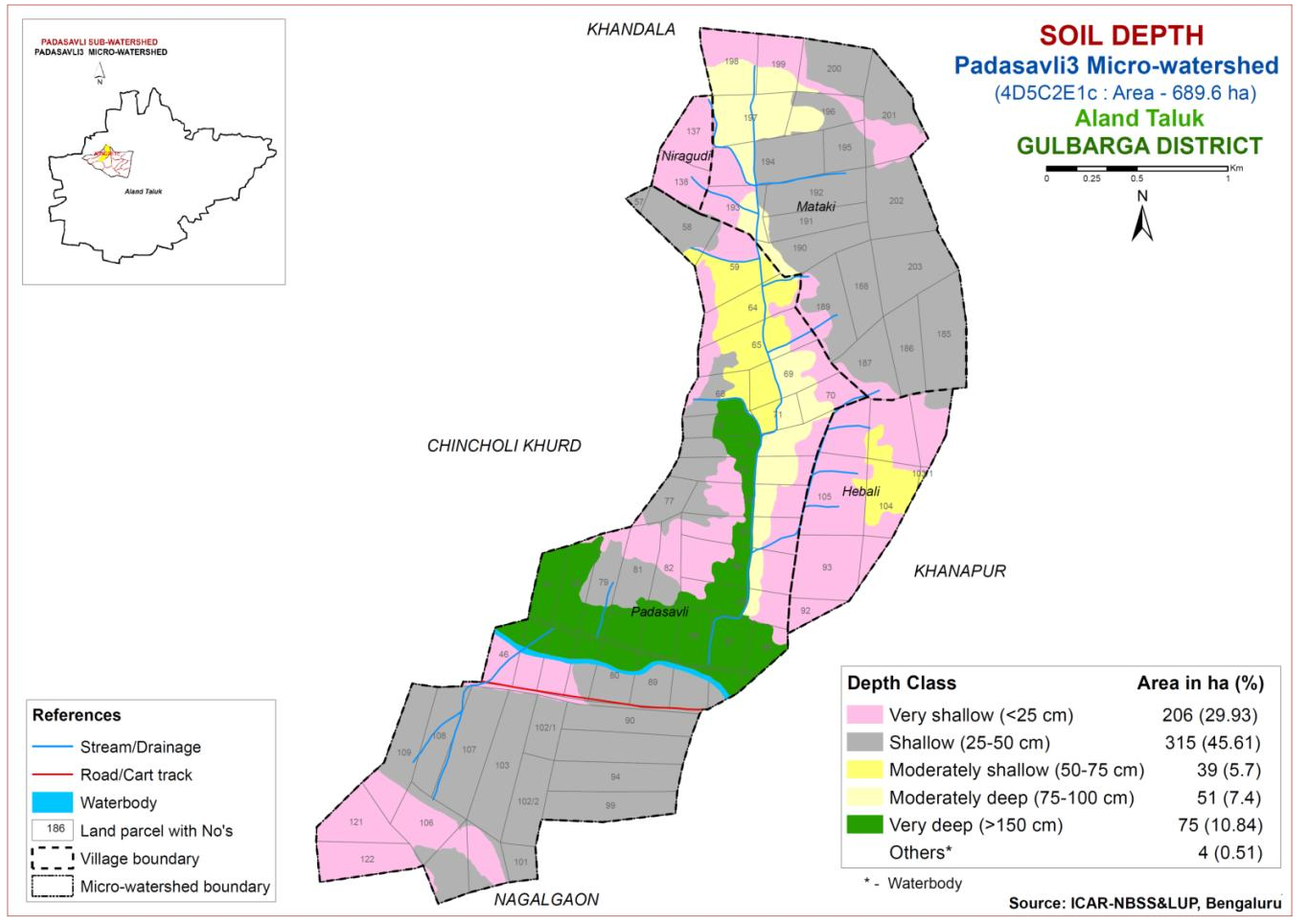

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
LAND CAPABILITY
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.2 0.4 0.8 Km
N
CHINCHOLIKHURD
HIROLI
NAGALGAON
Padasavali
Sarasamba
Padasavli
IVse
IIse
IIIse
IIs
Key
II-Good cultivable lands
III-Moderately good cultivable lands
IV-Fairly good cultivable lands
Limitations
e- erosion limitation
s- soil limitation
(depth, gravelliness, texture, salinity/alkalinity)
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Capability Class Area in ha (%)
IIs 33 (6.22)
IIse 131 (24.58)
IIIse 325 (60.79)
IVse 19 (3.6)
Others* 26 (4.8)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

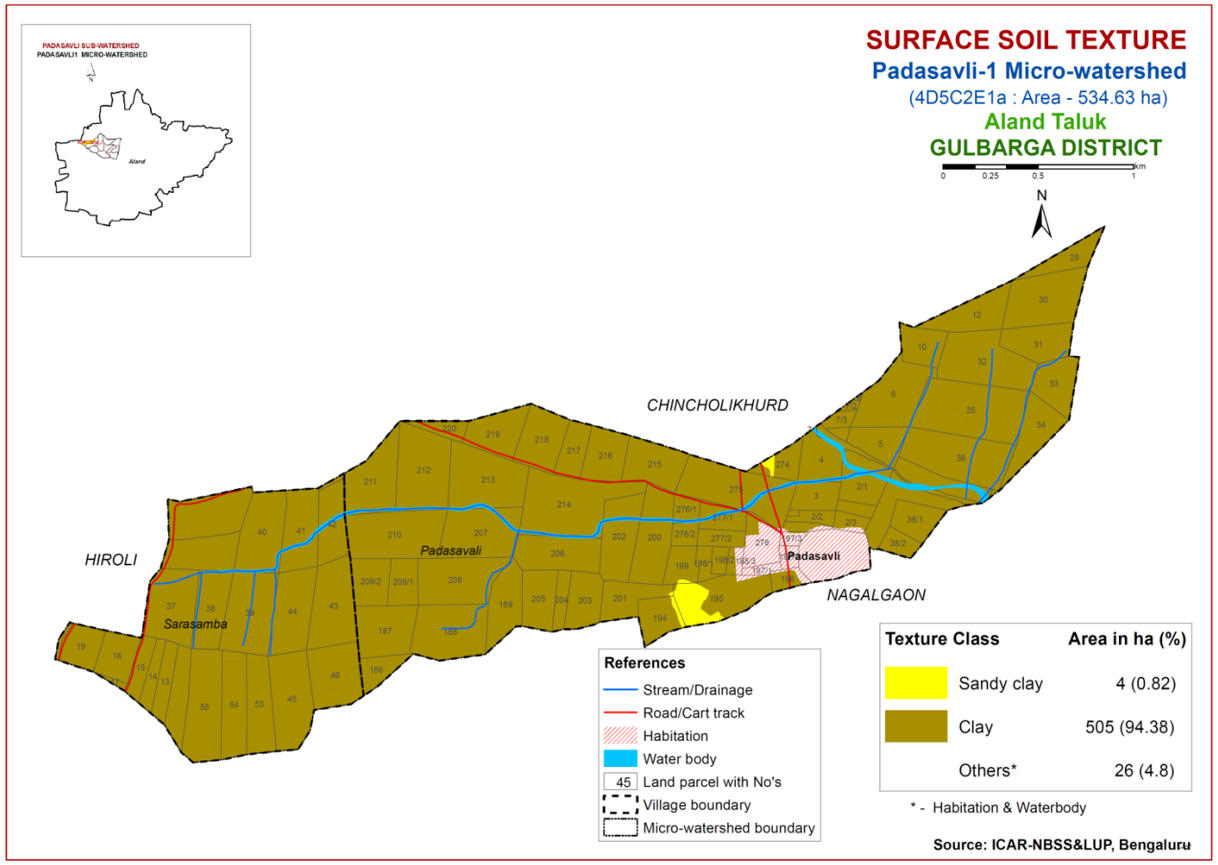

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
LAND CAPABILITY
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
IIIse
VIse
IIIs
IIs
IIse
IVse
VIe
IVs
Key
II-Good cultivable lands
III-Moderately good cultivable lands
IV-Fairly good cultivable lands
VI-Not suitable for cultivation(grazing/forestry)
Limitations
e- erosion limitation
s- soil limitation
(depth, gravelliness, texture, salinity/alkalinity)
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Capability Class Area in ha (%)
IIs 61 (9.1)
IIse 27 (4.05)
IIIs 34 (5.13)
IIIse 173 (25.9)
IVs 143 (21.4)
IVse 125 (18.73)
VIe 14 (2.09)
VIse 79 (11.83)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

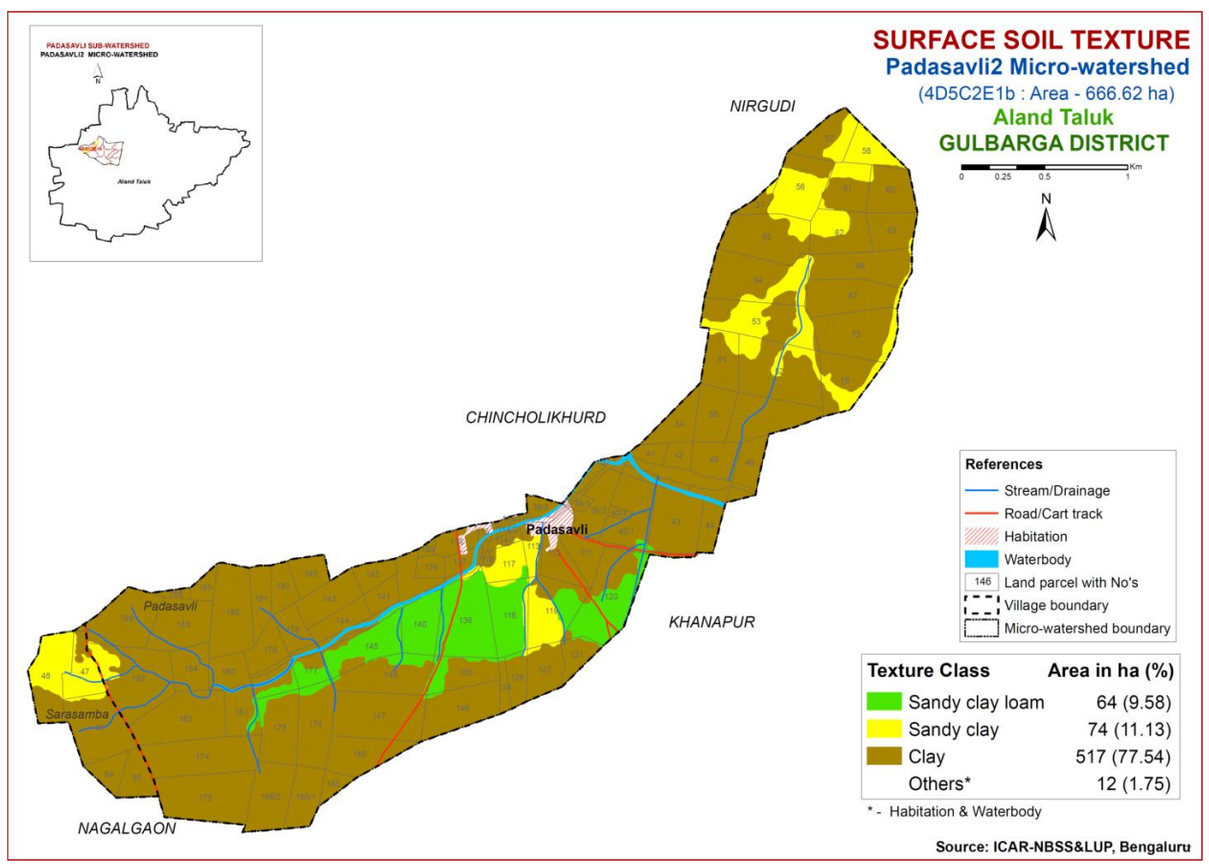

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
LAND CAPABILITY
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRAGUDI
MATAKI
PADASAVLI
HEBALI
KHANAPUR
Niragudi
Mataki
Padasavli
Hebali
IIse
IIIs
IVs
IVse
IIIse
IIs
Key
II-Good cultivable lands
III-Moderately good cultivable lands
IV-Fairly good cultivable lands
Limitations
e- erosion limitation
s- soil limitation
(depth, gravelliness, texture, salinity/alkalinity)
w-wetness
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Capability Class Area in ha (%)
IIs 153 (22.14)
IIse 25 (3.68)
IIIs 114 (16.49)
IIIse 185 (26.77)
IVs 44 (6.44)
IVse 165 (23.96)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

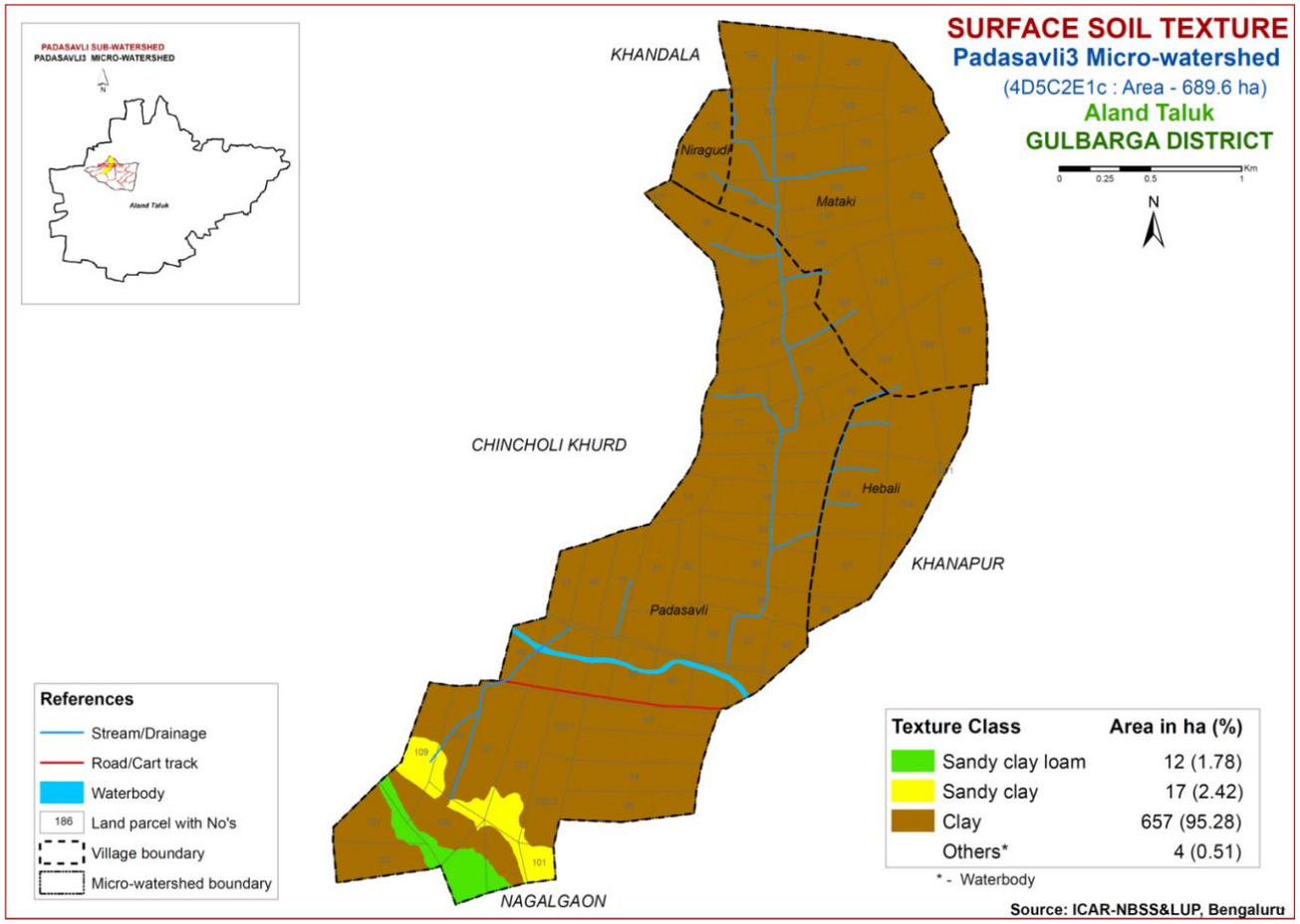

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
SOIL DEPTH
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Depth Class
Area in ha (%)
Very shallow (<25 cm) 61 (11.37)
Shallow (25-50 cm) 279 (52.18)
Moderately shallow (50-75 cm) 112 (20.88)
Moderately deep (75-100 cm) 8 (1.49)
Very deep (>150 cm) 50 (9.28)
Others* 26 (4.8)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

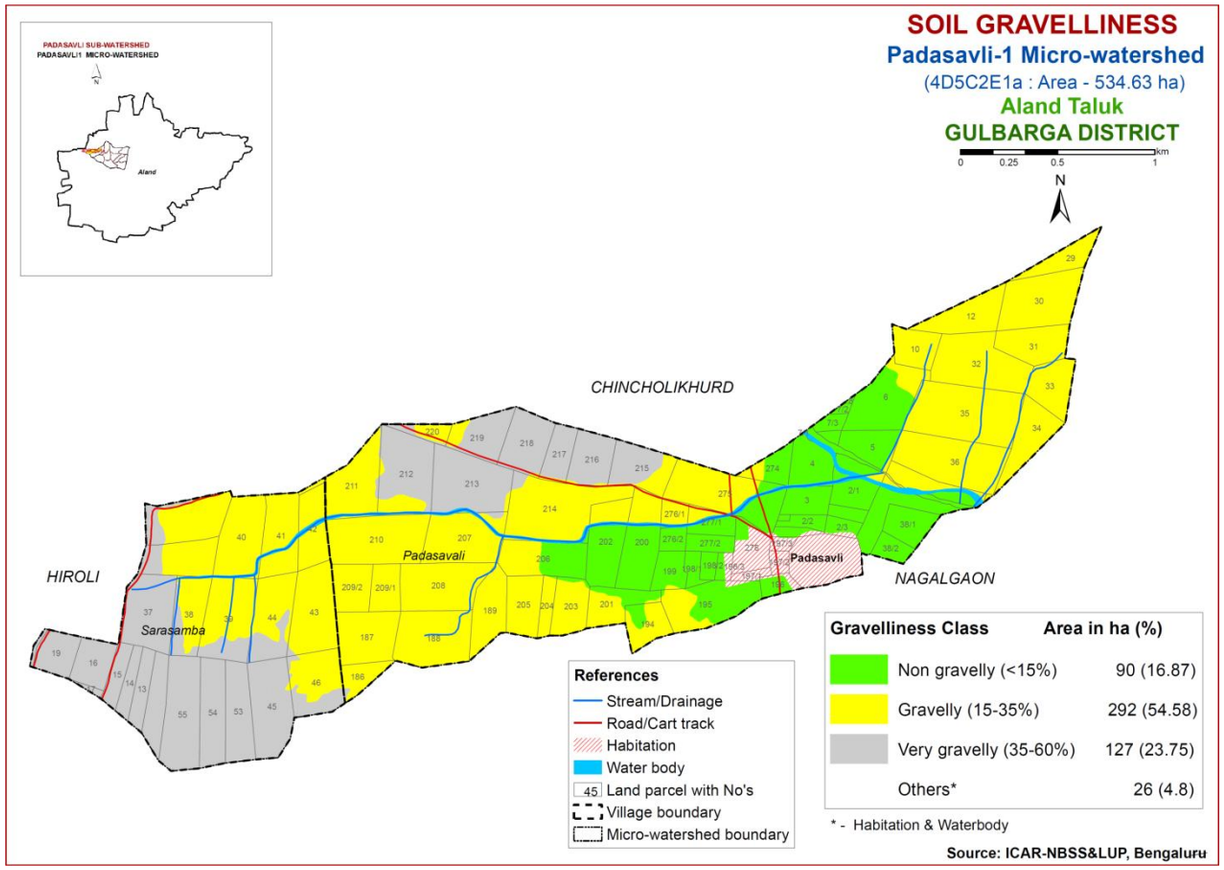

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
SOIL DEPTH
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
Sarasamba
KHANAPUR
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Depth Class
Area in ha (%)
Very shallow (<25 cm) 309 (46.28)
Shallow (25-50 cm) 239 (35.89)
Moderately shallow (50-75 cm) 20 (2.93)
Moderately deep (75-100 cm) 58 (8.71)
Very deep (>150 cm) 30 (4.45)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

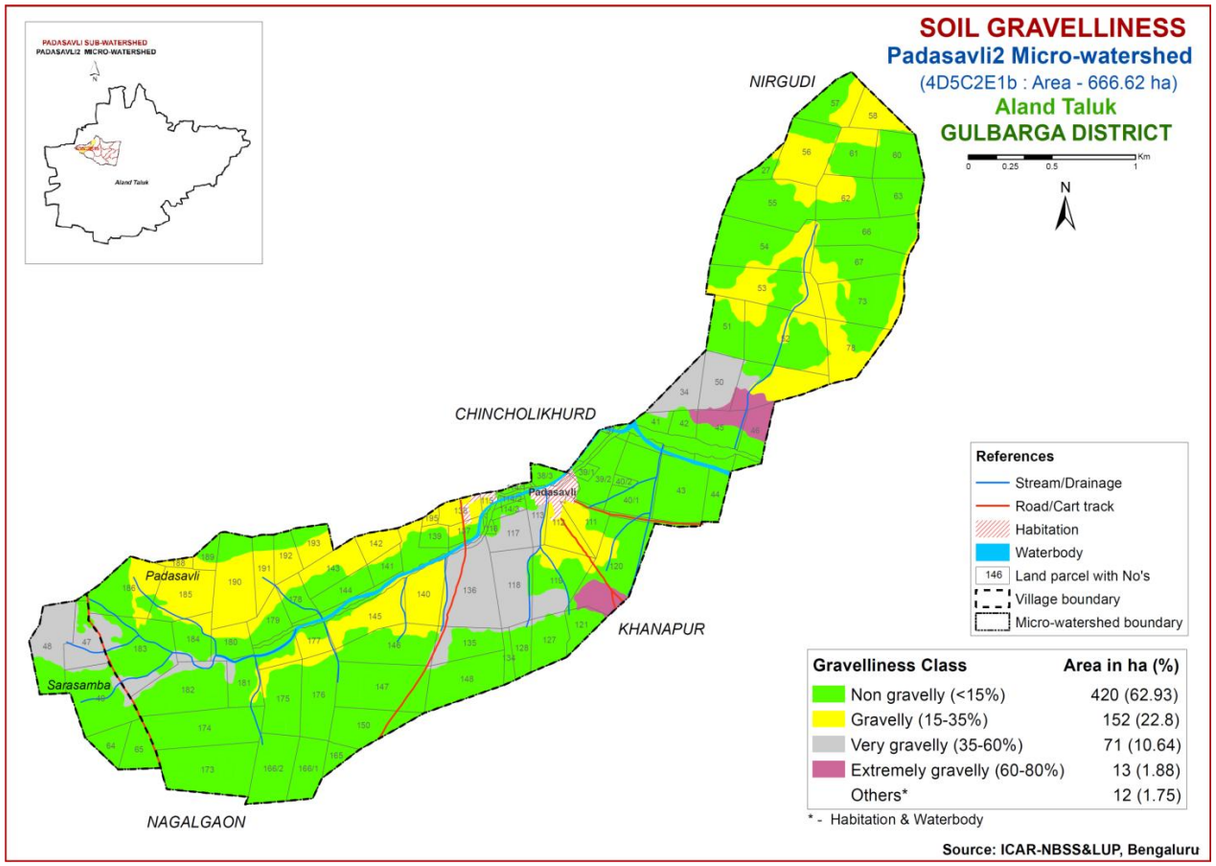

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
SOIL DEPTH
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Depth Class
Area in ha (%)
Very shallow (<25 cm) 206 (29.93)
Shallow (25-50 cm) 315 (45.61)
Moderately shallow (50-75 cm) 39 (5.7)
Moderately deep (75-100 cm) 51 (7.4)
Very deep (>150 cm) 75 (10.84)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

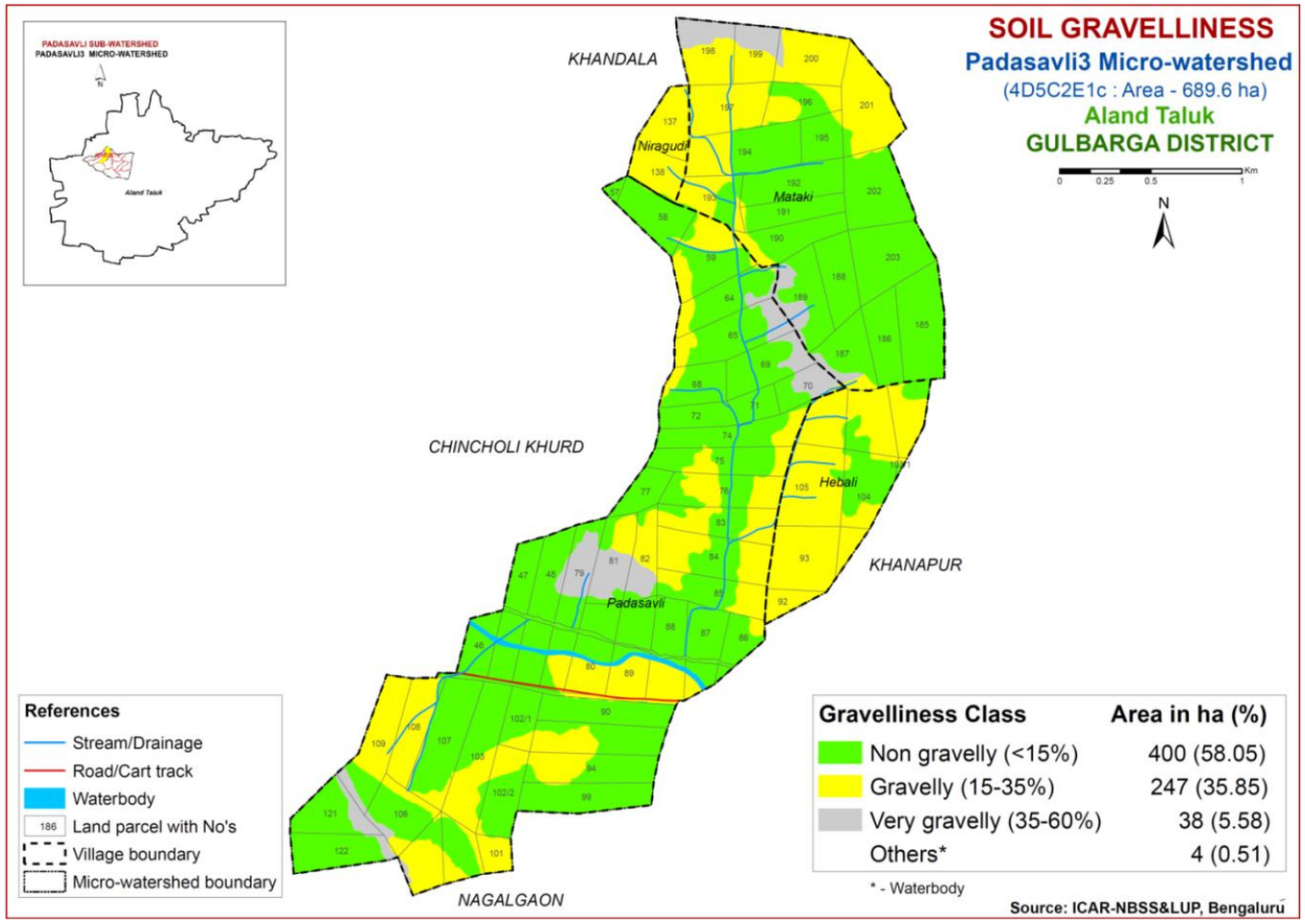

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
SURFACE SOIL TEXTURE
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Texture Class
Area in ha (%)
Sandy clay 4 (0.82)
Clay 505 (94.38)
Others* 26 (4.8)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

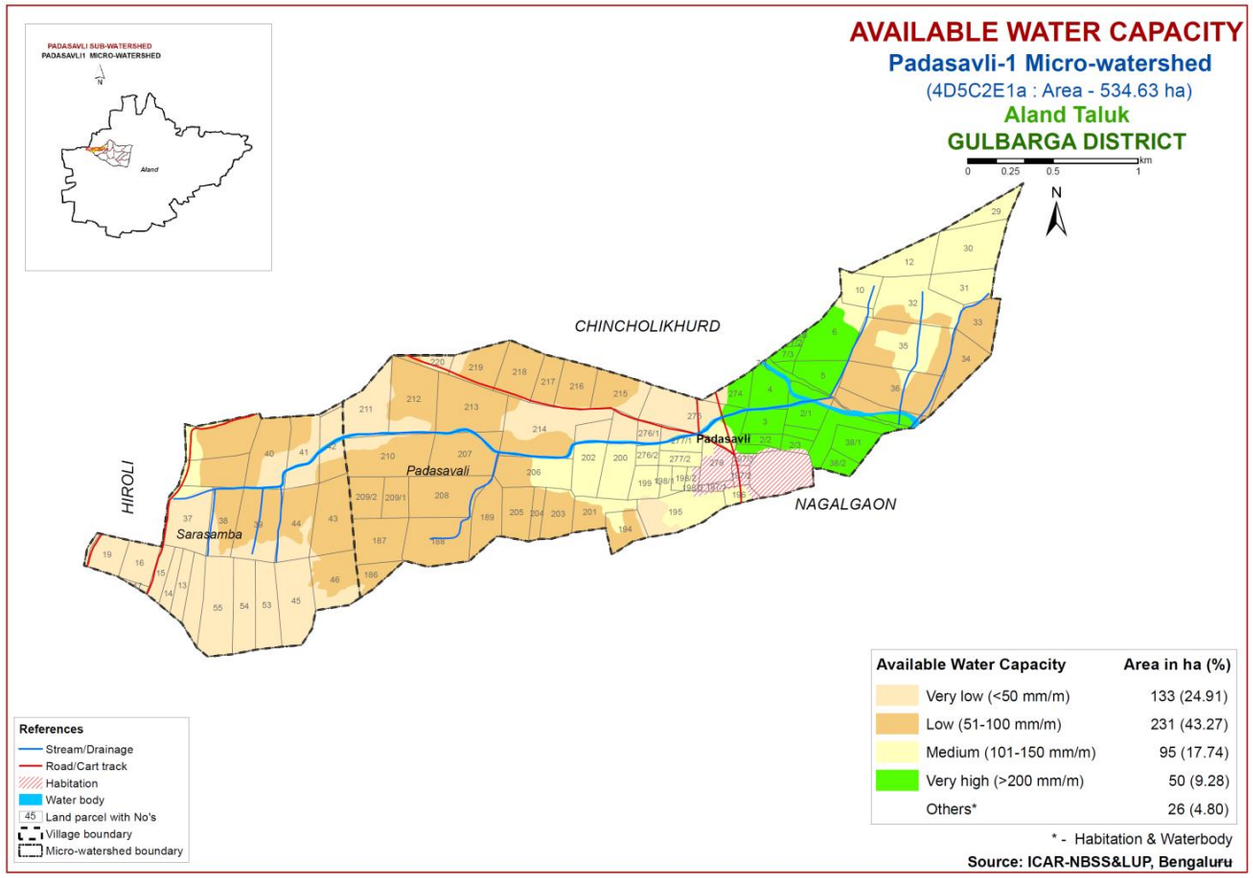

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
SURFACE SOIL TEXTURE
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
Sarasamba
NAGALGAON
KHANAPUR
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Texture Class
Area in ha (%)
Sandy clay loam 64 (9.58)
Sandy clay 74 (11.13)
Clay 517 (77.54)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

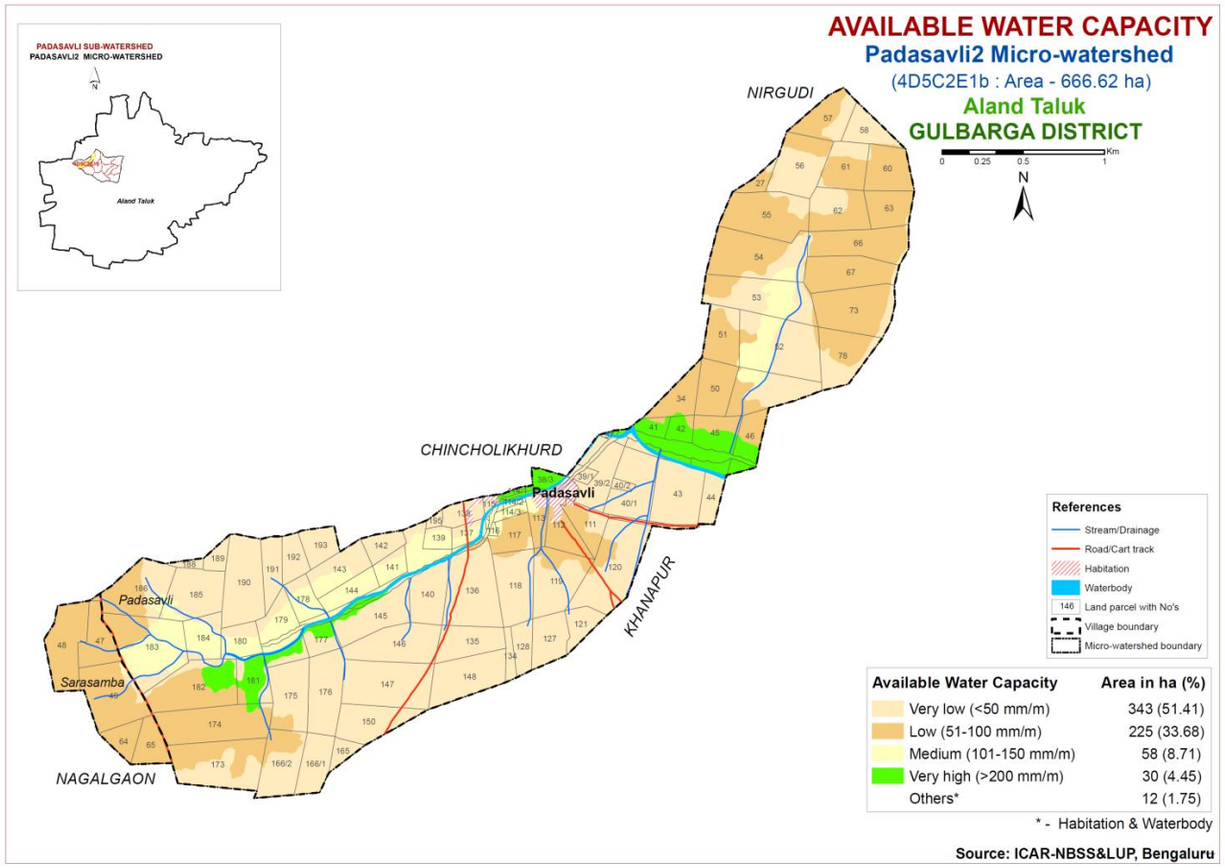

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
SURFACE SOIL TEXTURE
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Texture Class
Area in ha (%)
Sandy clay loam 12 (1.78)
Sandy clay 17 (2.42)
Clay 657 (95.28)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

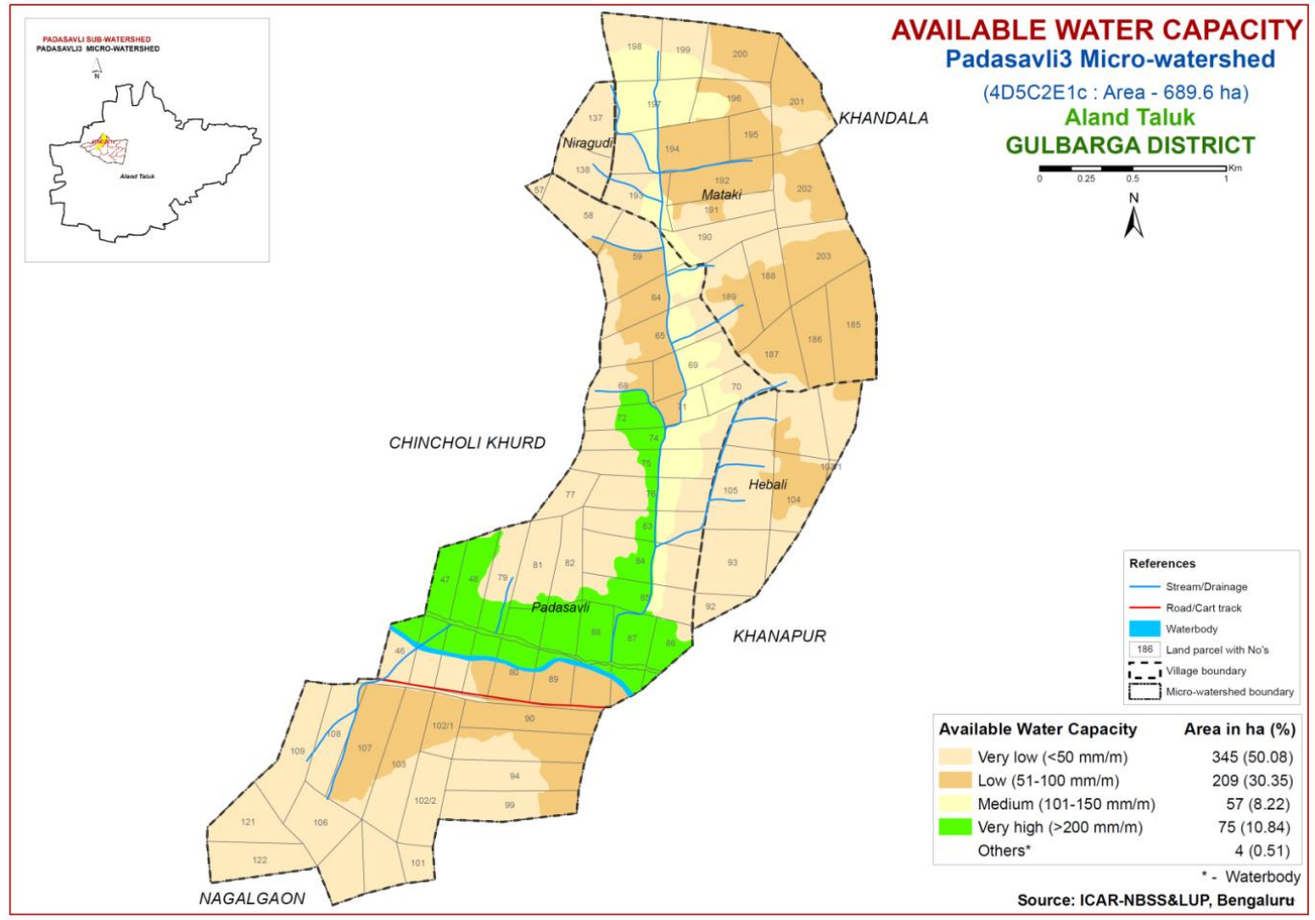

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
SOIL GRAVELLINESS
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Gravelliness Class
Area in ha (%)
Non gravelly (<15%) 90 (16.87)
Gravelly (15-35%) 292 (54.58)
Very gravelly (35-60%) 127 (23.75)
Others* 26 (4.8)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

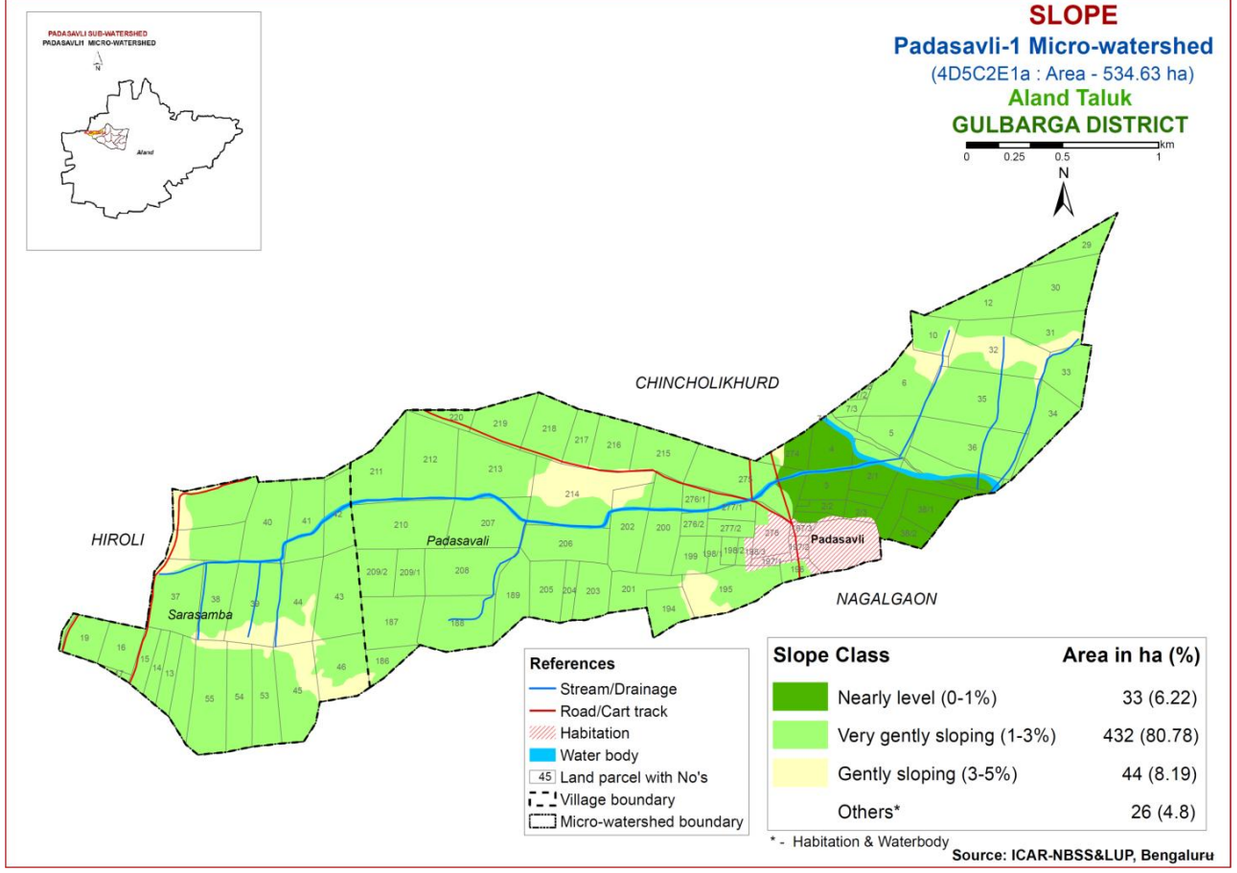

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
SOIL GRAVELLINESS
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
KHANAPUR
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Gravelliness Class
Area in ha (%)
Non gravelly (<15%) 420 (62.93)
Gravelly (15-35%) 152 (22.8)
Very gravelly (35-60%) 71 (10.64)
Extremely gravelly (60-80%) 13 (1.88)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

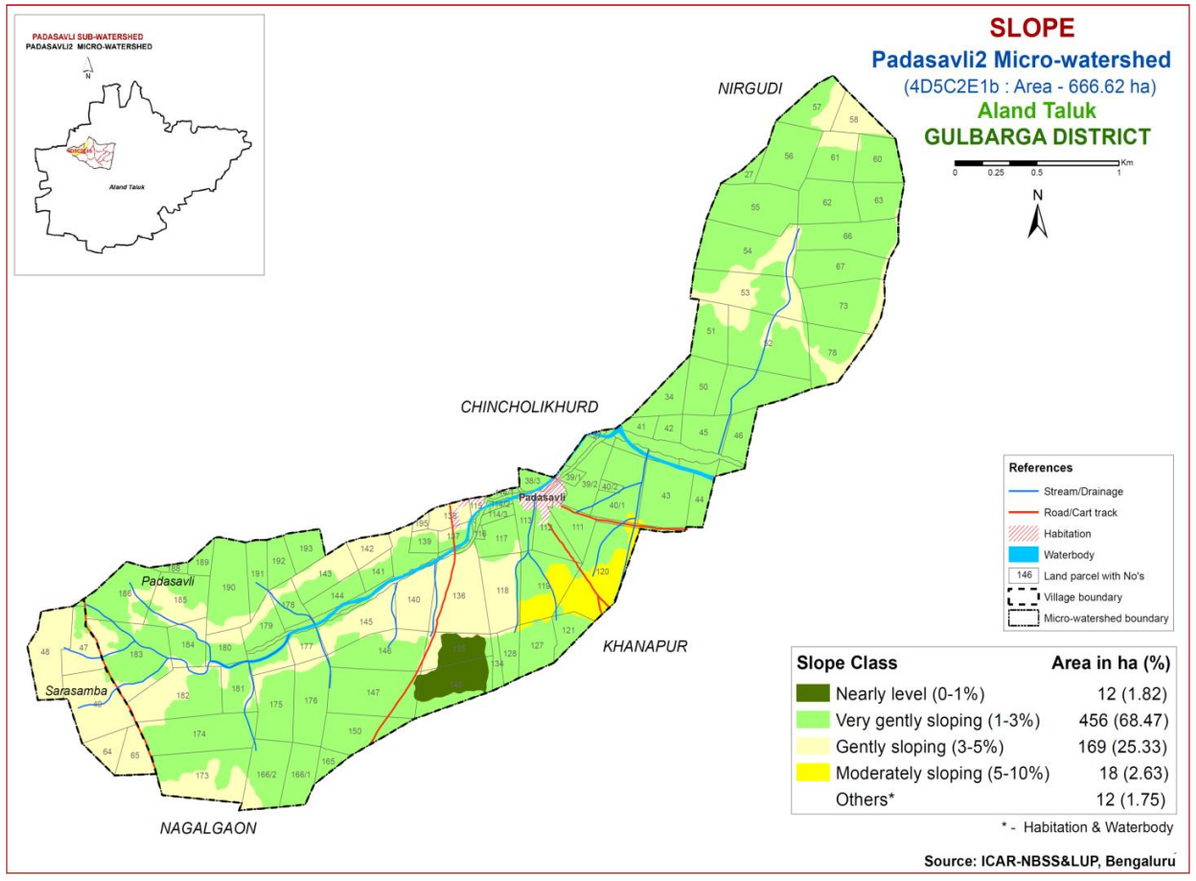

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
SOIL GRAVELLINESS
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Gravelliness Class
Area in ha (%)
Non gravelly (<15%) 400 (58.05)
Gravelly (15-35%) 247 (35.85)
Very gravelly (35-60%) 38 (5.58)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

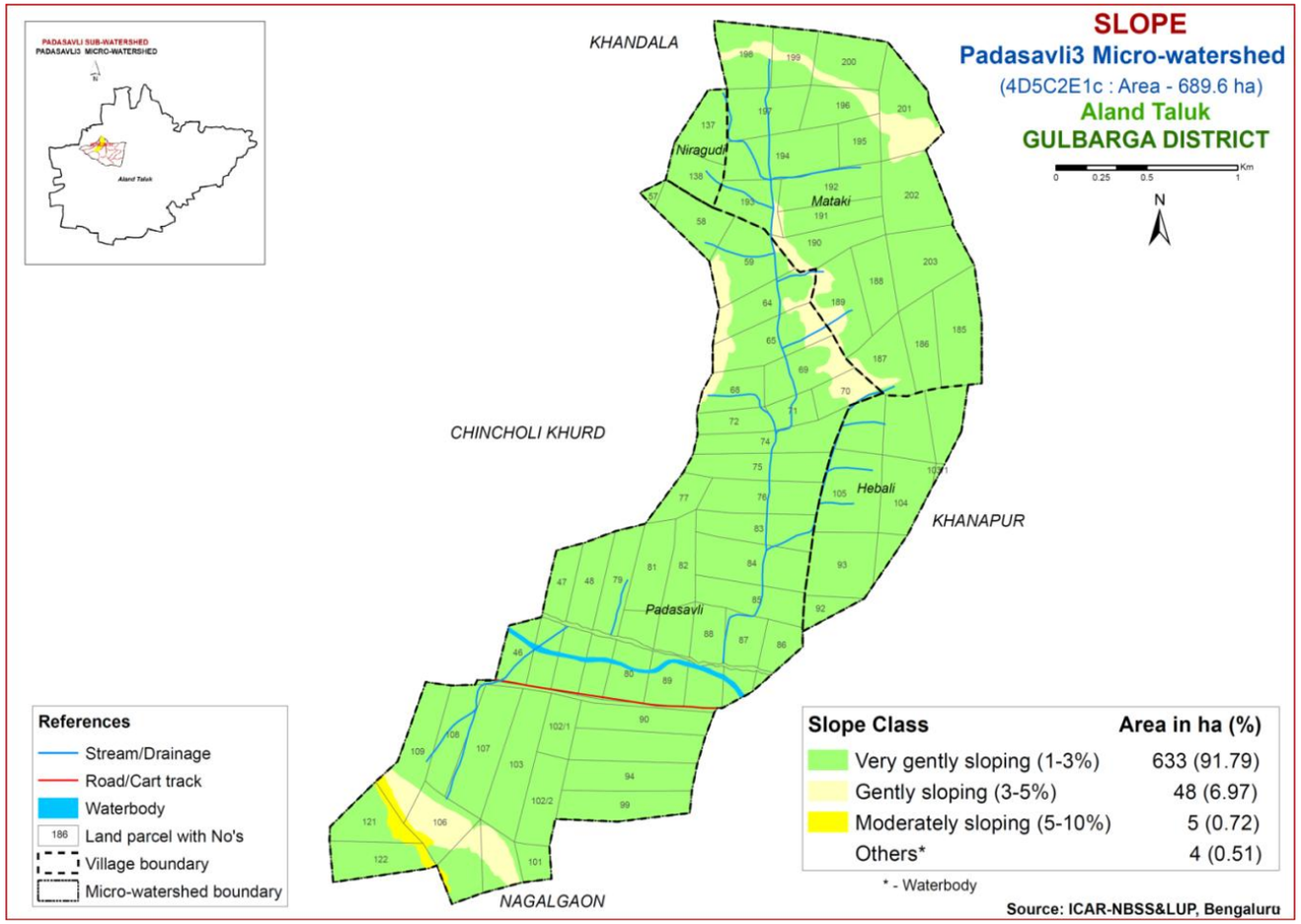

AVAILABLE WATER CAPACITY
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
NAGALGAON
Padasavali
Sarasamba
Padasavli
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Water Capacity | Area in ha (%)
Very low (<50 mm/m) | 133 (24.91)
Low (51-100 mm/m) | 231 (43.27)
Medium (101-150 mm/m) | 95 (17.74)
Very high (>200 mm/m) | 50 (9.28)
Others* | 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

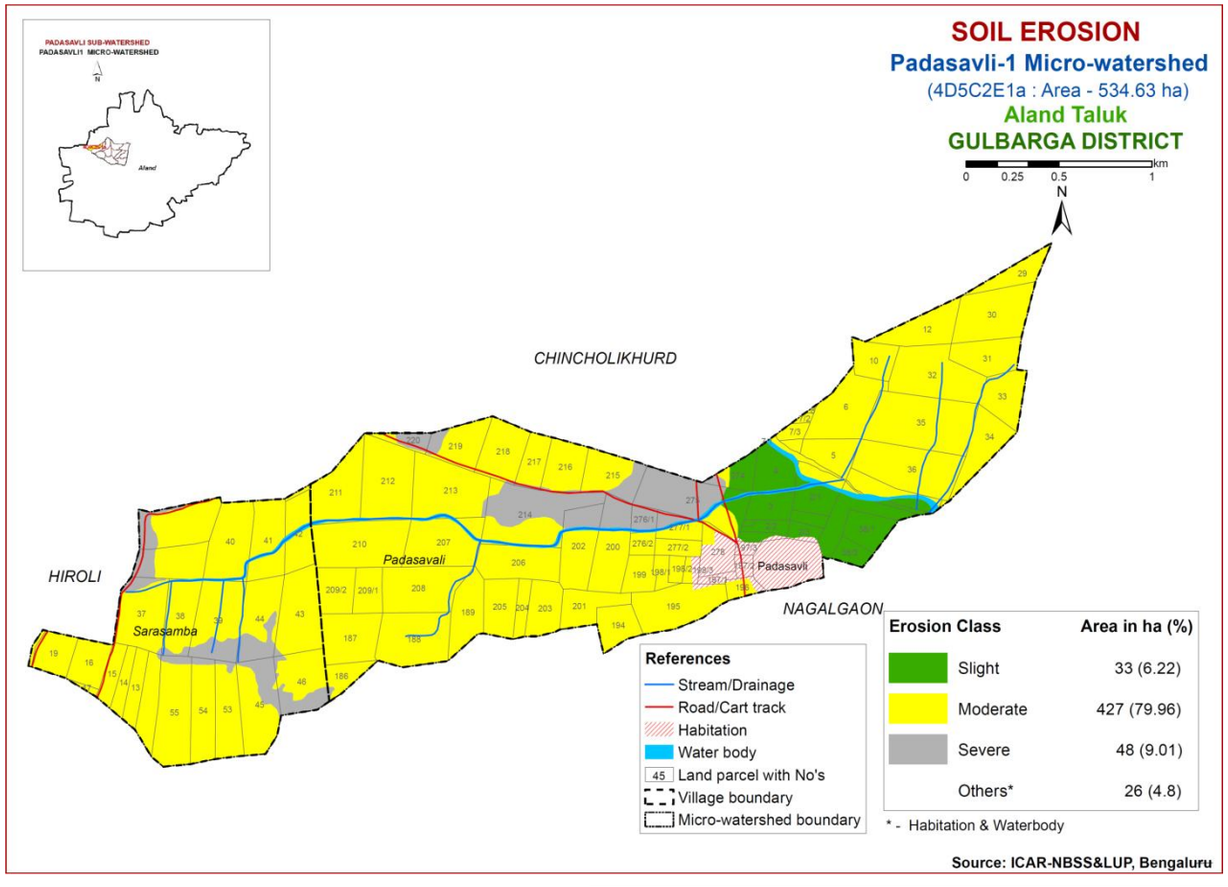

AVAILABLE WATER CAPACITY
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Water Capacity | Area in ha (%)
Very low (<50 mm/m) | 343 (51.41)
Low (51-100 mm/m) | 225 (33.68)
Medium (101-150 mm/m) | 58 (8.71)
Very high (>200 mm/m) | 30 (4.45)
Others* | 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

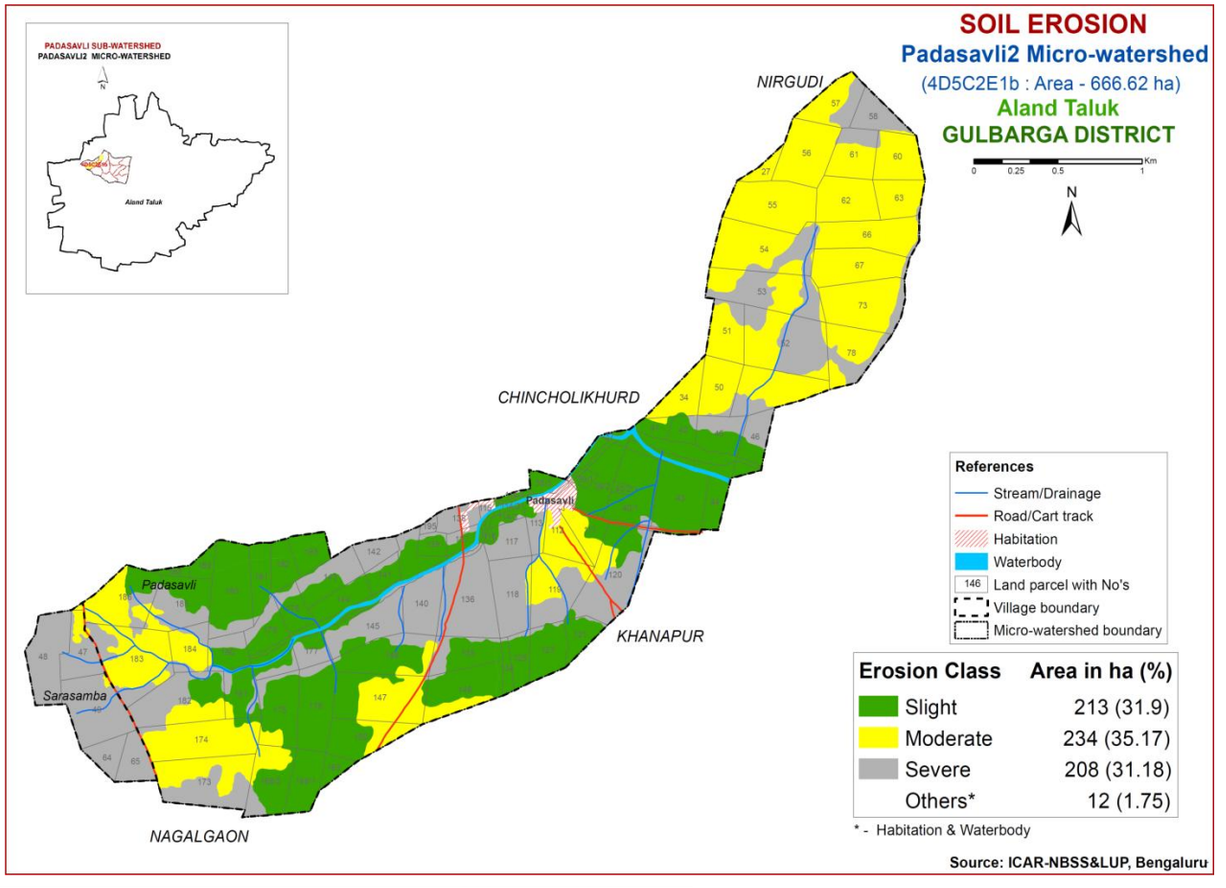

AVAILABLE WATER CAPACITY
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
Padasavli
KHANAPUR
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Water Capacity | Area in ha (%)
Very low (<50 mm/m) | 345 (50.08)
Low (51-100 mm/m) | 209 (30.35)
Medium (101-150 mm/m) | 57 (8.22)
Very high (>200 mm/m) | 75 (10.84)
Others* | 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

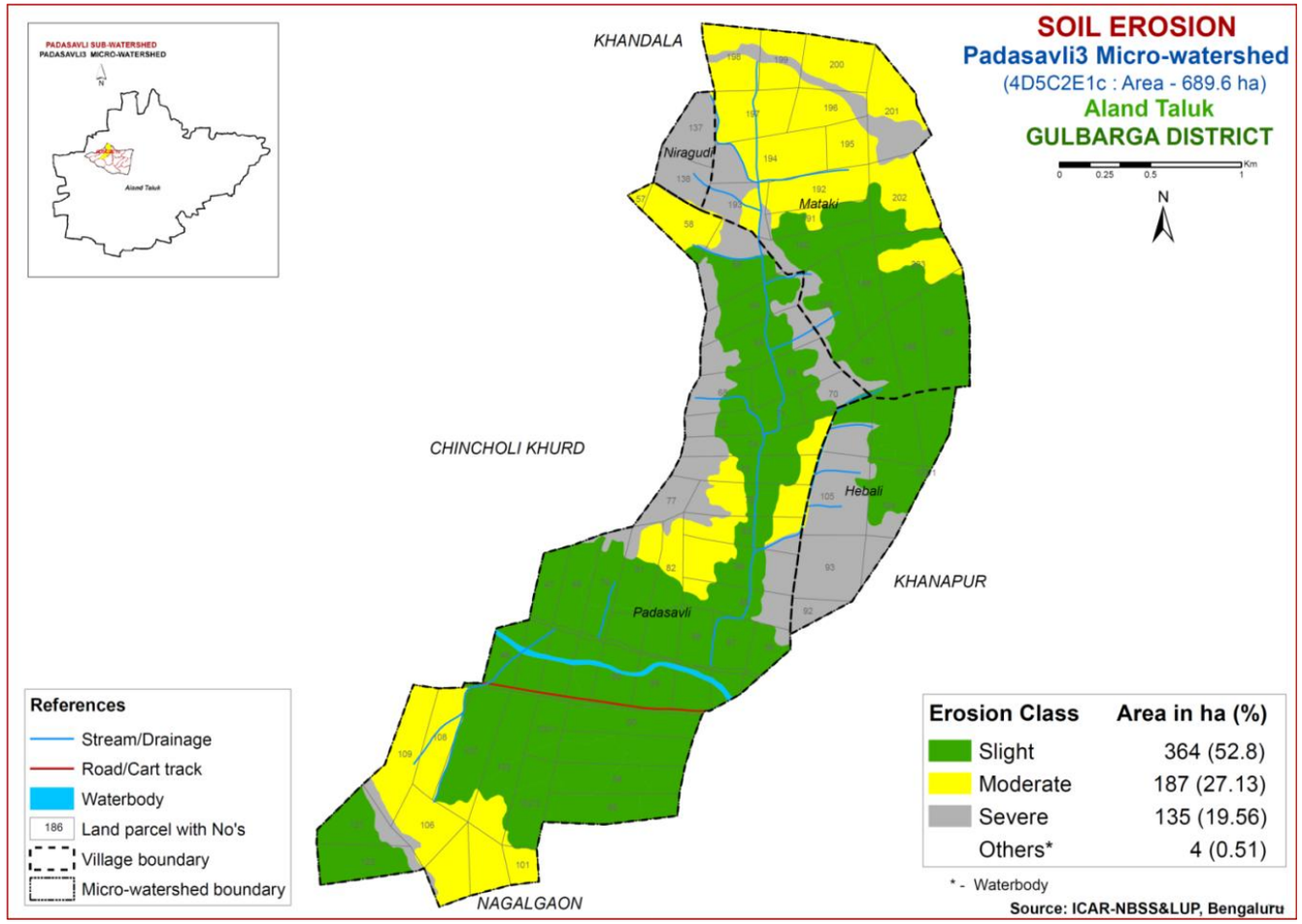

PADASAVLI SUB-WATERSHED
PADASAVLI MICRO-WATERSHED
SLOPE
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Slope Class
Area in ha (%)
Nearly level (0-1%) 33 (6.22)
Very gently sloping (1-3%) 432 (80.78)
Gently sloping (3-5%) 44 (8.19)
Others* 26 (4.8)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

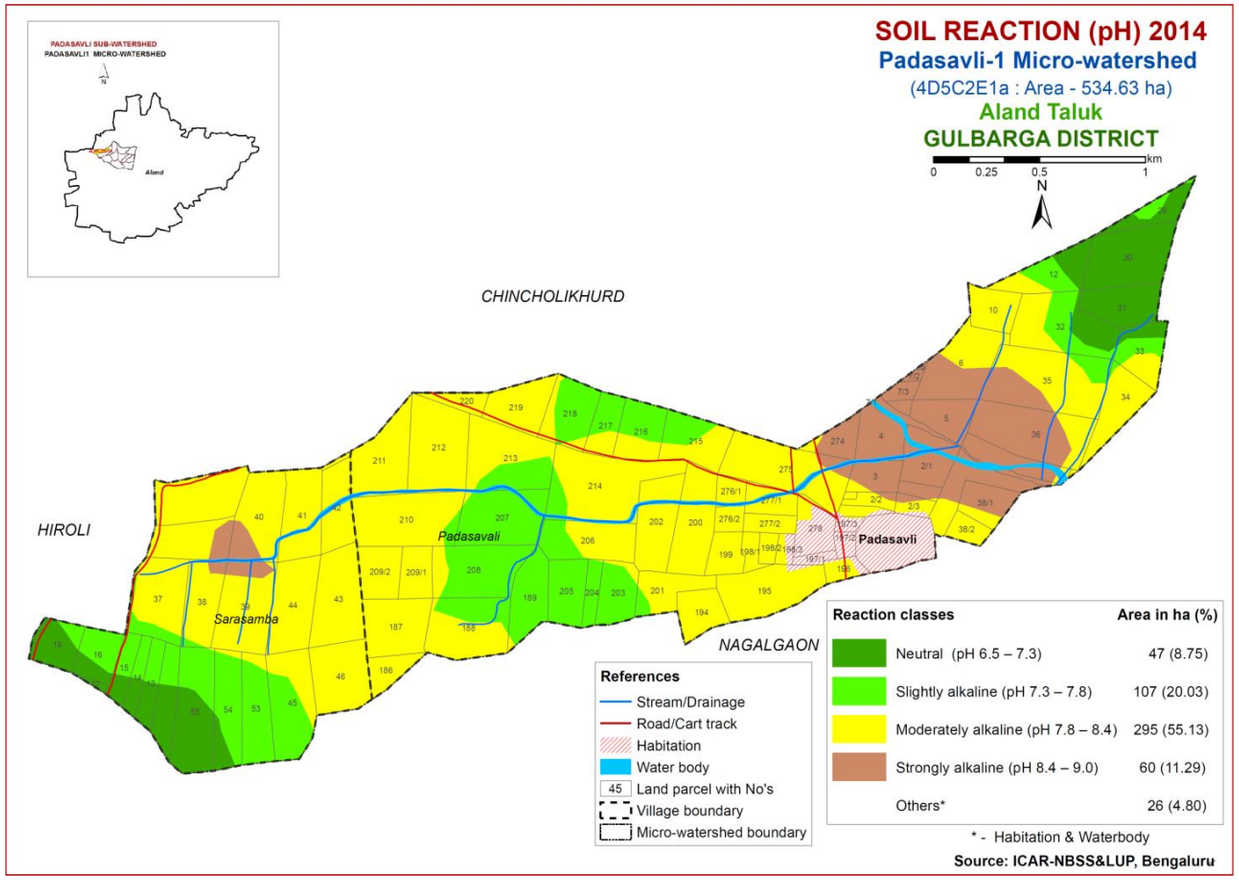

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
SLOPE
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
Sarasamba
KHANAPUR
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Slope Class
Area in ha (%)
Nearly level (0-1%) 12 (1.82)
Very gently sloping (1-3%) 456 (68.47)
Gently sloping (3-5%) 169 (25.33)
Moderately sloping (5-10%) 18 (2.63)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

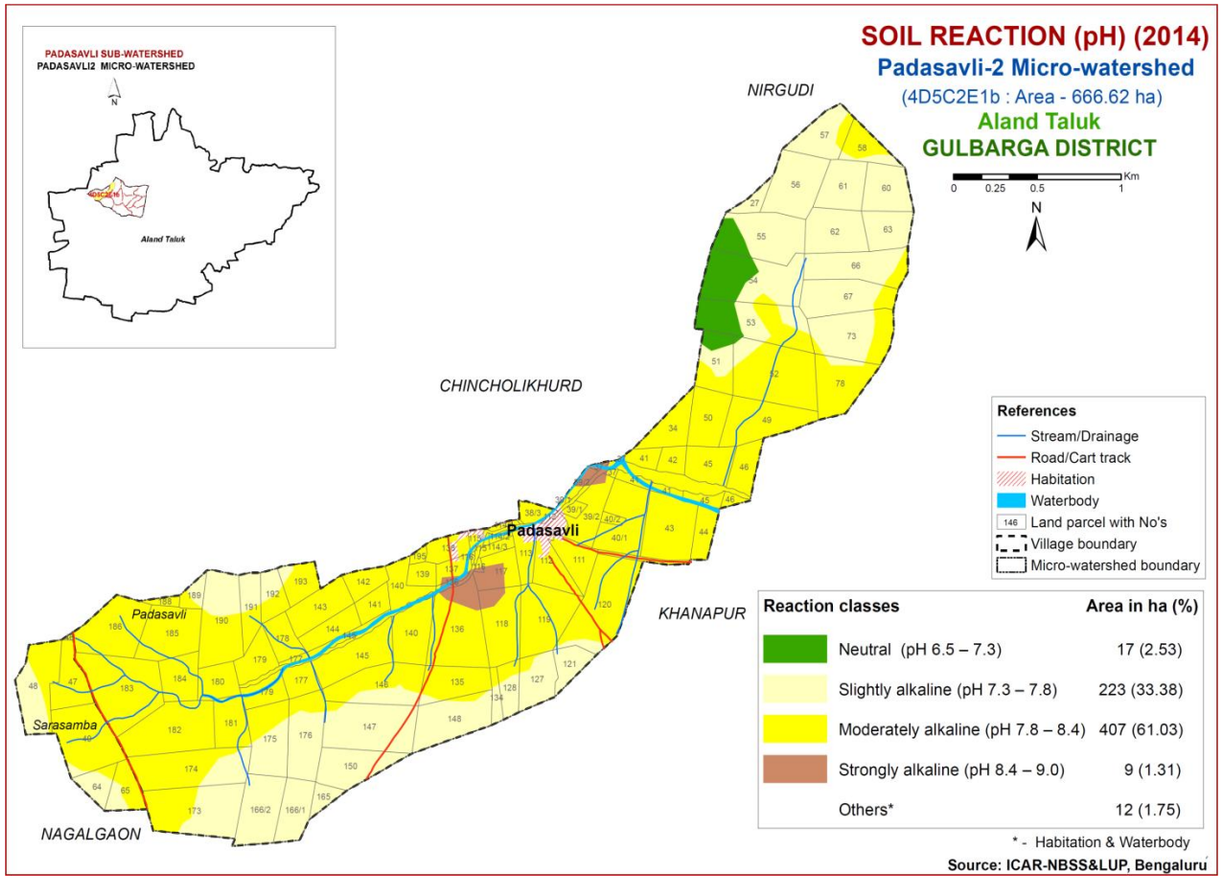

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
SLOPE
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Slope Class
Area in ha (%)
Very gently sloping (1-3%) 633 (91.79)
Gently sloping (3-5%) 48 (6.97)
Moderately sloping (5-10%) 5 (0.72)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

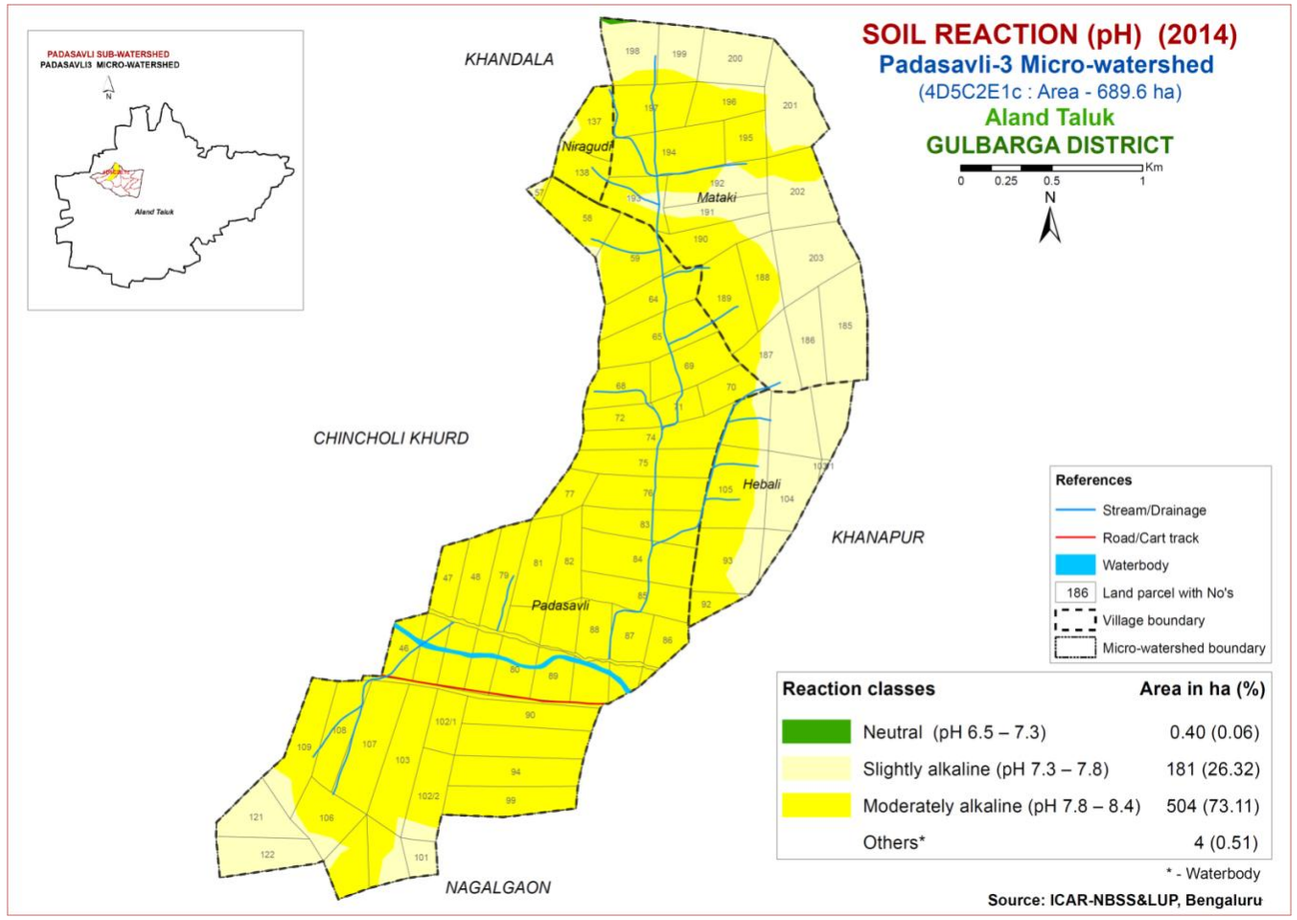

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
SOIL EROSION
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Erosion Class
Area in ha (%)
Slight
33 (6.22)
Moderate
427 (79.96)
Severe
48 (9.01)
Others*
26 (4.8)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

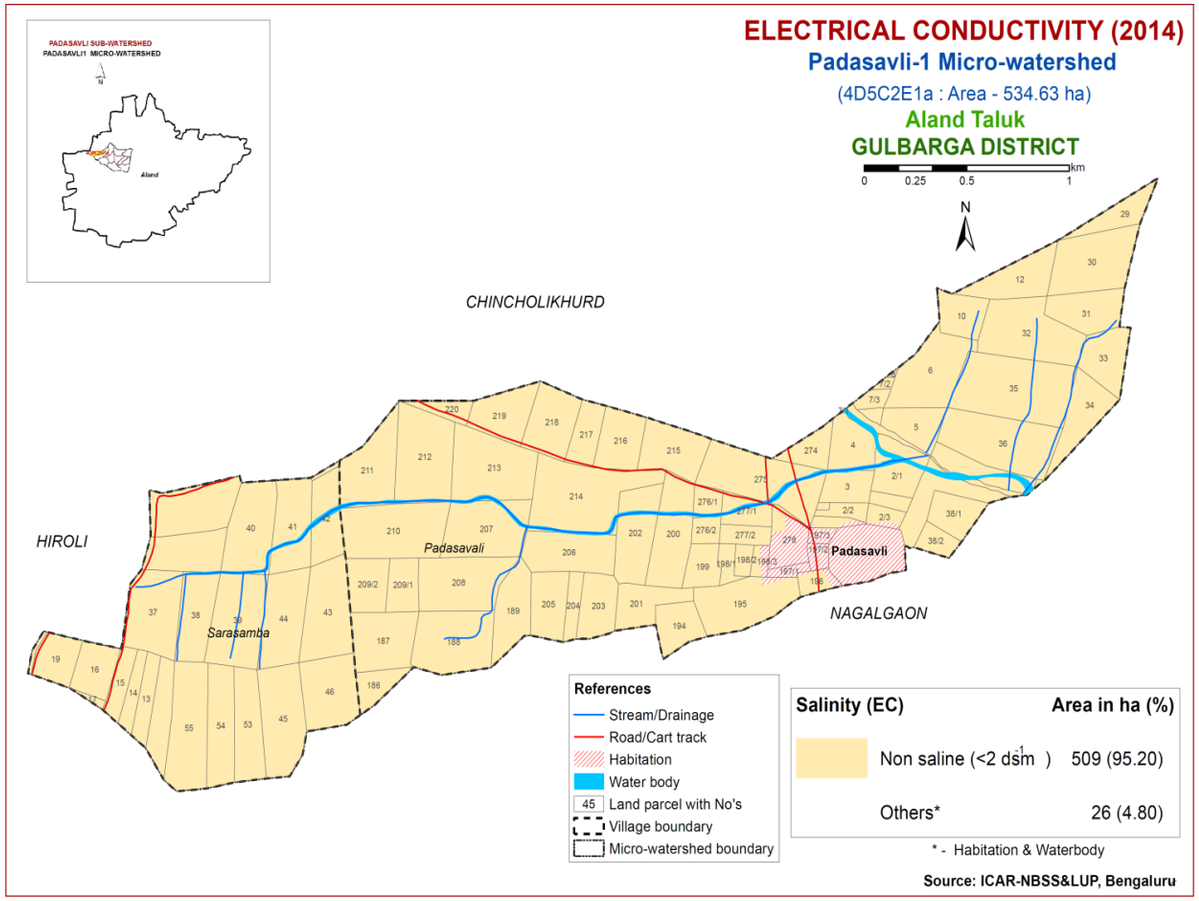

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
SOIL EROSION
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
KHANAPUR
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Erosion Class
Area in ha (%)
Slight
213 (31.9)
Moderate
234 (35.17)
Severe
208 (31.18)
Others*
12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

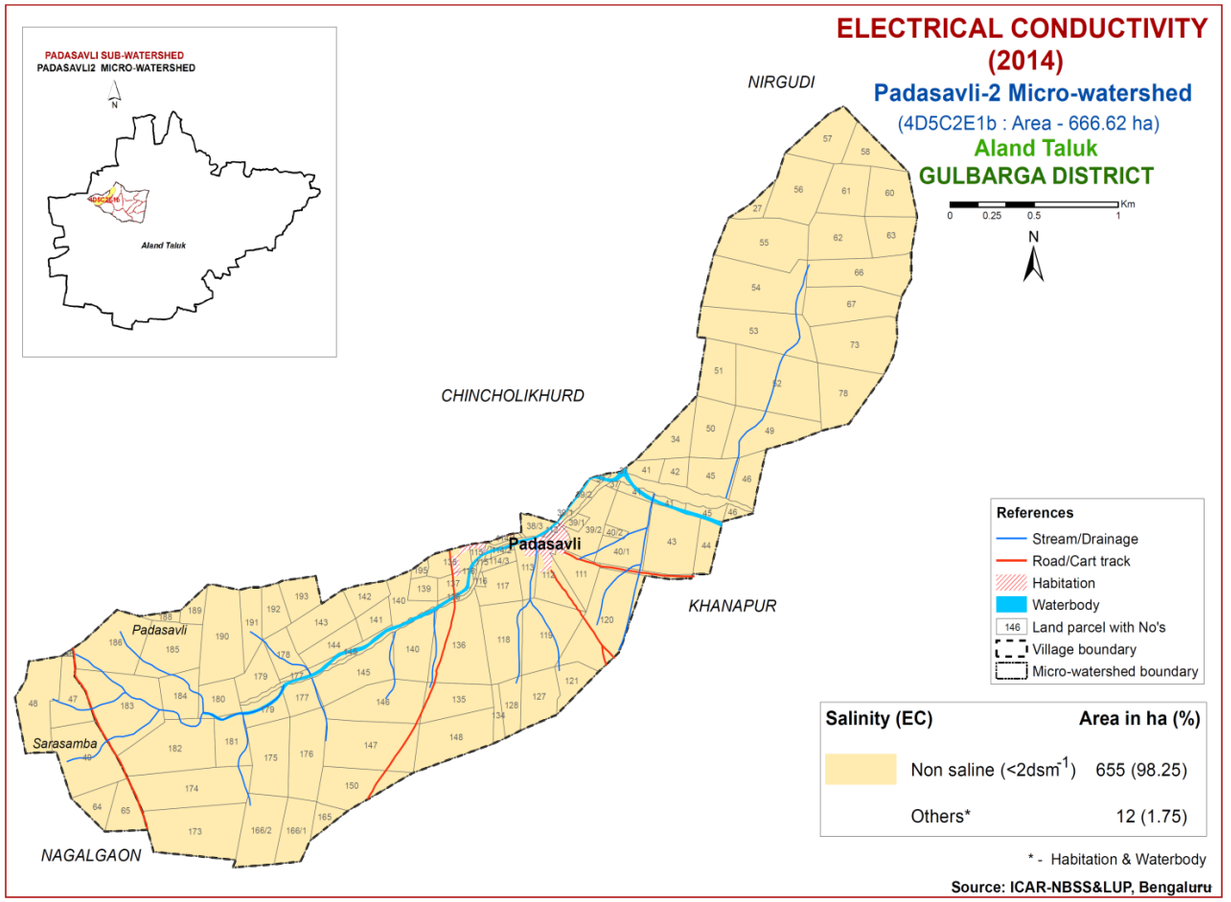

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
SOIL EROSION
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Erosion Class
Area in ha (%)
Slight
364 (52.8)
Moderate
187 (27.13)
Severe
135 (19.56)
Others*
4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

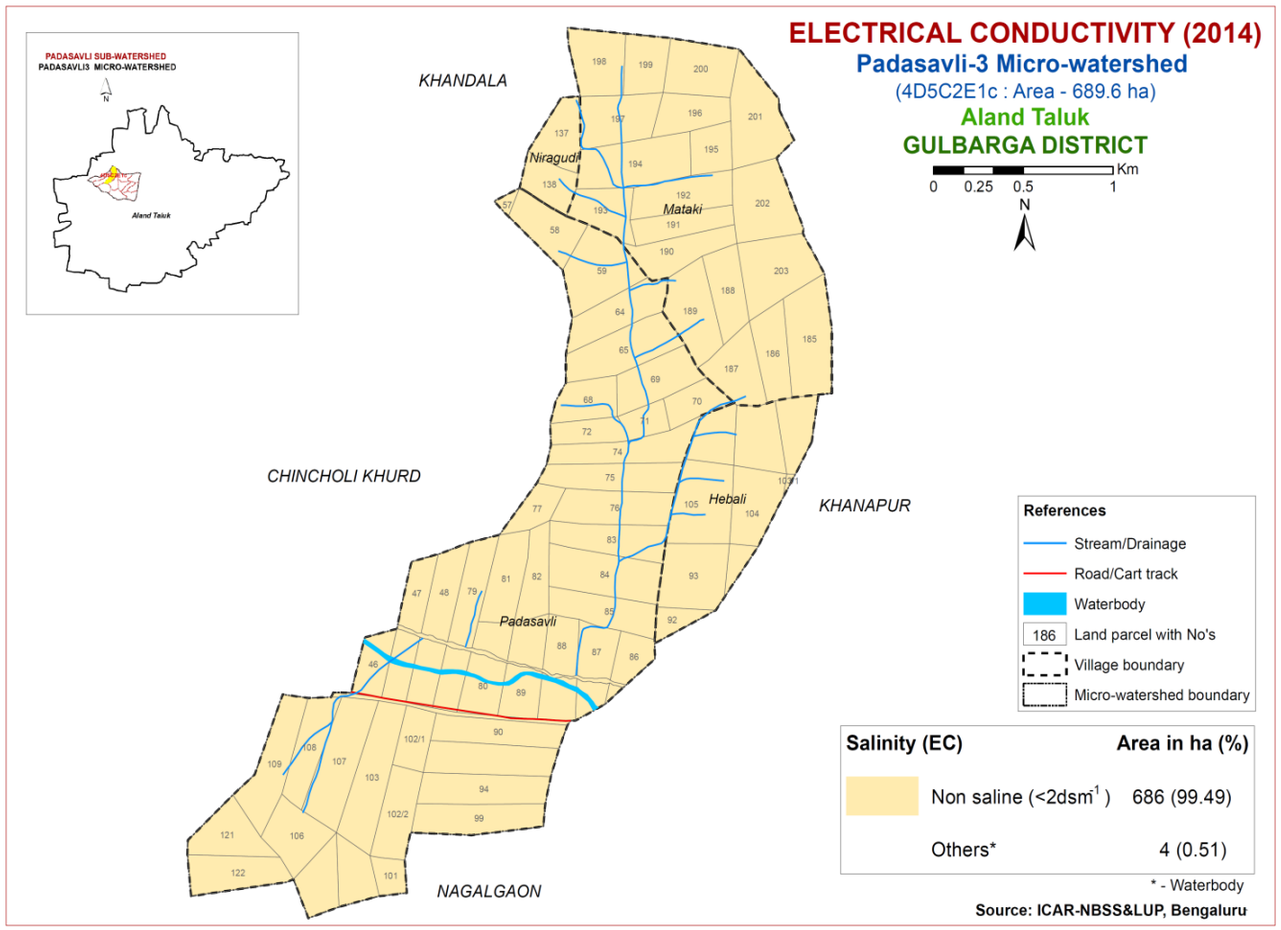

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
SOIL REACTION (pH) 2014
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavali
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Reaction classes
Area in ha (%)
Neutral (pH 6.5 – 7.3) 47 (8.75)
Slightly alkaline (pH 7.3 – 7.8) 107 (20.03)
Moderately alkaline (pH 7.8 – 8.4) 295 (55.13)
Strongly alkaline (pH 8.4 – 9.0) 60 (11.29)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

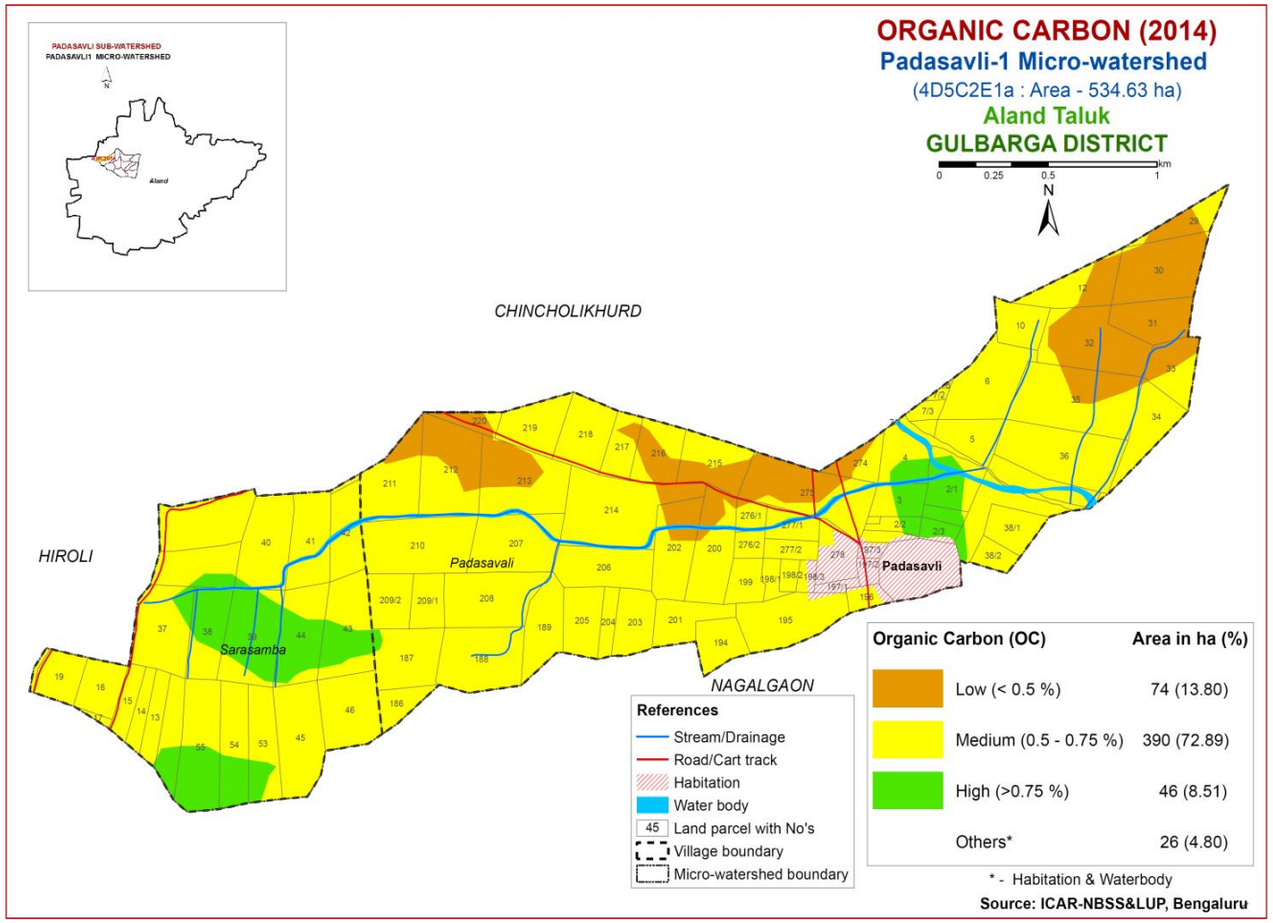

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
SOIL REACTION (pH) (2014)
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
Padasavli
Sarasamba
KHANAPUR
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Reaction classes
Area in ha (%)
Neutral (pH 6.5 – 7.3) 17 (2.53)
Slightly alkaline (pH 7.3 – 7.8) 223 (33.38)
Moderately alkaline (pH 7.8 – 8.4) 407 (61.03)
Strongly alkaline (pH 8.4 – 9.0) 9 (1.31)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

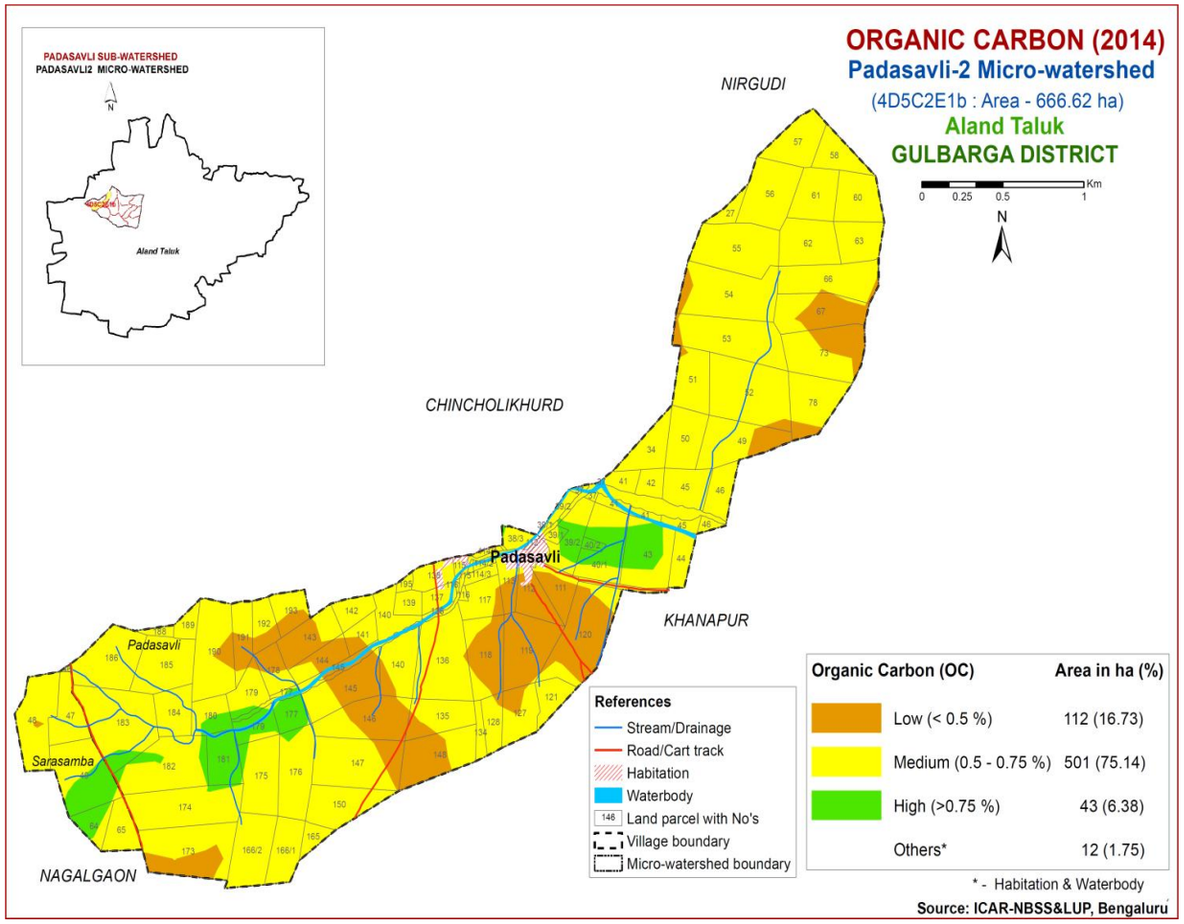

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
SOIL REACTION (pH) (2014)
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Reaction classes
Area in ha (%)
Neutral (pH 6.5 – 7.3) 0.40 (0.06)
Slightly alkaline (pH 7.3 – 7.8) 181 (26.32)
Moderately alkaline (pH 7.8 – 8.4) 504 (73.11)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

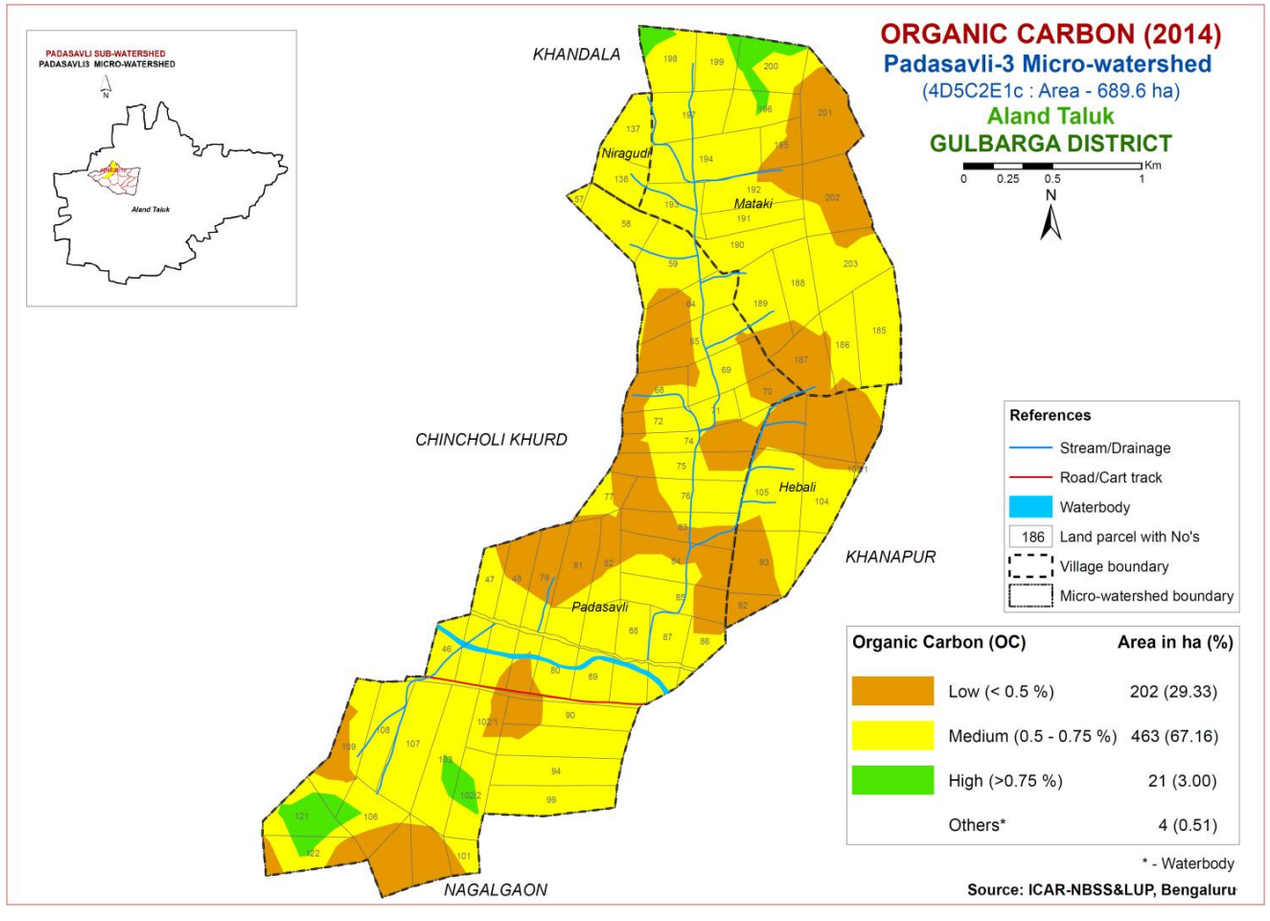

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
ELECTRICAL CONDUCTIVITY (2014)
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavali
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Salinity (EC)
Area in ha (%)
Non saline (<2 dsm-1) 509 (95.20)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

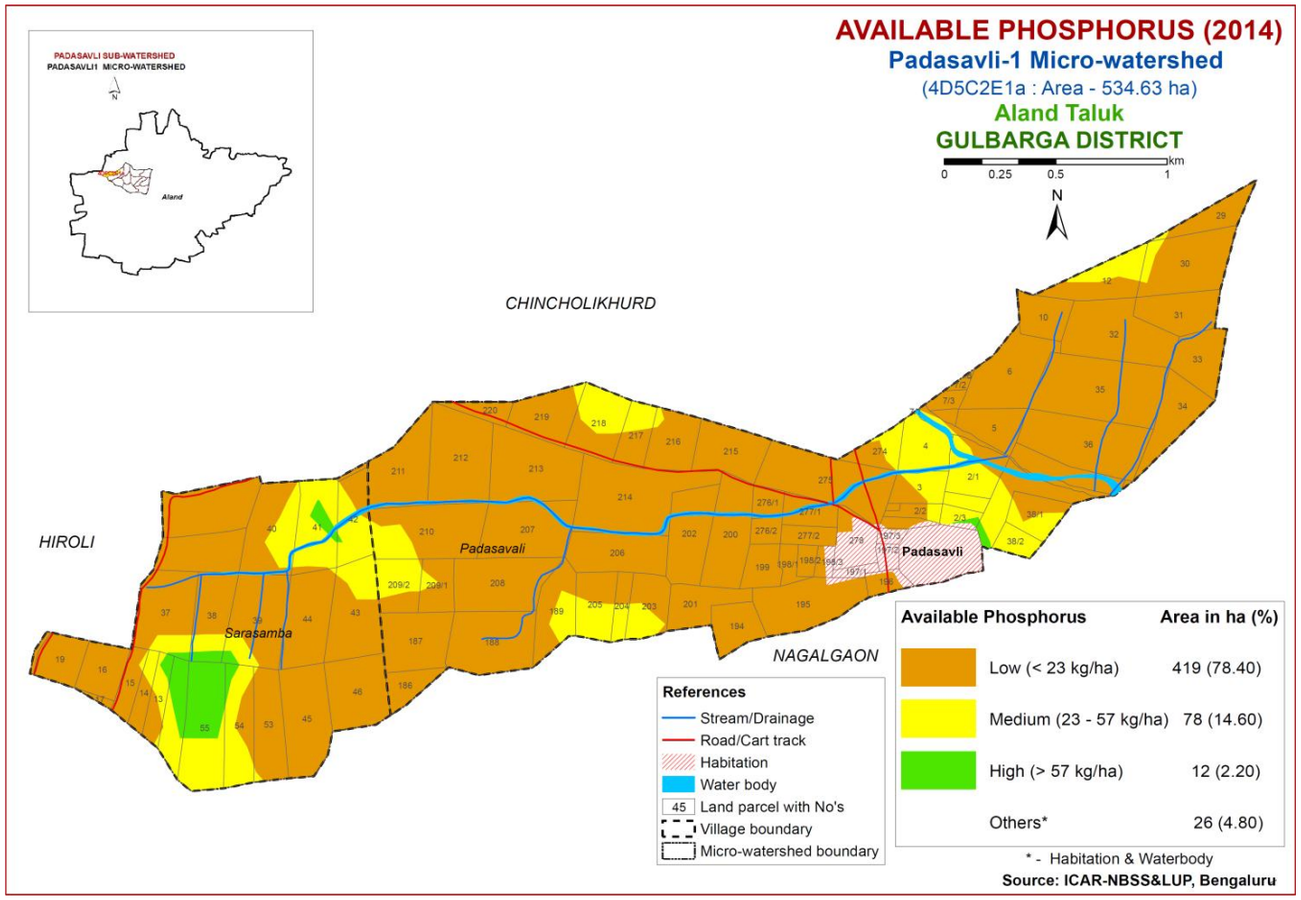

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
ELECTRICAL CONDUCTIVITY (2014)
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
KHANAPUR
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Salinity (EC)
Area in ha (%)
Non saline (<2dsm-1) 655 (98.25)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

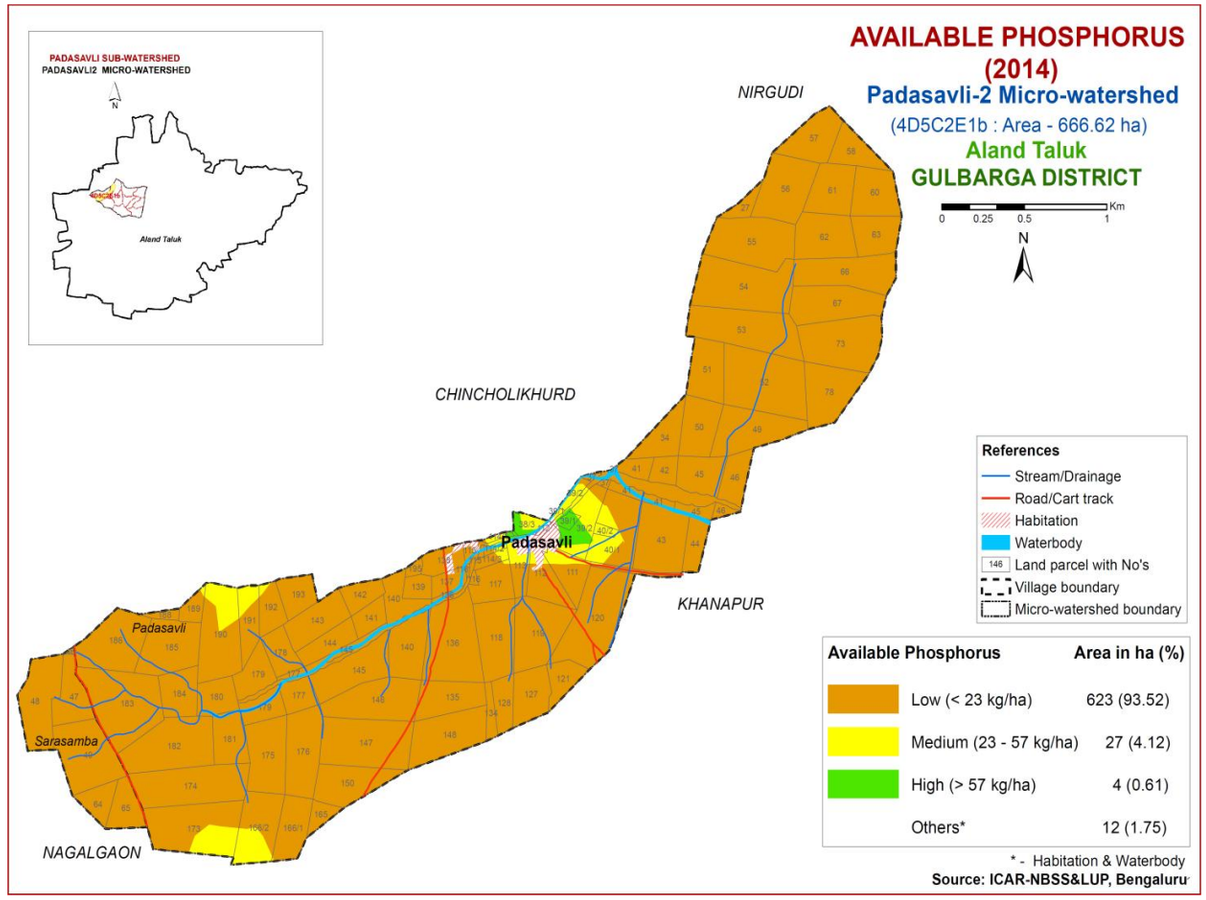

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
ELECTRICAL CONDUCTIVITY (2014)
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Padasavli
Hebali
KHANAPUR
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Salinity (EC)
Area in ha (%)
Non saline (<2dsm-1) 686 (99.49)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

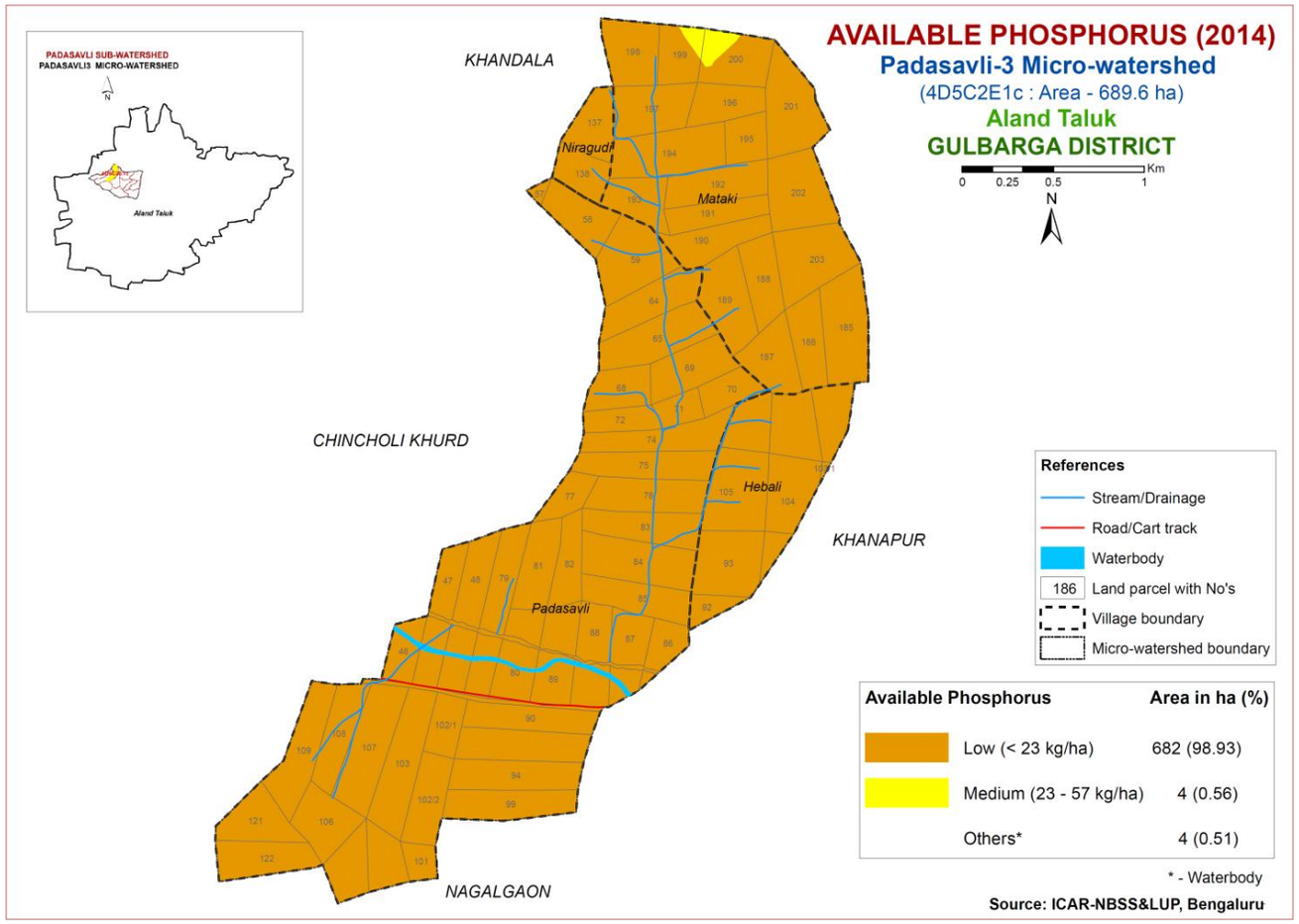

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
ORGANIC CARBON (2014)
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Organic Carbon (OC) Area in ha (%)
Low (< 0.5 %) 74 (13.80)
Medium (0.5 - 0.75 %) 390 (72.89)
High (>0.75 %) 46 (8.51)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

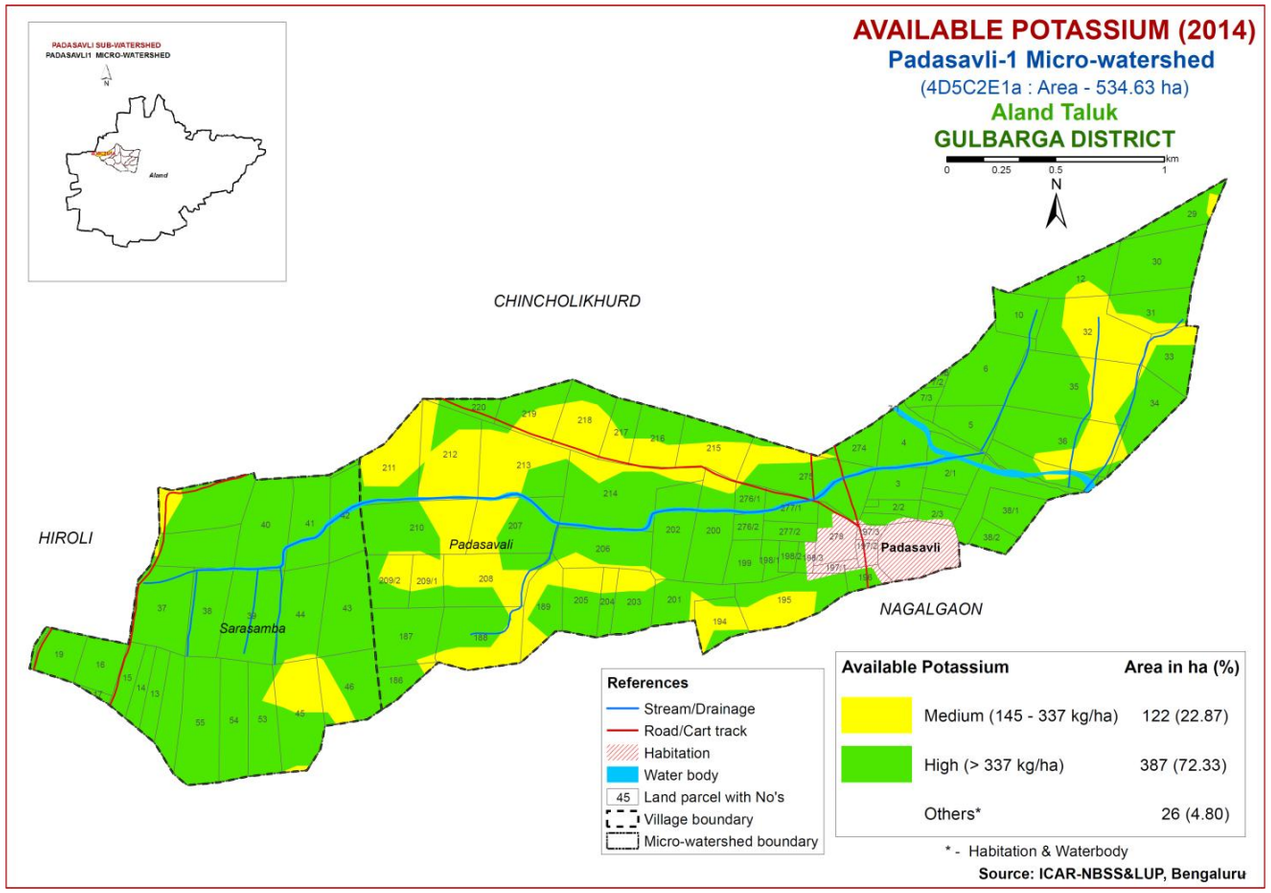

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
ORGANIC CARBON (2014)
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
KHANAPUR
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Organic Carbon (OC) Area in ha (%)
Low (< 0.5 %) 112 (16.73)
Medium (0.5 - 0.75 %) 501 (75.14)
High (>0.75 %) 43 (6.38)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

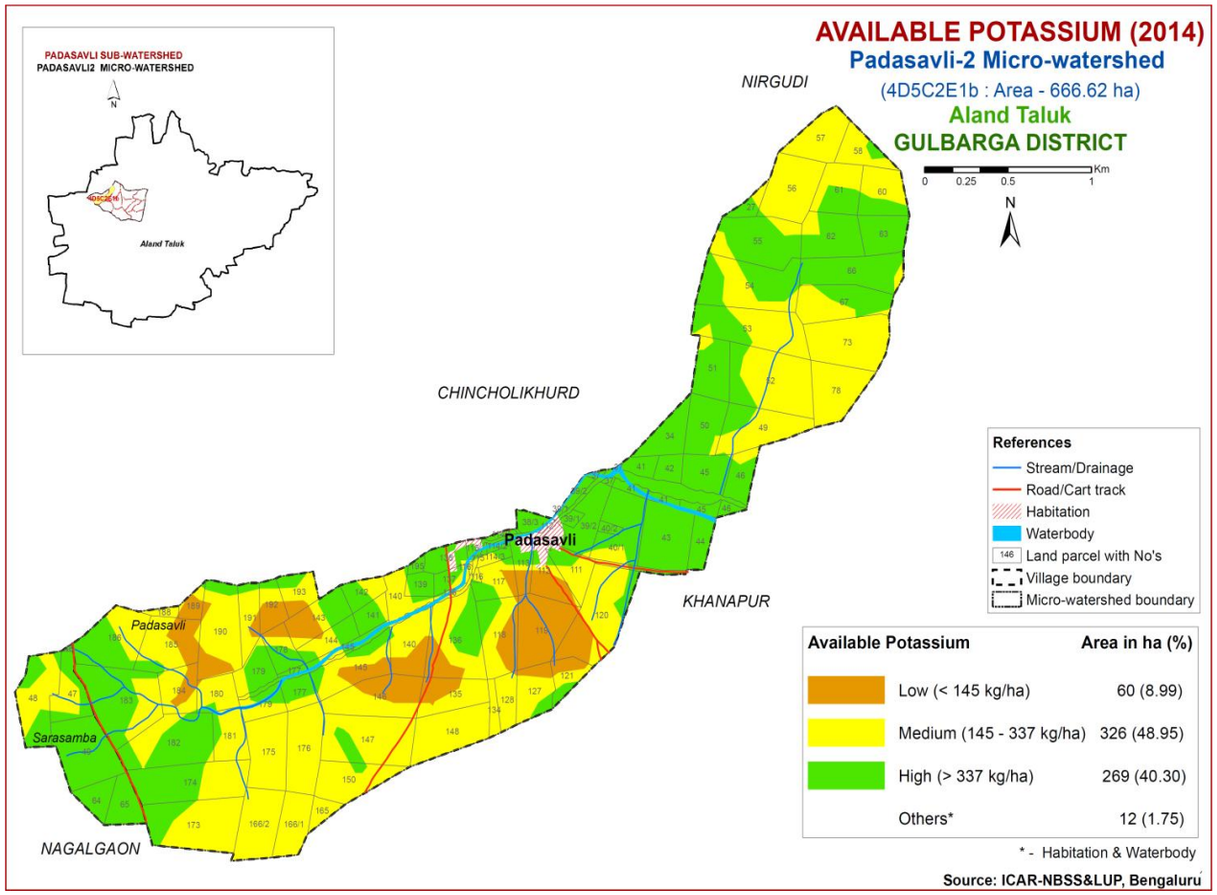

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
ORGANIC CARBON (2014)
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Organic Carbon (OC) Area in ha (%)
Low (< 0.5 %) 202 (29.33)
Medium (0.5 - 0.75 %) 463 (67.16)
High (>0.75 %) 21 (3.00)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

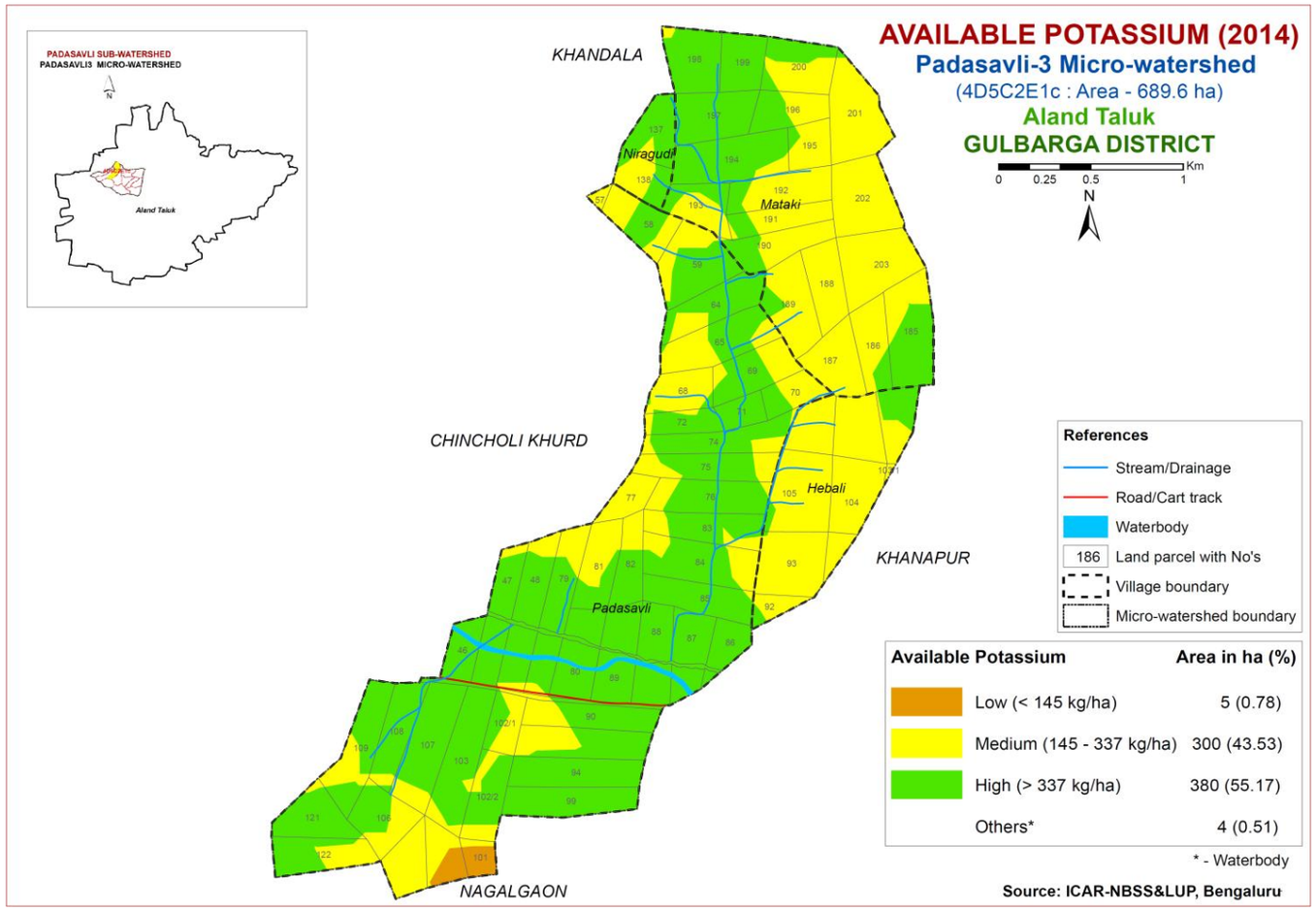

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
AVAILABLE PHOSPHORUS (2014)
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavali
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Phosphorus
Area in ha (%)
Low (< 23 kg/ha) 419 (78.40)
Medium (23 - 57 kg/ha) 78 (14.60)
High (> 57 kg/ha) 12 (2.20)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

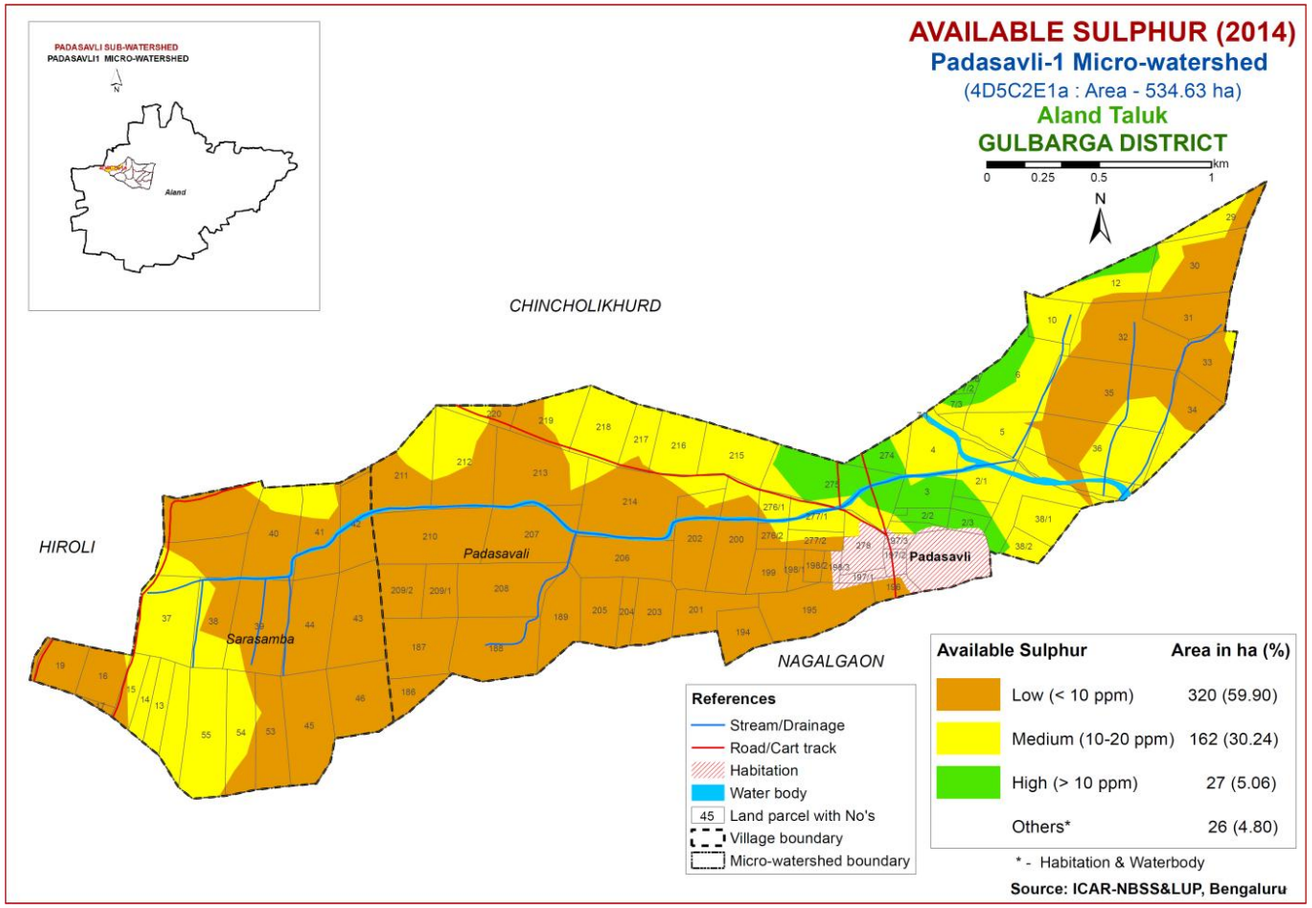

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
AVAILABLE PHOSPHORUS (2014)
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Phosphorus
Area in ha (%)
Low (< 23 kg/ha) 623 (93.52)
Medium (23 - 57 kg/ha) 27 (4.12)
High (> 57 kg/ha) 4 (0.61)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

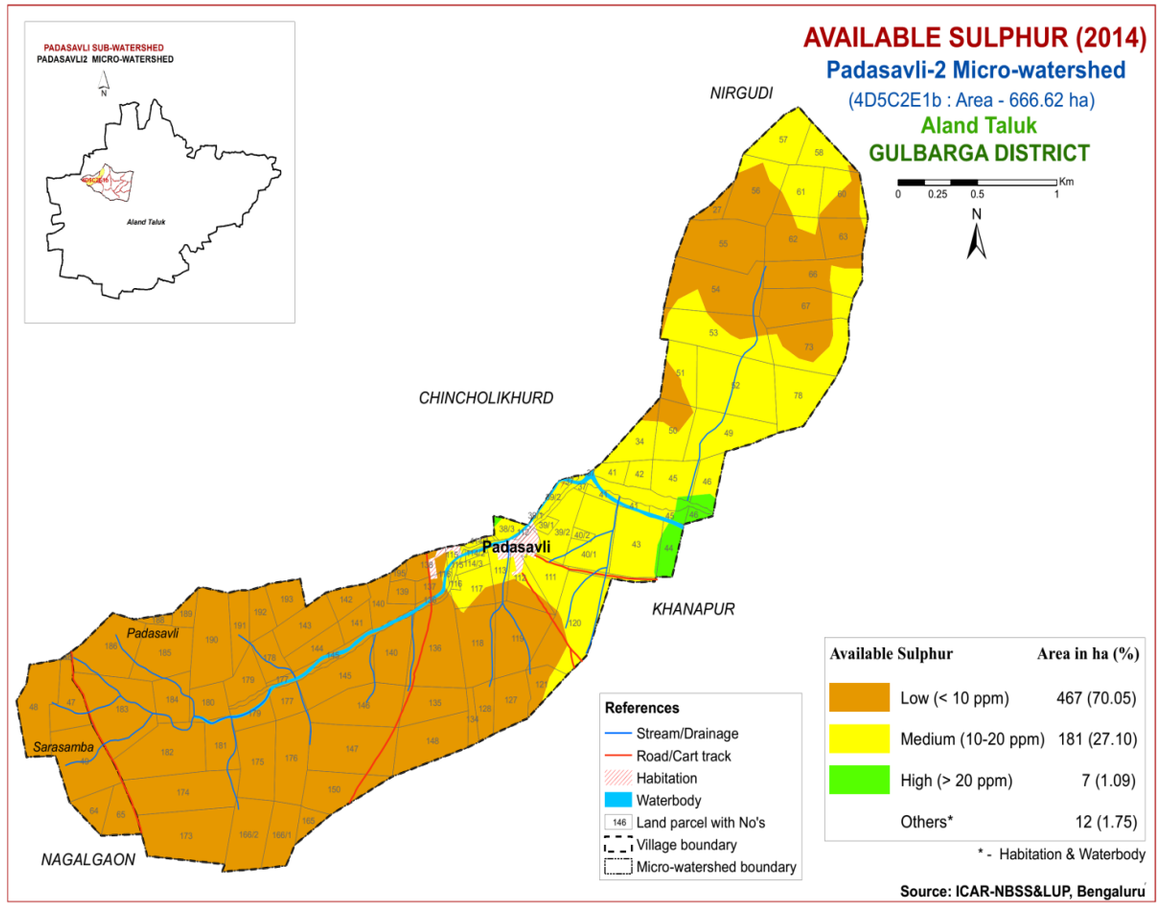

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
AVAILABLE PHOSPHORUS (2014)
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Phosphorus
Area in ha (%)
Low (< 23 kg/ha) 682 (98.93)
Medium (23 - 57 kg/ha) 4 (0.56)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

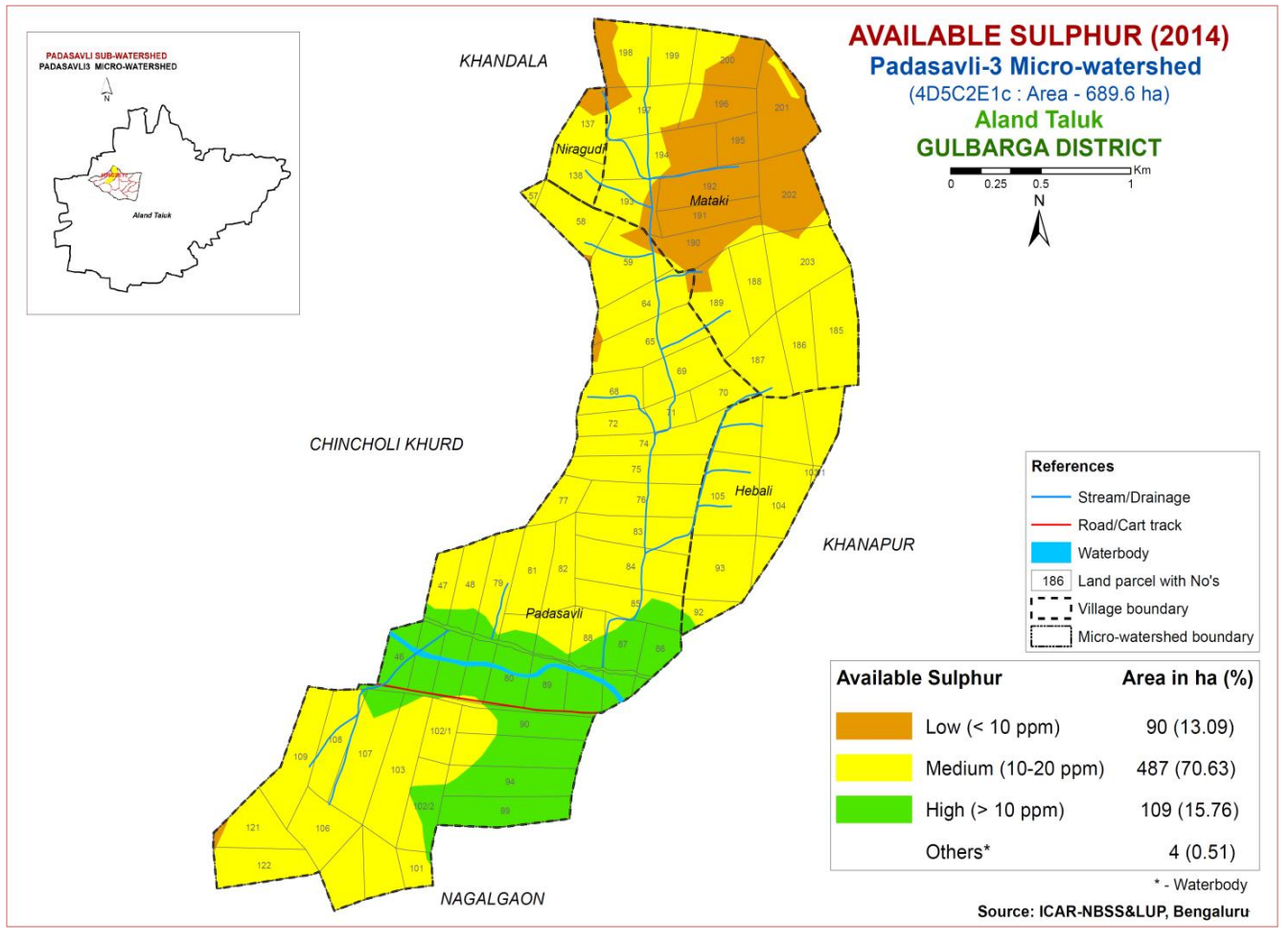

AVAILABLE POTASSIUM (2014)
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Potassium
Area in ha (%)
Medium (145 - 337 kg/ha) 122 (22.87)
High (> 337 kg/ha) 387 (72.33)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

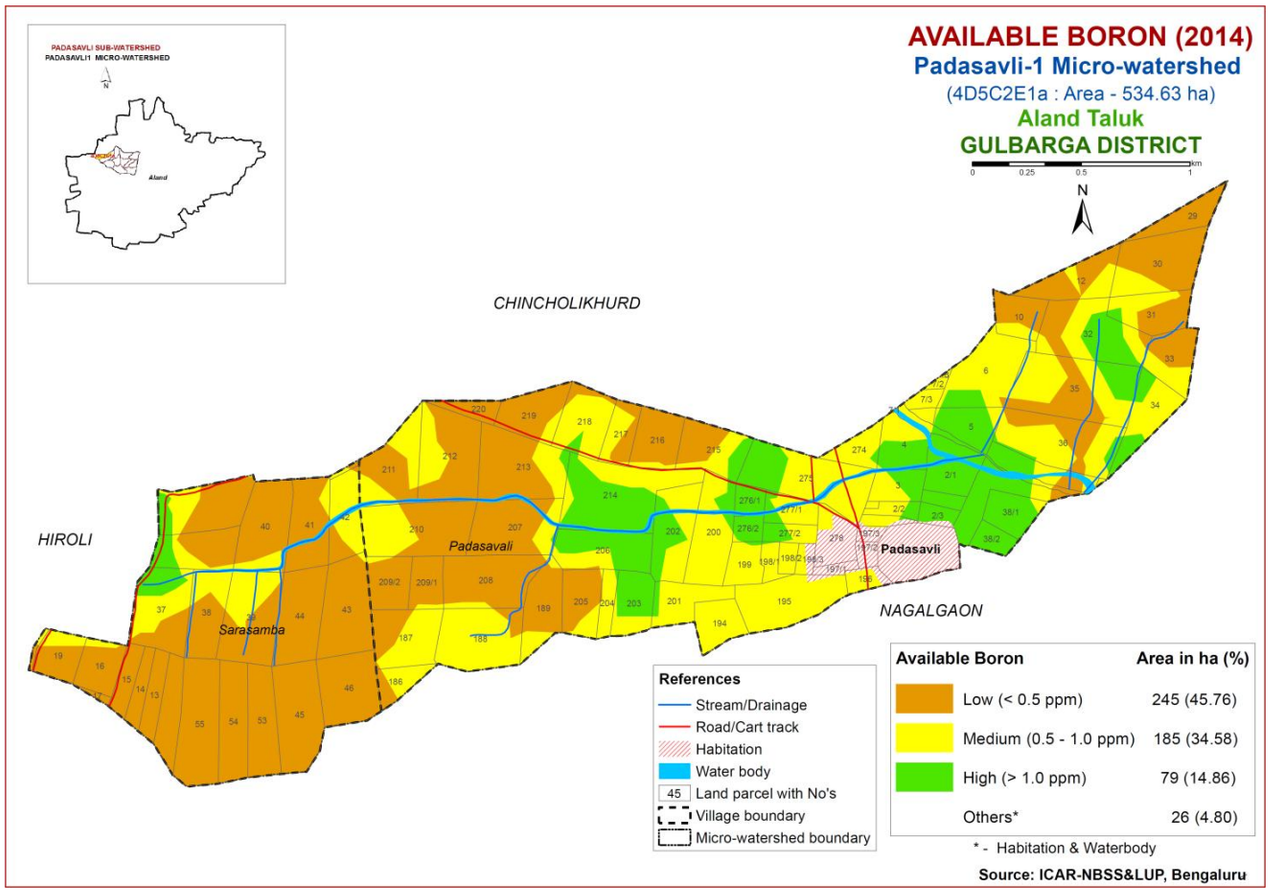

AVAILABLE POTASSIUM (2014)
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
NIRGUDI
CHINCHOLIKHURD
Padasavli
KHANAPUR
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Potassium
Area in ha (%)
Low (< 145 kg/ha) 60 (8.99)
Medium (145 - 337 kg/ha) 326 (48.95)
High (> 337 kg/ha) 269 (40.30)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

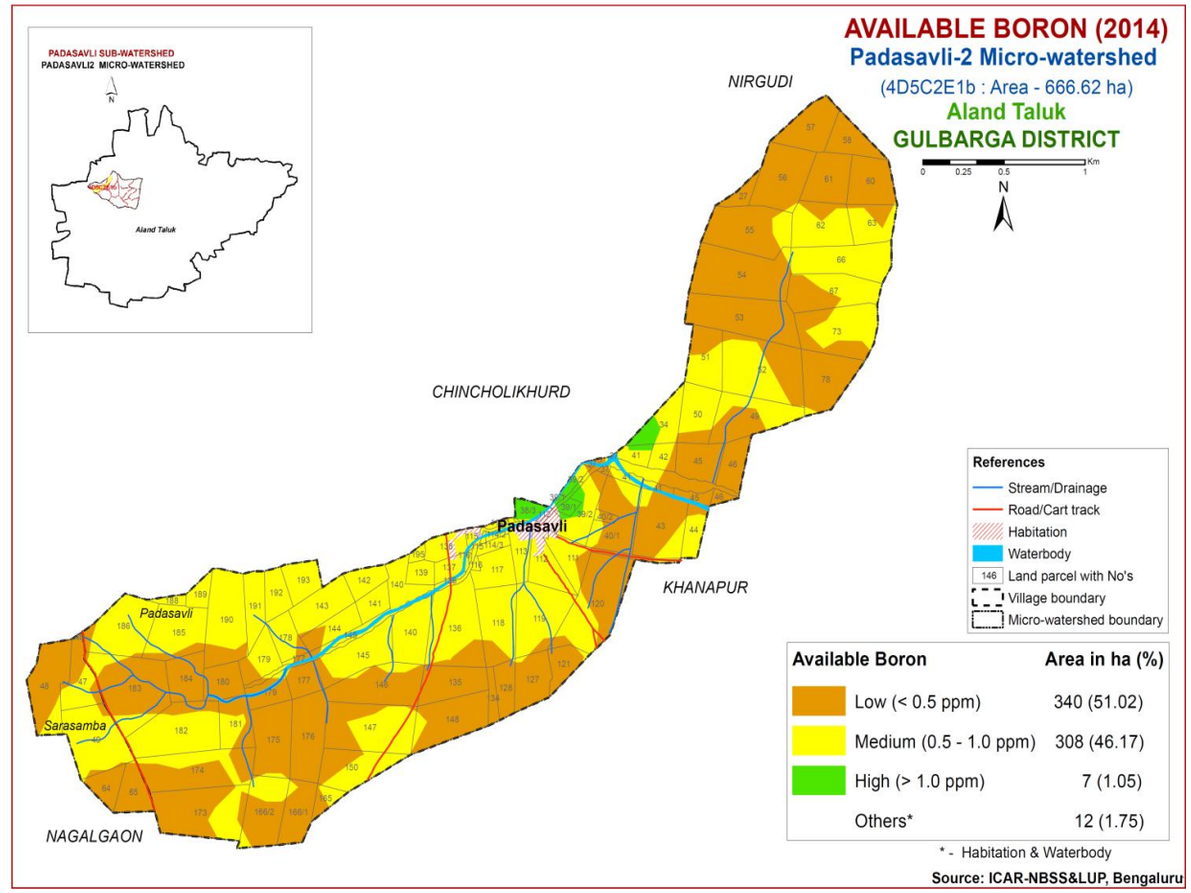

AVAILABLE POTASSIUM (2014)
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
Padasavli
KHANAPUR
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Potassium
Area in ha (%)
Low (< 145 kg/ha) 5 (0.78)
Medium (145 - 337 kg/ha) 300 (43.53)
High (> 337 kg/ha) 380 (55.17)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

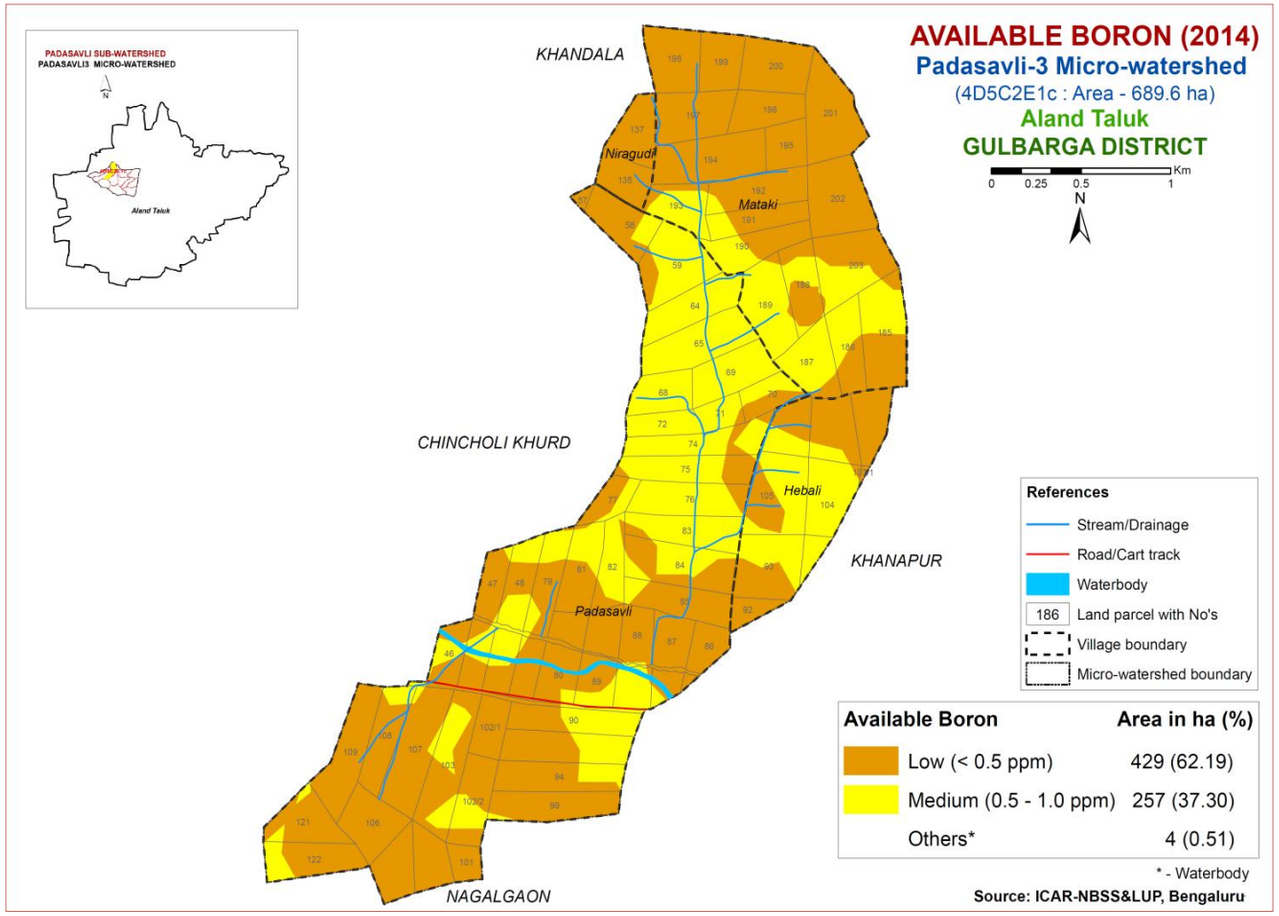

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
AVAILABLE SULPHUR (2014)
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Sulphur
Area in ha (%)
Low (< 10 ppm) 320 (59.90)
Medium (10-20 ppm) 162 (30.24)
High (> 10 ppm) 27 (5.06)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

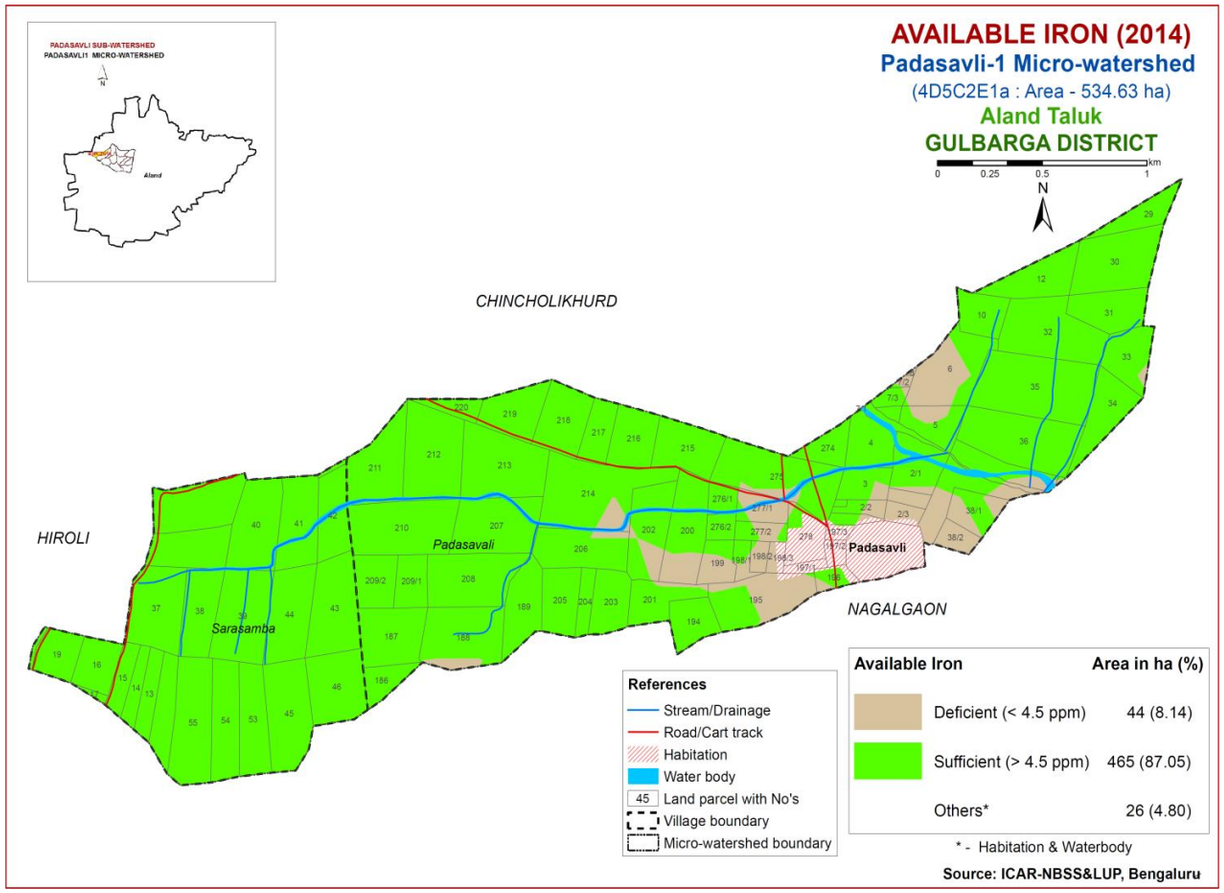

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
AVAILABLE SULPHUR (2014)
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
KHANAPUR
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Sulphur
Area in ha (%)
Low (< 10 ppm) 467 (70.05)
Medium (10-20 ppm) 181 (27.10)
High (> 20 ppm) 7 (1.09)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

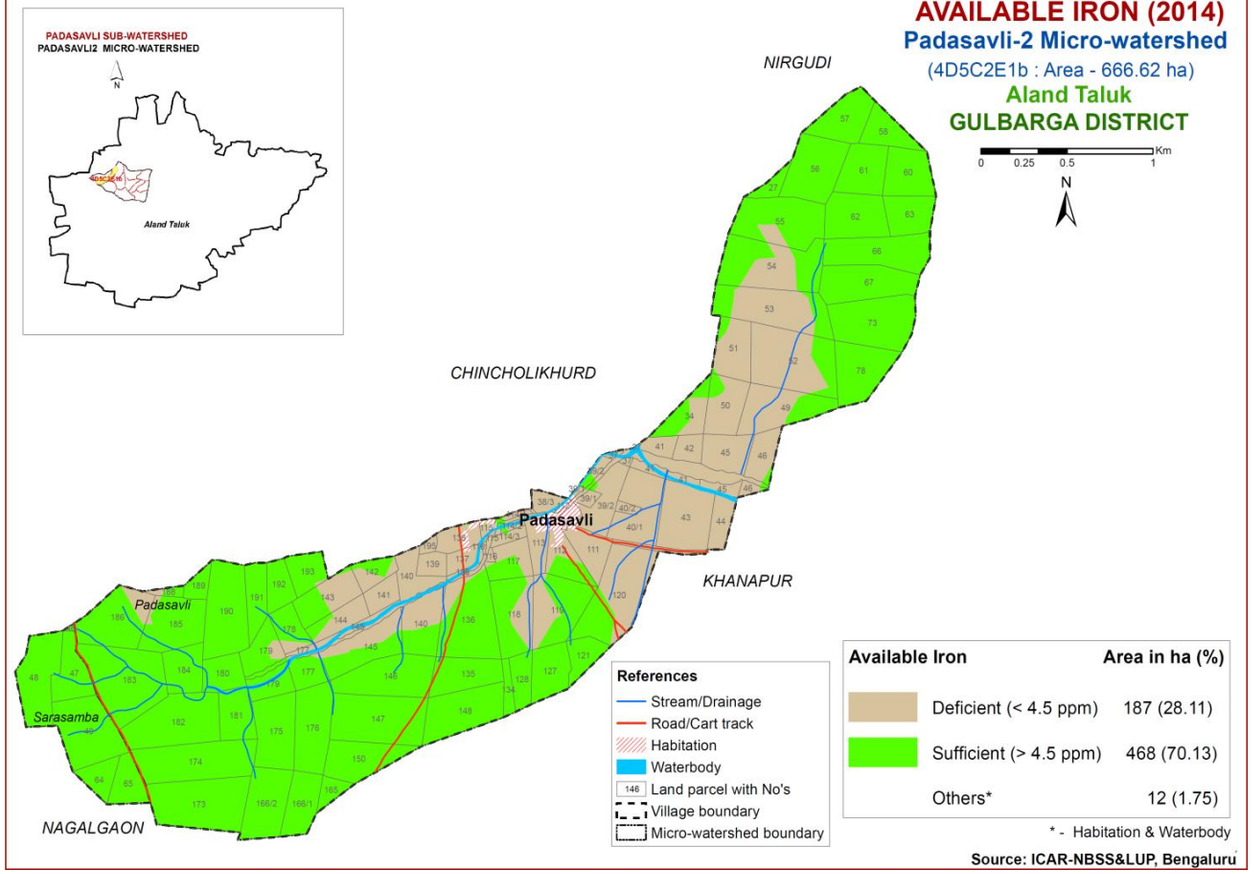

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
AVAILABLE SULPHUR (2014)
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Sulphur
Area in ha (%)
Low (< 10 ppm) 90 (13.09)
Medium (10-20 ppm) 487 (70.63)
High (> 10 ppm) 109 (15.76)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

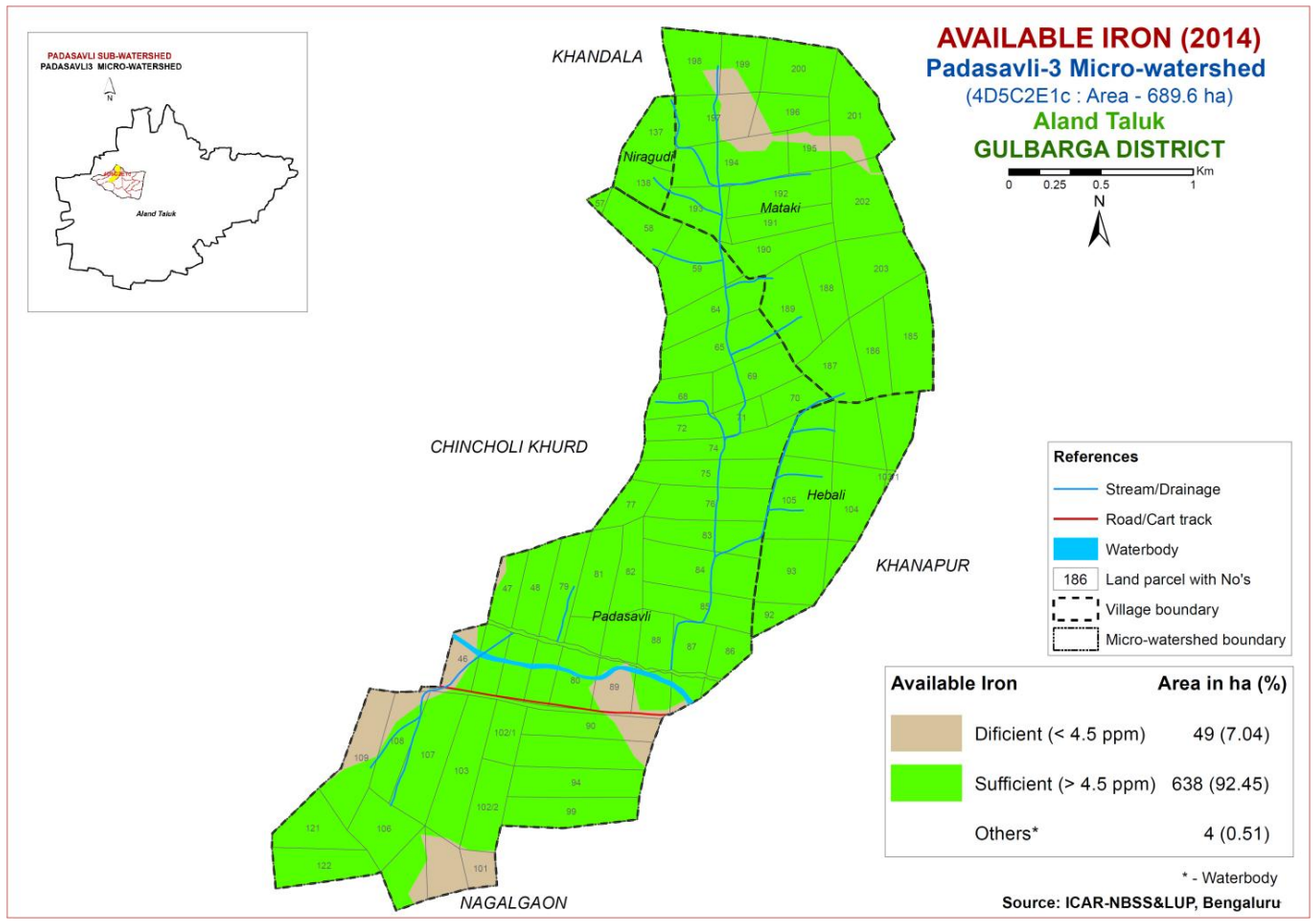

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
AVAILABLE BORON (2014)
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Boron
Area in ha (%)
Low (< 0.5 ppm) 245 (45.76)
Medium (0.5 - 1.0 ppm) 185 (34.58)
High (> 1.0 ppm) 79 (14.86)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

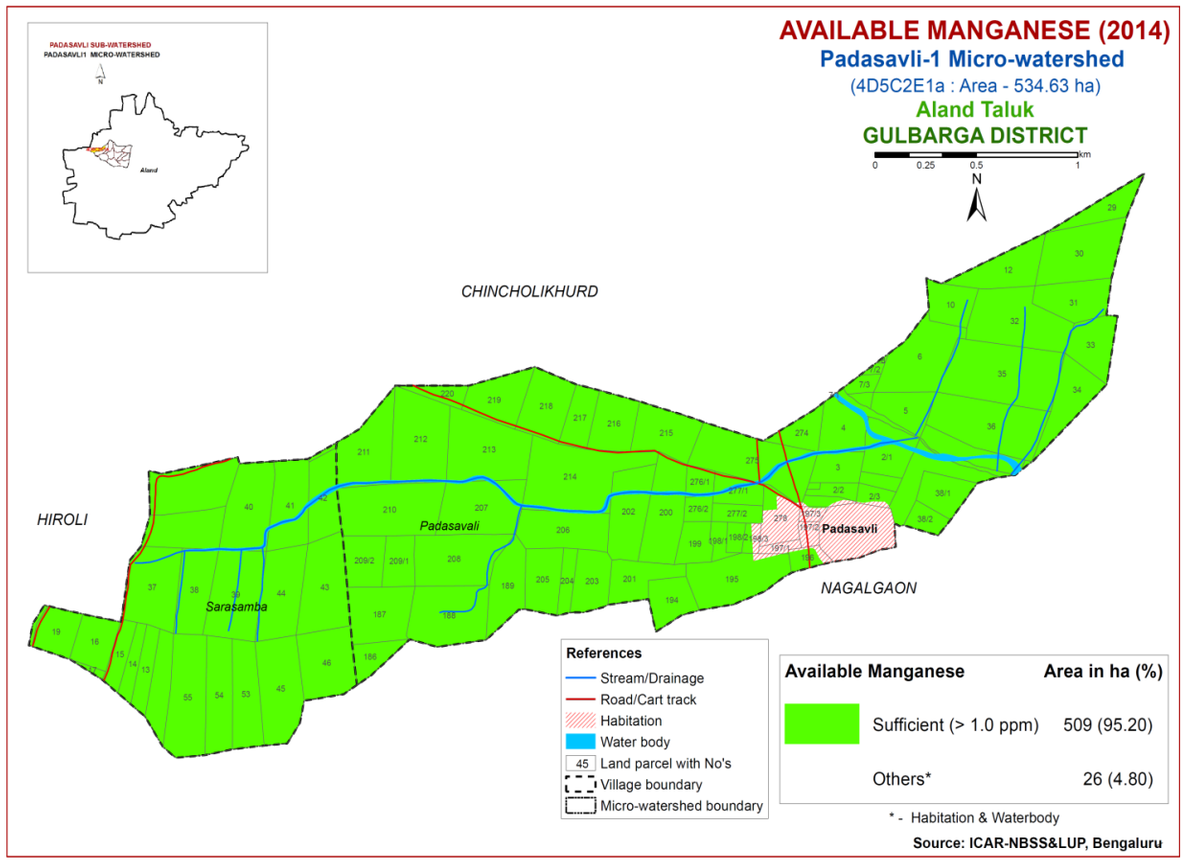

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
AVAILABLE BORON (2014)
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
NIRGUDI
CHINCHOLIKHURD
Padasavli
KHANAPUR
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Boron
Area in ha (%)
Low (< 0.5 ppm) 340 (51.02)
Medium (0.5 - 1.0 ppm) 308 (46.17)
High (> 1.0 ppm) 7 (1.05)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

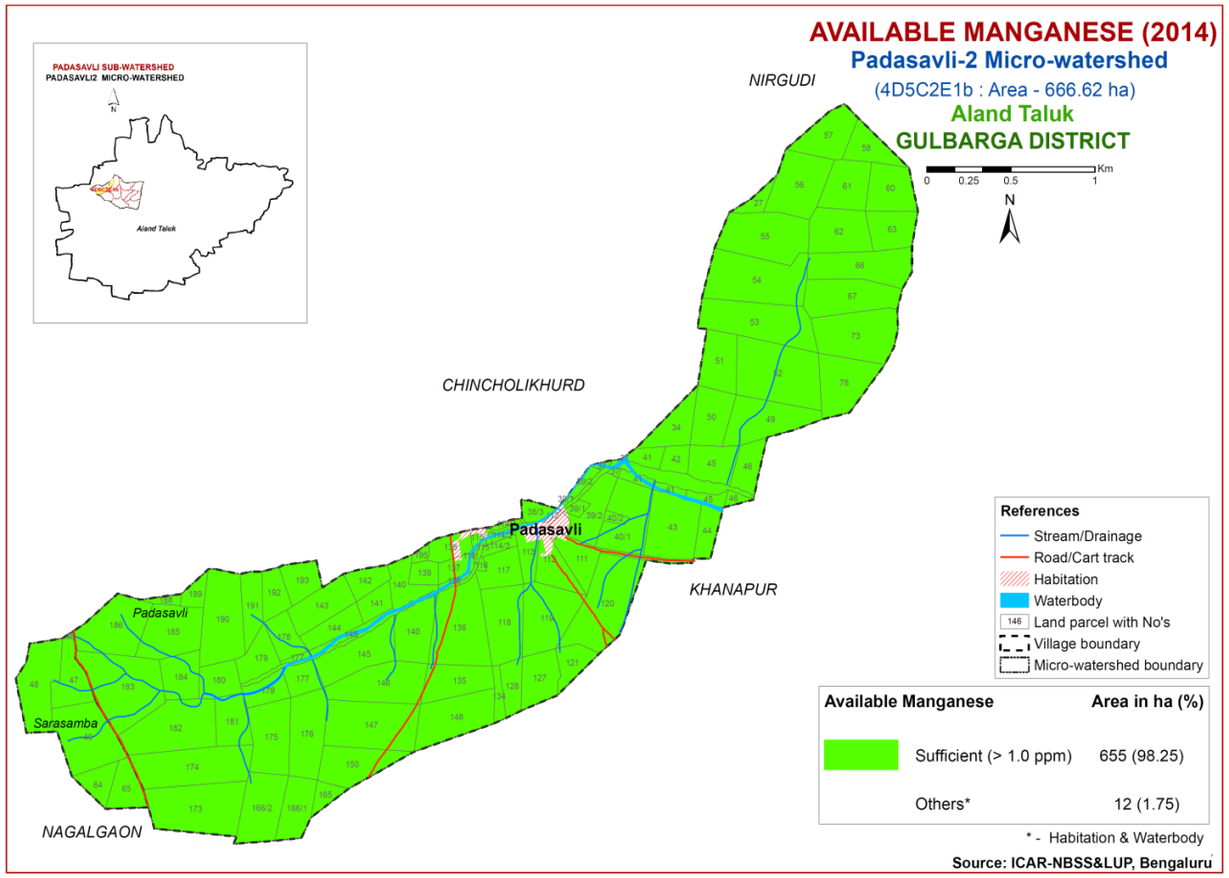

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
AVAILABLE BORON (2014)
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Boron
Area in ha (%)
Low (< 0.5 ppm) 429 (62.19)
Medium (0.5 - 1.0 ppm) 257 (37.30)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

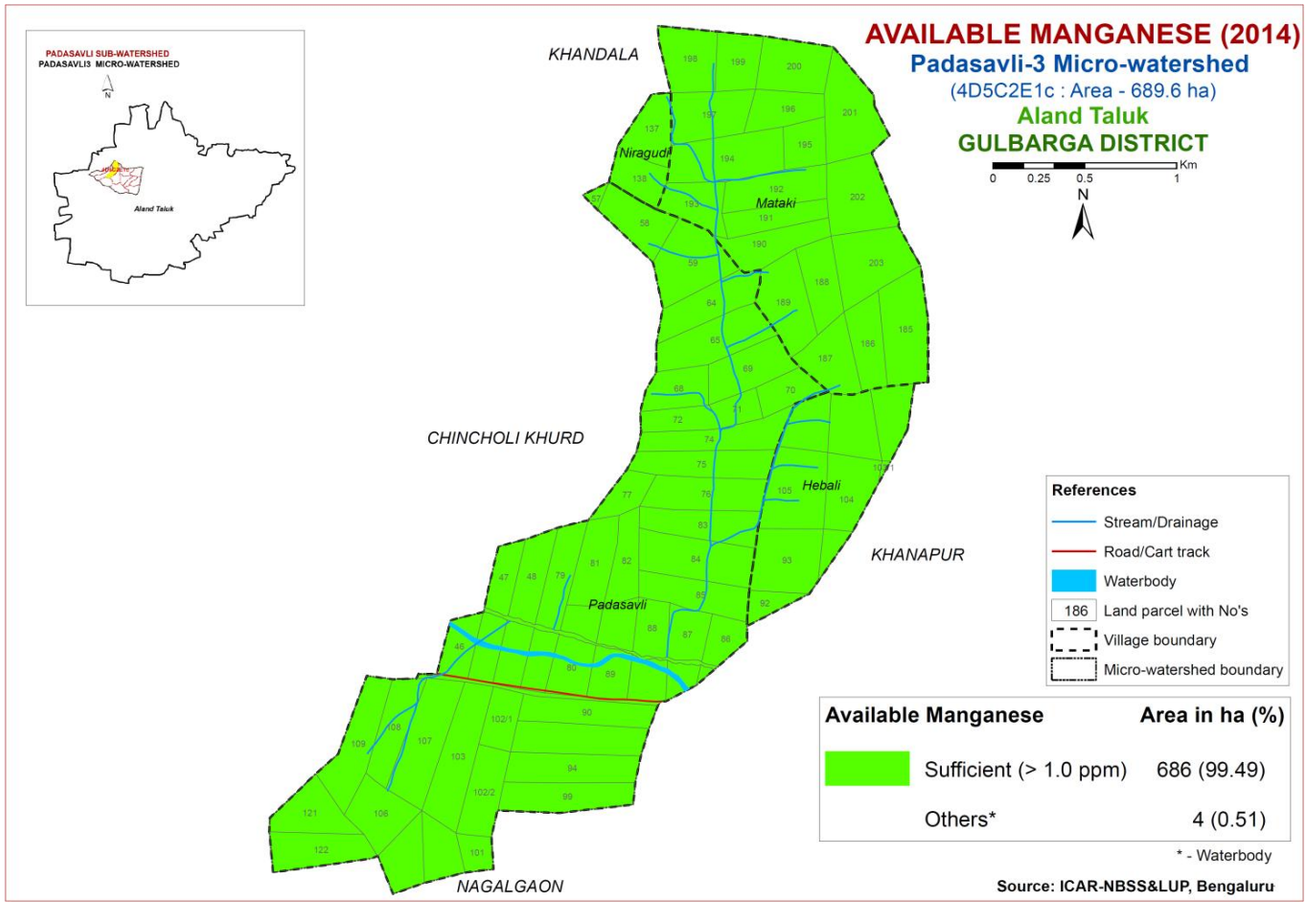

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
AVAILABLE IRON (2014)
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Iron
Area in ha (%)
Deficient (< 4.5 ppm) 44 (8.14)
Sufficient (> 4.5 ppm) 465 (87.05)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

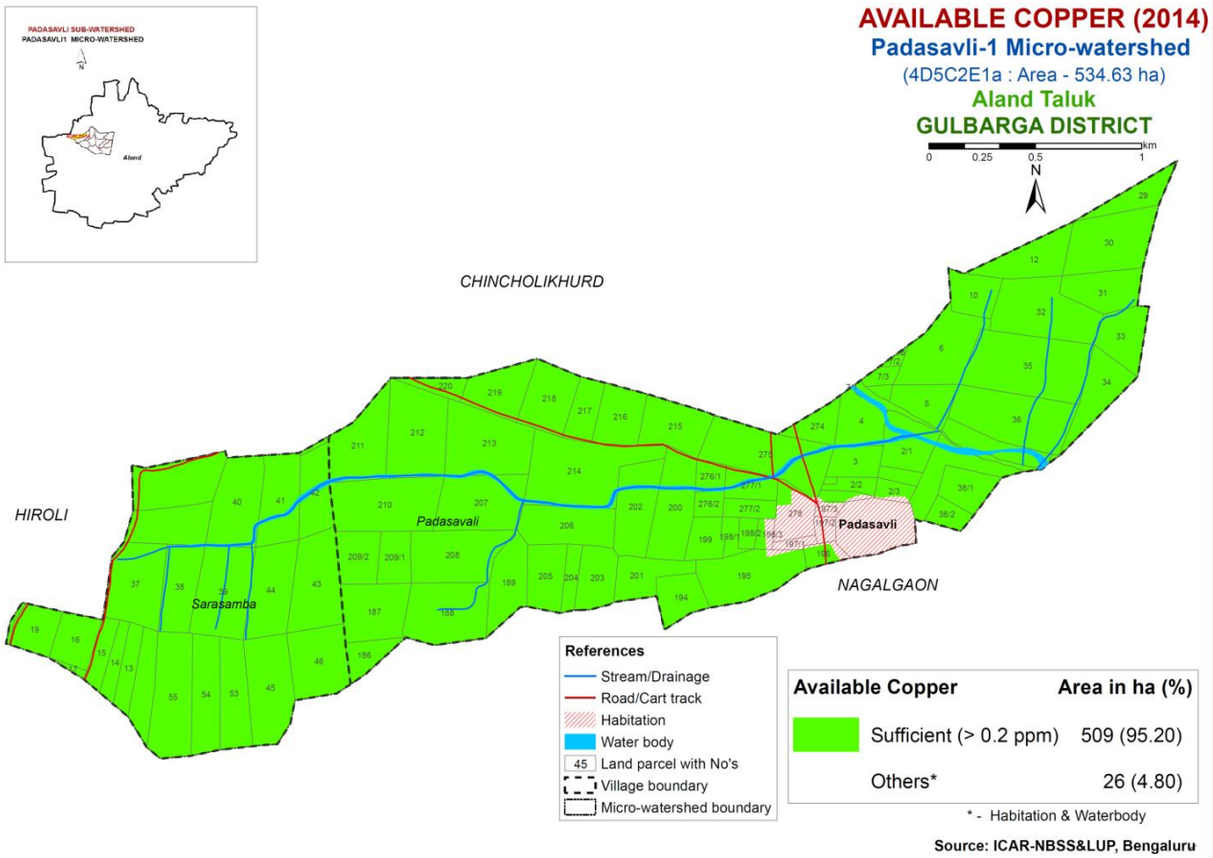

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
AVAILABLE IRON (2014)
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
KHANAPUR
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Iron
Area in ha (%)
Deficient (< 4.5 ppm) 187 (28.11)
Sufficient (> 4.5 ppm) 468 (70.13)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

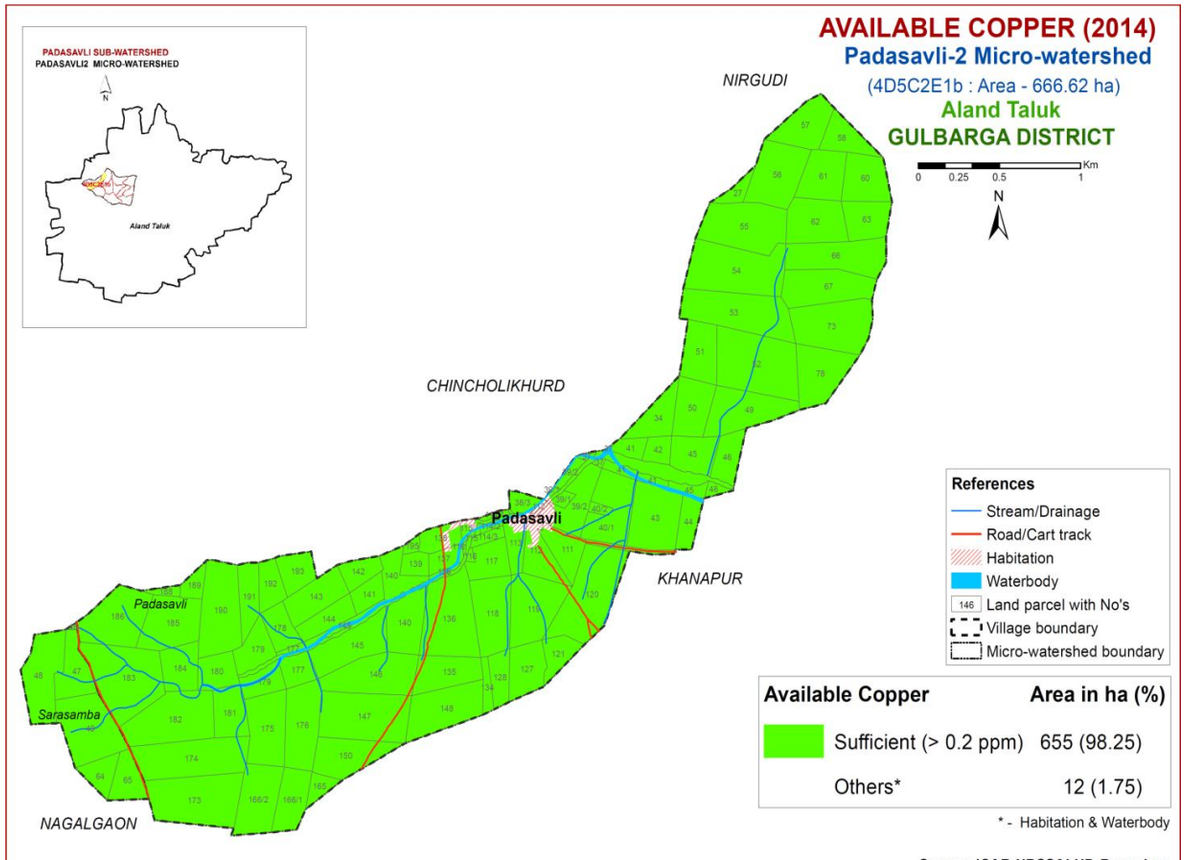

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
AVAILABLE IRON (2014)
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
Hebali
CHINCHOLI KHURD
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Iron
Area in ha (%)
Dificient (< 4.5 ppm) 49 (7.04)
Sufficient (> 4.5 ppm) 638 (92.45)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

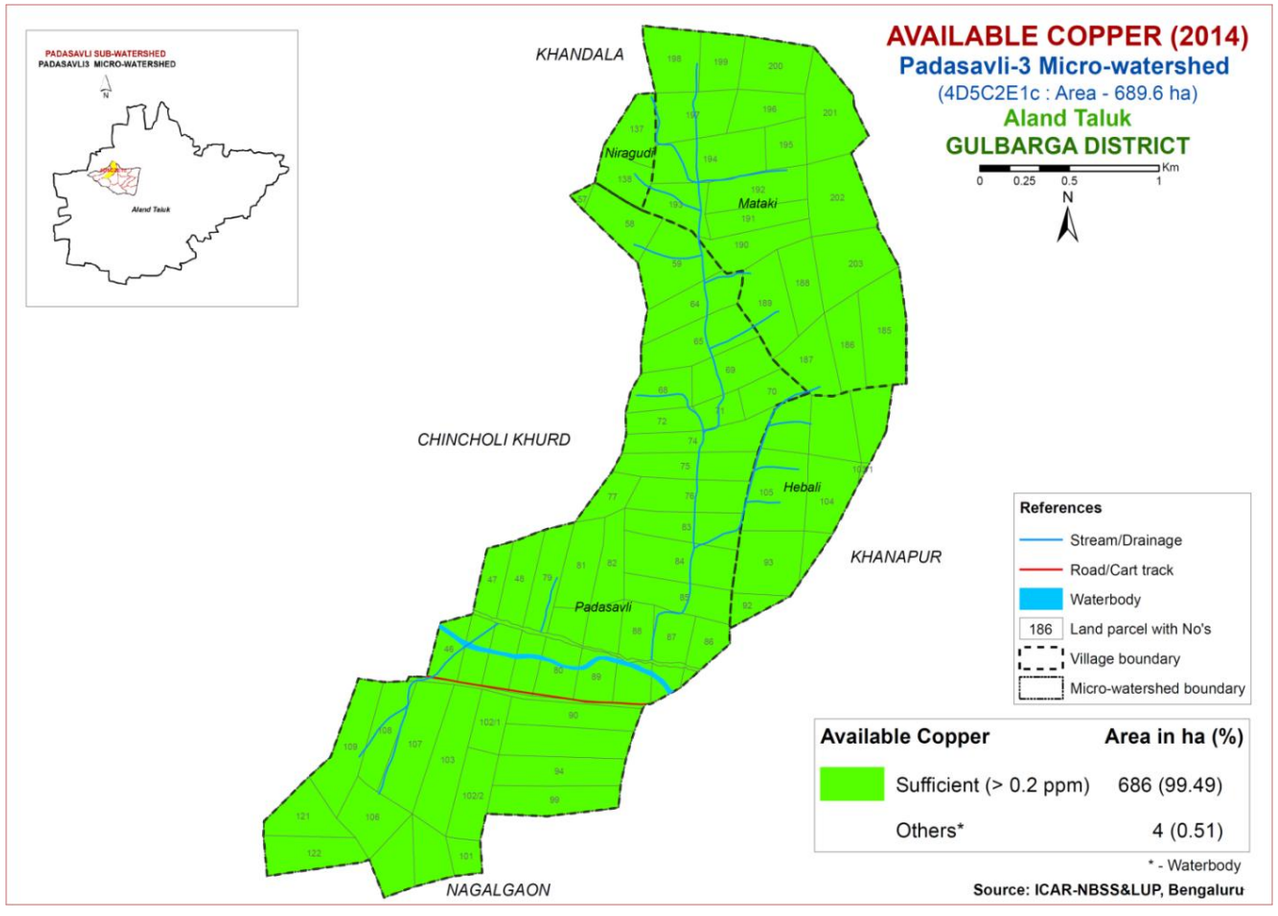

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
AVAILABLE MANGANESE (2014)
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
CHINCHOLIKHURD
HIROLI
Padasavali
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Manganese
Area in ha (%)
Sufficient (> 1.0 ppm) 509 (95.20)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

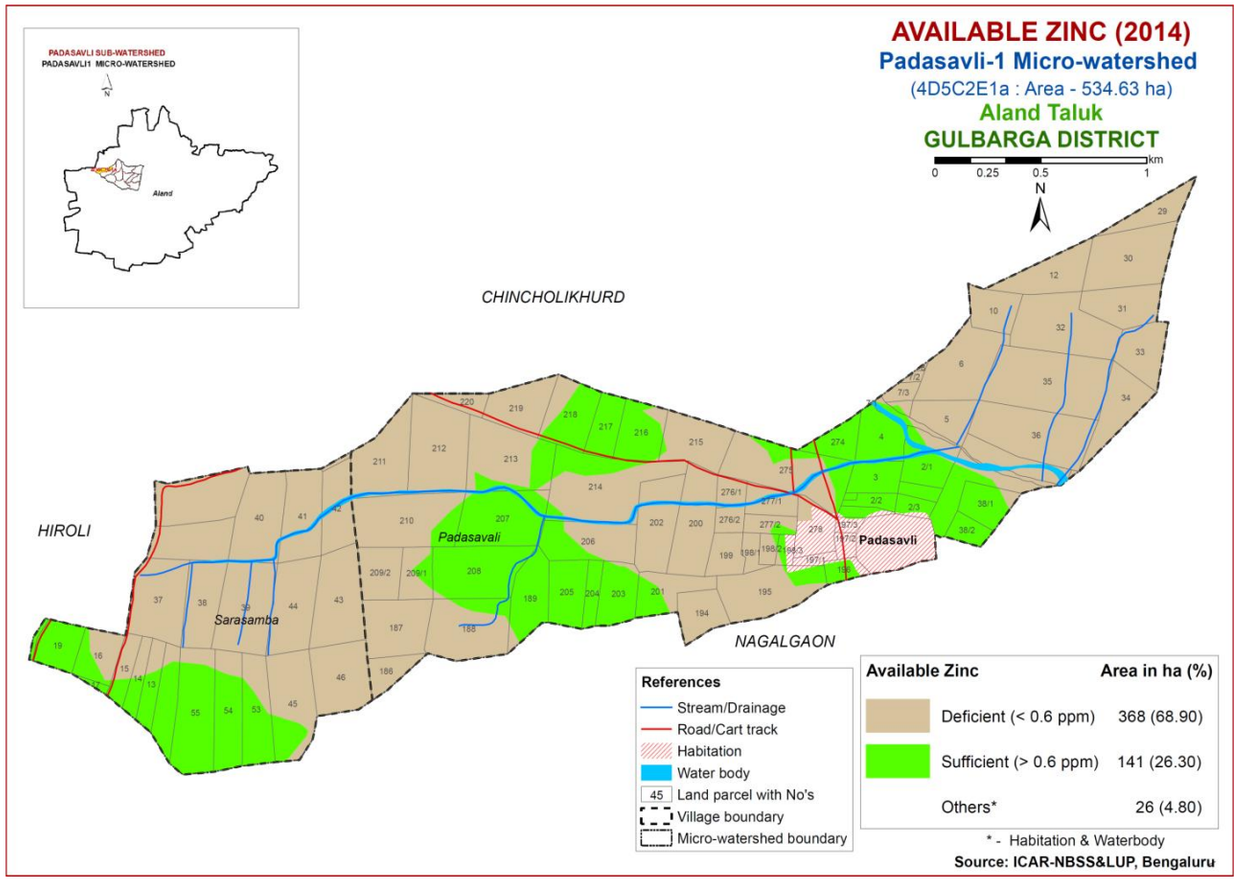

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
AVAILABLE MANGANESE (2014)
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
KHANAPUR
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Manganese
Area in ha (%)
Sufficient (> 1.0 ppm) 655 (98.25)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

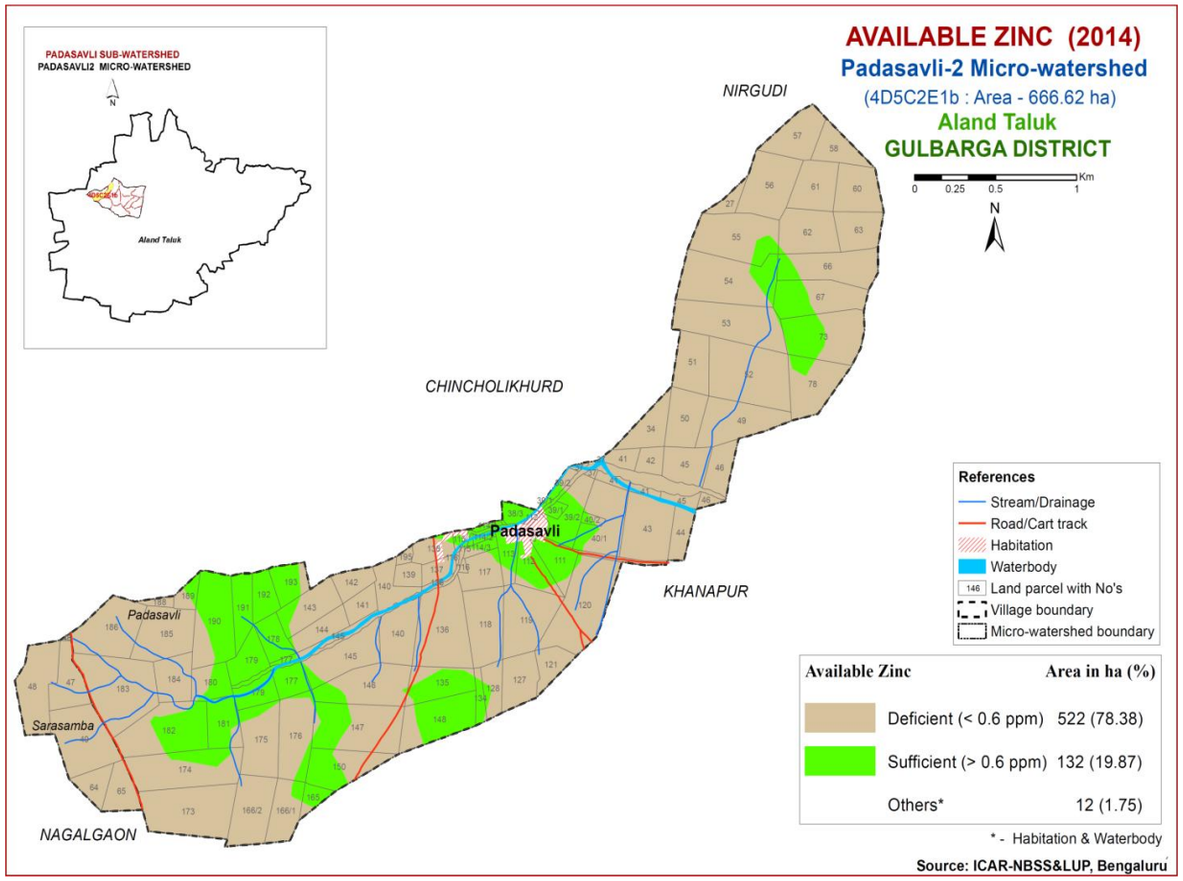

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
AVAILABLE MANGANESE (2014)
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Manganese
Area in ha (%)
Sufficient (> 1.0 ppm) 686 (99.49)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

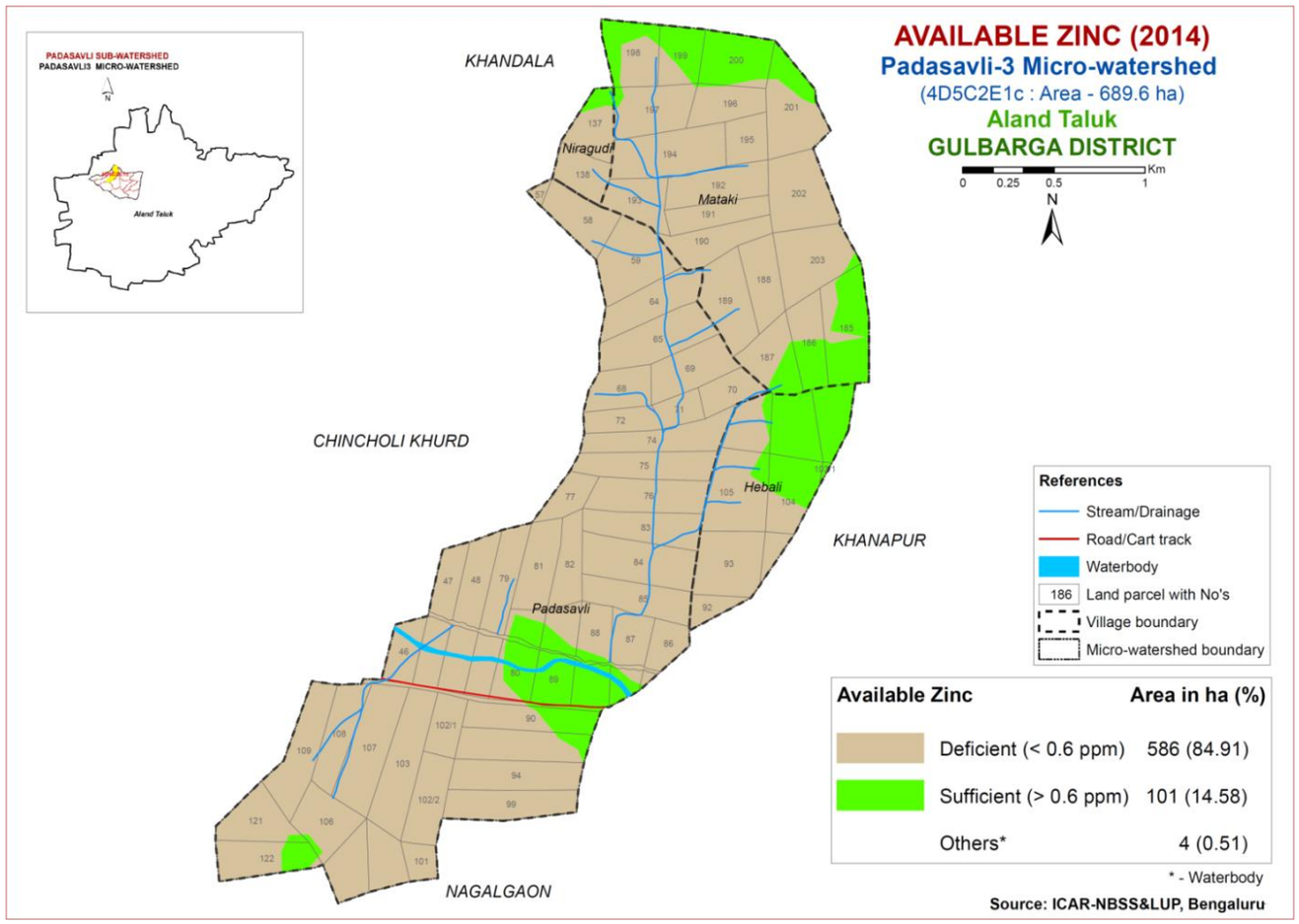

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
AVAILABLE COPPER (2014)
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavali
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Copper
Area in ha (%)
Sufficient (> 0.2 ppm) 509 (95.20)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

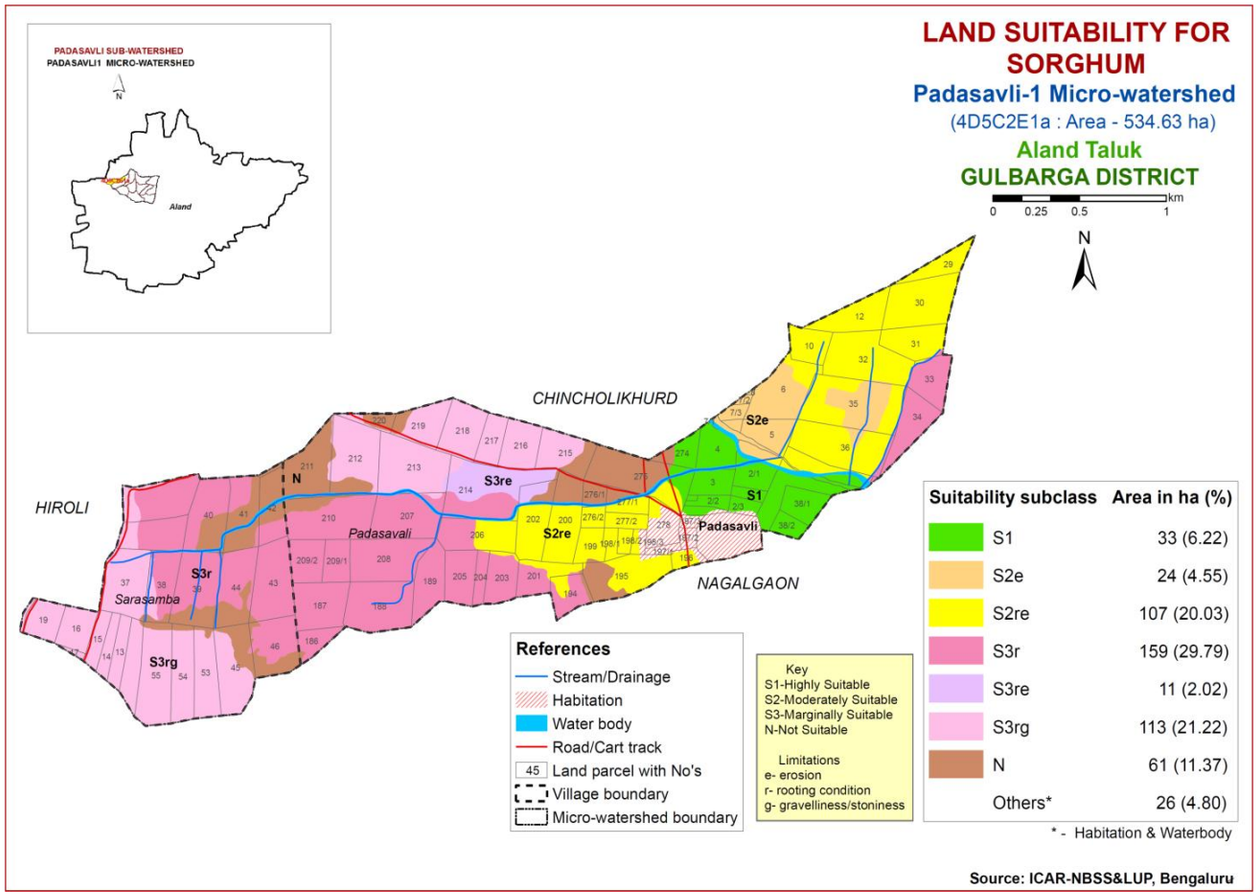

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
AVAILABLE COPPER (2014)
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
KHANAPUR
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Copper
Area in ha (%)
Sufficient (> 0.2 ppm) 655 (98.25)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

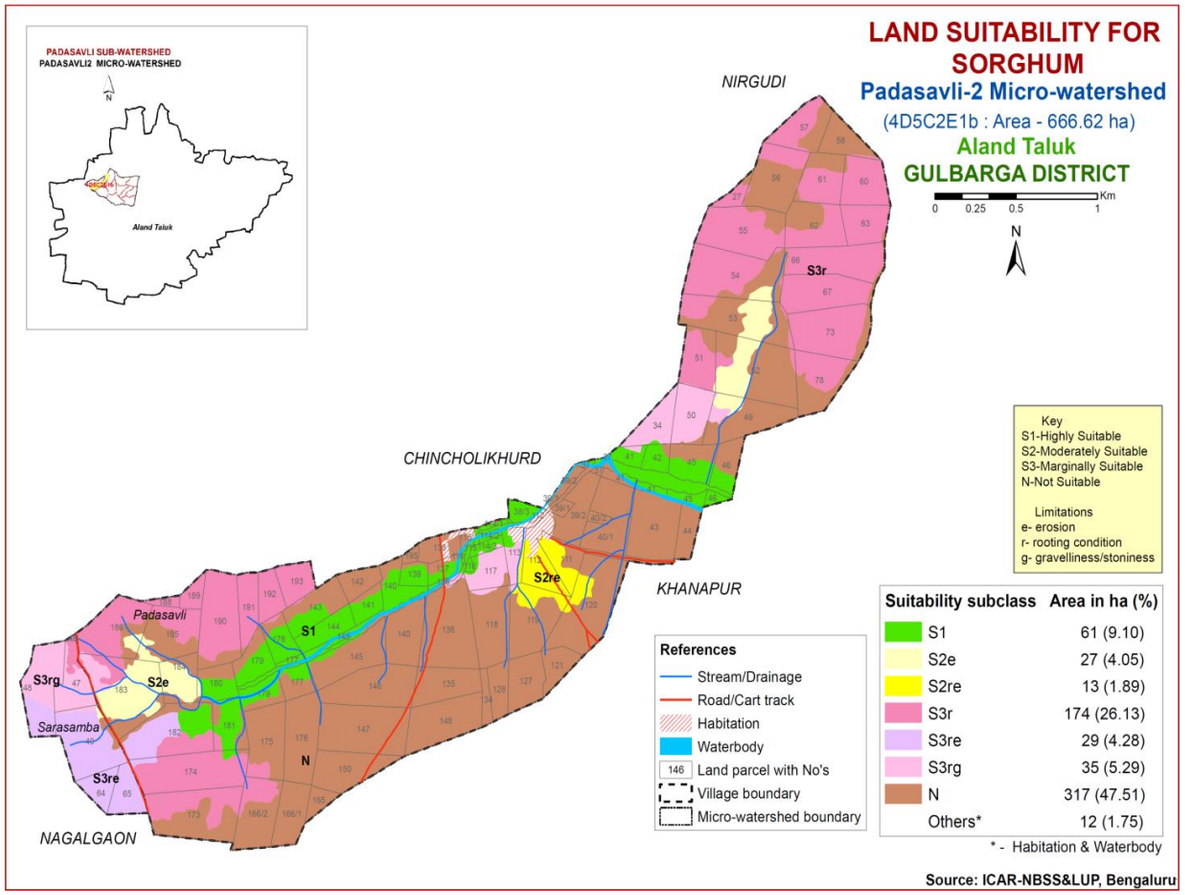

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
AVAILABLE COPPER (2014)
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Copper
Area in ha (%)
Sufficient (> 0.2 ppm) 686 (99.49)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

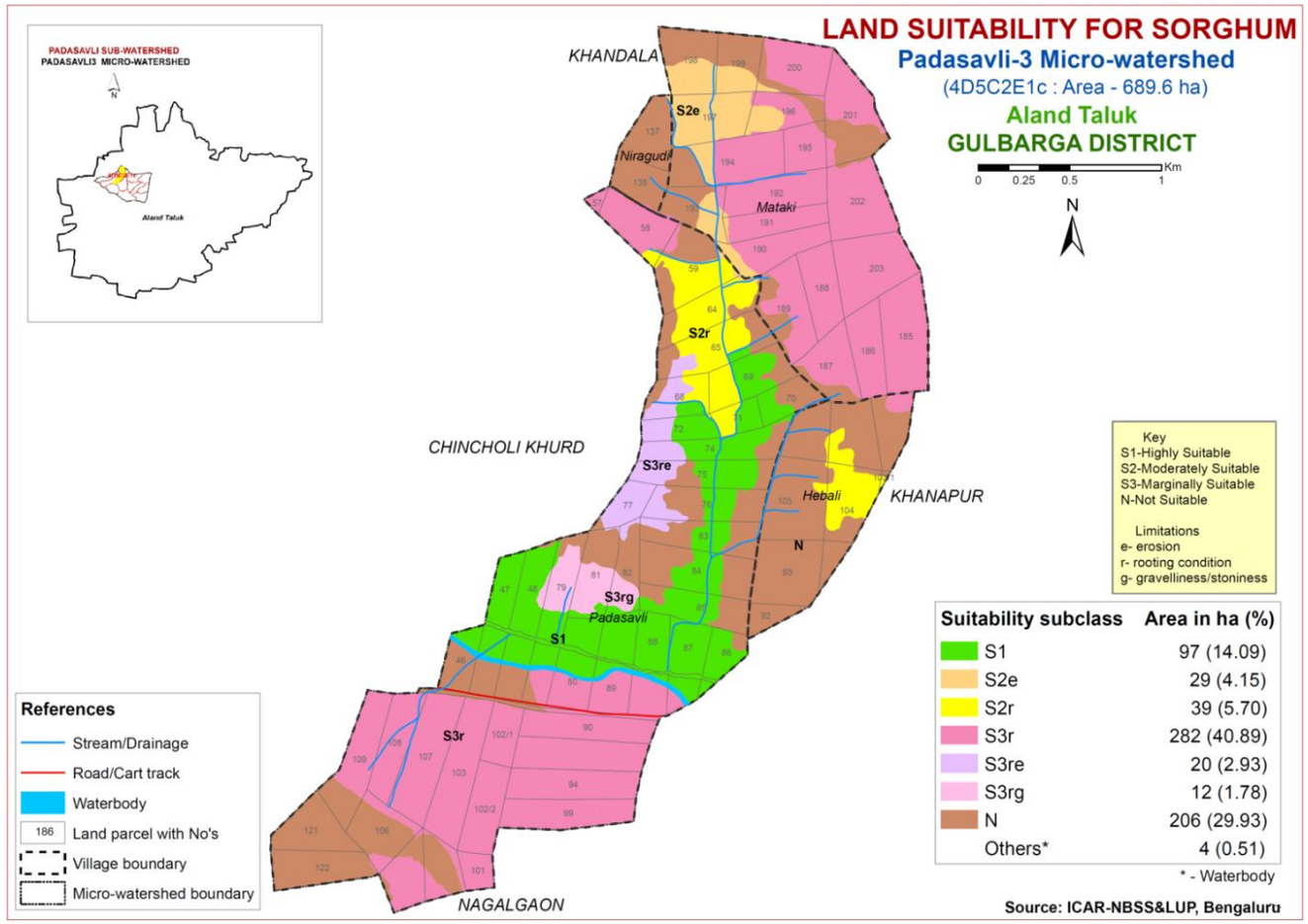

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
AVAILABLE ZINC (2014)
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Zinc
Area in ha (%)
Deficient (< 0.6 ppm) 368 (68.90)
Sufficient (> 0.6 ppm) 141 (26.30)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

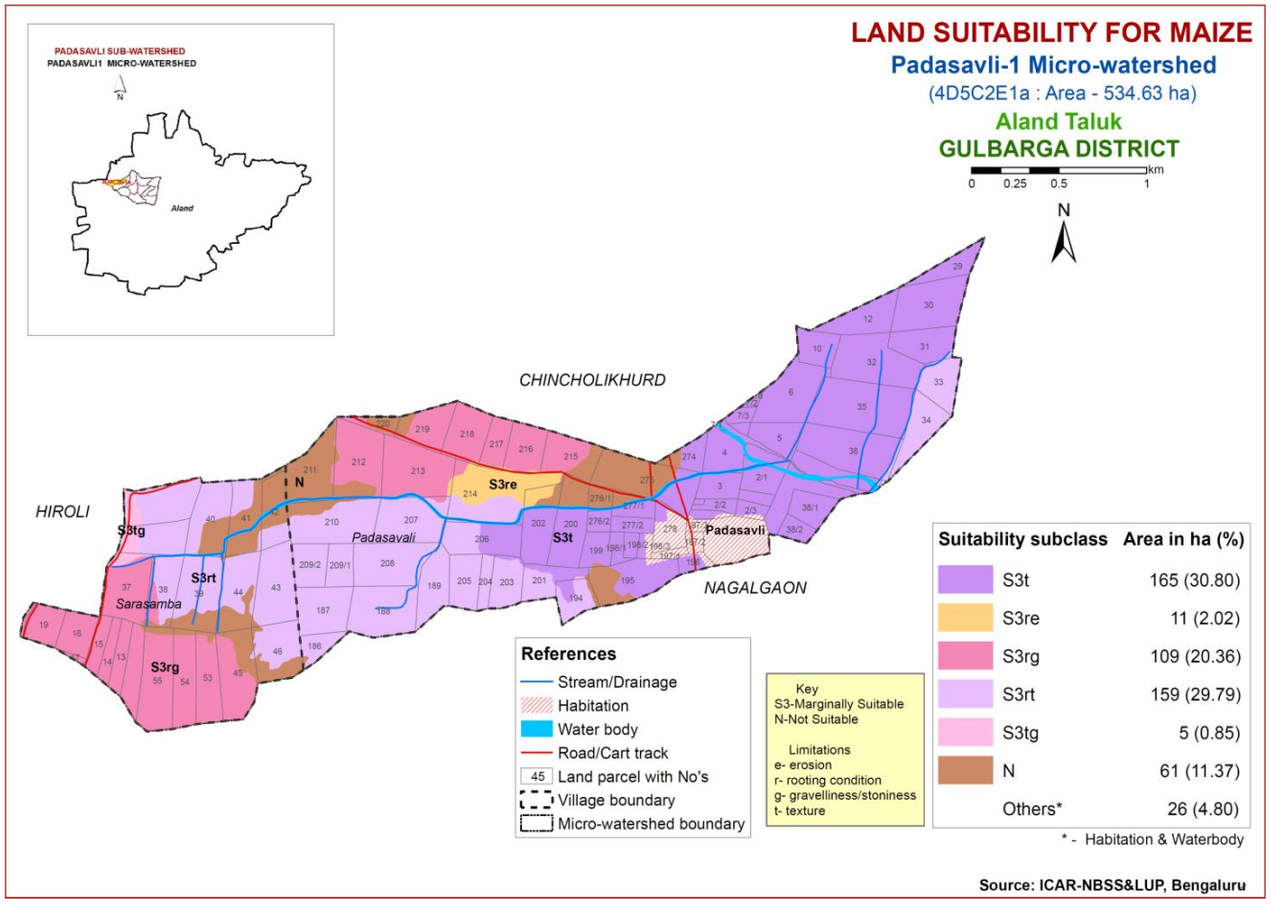

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
AVAILABLE ZINC (2014)
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Zinc
Area in ha (%)
Deficient (< 0.6 ppm) 522 (78.38)
Sufficient (> 0.6 ppm) 132 (19.87)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

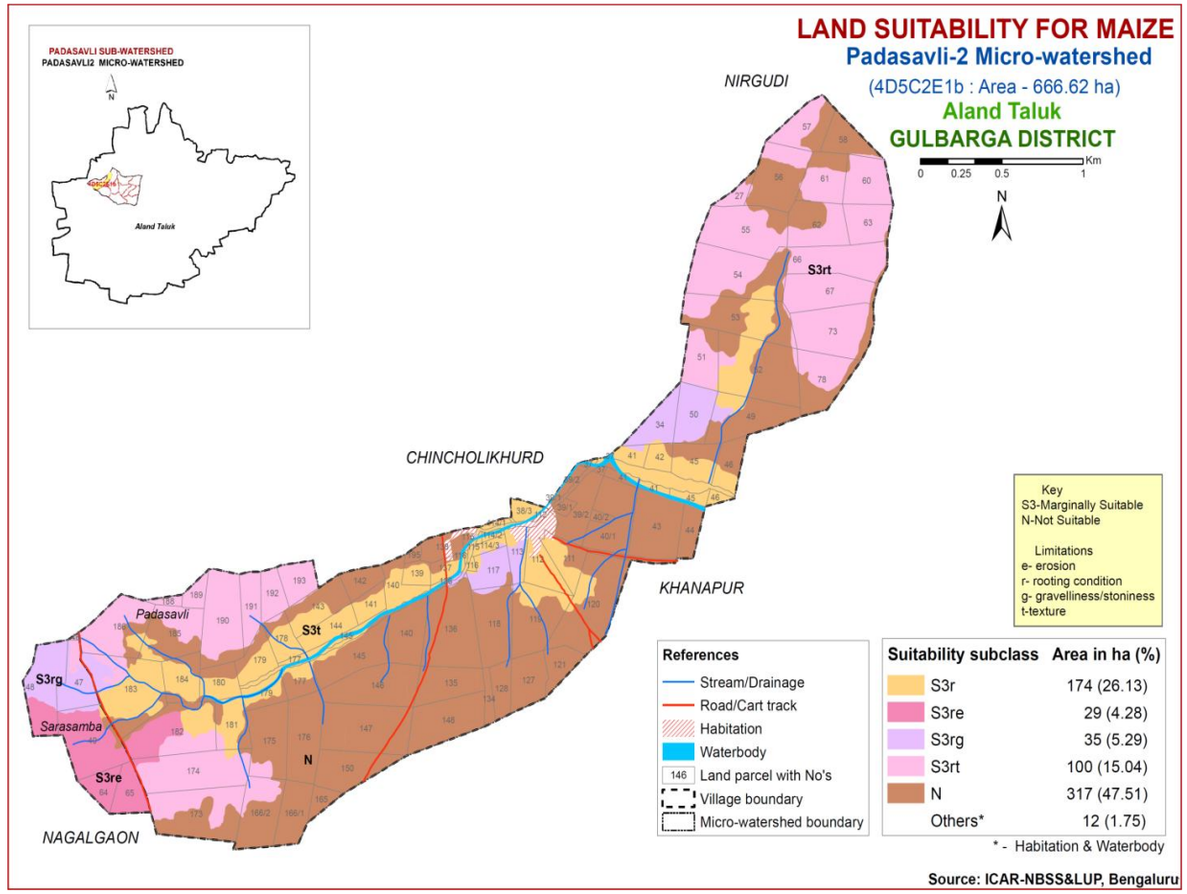

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
AVAILABLE ZINC (2014)
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Available Zinc
Area in ha (%)
Deficient (< 0.6 ppm) 586 (84.91)
Sufficient (> 0.6 ppm) 101 (14.58)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

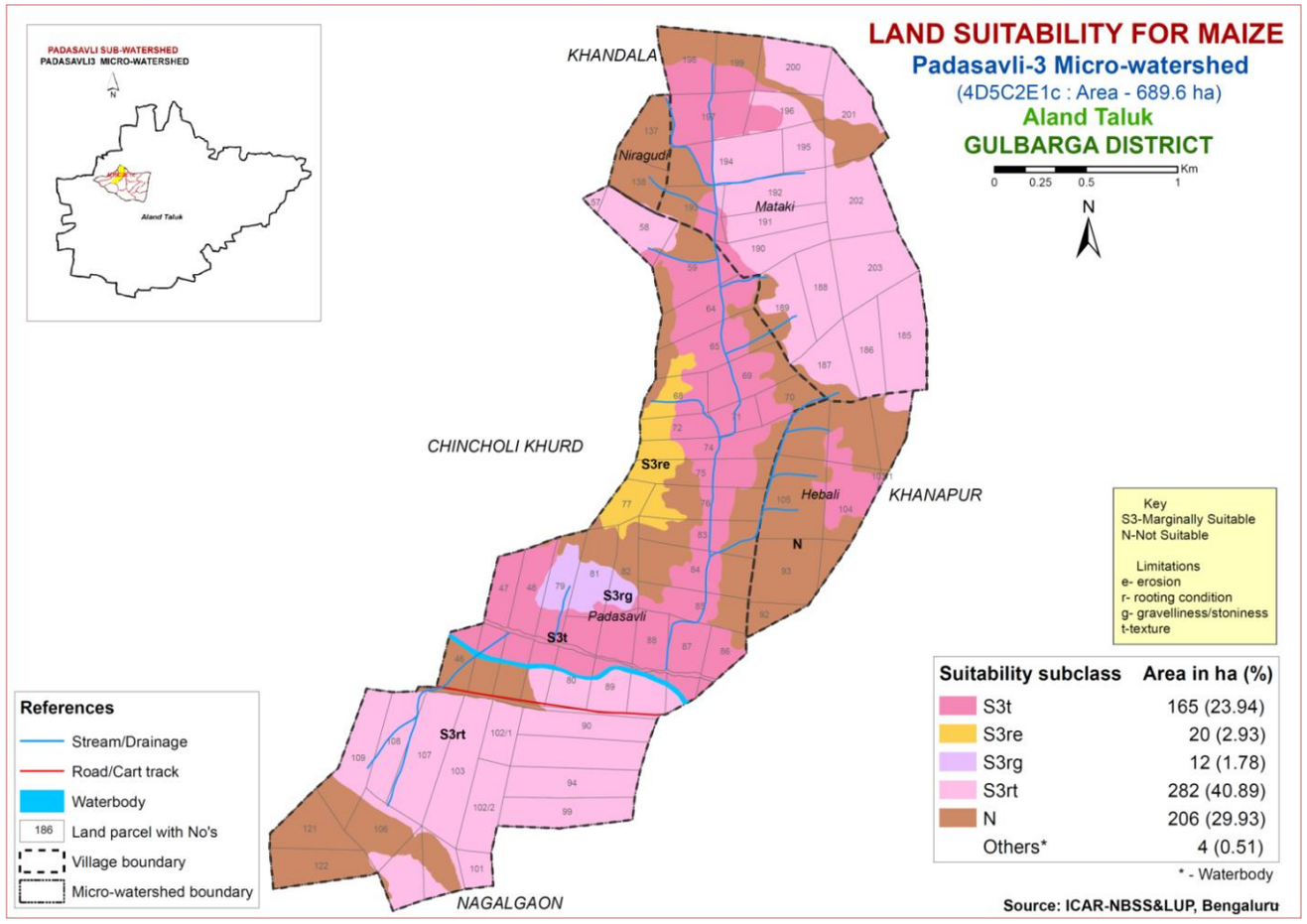

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
LAND SUITABILITY FOR SORGHUM
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
HIROLI
CHINCHOLIKHURD
NAGALGAON
Padasavali
Sarasamba
S1
S2e
S2re
S3r
S3re
S3rg
N
References
Stream/Drainage
Habitation
Water body
Road/Cart track
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 33 (6.22)
S2e 24 (4.55)
S2re 107 (20.03)
S3r 159 (29.79)
S3re 11 (2.02)
S3rg 113 (21.22)
N 61 (11.37)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

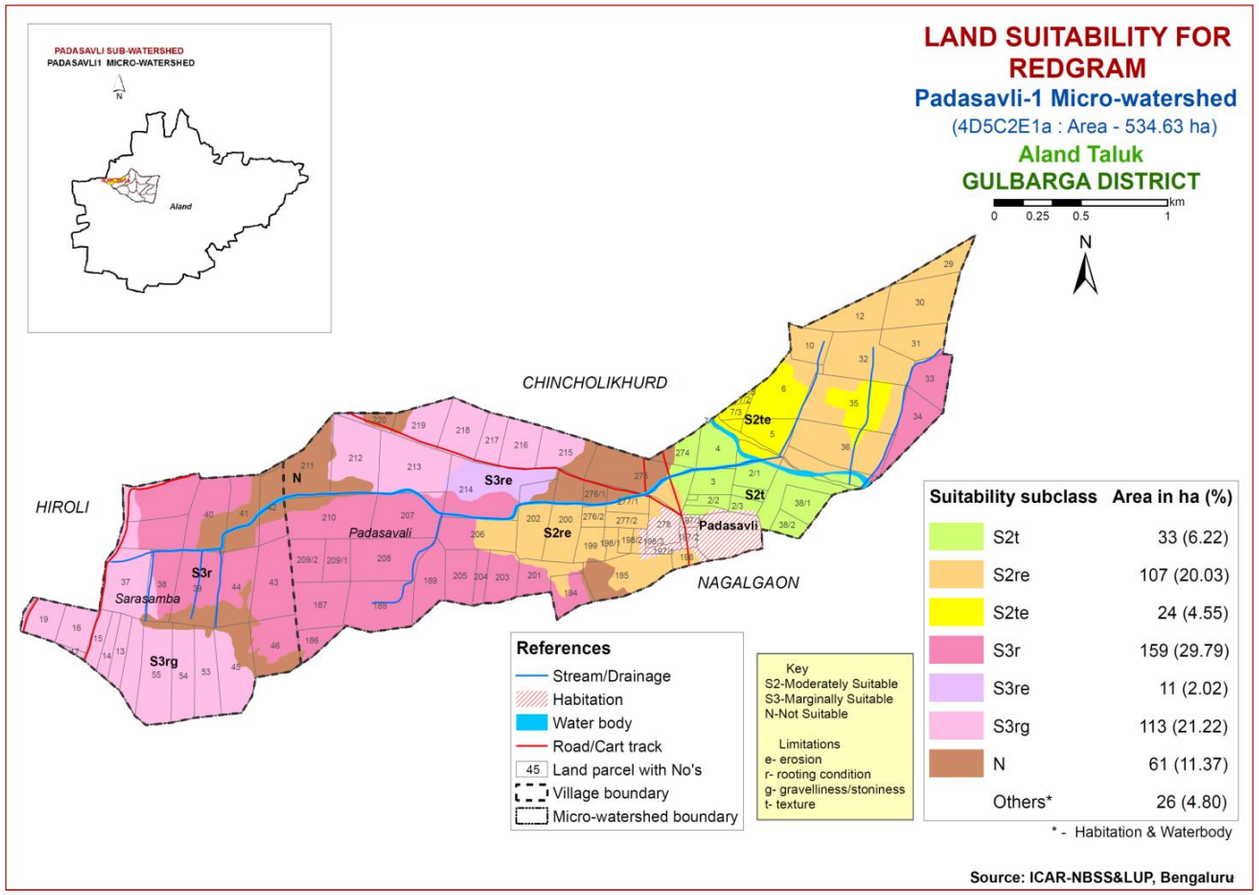

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR SORGHUM
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
S1
S2e
S2re
S3r
S3re
S3rg
N
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 61 (9.10)
S2e 27 (4.05)
S2re 13 (1.89)
S3r 174 (26.13)
S3re 29 (4.28)
S3rg 35 (5.29)
N 317 (47.51)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

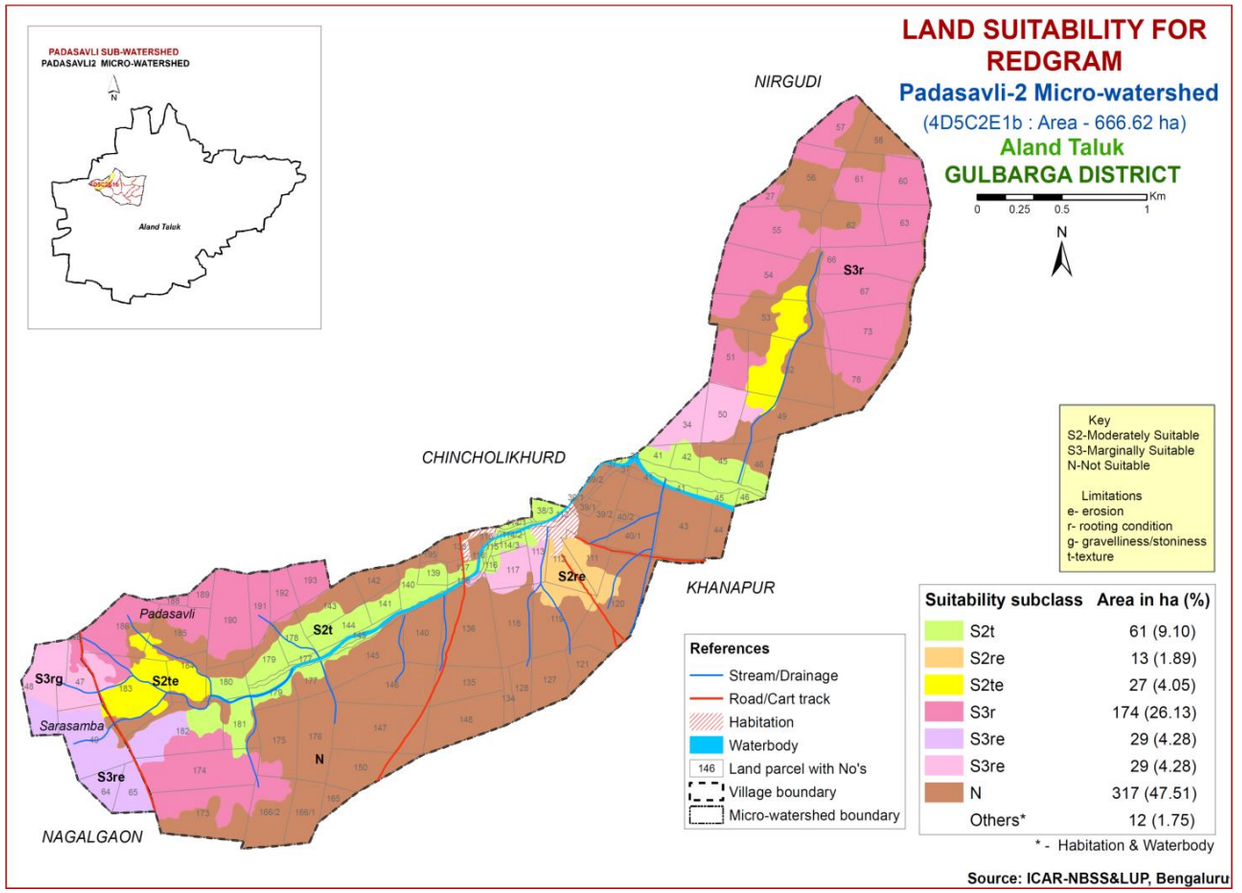

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR SORGHUM
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
CHINCHOLI KHURD
KHANAPUR
NAGALGAON
Niragudi
Mataki
Hebali
Padasavli
S1
S2e
S2r
S3r
S3re
S3rg
N
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 97 (14.09)
S2e 29 (4.15)
S2r 39 (5.70)
S3r 282 (40.89)
S3re 20 (2.93)
S3rg 12 (1.78)
N 206 (29.93)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

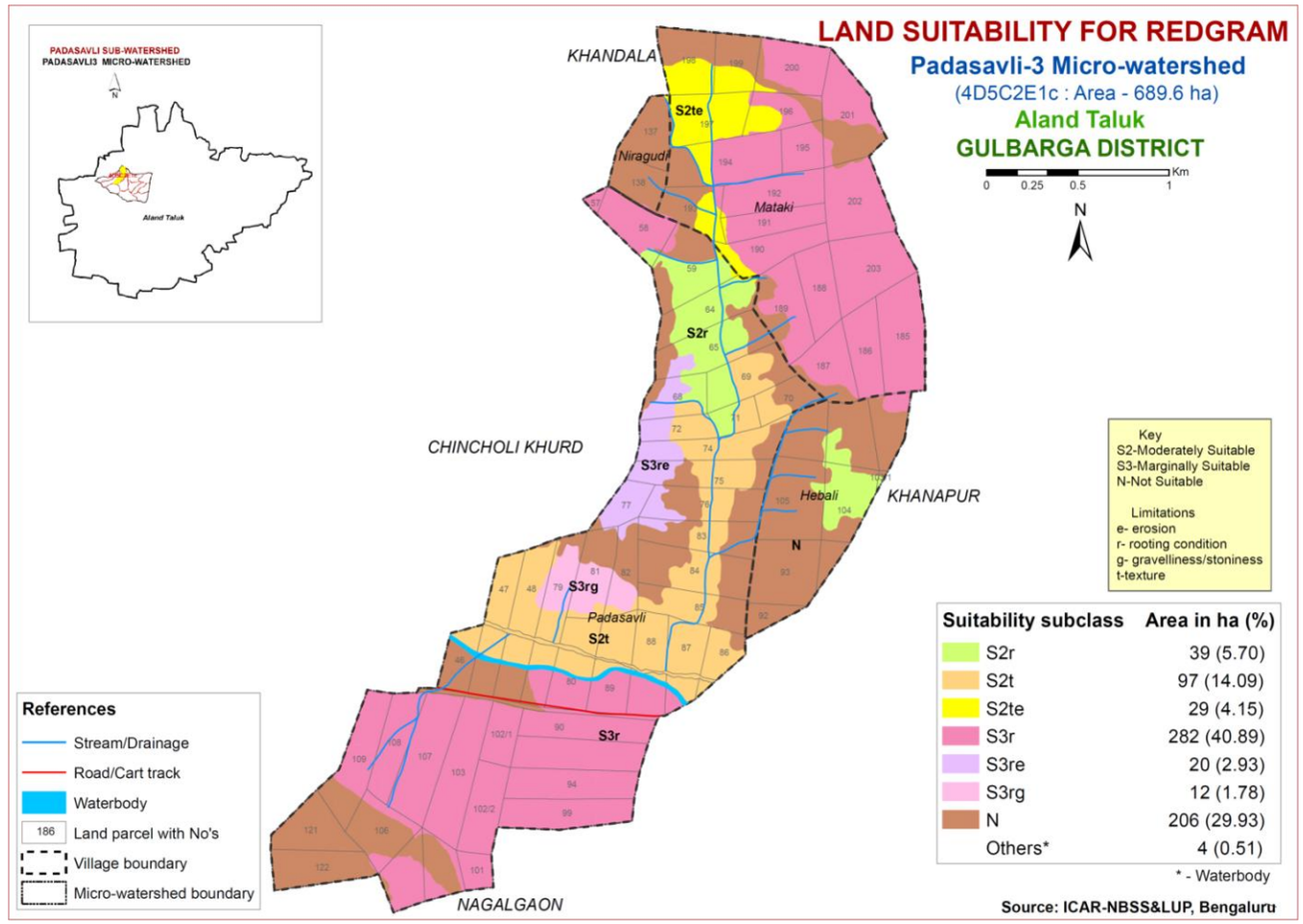

LAND SUITABILITY FOR MAIZE
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
NAGALGAON
Padasavli
Sarasamba
S3tg
S3rt
S3rg
S3re
S3t
N
References
Stream/Drainage
Habitation
Water body
Road/Cart track
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
t- texture
Suitability subclass | Area in ha (%)
S3t 165 (30.80)
S3re 11 (2.02)
S3rg 109 (20.36)
S3rt 159 (29.79)
S3tg 5 (0.85)
N 61 (11.37)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

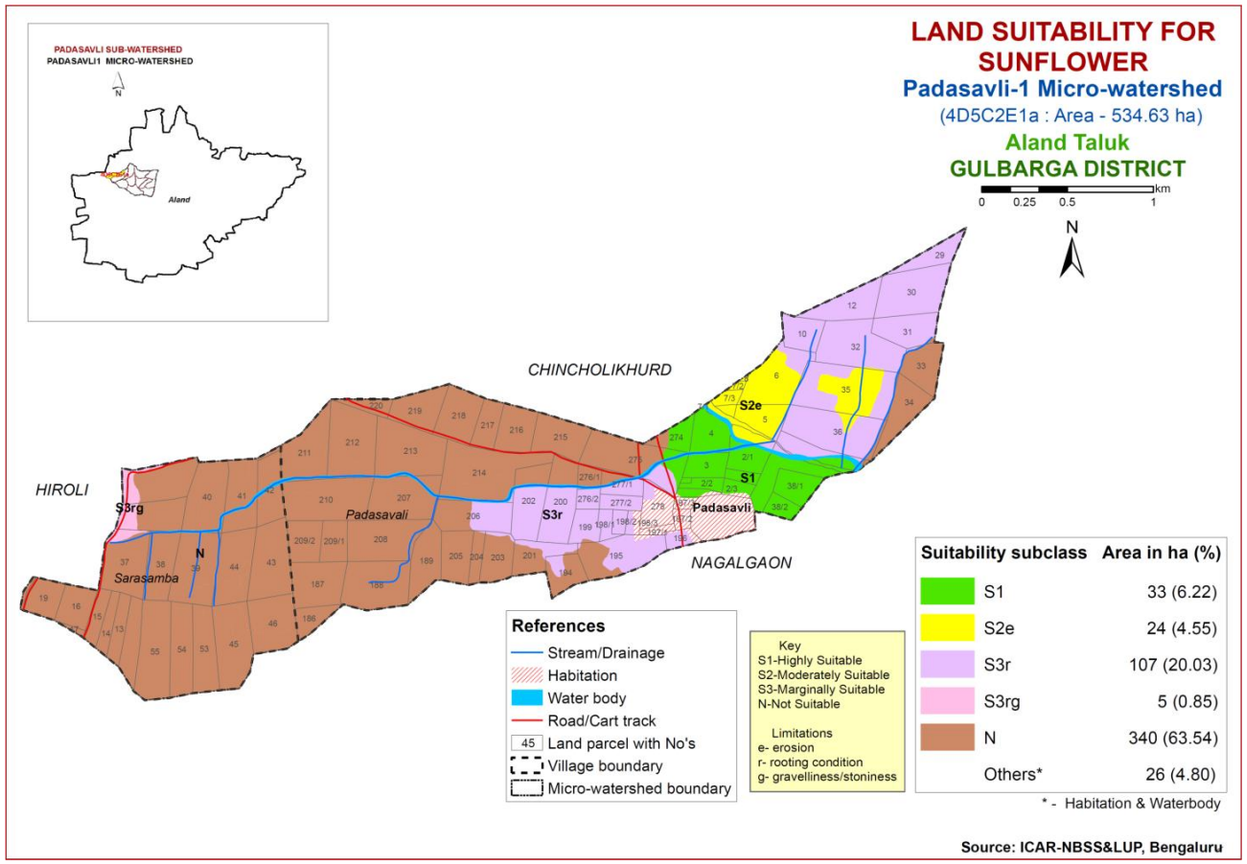

LAND SUITABILITY FOR MAIZE
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
S3rg
S3re
S3t
S3rt
N
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
t-texture
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass | Area in ha (%)
S3r 174 (26.13)
S3re 29 (4.28)
S3rg 35 (5.29)
S3rt 100 (15.04)
N 317 (47.51)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

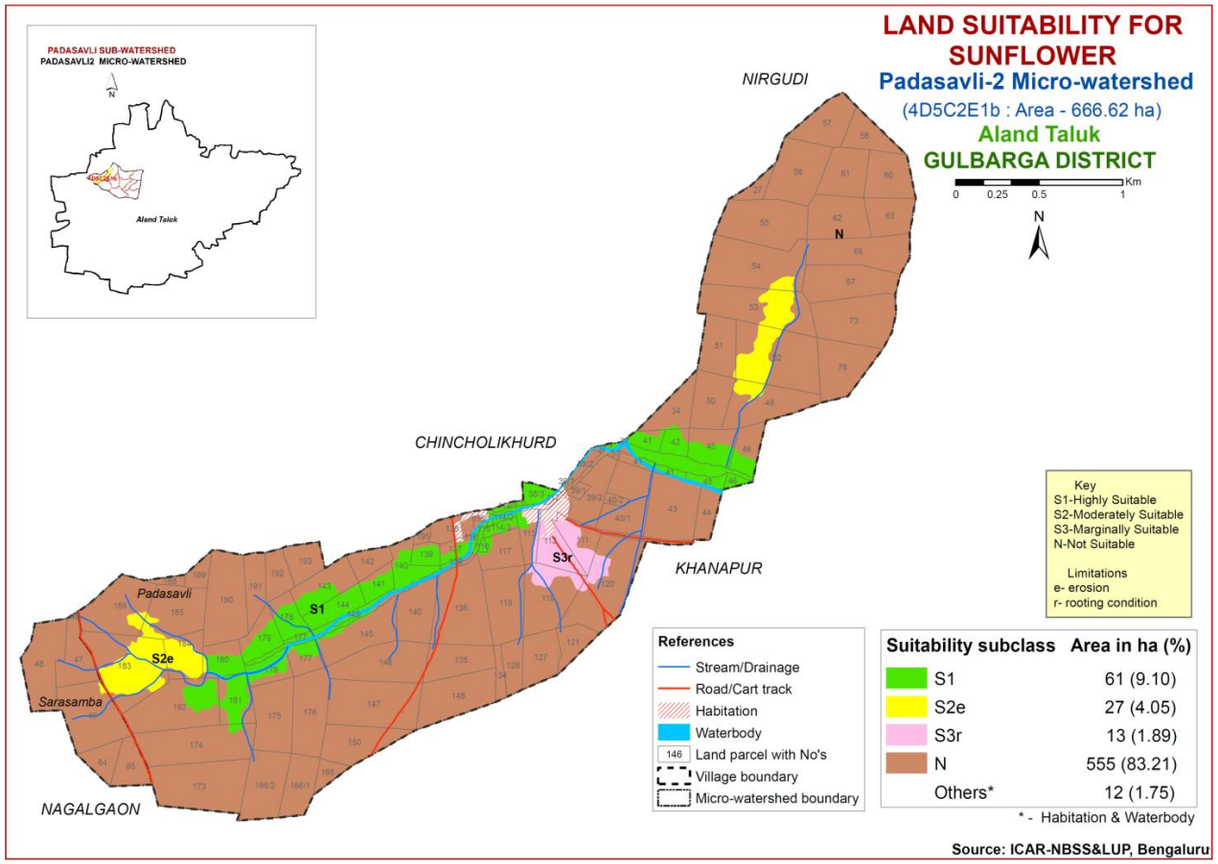

LAND SUITABILITY FOR MAIZE
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
KHANAPUR
Hebali
NAGALGAON
Padasavli
S3re
S3rg
S3t
S3rt
N
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
t-texture
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass | Area in ha (%)
S3t 165 (23.94)
S3re 20 (2.93)
S3rg 12 (1.78)
S3rt 282 (40.89)
N 206 (29.93)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

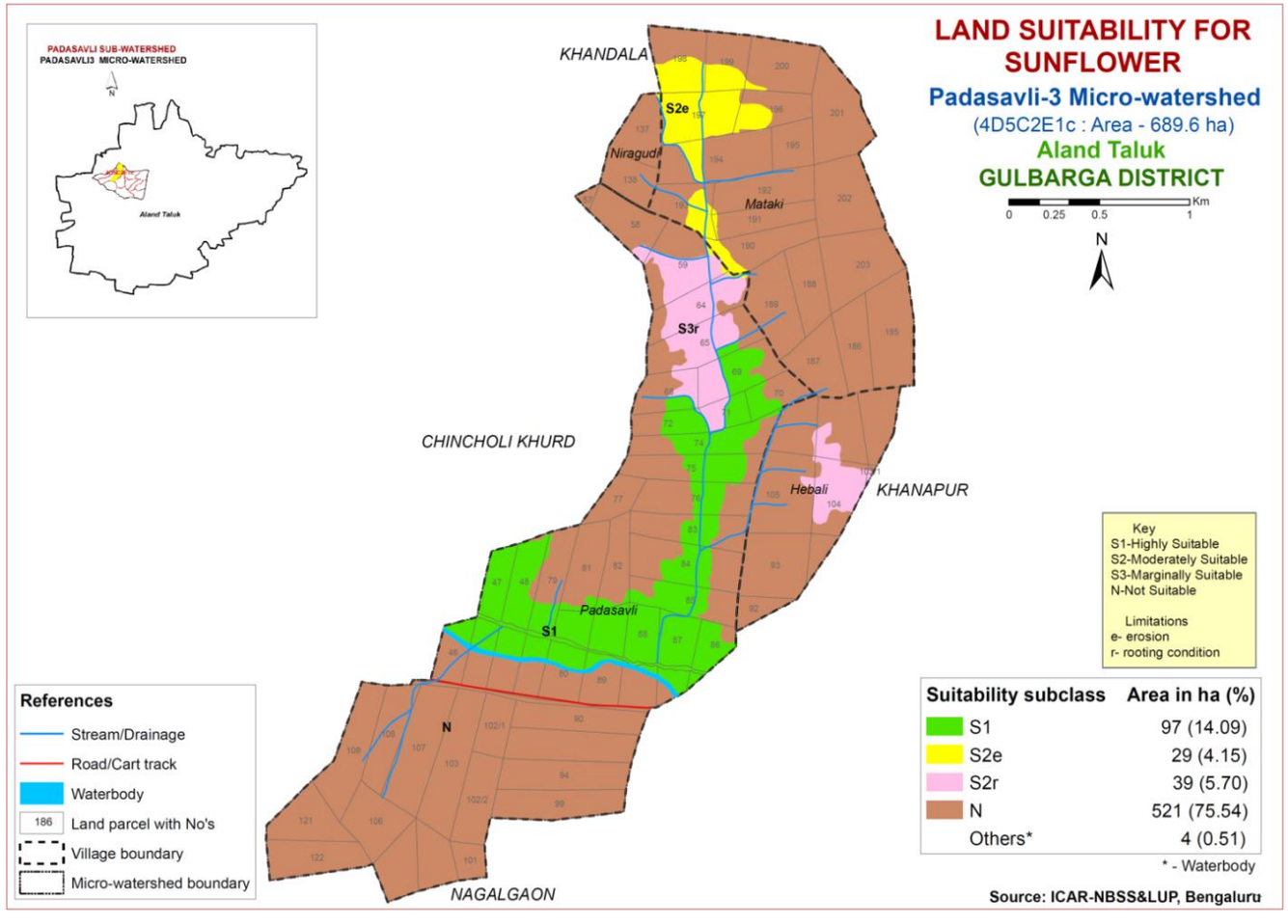

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
LAND SUITABILITY FOR REDGRAM
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
NAGALGAON
Padasavali
Sarasamba
S2te
S3re
S2t
S2re
S3r
S3rg
N
References
Stream/Drainage
Habitation
Water body
Road/Cart track
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
t- texture
Suitability subclass Area in ha (%)
S2t 33 (6.22)
S2re 107 (20.03)
S2te 24 (4.55)
S3r 159 (29.79)
S3re 11 (2.02)
S3rg 113 (21.22)
N 61 (11.37)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

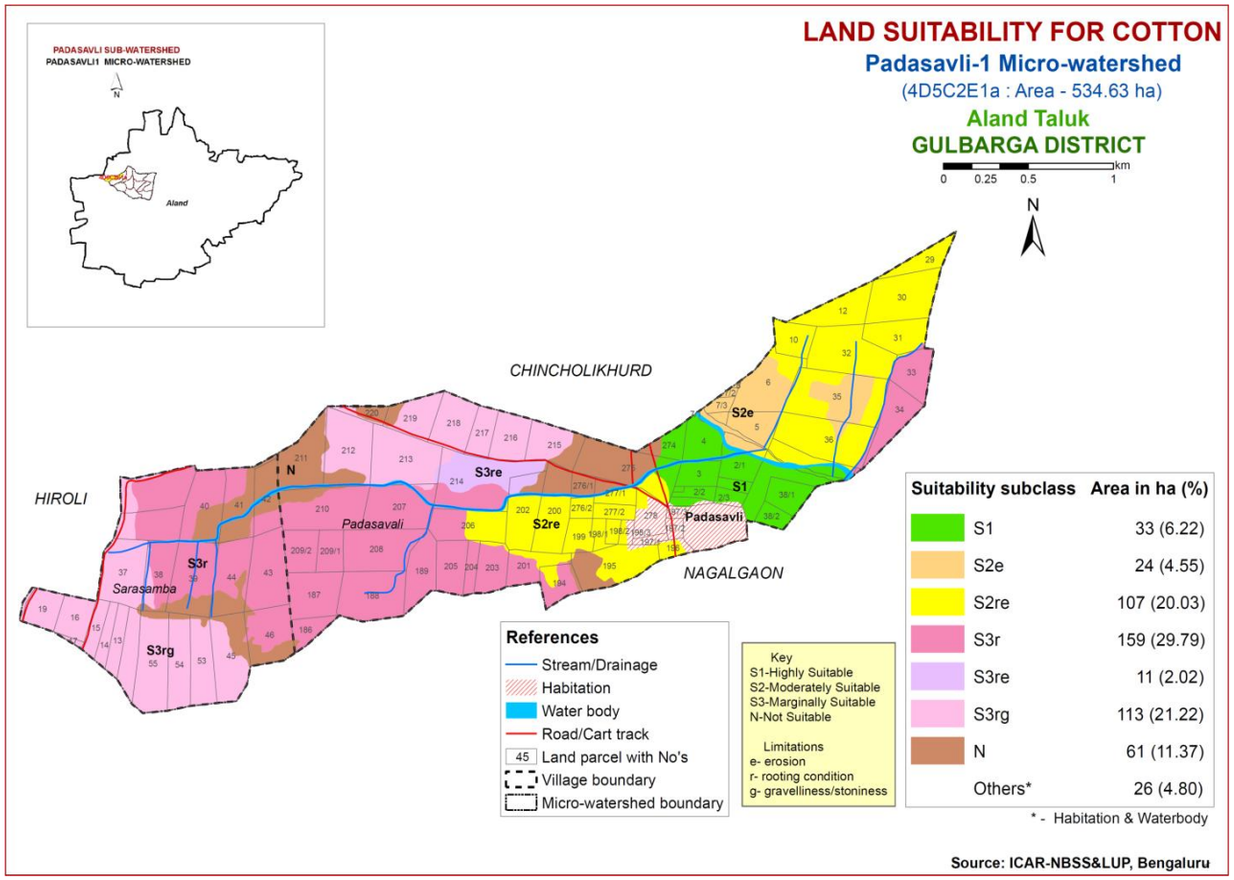

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR REDGRAM
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
S3r
S2t
S2te
S3rg
S2re
N
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
t-texture
Suitability subclass Area in ha (%)
S2t 61 (9.10)
S2re 13 (1.89)
S2te 27 (4.05)
S3r 174 (26.13)
S3re 29 (4.28)
S3re 29 (4.28)
N 317 (47.51)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

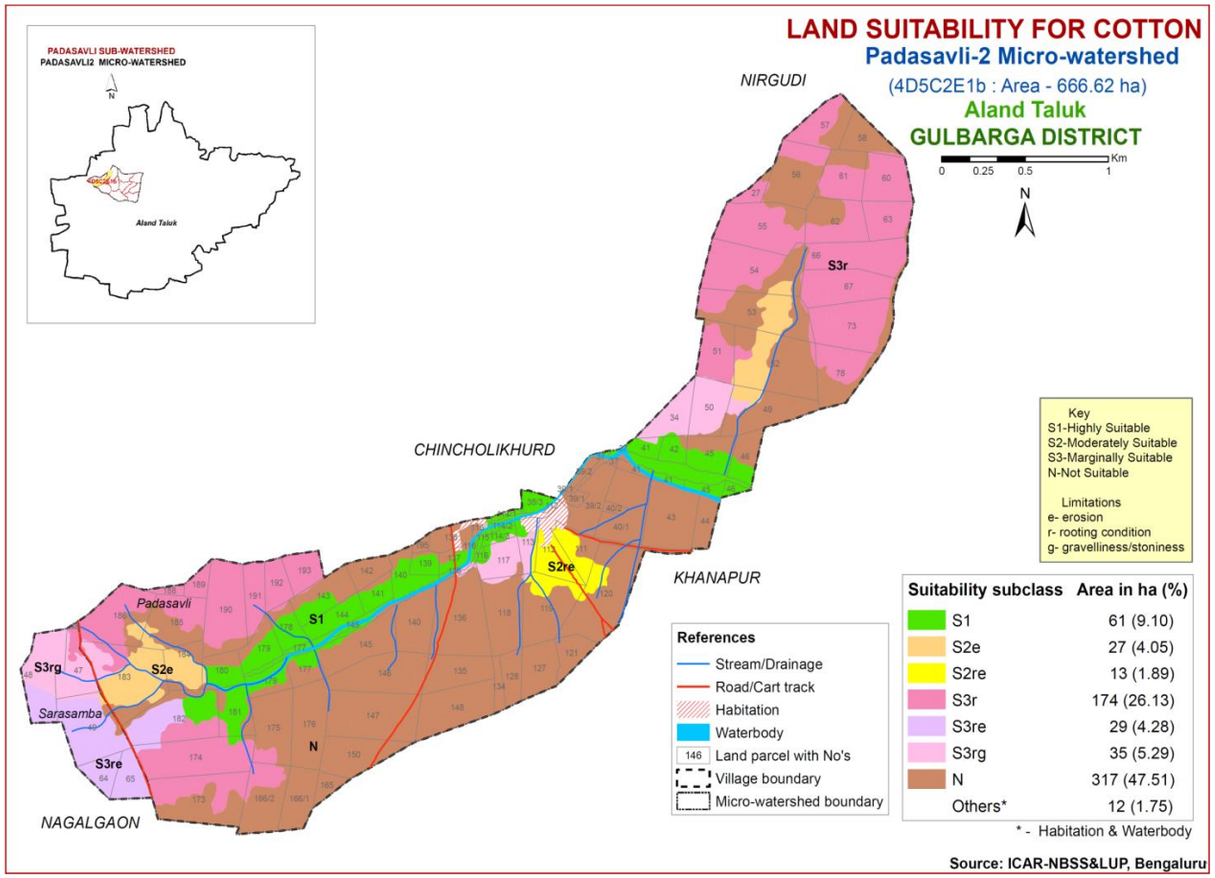

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR REDGRAM
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
KHANAPUR
NAGALGAON
Hebali
Padasavli
S2te
S2r
S3re
S3rg
S2t
S3r
N
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
t-texture
Suitability subclass Area in ha (%)
S2r 39 (5.70)
S2t 97 (14.09)
S2te 29 (4.15)
S3r 282 (40.89)
S3re 20 (2.93)
S3rg 12 (1.78)
N 206 (29.93)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

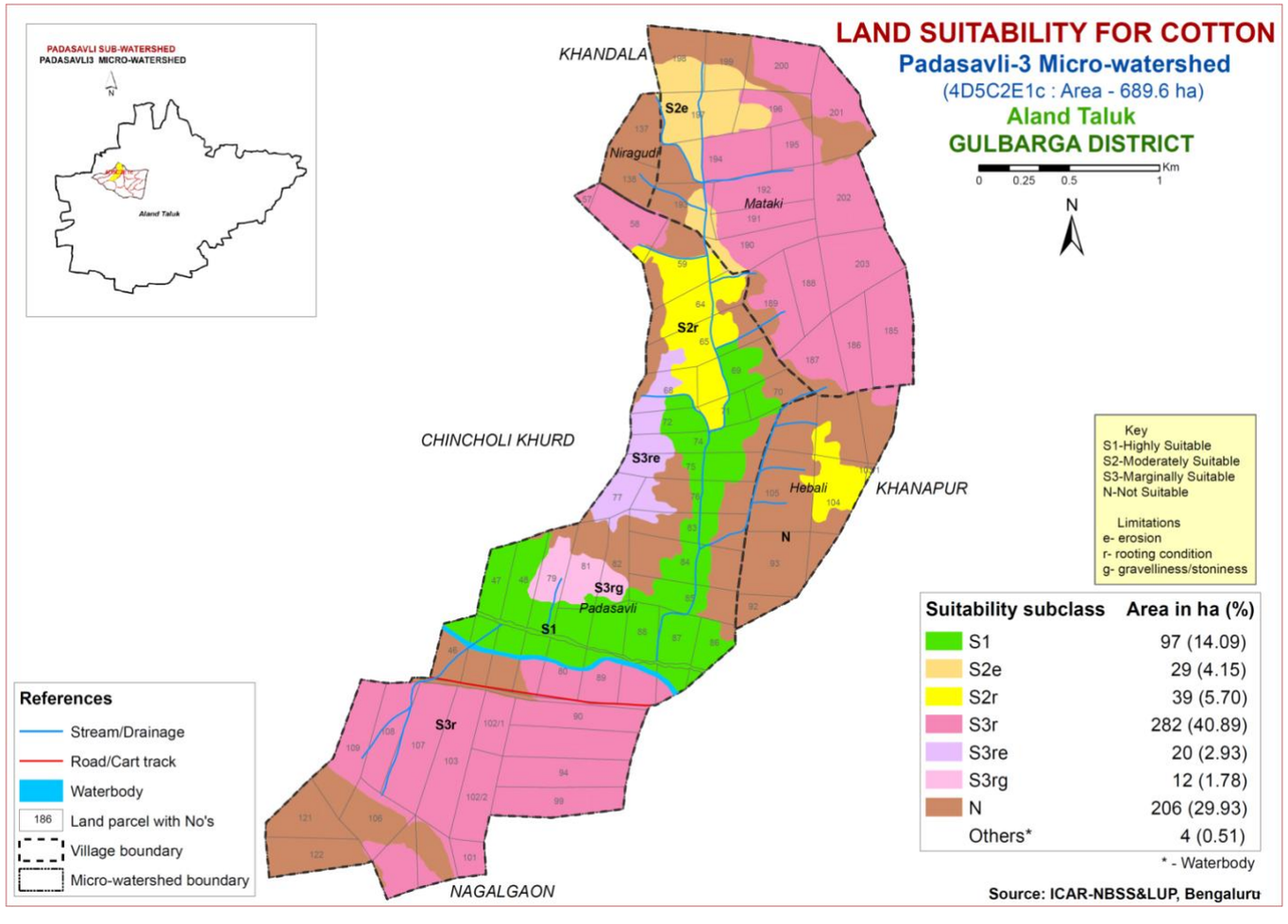

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
LAND SUITABILITY FOR SUNFLOWER
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
S2e
S1
S3r
S3rg
N
References
Stream/Drainage
Habitation
Water body
Road/Cart track
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass Area in ha (%)
S1 33 (6.22)
S2e 24 (4.55)
S3r 107 (20.03)
S3rg 5 (0.85)
N 340 (63.54)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

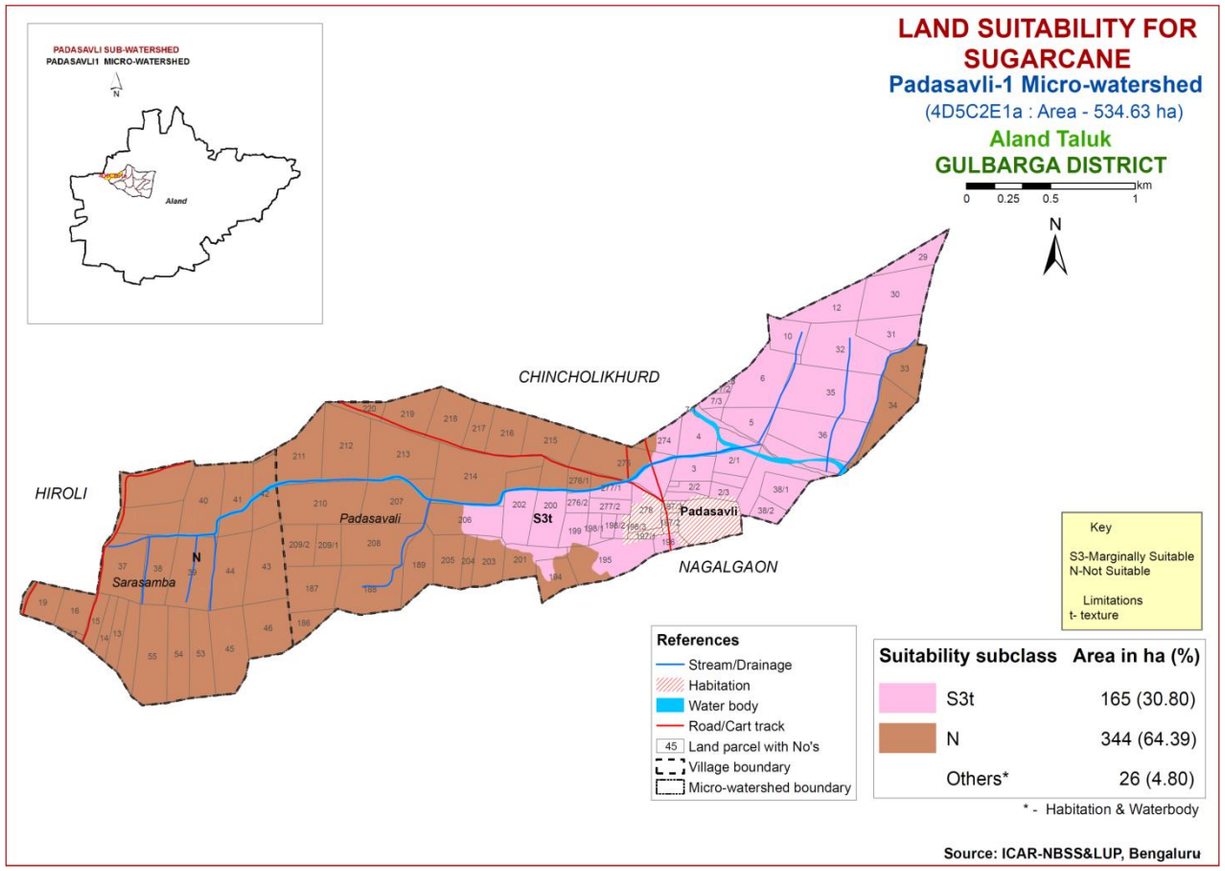

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR SUNFLOWER
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
Padasavli
Sarasamba
NAGALGAON
S1
S2e
S3r
N
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S1 61 (9.10)
S2e 27 (4.05)
S3r 13 (1.89)
N 555 (83.21)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

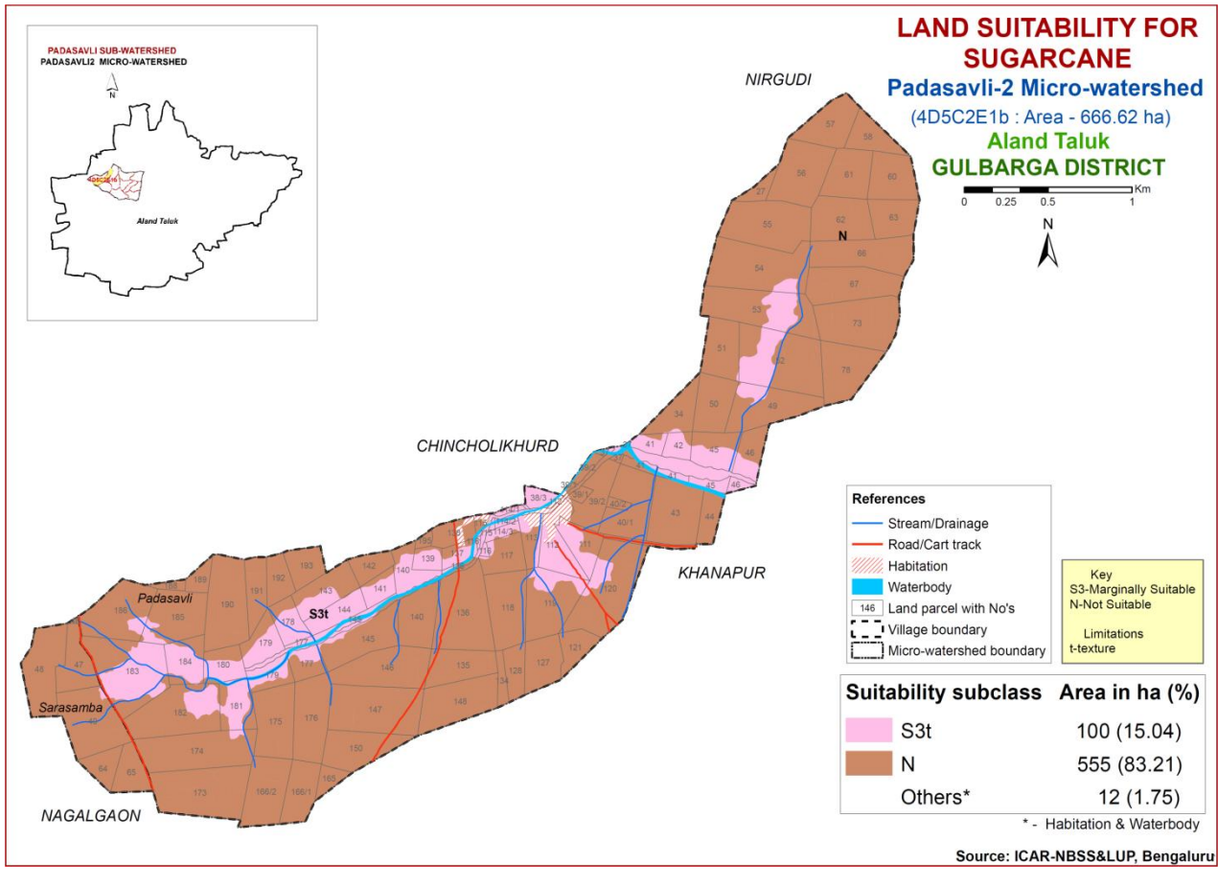

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR SUNFLOWER
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
S2e
S3r
S1
N
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S1 97 (14.09)
S2e 29 (4.15)
S2r 39 (5.70)
N 521 (75.54)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

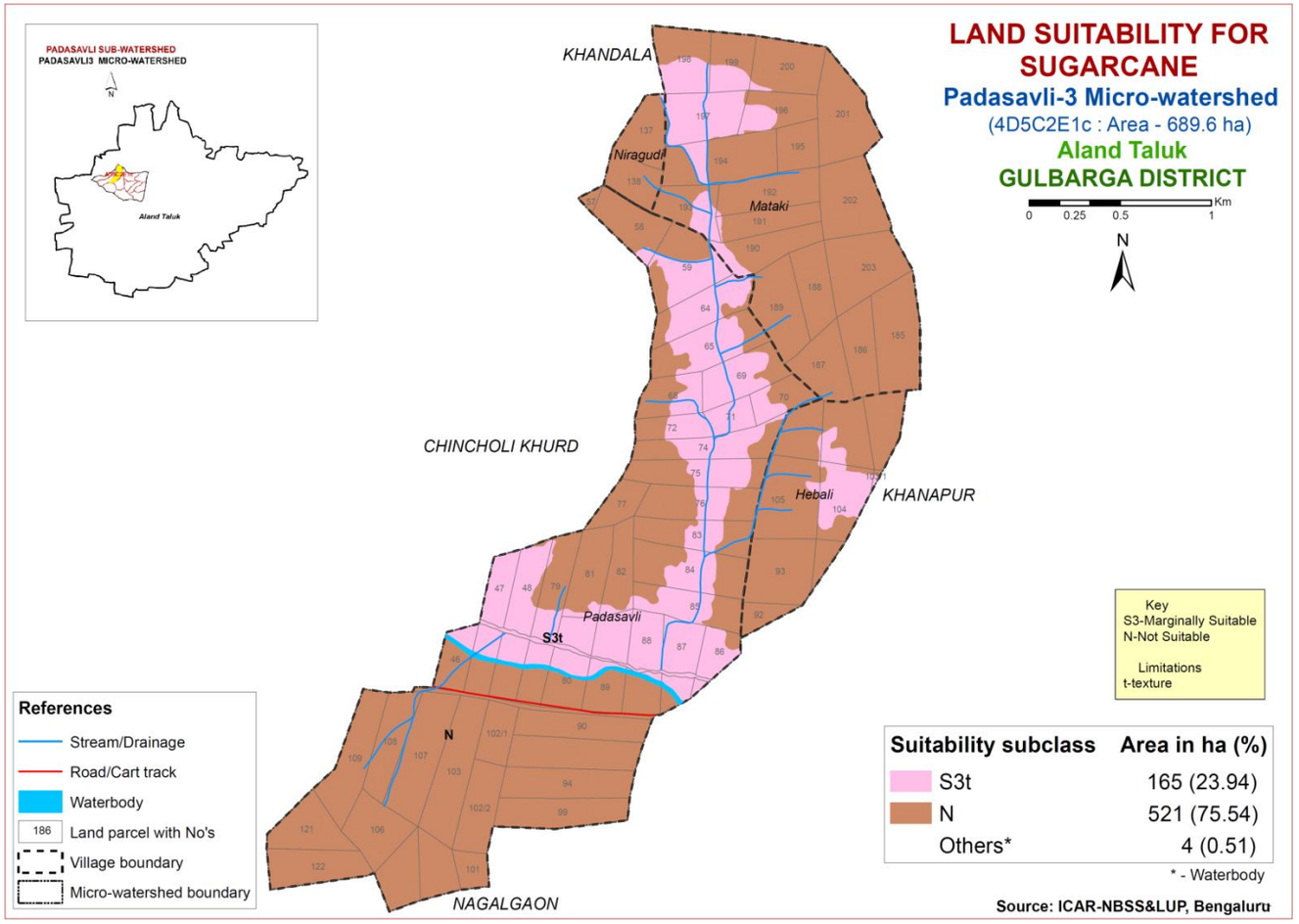

LAND SUITABILITY FOR COTTON
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
NAGALGAON
Padasavli
Sarasamba
S1
S2e
S2re
S3r
S3re
S3rg
N
References
Stream/Drainage
Habitation
Water body
Road/Cart track
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 33 (6.22)
S2e 24 (4.55)
S2re 107 (20.03)
S3r 159 (29.79)
S3re 11 (2.02)
S3rg 113 (21.22)
N 61 (11.37)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

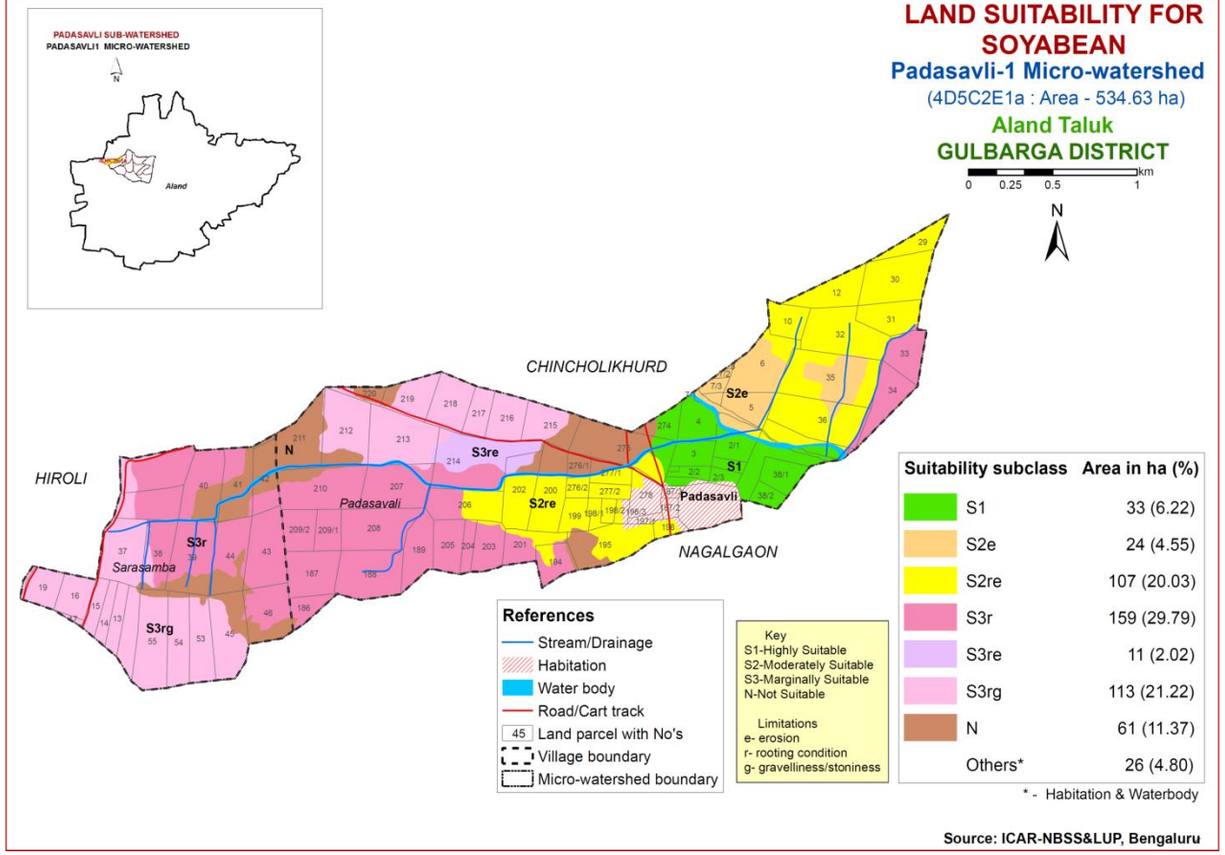

LAND SUITABILITY FOR COTTON
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
S1
S2e
S2re
S3r
S3re
S3rg
N
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 61 (9.10)
S2e 27 (4.05)
S2re 13 (1.89)
S3r 174 (26.13)
S3re 29 (4.28)
S3rg 35 (5.29)
N 317 (47.51)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

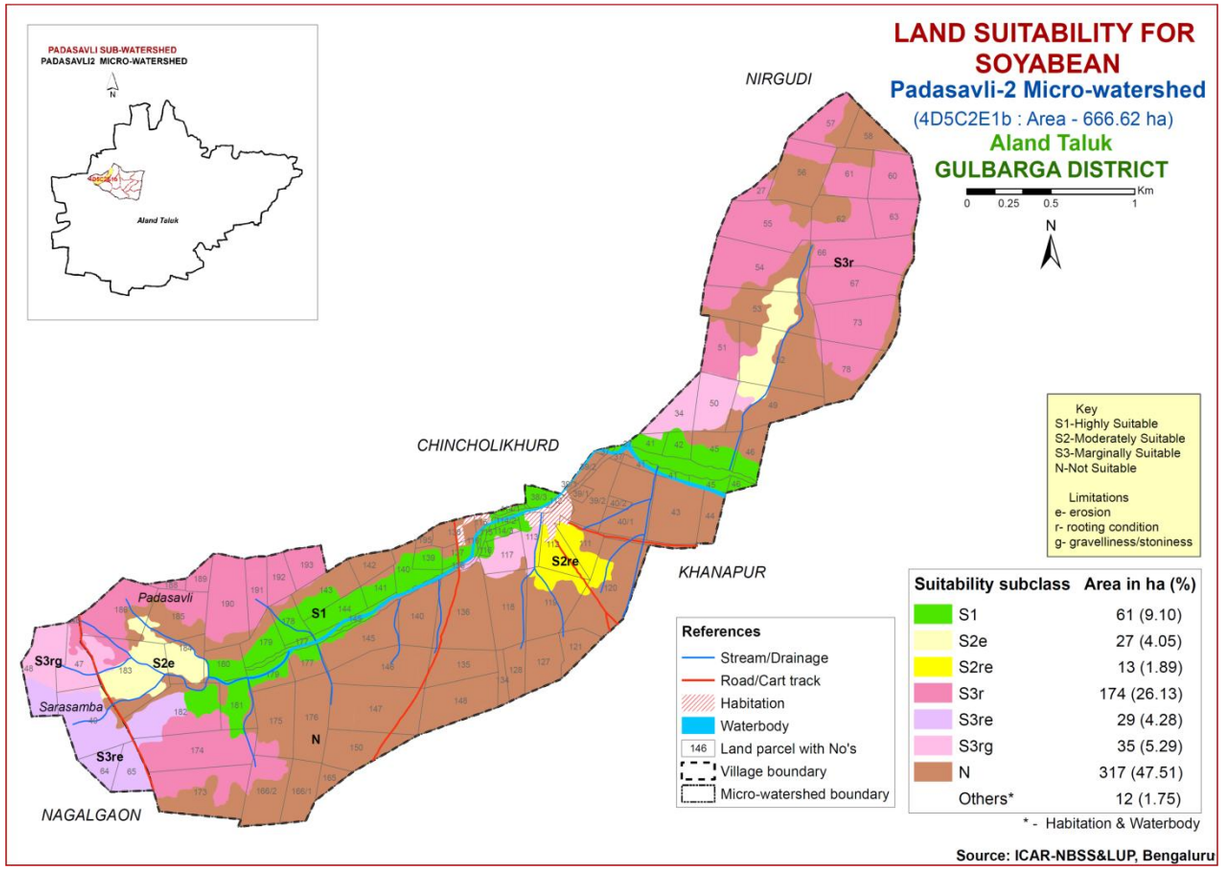

LAND SUITABILITY FOR COTTON
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
KHANAPUR
Hebali
NAGALGAON
Padasavli
S1
S2e
S2r
S3r
S3re
S3rg
N
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 97 (14.09)
S2e 29 (4.15)
S2r 39 (5.70)
S3r 282 (40.89)
S3re 20 (2.93)
S3rg 12 (1.78)
N 206 (29.93)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

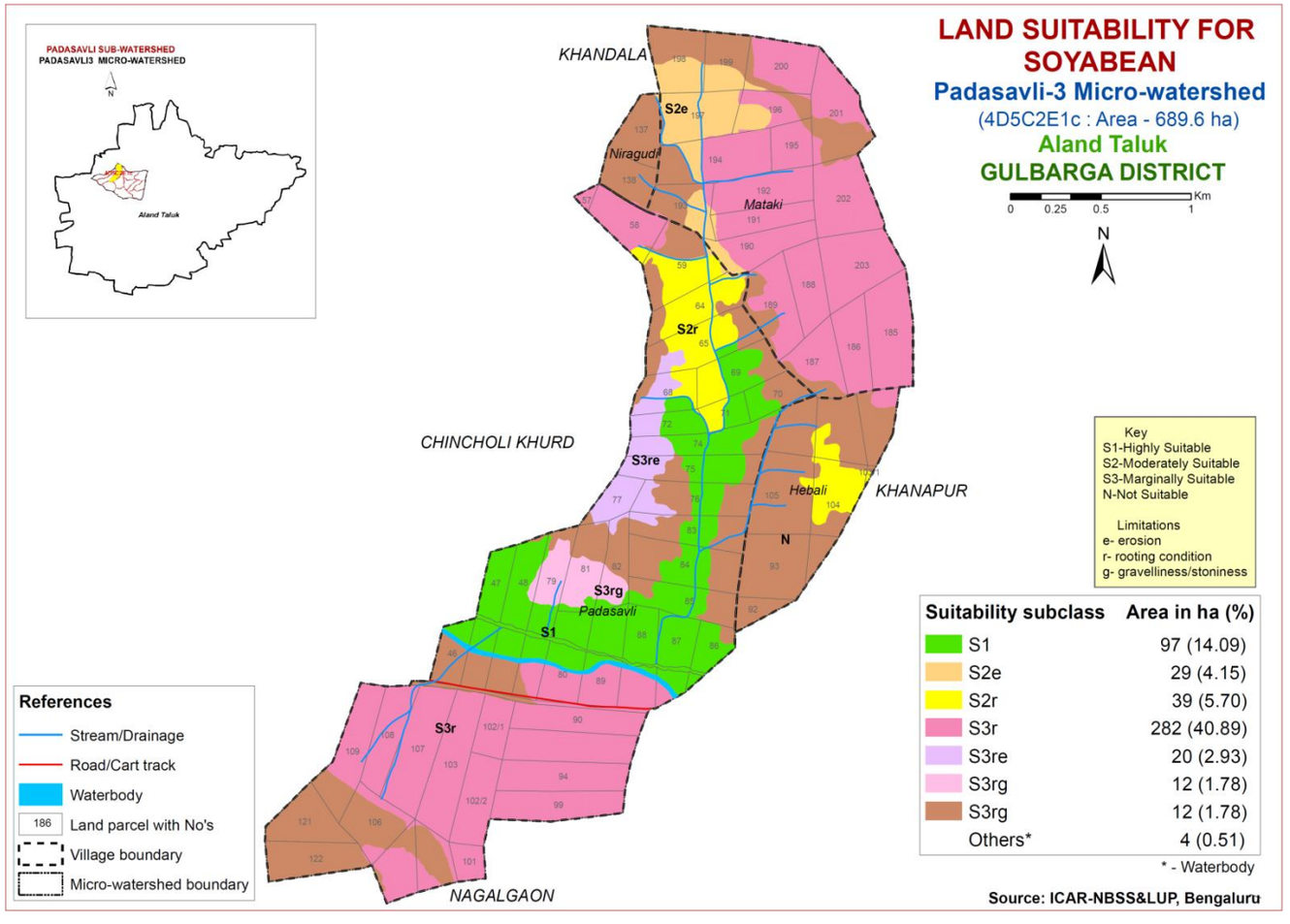

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
LAND SUITABILITY FOR SUGARCANE
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavali
S3t
Padasavli
NAGALGAON
Sarasamba
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
t- texture
References
Stream/Drainage
Habitation
Water body
Road/Cart track
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 165 (30.80)
N 344 (64.39)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

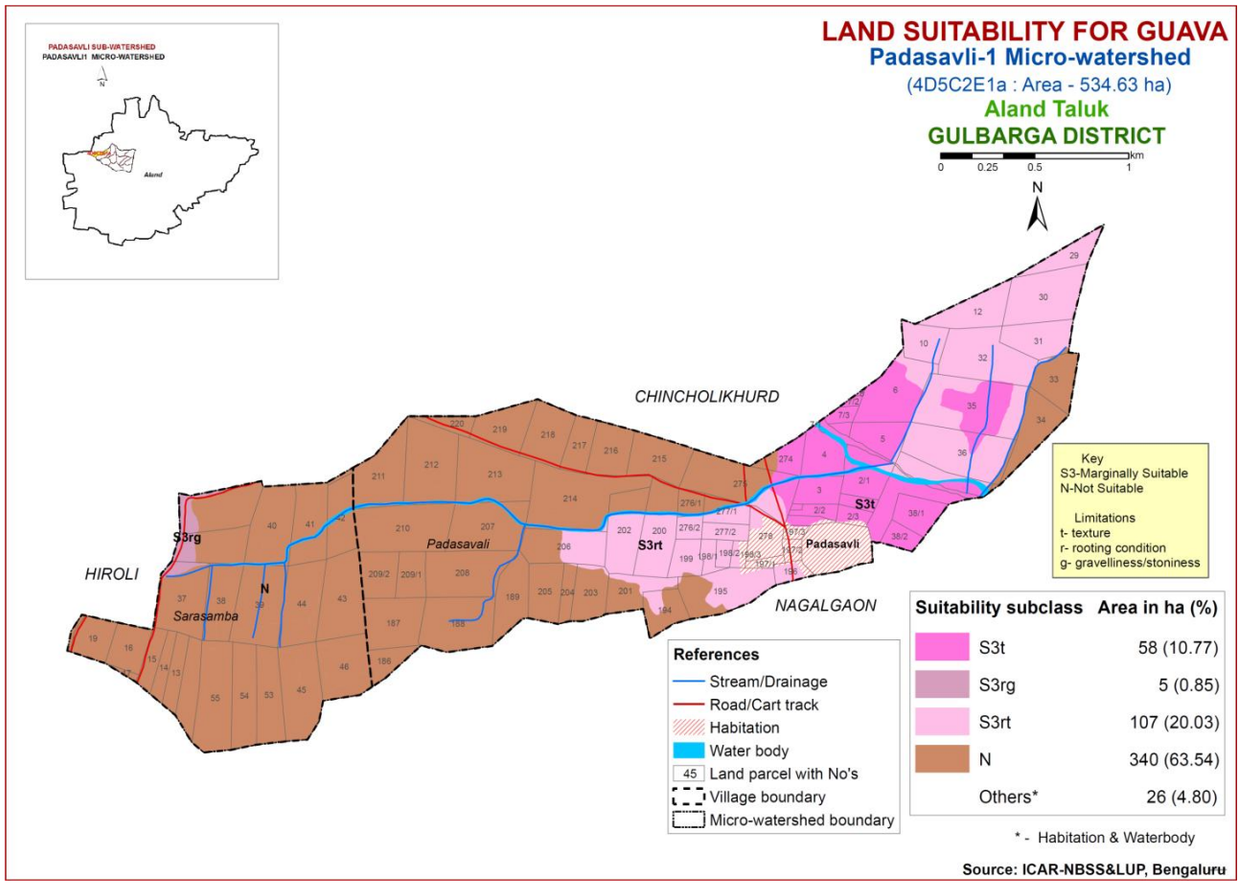

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR SUGARCANE
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
Padasavli
S3t
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
t-texture
Suitability subclass Area in ha (%)
S3t 100 (15.04)
N 555 (83.21)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

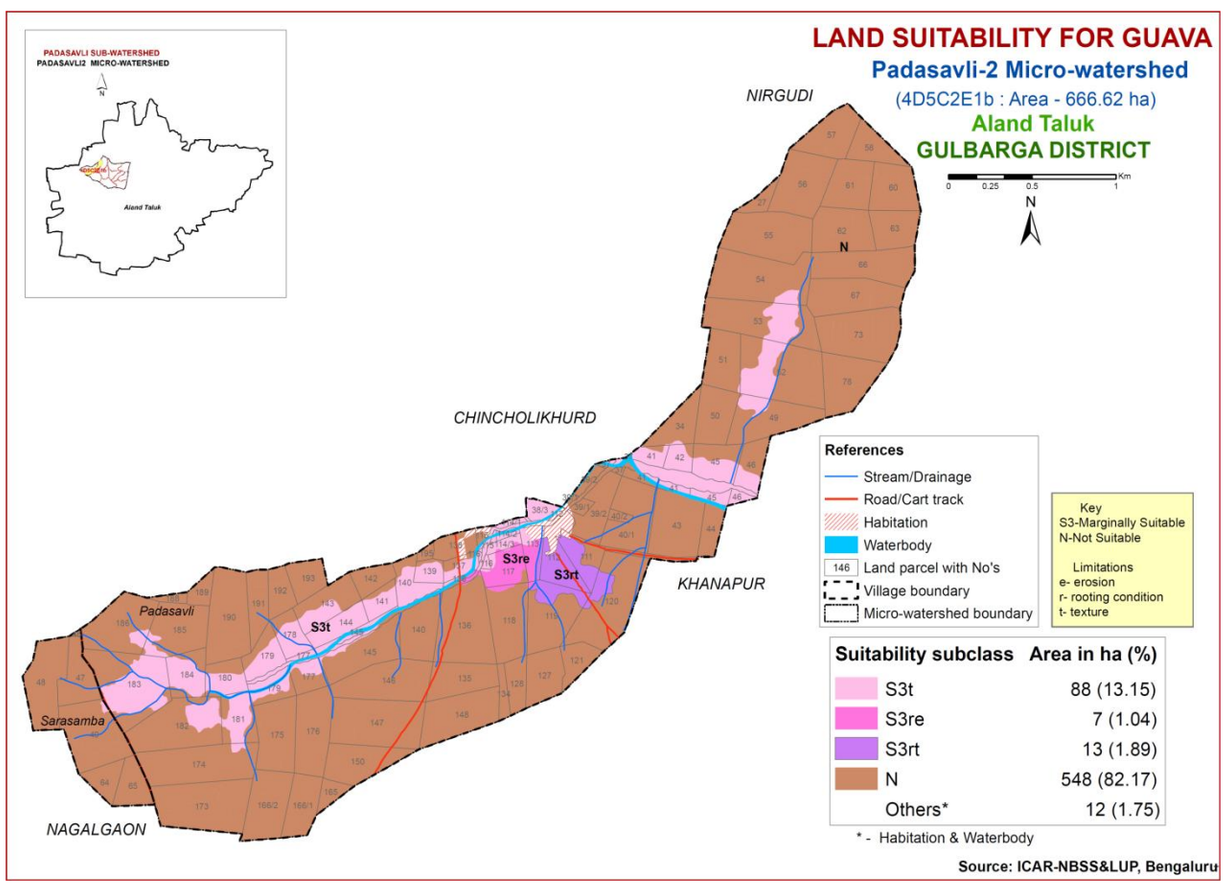

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR SUGARCANE
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
S3t
NAGALGAON
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
t-texture
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 165 (23.94)
N 521 (75.54)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

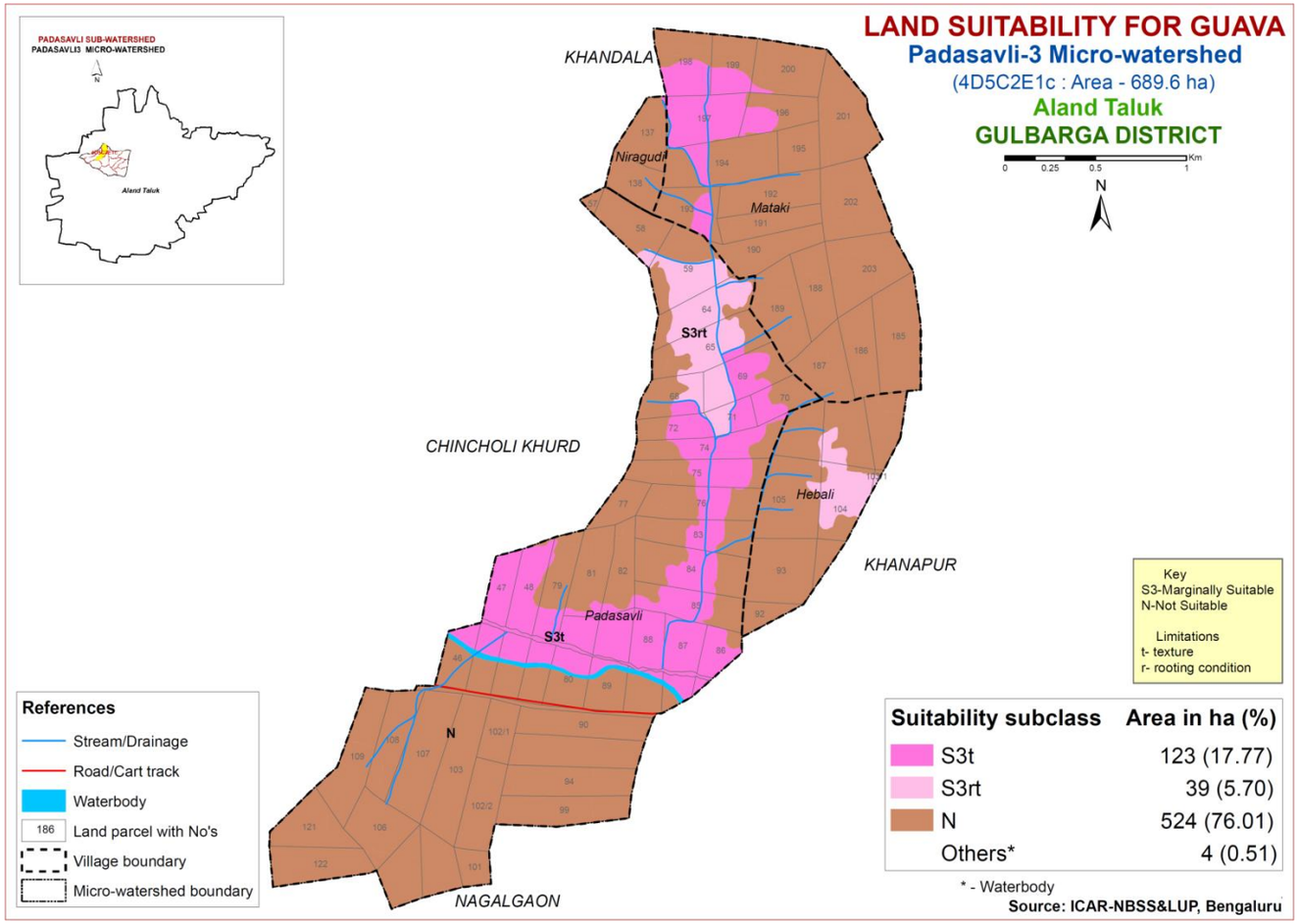

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
LAND SUITABILITY FOR SOYABEAN
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
HIROLI
CHINCHOLIKHURD
NAGALGAON
Padasavli
Sarasamba
S1
S2e
S2re
S3r
S3re
S3rg
N
References
Stream/Drainage
Habitation
Water body
Road/Cart track
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 33 (6.22)
S2e 24 (4.55)
S2re 107 (20.03)
S3r 159 (29.79)
S3re 11 (2.02)
S3rg 113 (21.22)
N 61 (11.37)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

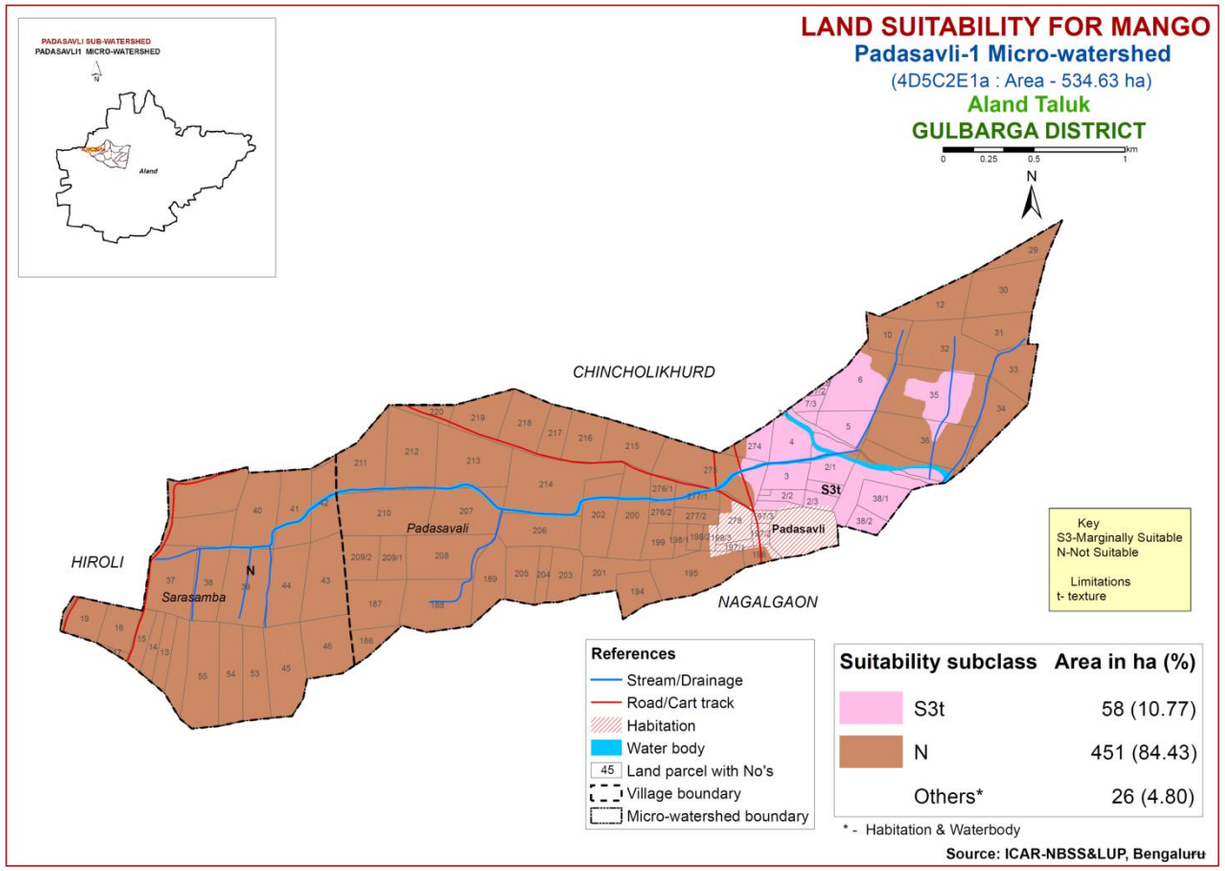

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR SOYABEAN
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
S1
S2e
S2re
S3r
S3re
S3rg
N
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 61 (9.10)
S2e 27 (4.05)
S2re 13 (1.89)
S3r 174 (26.13)
S3re 29 (4.28)
S3rg 35 (5.29)
N 317 (47.51)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

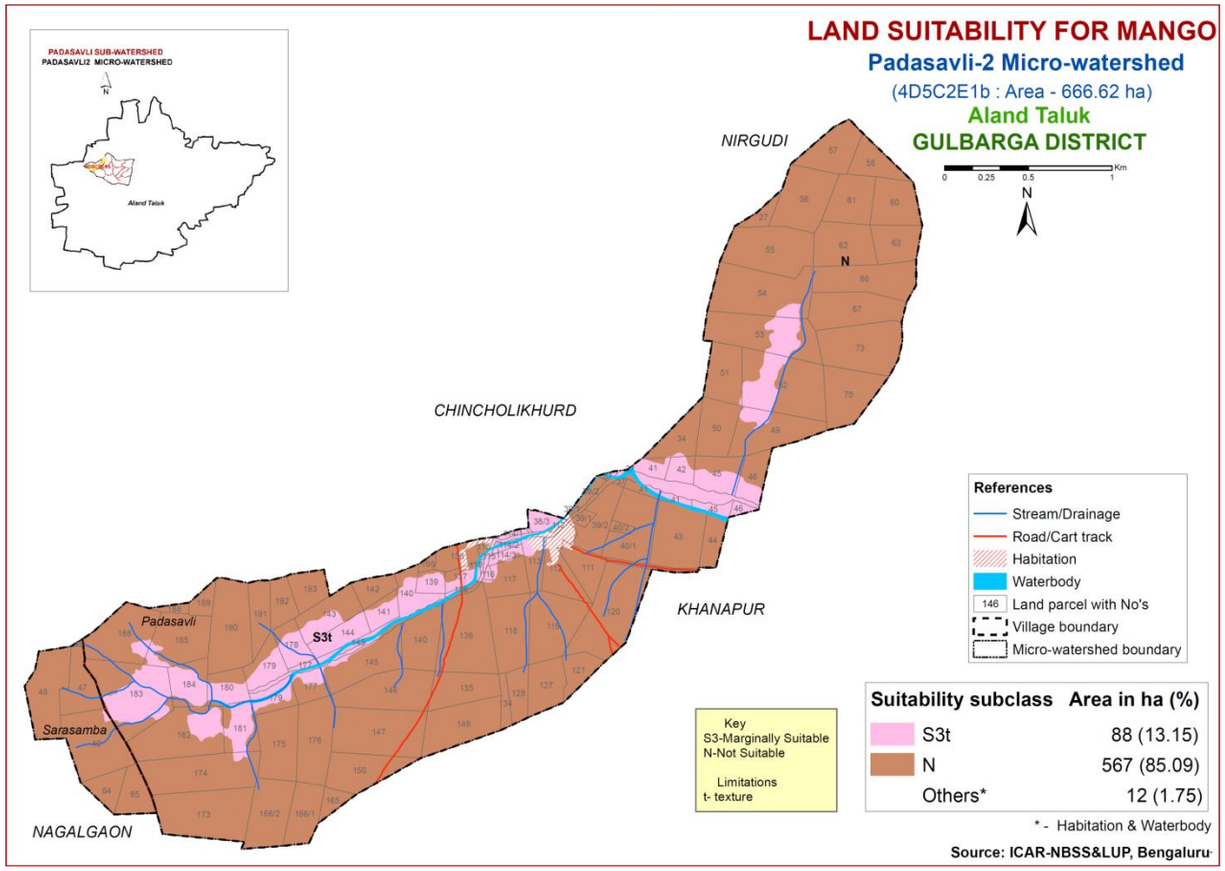

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR SOYABEAN
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
KHANAPUR
Hebali
NAGALGAON
Padasavli
S1
S2e
S2r
S3r
S3re
S3rg
N
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 97 (14.09)
S2e 29 (4.15)
S2r 39 (5.70)
S3r 282 (40.89)
S3re 20 (2.93)
S3rg 12 (1.78)
S3rg 12 (1.78)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

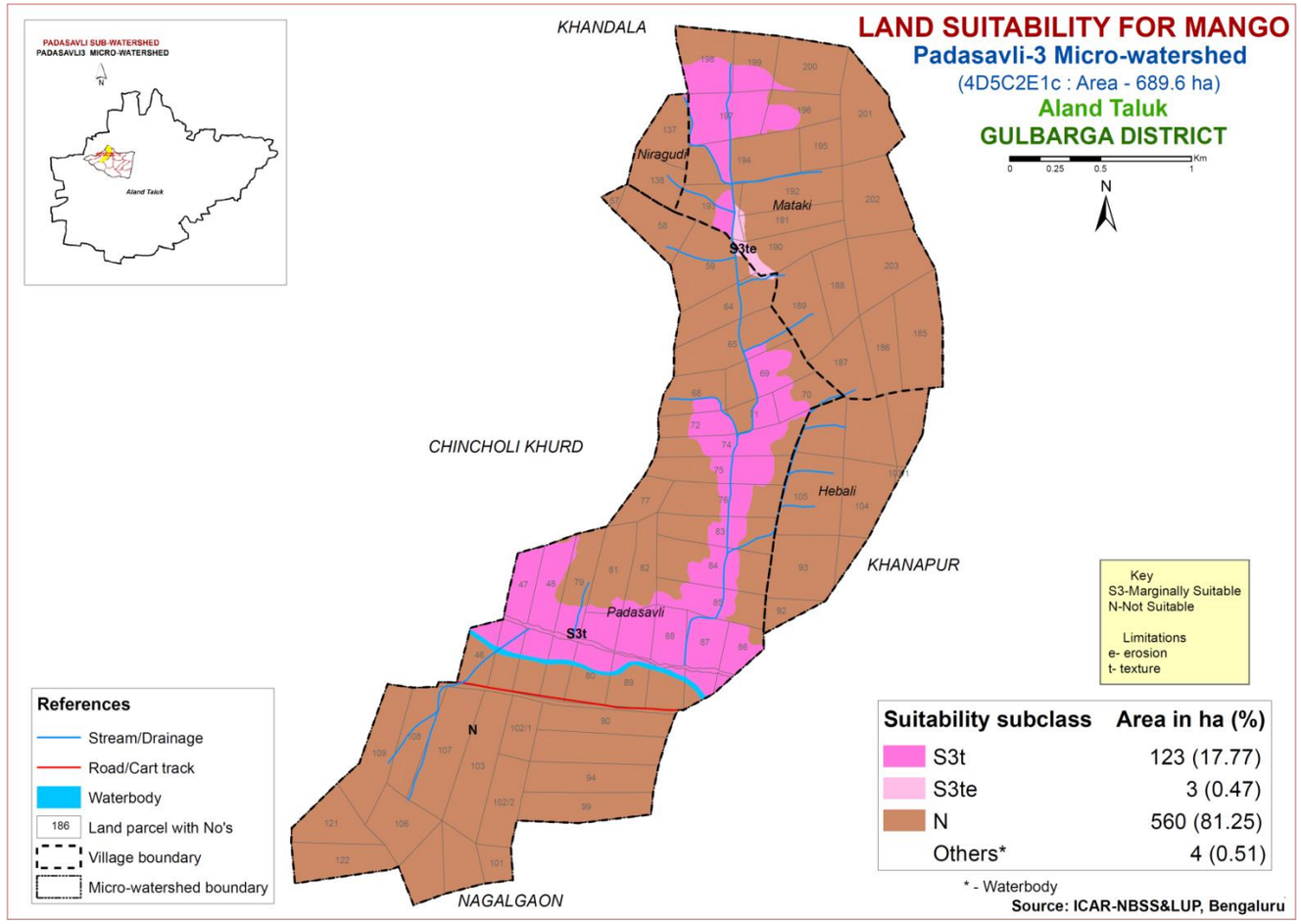

LAND SUITABILITY FOR GUAVA
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
NAGALGAON
Padasavali
Sarasamba
S3rg
S3rt
S3t
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
t- texture
r- rooting condition
g- gravelliness/stoniness
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 58 (10.77)
S3rg 5 (0.85)
S3rt 107 (20.03)
N 340 (63.54)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

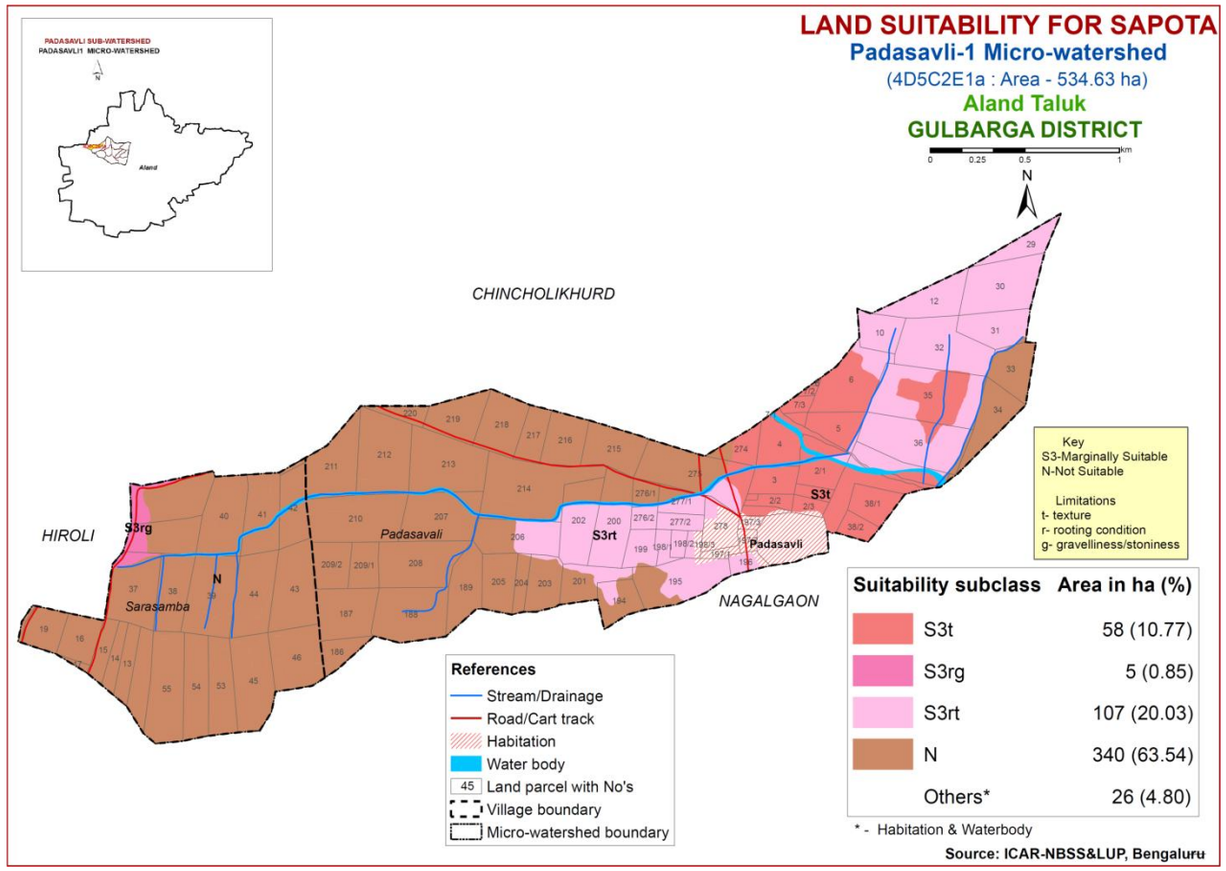

LAND SUITABILITY FOR GUAVA
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
S3t
S3re
S3rt
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
t- texture
Suitability subclass Area in ha (%)
S3t 88 (13.15)
S3re 7 (1.04)
S3rt 13 (1.89)
N 548 (82.17)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

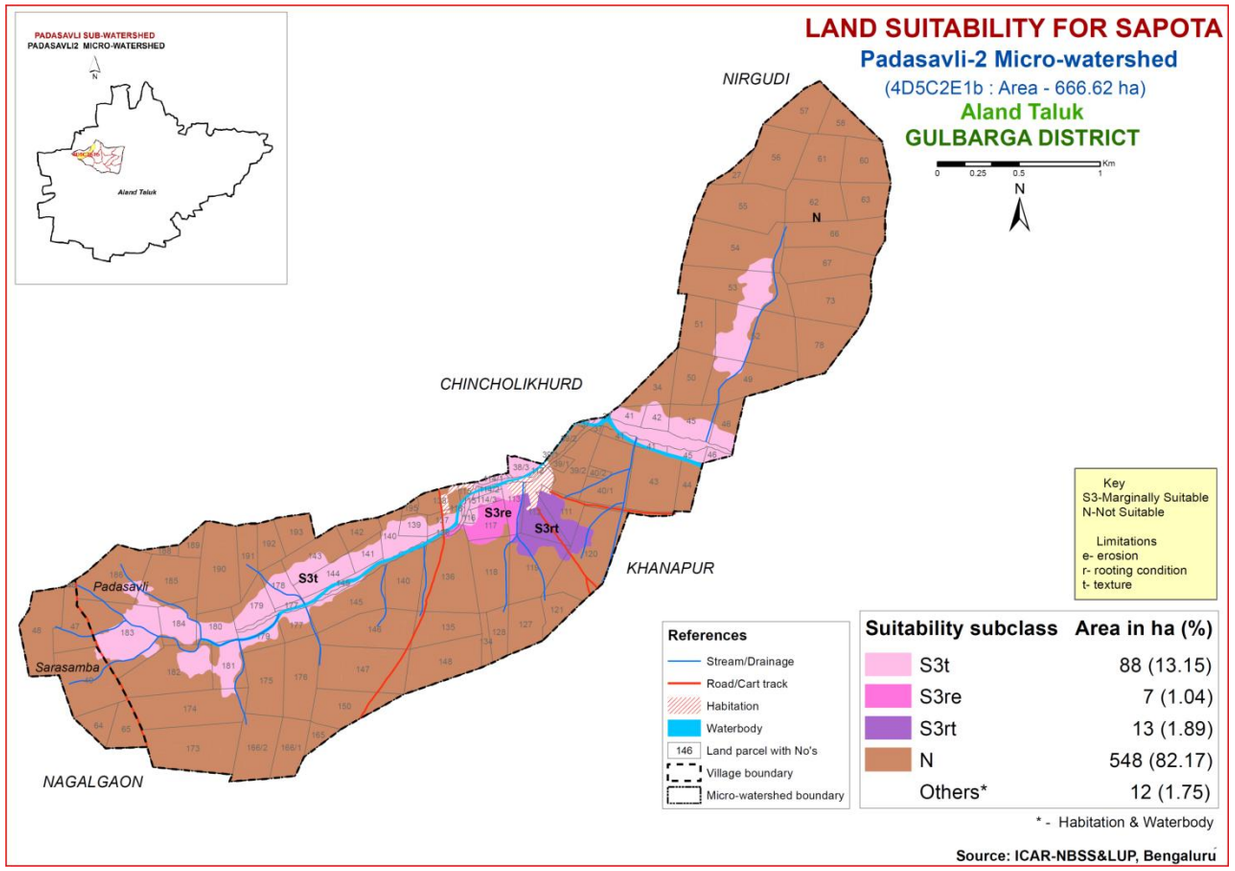

LAND SUITABILITY FOR GUAVA
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
S3rt
S3t
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
t- texture
r- rooting condition
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 123 (17.77)
S3rt 39 (5.70)
N 524 (76.01)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

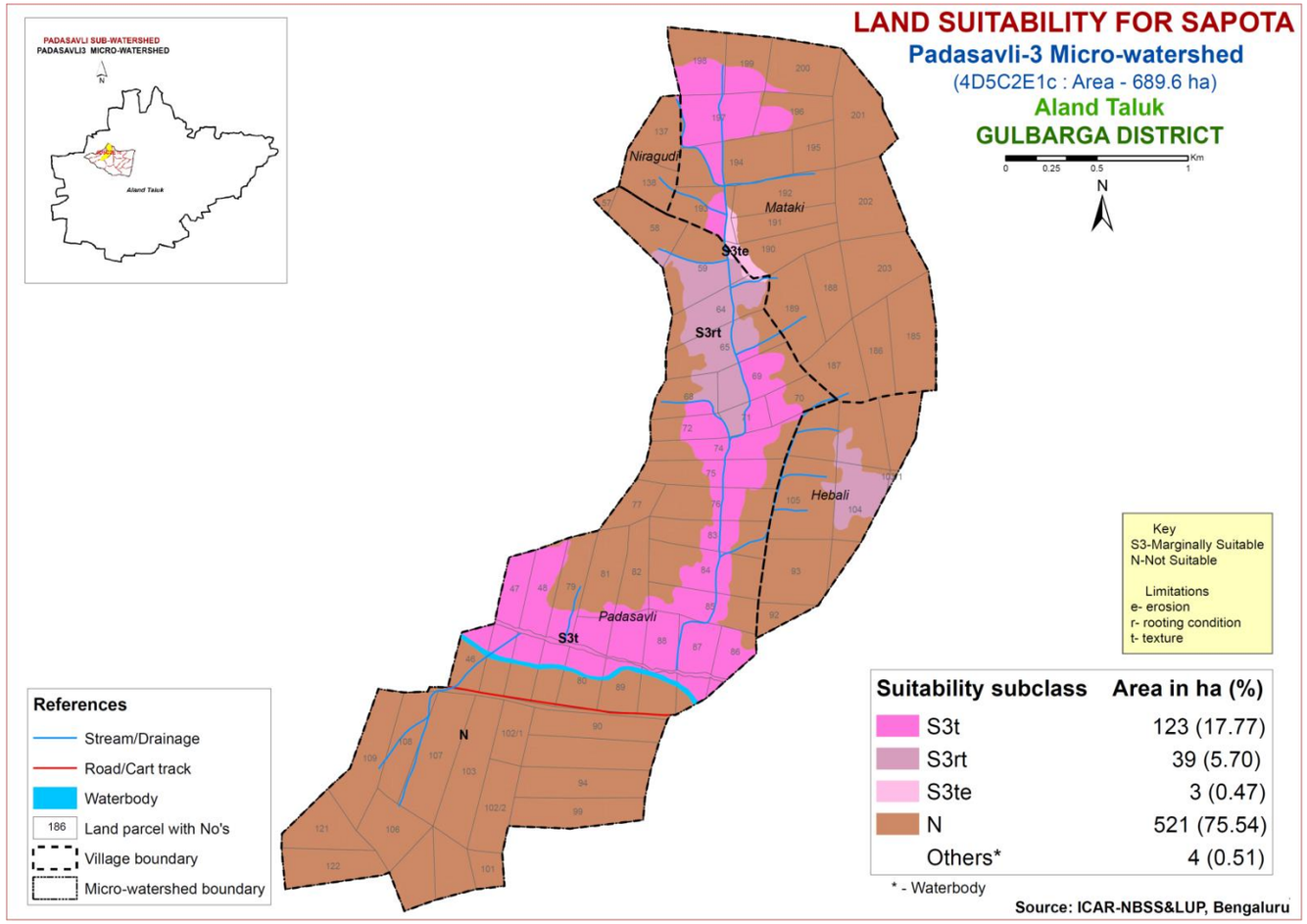

LAND SUITABILITY FOR MANGO
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Sarasamba
Padasavali
Padasavli
NAGALGAON
S3t
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
t- texture
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 58 (10.77)
N 451 (84.43)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

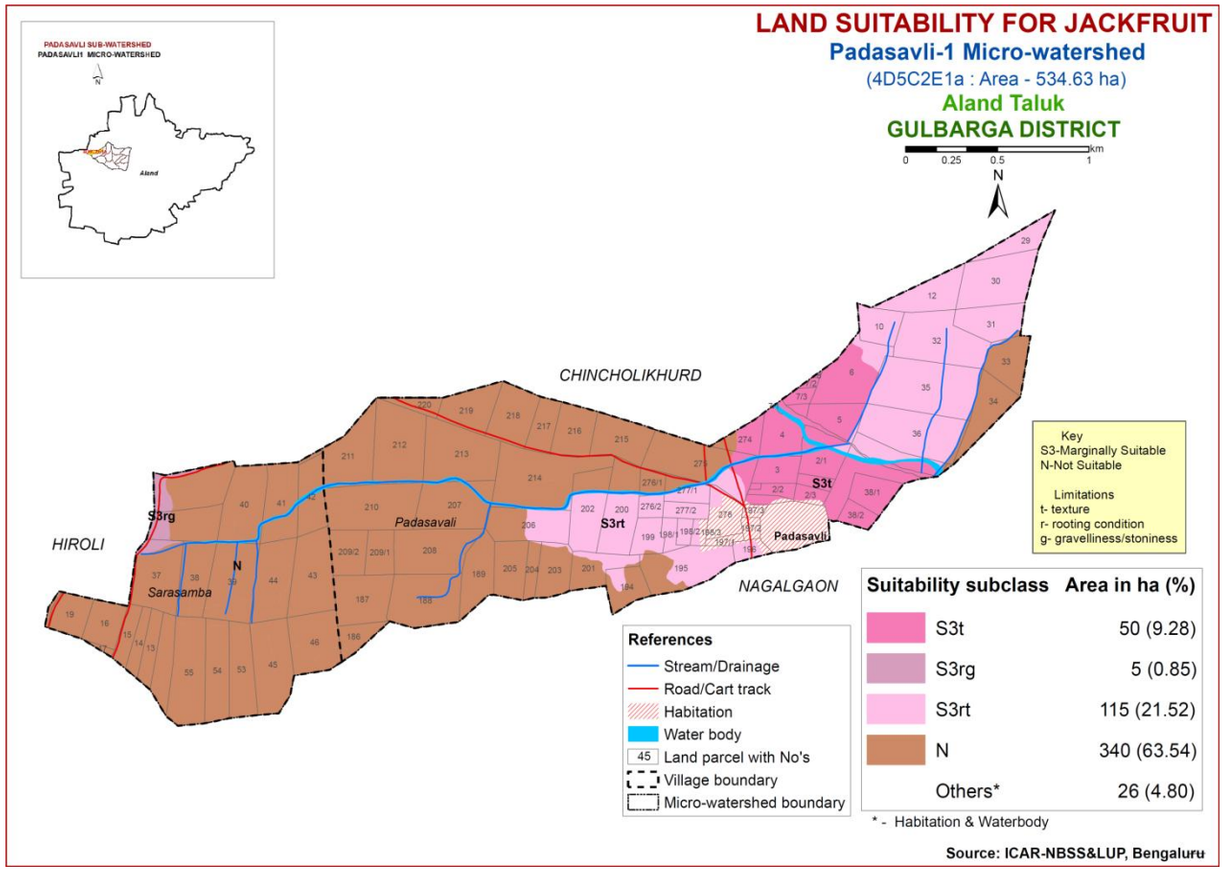

LAND SUITABILITY FOR MANGO
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
Padasavli
Sarasamba
NAGALGAON
S3t
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
t- texture
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 88 (13.15)
N 567 (85.09)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

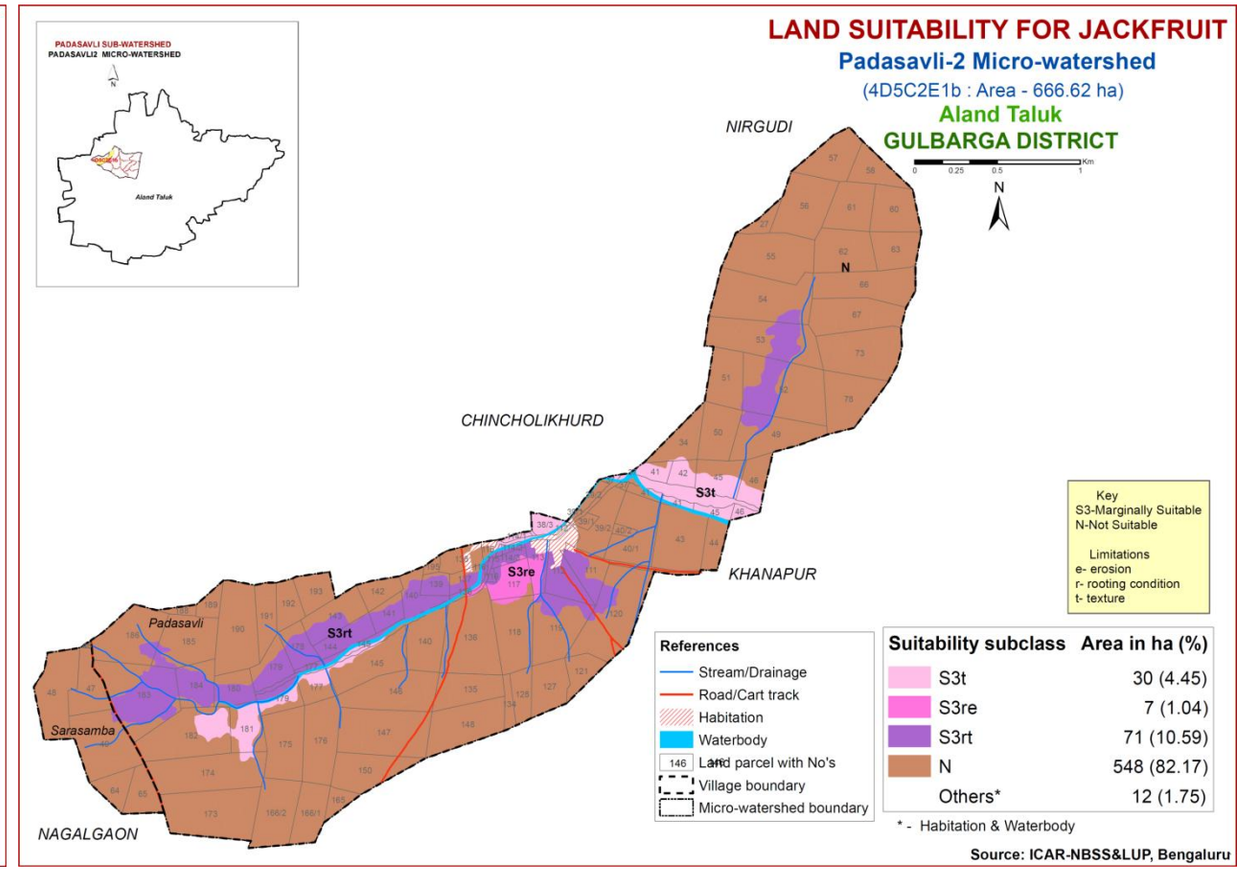

LAND SUITABILITY FOR MANGO
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
Hebali
CHINCHOLI KHURD
KHANAPUR
Padasavli
NAGALGAON
S3t
S3te
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
t- texture
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 123 (17.77)
S3te 3 (0.47)
N 560 (81.25)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

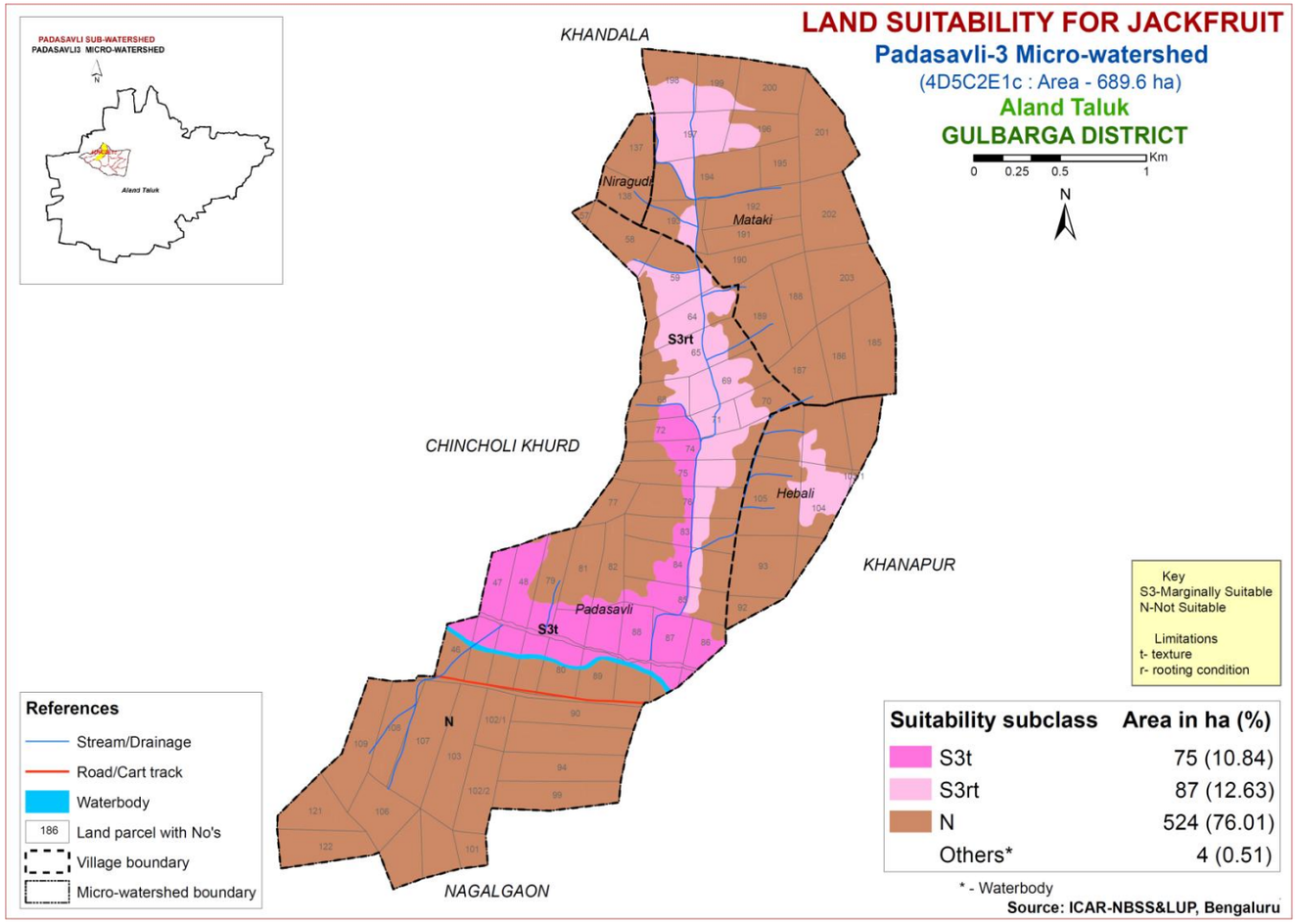

LAND SUITABILITY FOR SAPOTA
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
S3rg
S3rt
S3t
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
t- texture
r- rooting condition
g- gravelliness/stoniness
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 58 (10.77)
S3rg 5 (0.85)
S3rt 107 (20.03)
N 340 (63.54)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

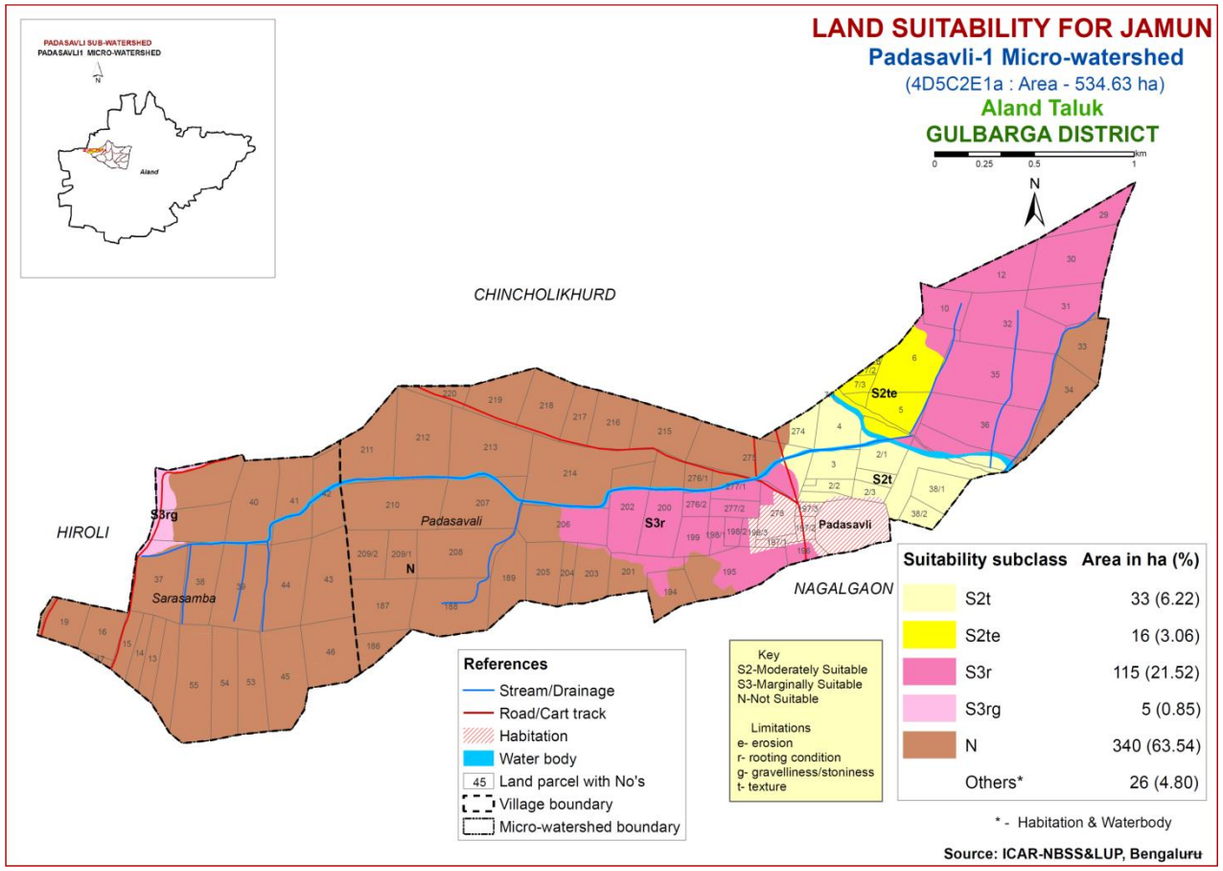

LAND SUITABILITY FOR SAPOTA
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
Padasavli
Sarasamba
NAGALGAON
S3t
S3re
S3rt
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
t- texture
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 88 (13.15)
S3re 7 (1.04)
S3rt 13 (1.89)
N 548 (82.17)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

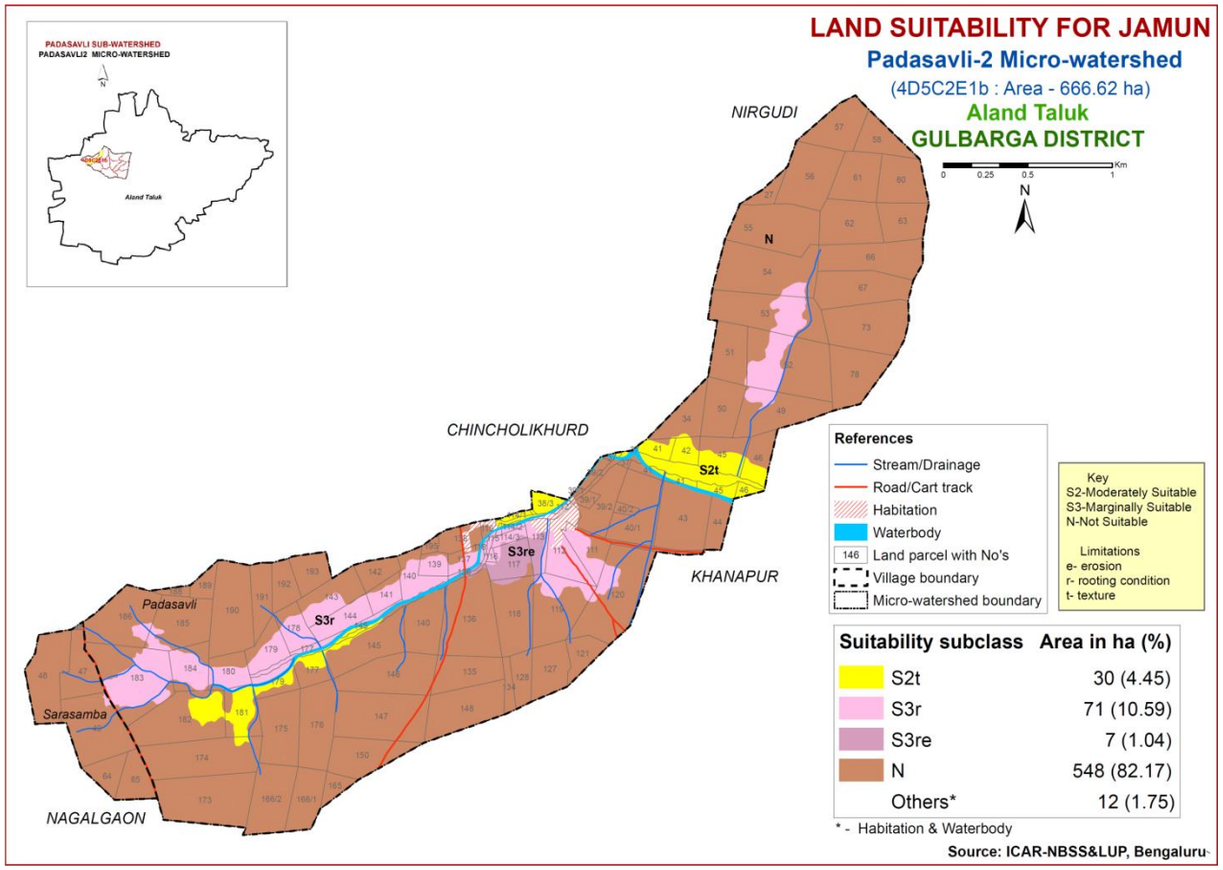

LAND SUITABILITY FOR SAPOTA
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
Niragudi
Mataki
Hebali
Padasavli
S3te
S3rt
S3t
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
t- texture
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 123 (17.77)
S3rt 39 (5.70)
S3te 3 (0.47)
N 521 (75.54)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

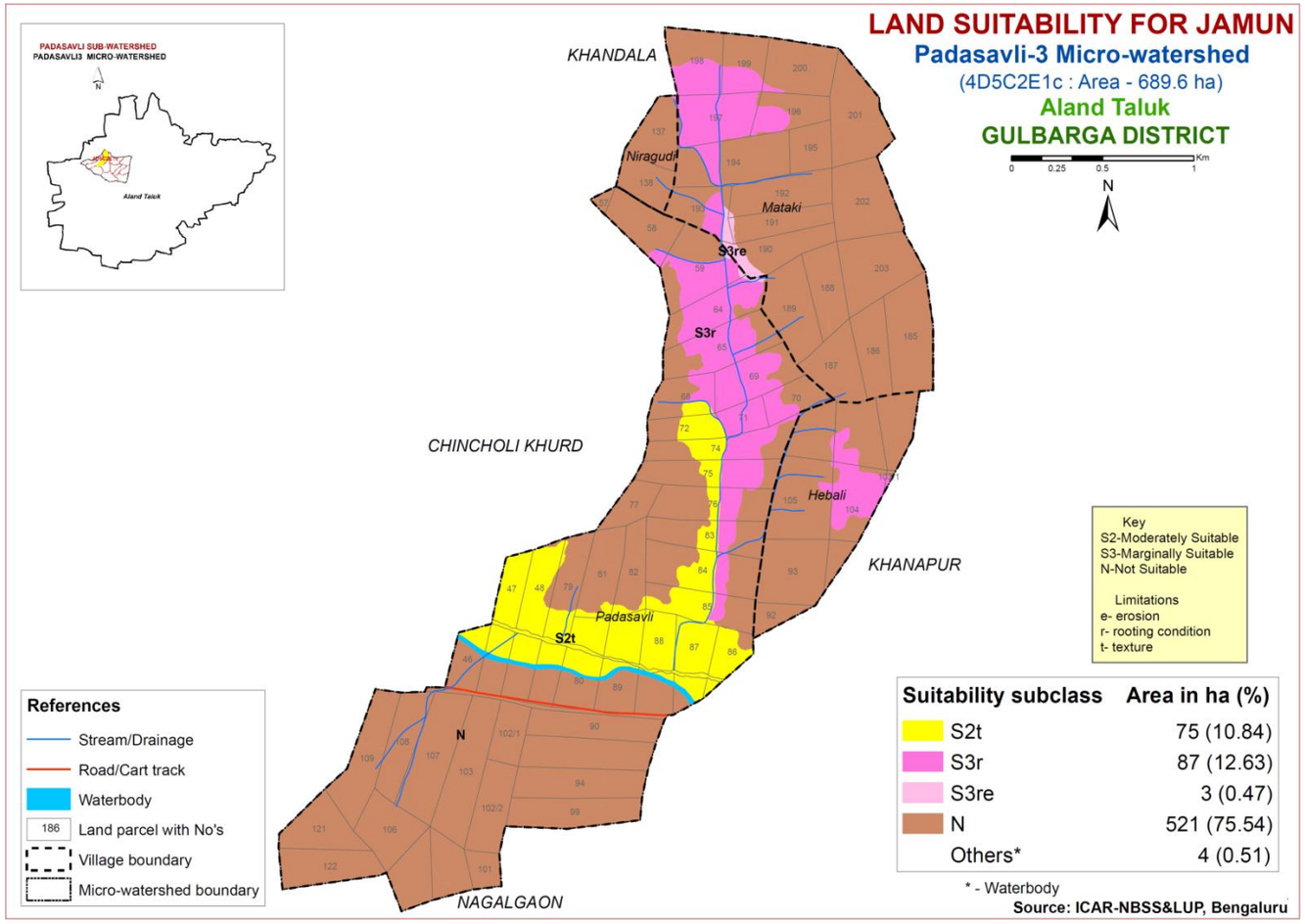

LAND SUITABILITY FOR JACKFRUIT
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
NAGALGAON
Padasavali
Sarasamba
S3rg
S3rt
S3t
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
t- texture
r- rooting condition
g- gravelliness/stoniness
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 50 (9.28)
S3rg 5 (0.85)
S3rt 115 (21.52)
N 340 (63.54)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

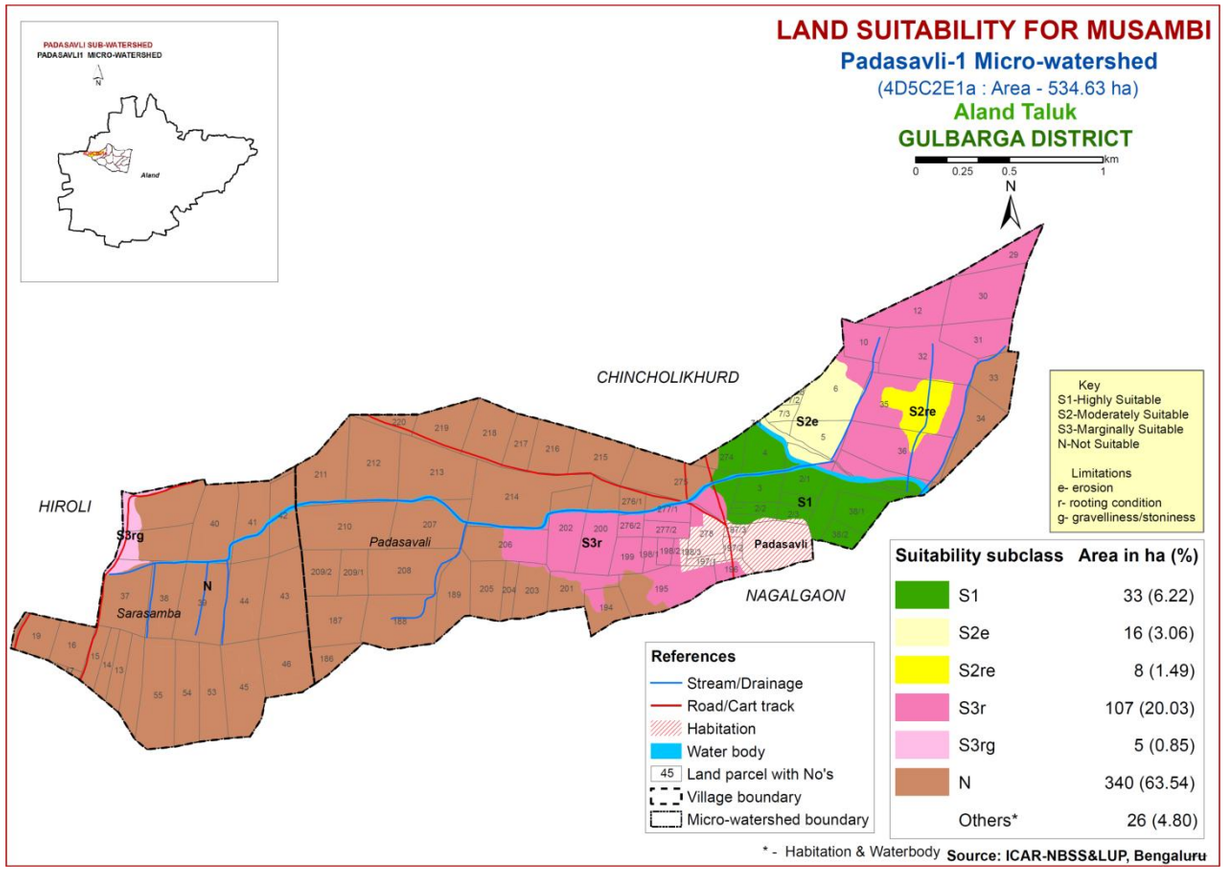

LAND SUITABILITY FOR JACKFRUIT
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
S3rt
S3re
S3t
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
t- texture
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 30 (4.45)
S3re 7 (1.04)
S3rt 71 (10.59)
N 548 (82.17)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

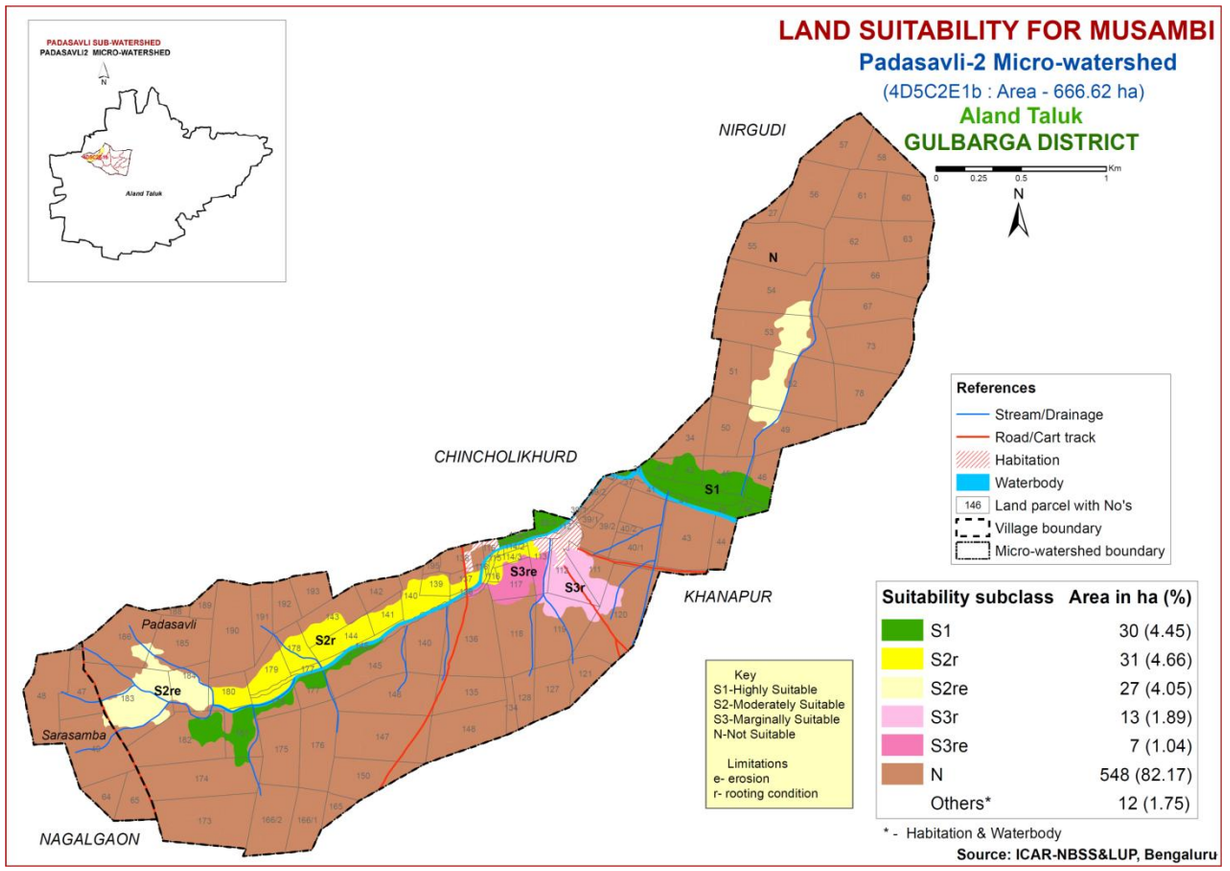

LAND SUITABILITY FOR JACKFRUIT
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
KHANDALA
CHINCHOLI KHURD
KHANAPUR
NAGALGAON
Niragudi
Mataki
Hebali
Padasavli
S3rt
S3t
Key
S3-Marginally Suitable
N-Not Suitable
Limitations
t- texture
r- rooting condition
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S3t 75 (10.84)
S3rt 87 (12.63)
N 524 (76.01)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

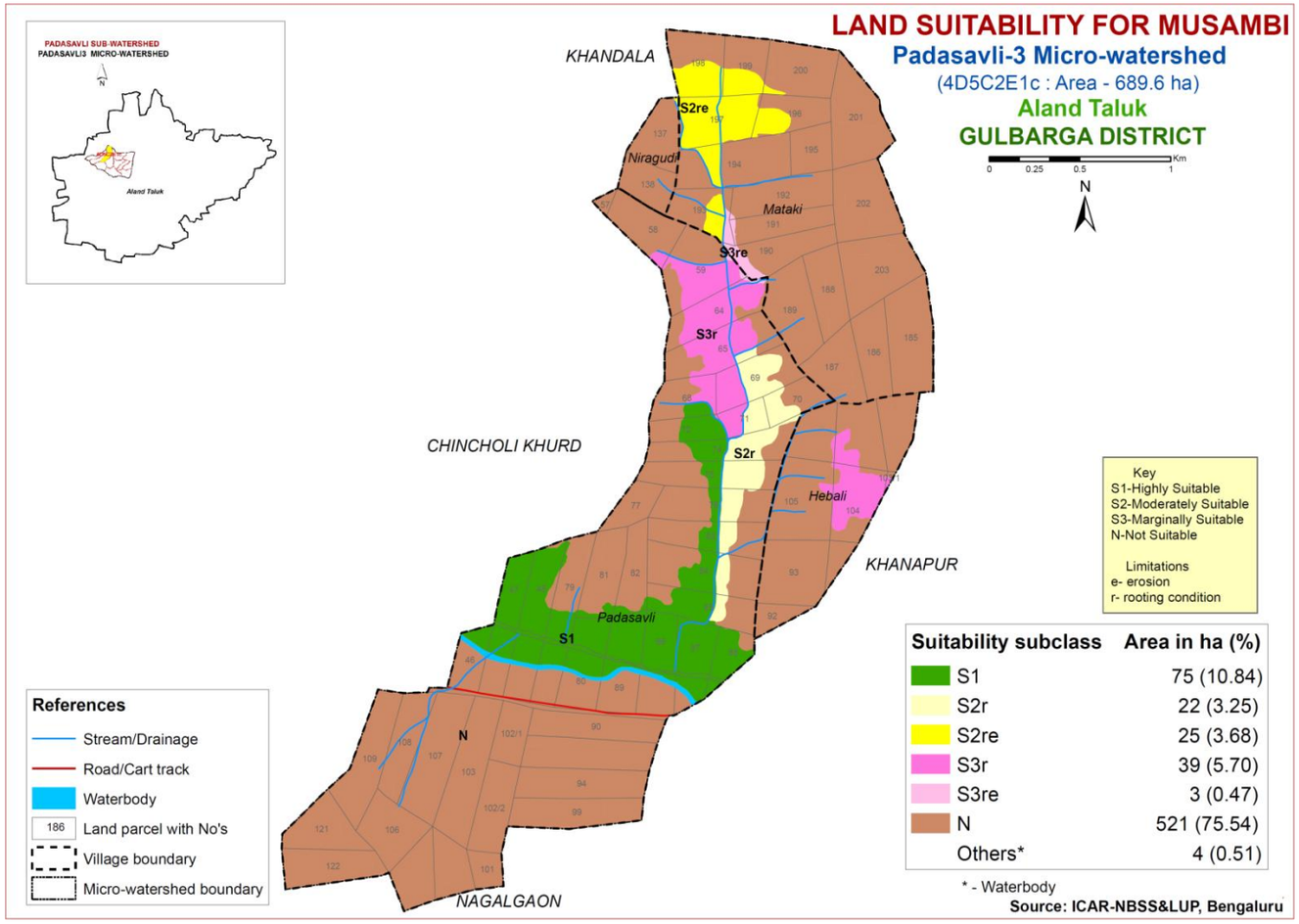

LAND SUITABILITY FOR JAMUN
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
CHINCHOLIKHURD
HIROLI
Padasavali
Sarasamba
NAGALGAON
S3rg
S3r
S2te
S2t
N
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
t- texture
Suitability subclass Area in ha (%)
S2t 33 (6.22)
S2te 16 (3.06)
S3r 115 (21.52)
S3rg 5 (0.85)
N 340 (63.54)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

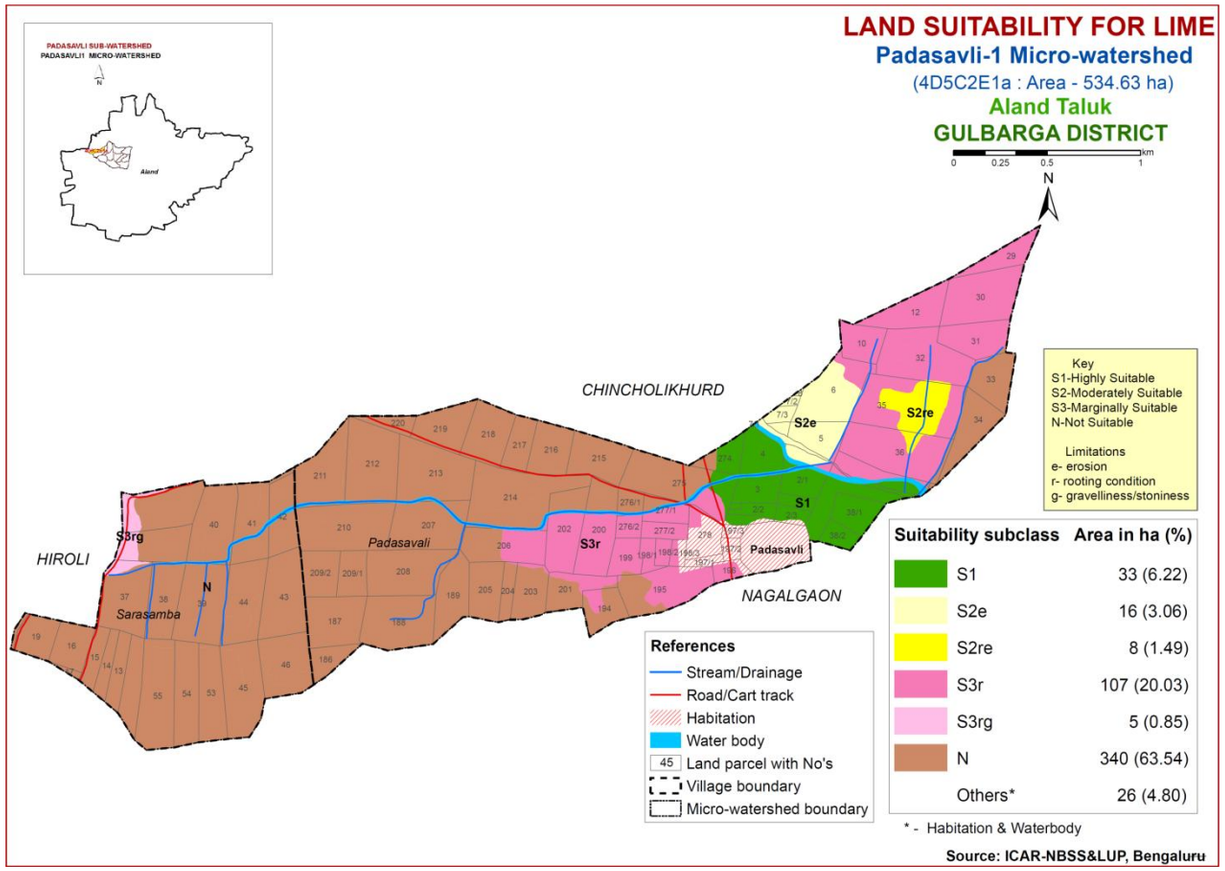

LAND SUITABILITY FOR JAMUN
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
S3r
S3re
S2t
N
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
t- texture
Suitability subclass Area in ha (%)
S2t 30 (4.45)
S3r 71 (10.59)
S3re 7 (1.04)
N 548 (82.17)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

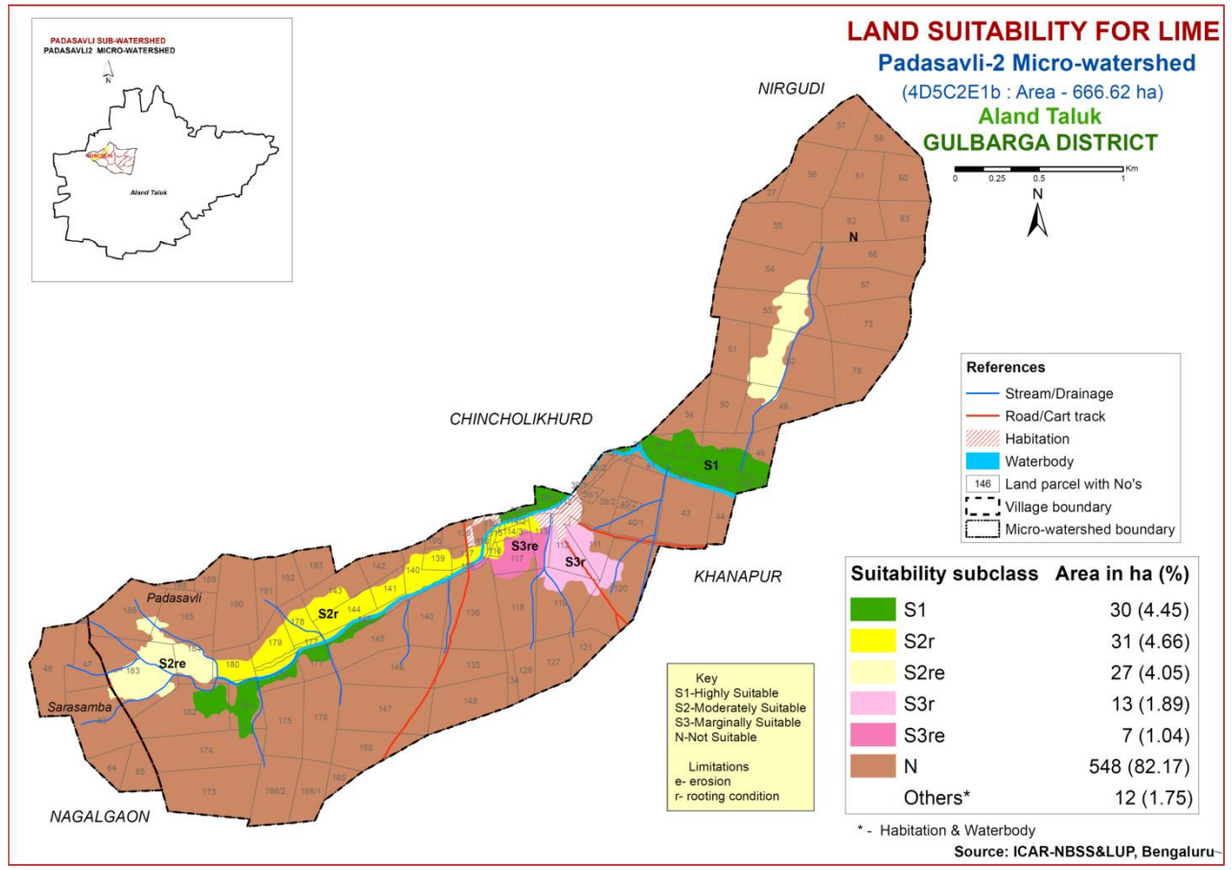

LAND SUITABILITY FOR JAMUN
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
KHANDALA
Niragudi
Mataki
Hebali
CHINCHOLI KHURD
KHANAPUR
NAGALGAON
Padasavli
S3re
S3r
S2t
N
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
t- texture
Suitability subclass Area in ha (%)
S2t 75 (10.84)
S3r 87 (12.63)
S3re 3 (0.47)
N 521 (75.54)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

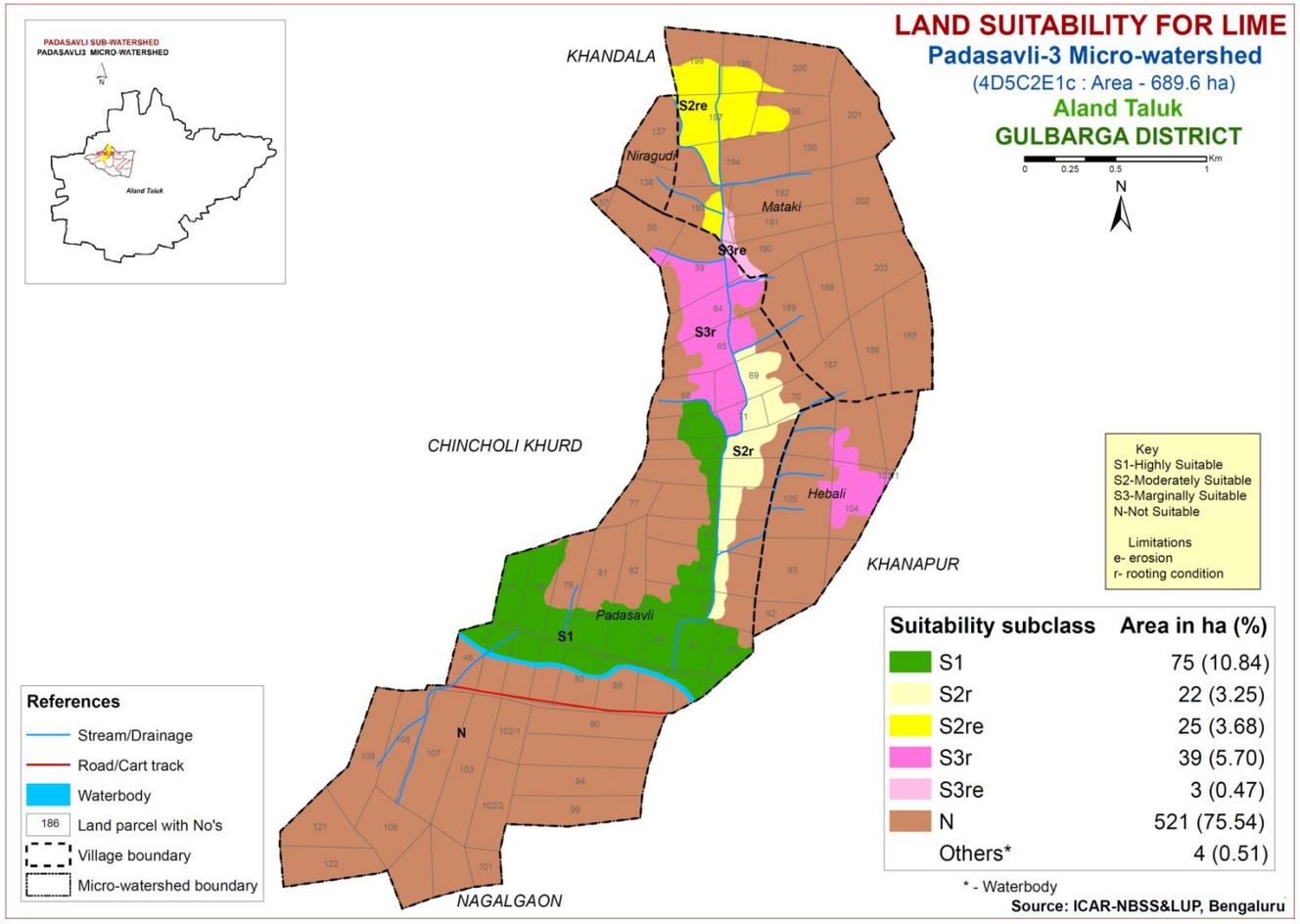

LAND SUITABILITY FOR MUSAMBI
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
NAGALGAON
Sarasamba
S1
S2e
S2re
S3r
S3rg
N
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
References
Stream/Drainage
Road/Cart track
Habitation
Water body
Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S1 33 (6.22)
S2e 16 (3.06)
S2re 8 (1.49)
S3r 107 (20.03)
S3rg 5 (0.85)
N 340 (63.54)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

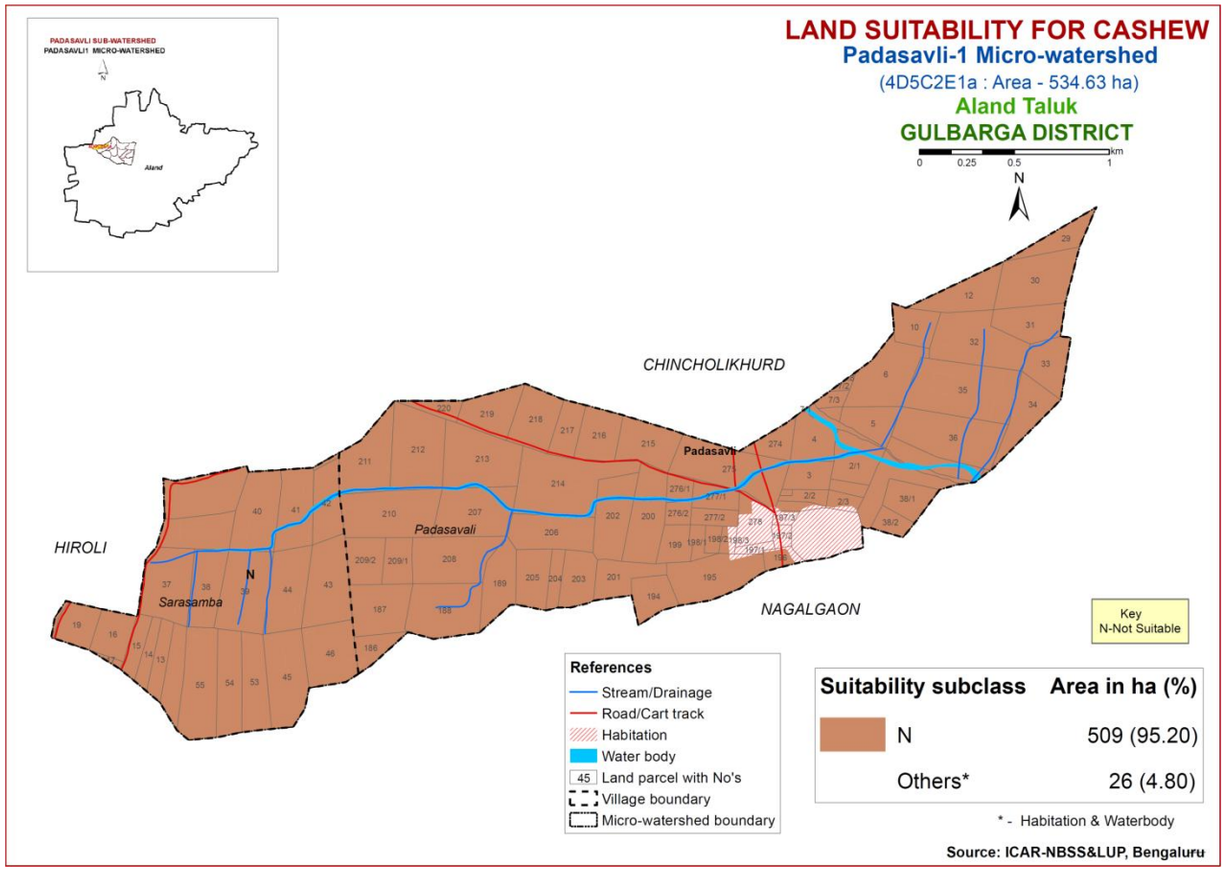

LAND SUITABILITY FOR MUSAMBI
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
Padasavli
NAGALGAON
Sarasamba
S1
S2r
S2re
S3r
S3re
N
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S1 30 (4.45)
S2r 31 (4.66)
S2re 27 (4.05)
S3r 13 (1.89)
S3re 7 (1.04)
N 548 (82.17)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

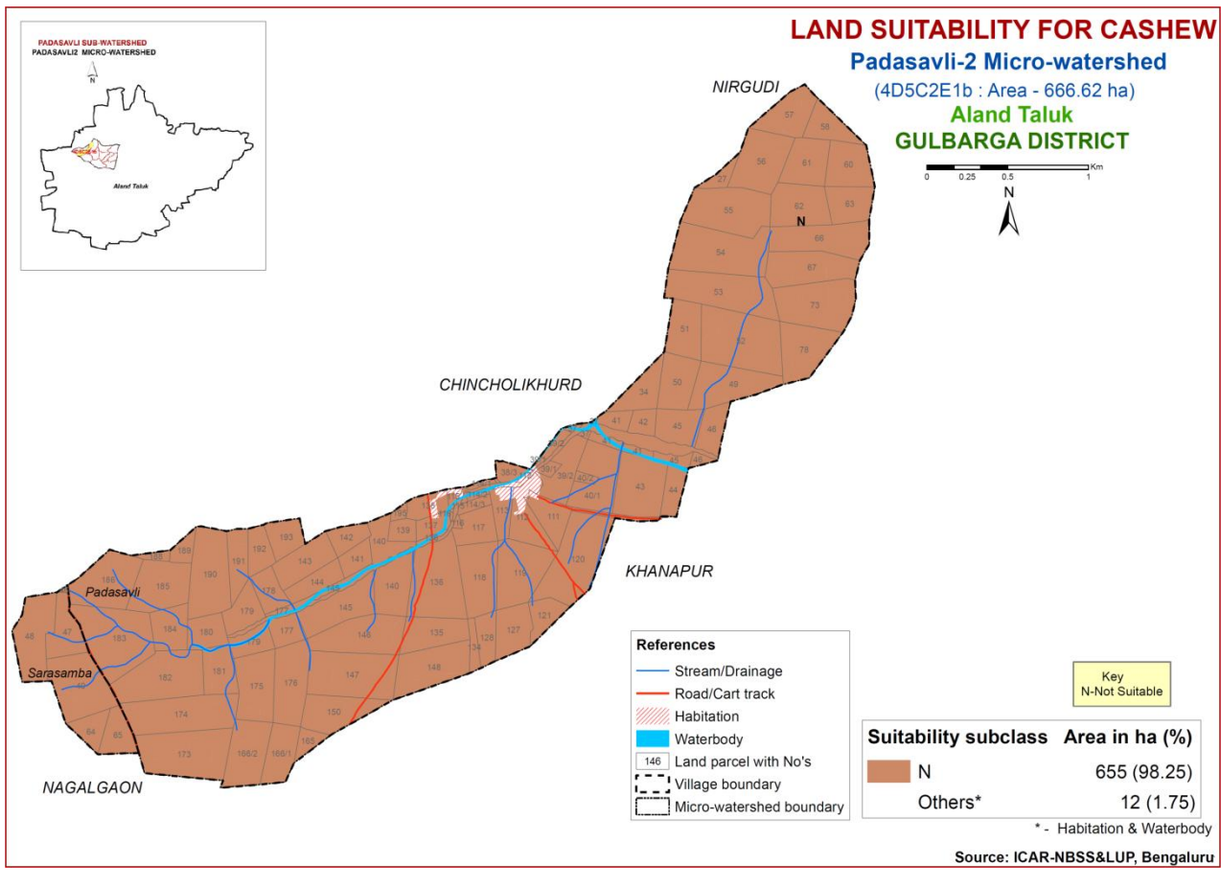

LAND SUITABILITY FOR MUSAMBI
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
CHINCHOLI KHURD
KHANAPUR
Hebali
Padasavli
NAGALGAON
S1
S2r
S2re
S3r
S3re
N
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
References
Stream/Drainage
Road/Cart track
Waterbody
Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S1 75 (10.84)
S2r 22 (3.25)
S2re 25 (3.68)
S3r 39 (5.70)
S3re 3 (0.47)
N 521 (75.54)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

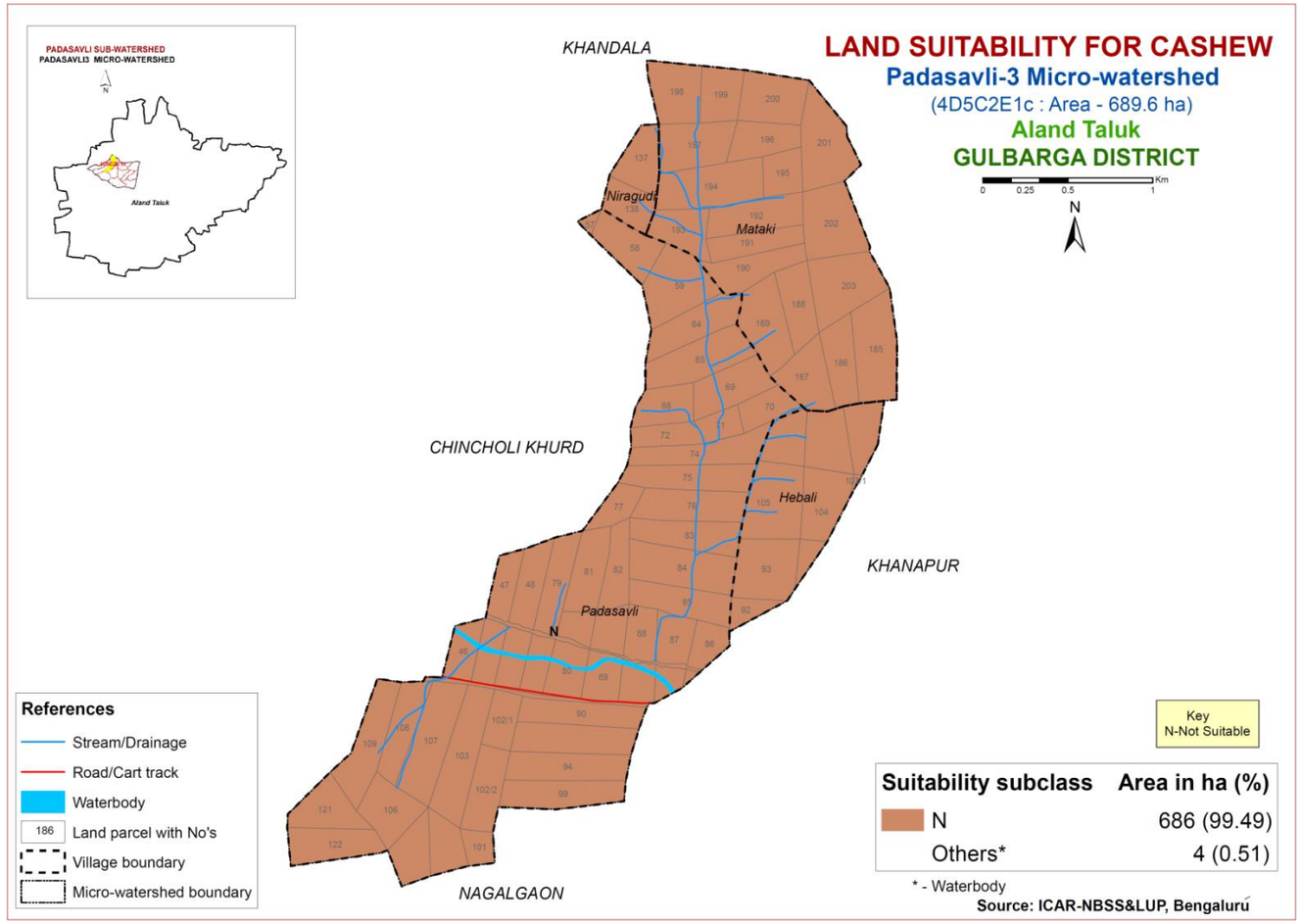

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
LAND SUITABILITY FOR LIME
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
NAGALGAON
Padasavli
Sarasamba
S3rg
S3r
S2e
S2re
S1
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
Suitability subclass Area in ha (%)
S1 33 (6.22)
S2e 16 (3.06)
S2re 8 (1.49)
S3r 107 (20.03)
S3rg 5 (0.85)
N 340 (63.54)
Others* 26 (4.80)
* - Habitation & Waterbody
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru

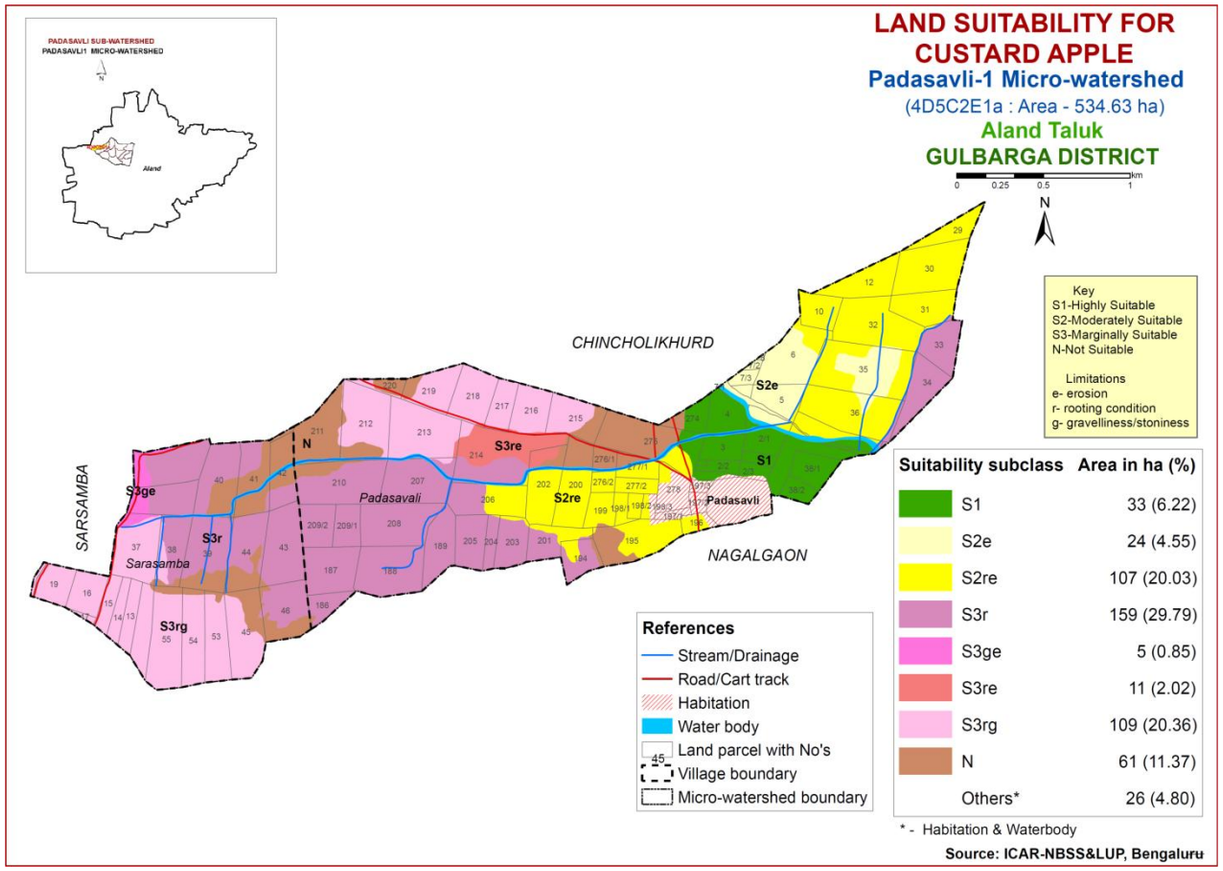

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR LIME
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
S1
S2r
S2re
S3r
S3re
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
Suitability subclass Area in ha (%)
S1 30 (4.45)
S2r 31 (4.66)
S2re 27 (4.05)
S3r 13 (1.89)
S3re 7 (1.04)
N 548 (82.17)
Others* 12 (1.75)
* - Habitation & Waterbody
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru

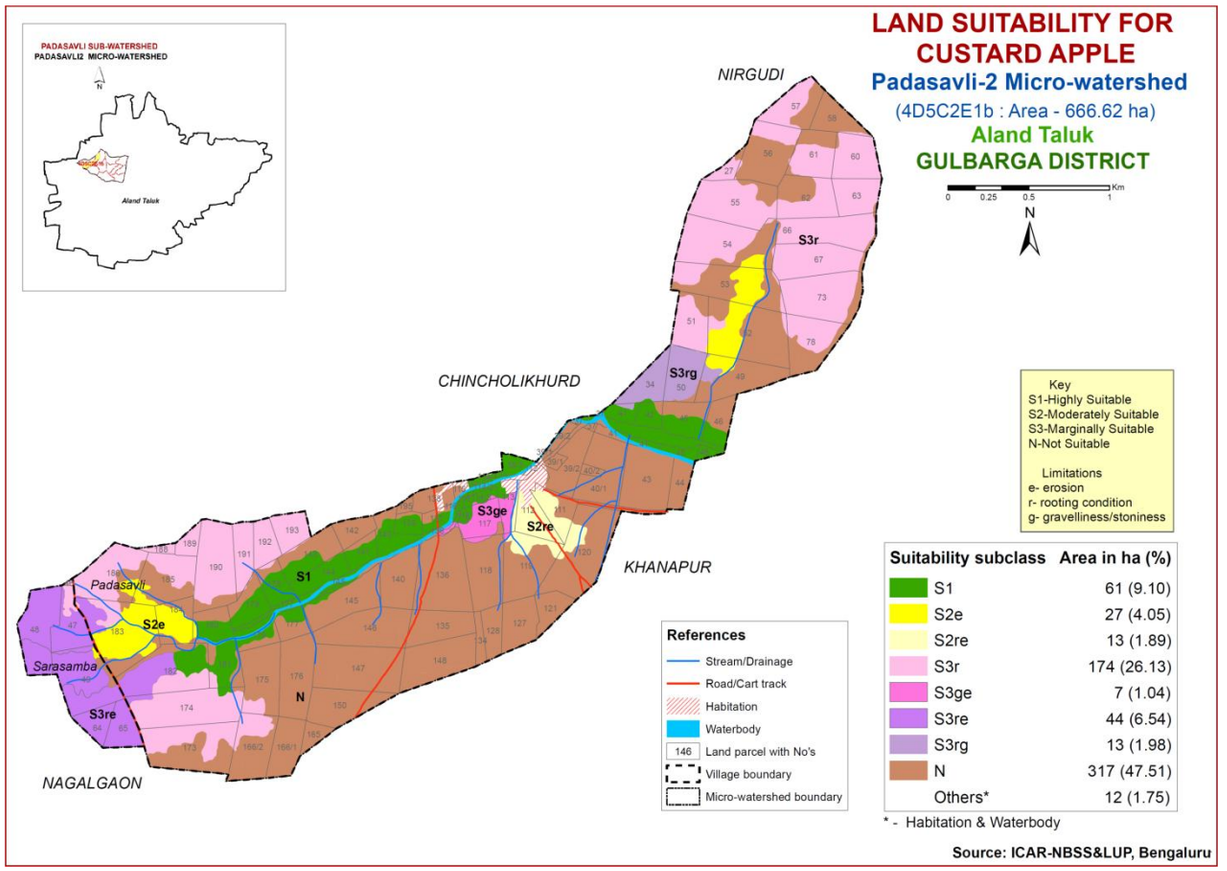

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR LIME
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
Hebali
CHINCHOLI KHURD
KHANAPUR
NAGALGAON
Padasavli
S1
S2r
S2re
S3r
S3re
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
Suitability subclass Area in ha (%)
S1 75 (10.84)
S2r 22 (3.25)
S2re 25 (3.68)
S3r 39 (5.70)
S3re 3 (0.47)
N 521 (75.54)
Others* 4 (0.51)
* - Waterbody
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru

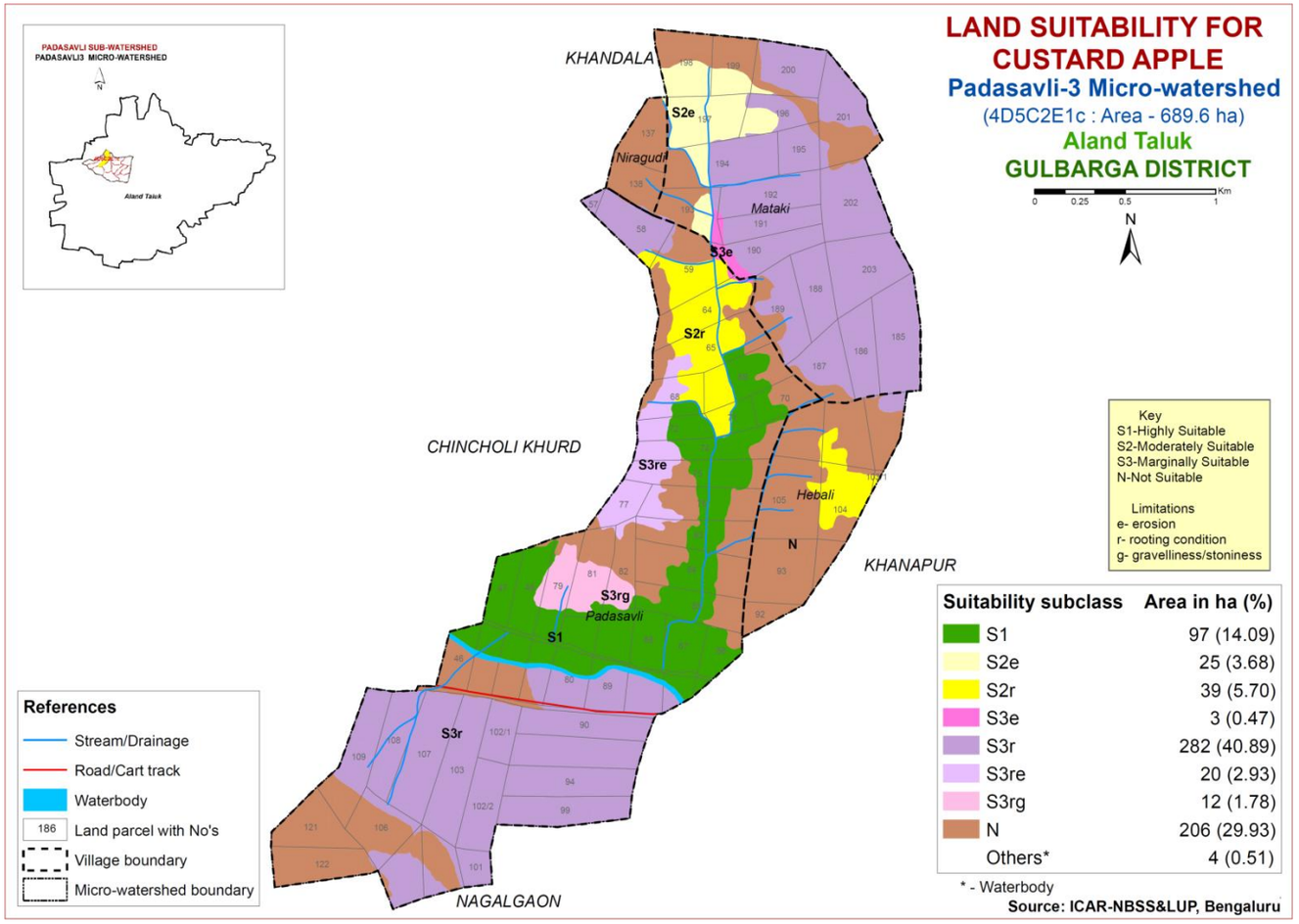

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
LAND SUITABILITY FOR CASHEW
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
Padasavli
HIROLI
Sarasamba
Padasavali
NAGALGAON
Key
N-Not Suitable
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
N 509 (95.20)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

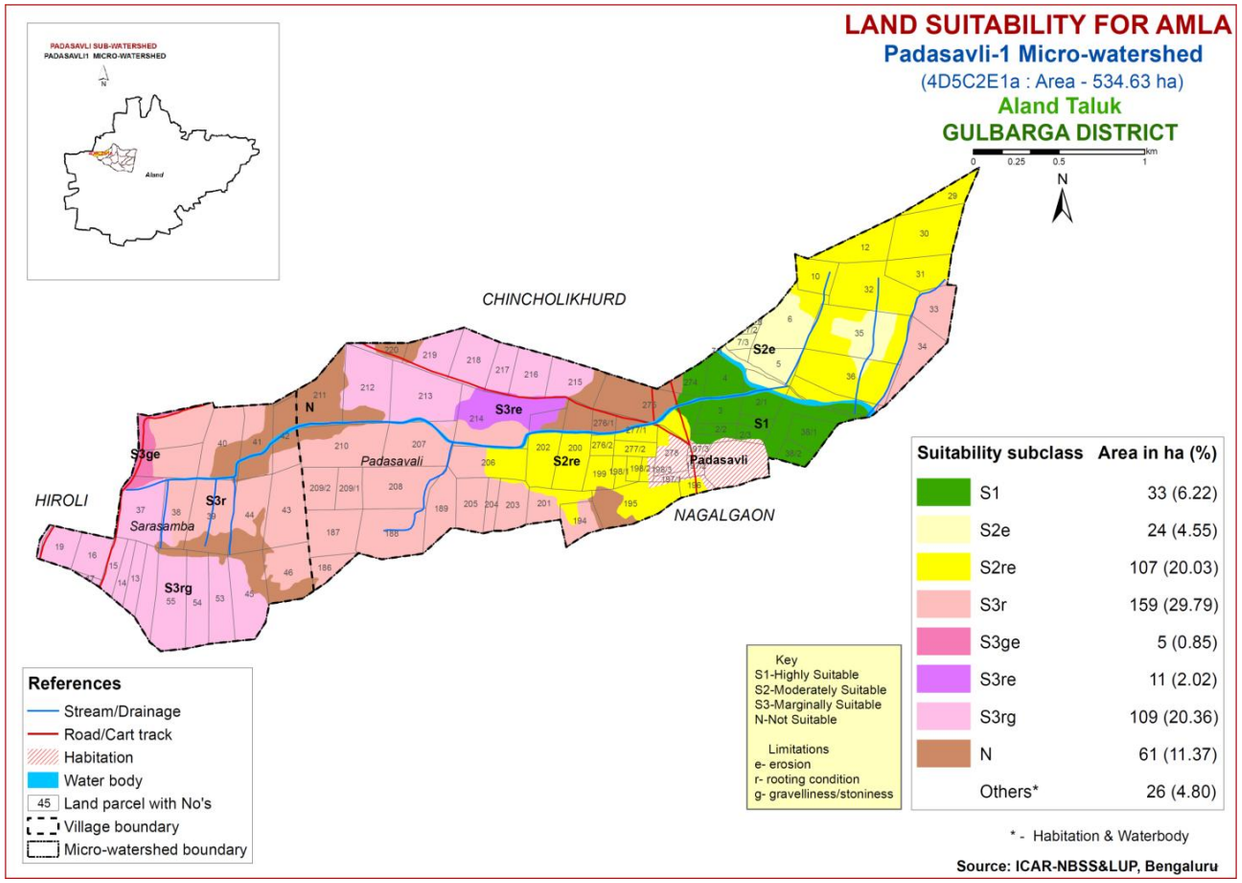

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR CASHEW
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
N-Not Suitable
Suitability subclass Area in ha (%)
N 655 (98.25)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

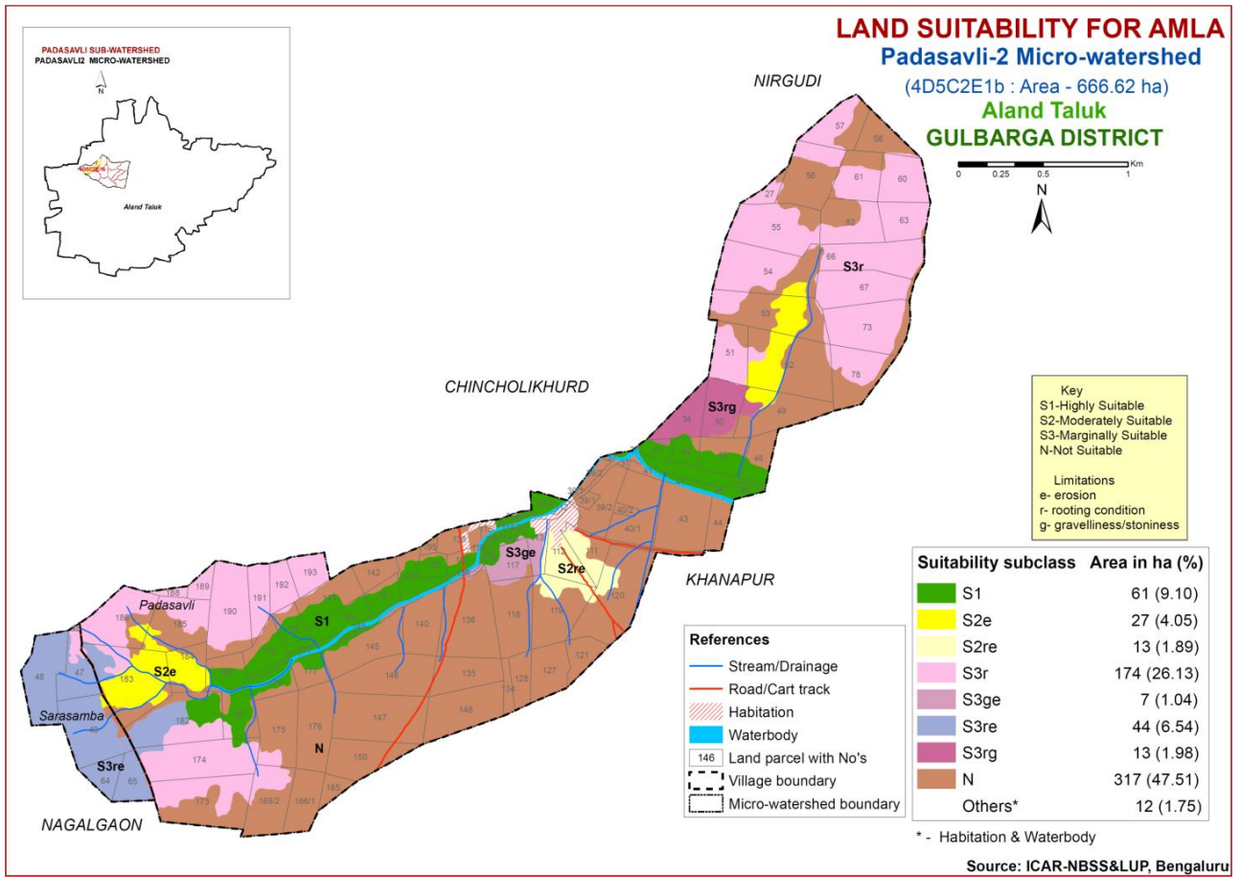

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
KHANDALA
LAND SUITABILITY FOR CASHEW
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
Niragudi
Mataki
CHINCHOLI KHURD
Hebali
KHANAPUR
Padasavli
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Key
N-Not Suitable
Suitability subclass Area in ha (%)
N 686 (99.49)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

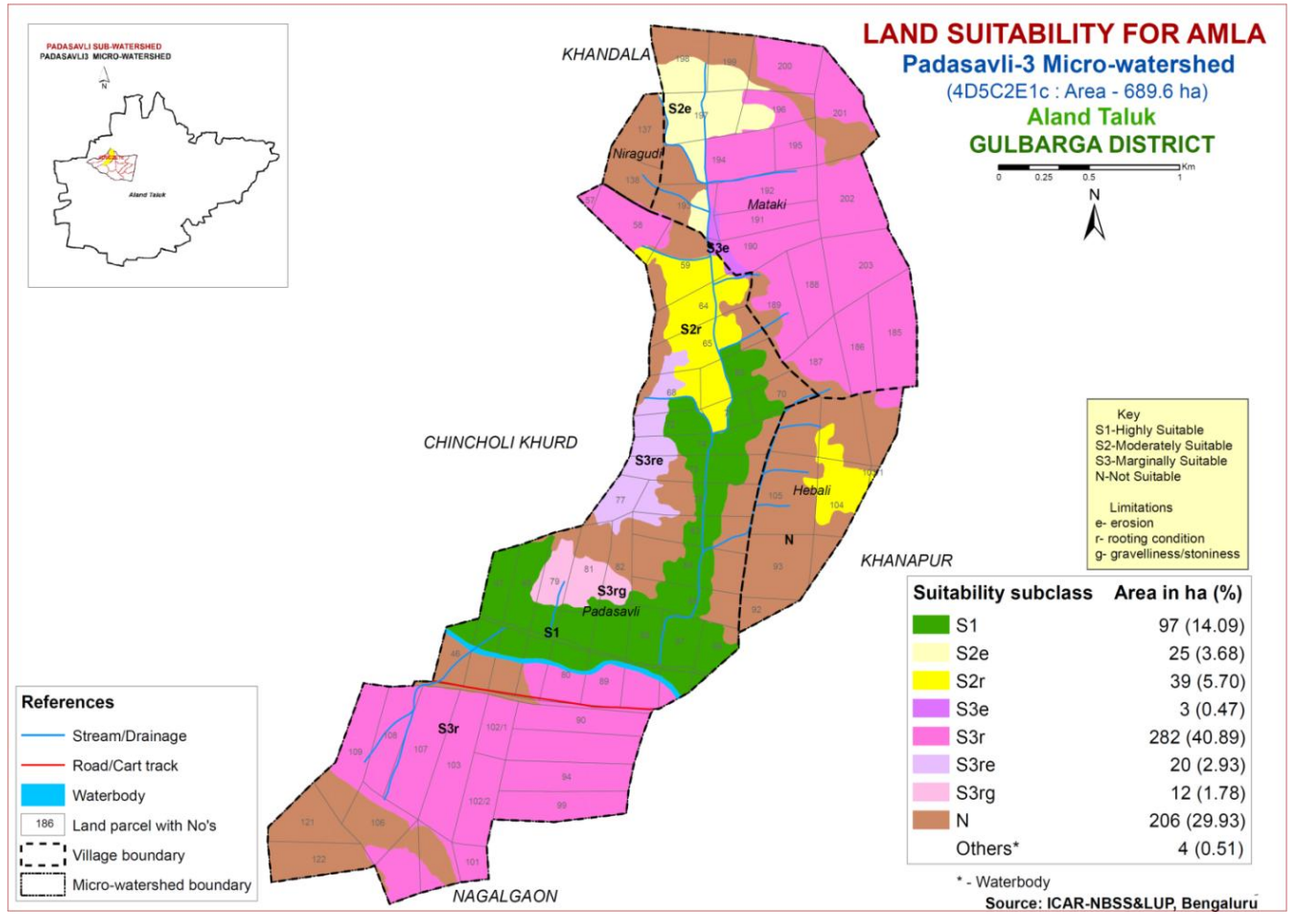

PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
LAND SUITABILITY FOR CUSTARD APPLE
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
SARSAMBA
NAGALGAON
Padasavli
Sarasamba
S1
S2e
S2re
S3r
S3ge
S3re
S3rg
N
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
References
Stream/Drainage
Road/Cart track
Habitation
Water body
Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S1 33 (6.22)
S2e 24 (4.55)
S2re 107 (20.03)
S3r 159 (29.79)
S3ge 5 (0.85)
S3re 11 (2.02)
S3rg 109 (20.36)
N 61 (11.37)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

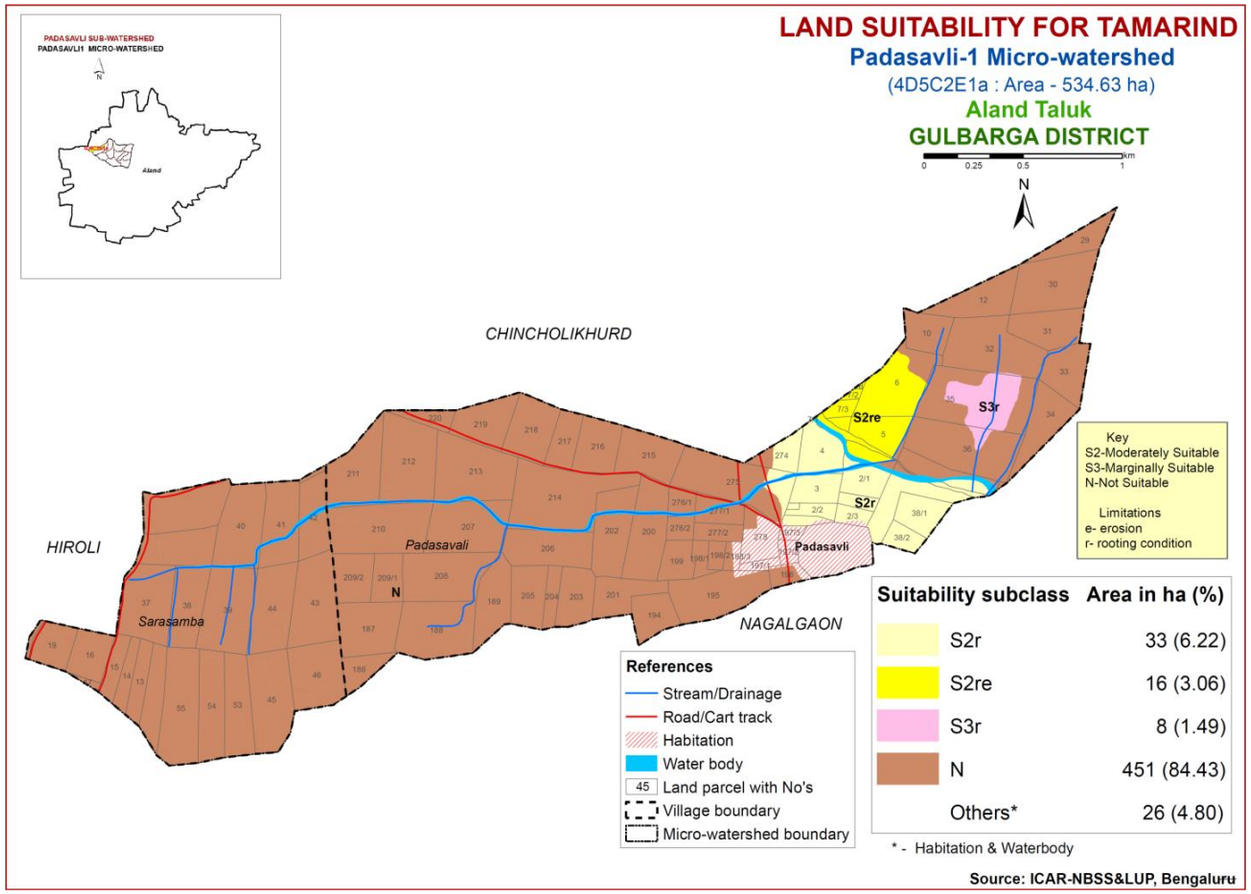

PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR CUSTARD APPLE
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
S1
S2e
S2re
S3r
S3rg
S3ge
S3re
N
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S1 61 (9.10)
S2e 27 (4.05)
S2re 13 (1.89)
S3r 174 (26.13)
S3ge 7 (1.04)
S3re 44 (6.54)
S3rg 13 (1.98)
N 317 (47.51)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

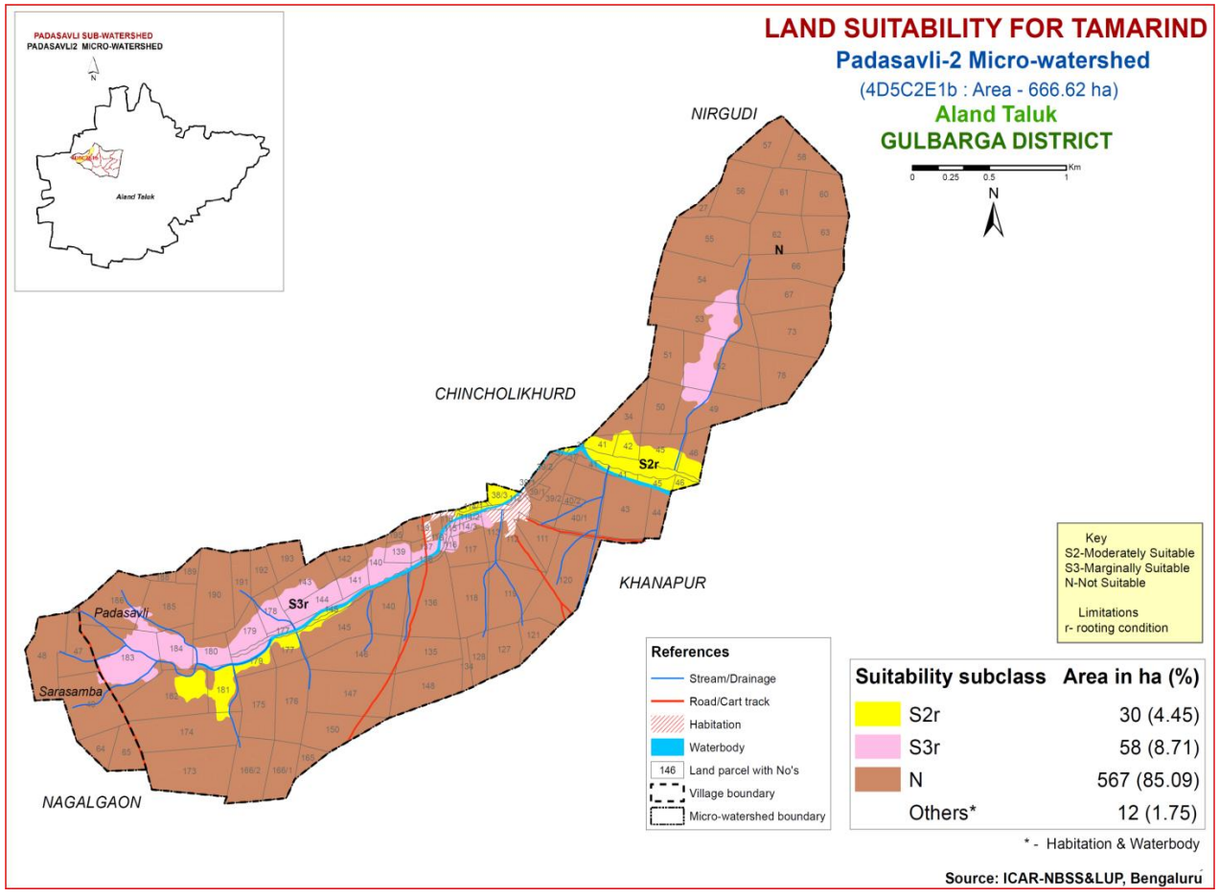

PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
LAND SUITABILITY FOR CUSTARD APPLE
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
0 0.25 0.5 1 Km
N
KHANDALA
Niragudi
Mataki
Hebali
CHINCHOLI KHURD
KHANAPUR
NAGALGAON
Padasavli
S1
S2e
S2r
S3e
S3r
S3re
S3rg
N
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass Area in ha (%)
S1 97 (14.09)
S2e 25 (3.68)
S2r 39 (5.70)
S3e 3 (0.47)
S3r 282 (40.89)
S3re 20 (2.93)
S3rg 12 (1.78)
N 206 (29.93)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

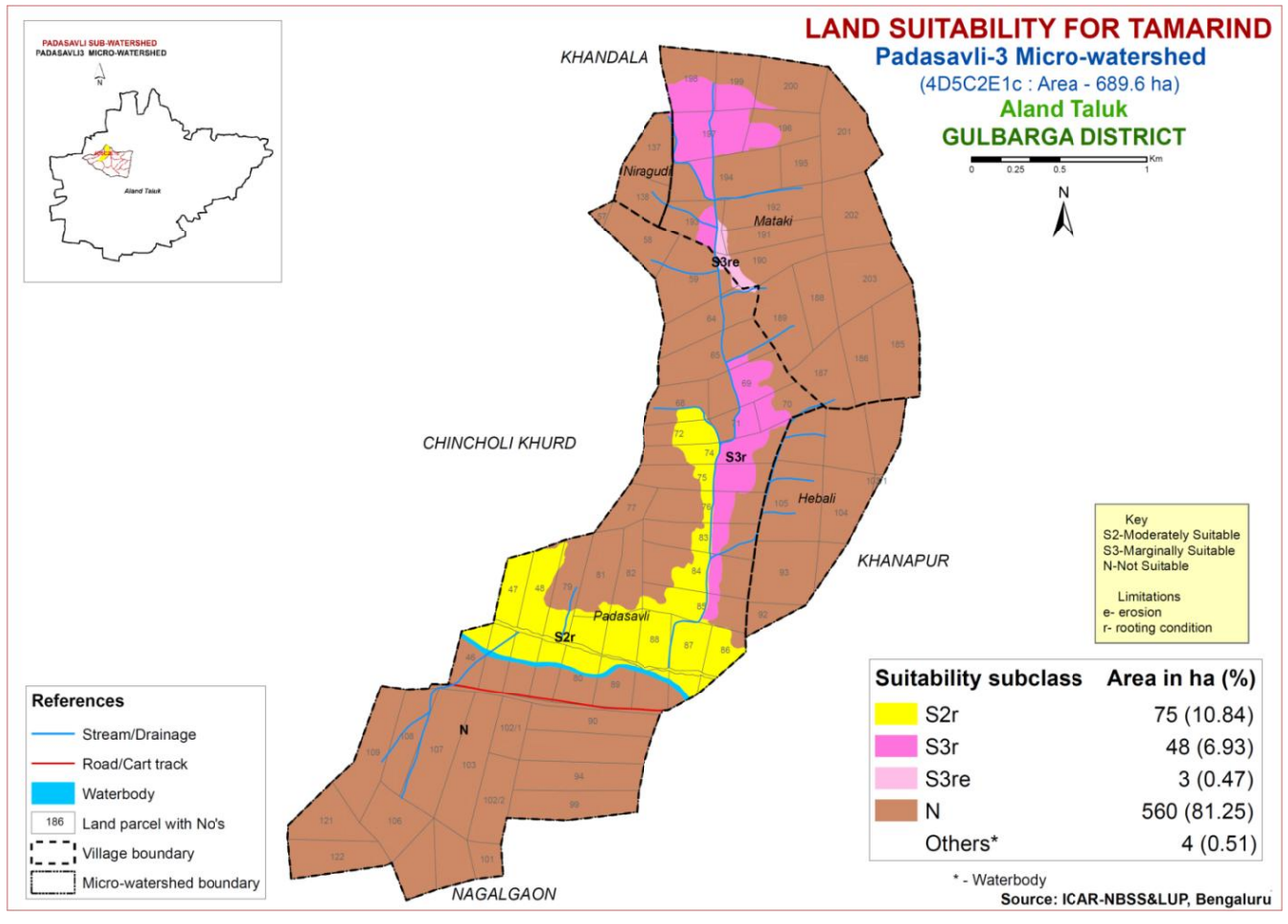

LAND SUITABILITY FOR AMLA
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
NAGALGAON
Padasavli
Sarasamba
S1
S2e
S2re
S3r
S3ge
S3re
S3rg
N
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 33 (6.22)
S2e 24 (4.55)
S2re 107 (20.03)
S3r 159 (29.79)
S3ge 5 (0.85)
S3re 11 (2.02)
S3rg 109 (20.36)
N 61 (11.37)
Others* 26 (4.80)
* - Habitation & Waterbody
References
Stream/Drainage
Road/Cart track
Habitation
Water body
45 Land parcel with No's
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru


LAND SUITABILITY FOR AMLA
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
NAGALGAON
Padasavli
Sarasamba
S1
S2e
S2re
S3r
S3ge
S3re
S3rg
N
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 61 (9.10)
S2e 27 (4.05)
S2re 13 (1.89)
S3r 174 (26.13)
S3ge 7 (1.04)
S3re 44 (6.54)
S3rg 13 (1.98)
N 317 (47.51)
Others* 12 (1.75)
* - Habitation & Waterbody
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
146 Land parcel with No's
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru


LAND SUITABILITY FOR AMLA
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
KHANDALA
CHINCHOLI KHURD
KHANAPUR
NAGALGAON
Niragudi
Mataki
Hebali
Padasavli
S1
S2e
S2r
S3e
S3r
S3re
S3rg
N
Key
S1-Highly Suitable
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
g- gravelliness/stoniness
Suitability subclass | Area in ha (%)
S1 97 (14.09)
S2e 25 (3.68)
S2r 39 (5.70)
S3e 3 (0.47)
S3r 282 (40.89)
S3re 20 (2.93)
S3rg 12 (1.78)
N 206 (29.93)
Others* 4 (0.51)
* - Waterbody
References
Stream/Drainage
Road/Cart track
Waterbody
186 Land parcel with No's
Village boundary
Micro-watershed boundary
Source: ICAR-NBSS&LUP, Bengaluru


LAND SUITABILITY FOR TAMARIND
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
CHINCHOLIKHURD
HIROLI
Padasavali
Padasavli
Sarasamba
NAGALGAON
S2re
S3r
S2r
Key
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
References
Stream/Drainage
Road/Cart track
Habitation
Water body
Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass
Area in ha (%)
S2r 33 (6.22)
S2re 16 (3.06)
S3r 8 (1.49)
N 451 (84.43)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru


LAND SUITABILITY FOR TAMARIND
Padasavli-2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
NIRGUDI
CHINCHOLIKHURD
KHANAPUR
Padasavli
Sarasamba
NAGALGAON
S3r
S2r
Key
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
r- rooting condition
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass
Area in ha (%)
S2r 30 (4.45)
S3r 58 (8.71)
N 567 (85.09)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru


LAND SUITABILITY FOR TAMARIND
Padasavli-3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
KHANDALA
Niragudi
Mataki
Hebali
CHINCHOLI KHURD
KHANAPUR
Padasavli
NAGALGAON
S3re
S3r
S2r
Key
S2-Moderately Suitable
S3-Marginally Suitable
N-Not Suitable
Limitations
e- erosion
r- rooting condition
References
Stream/Drainage
Road/Cart track
Waterbody
Land parcel with No's
Village boundary
Micro-watershed boundary
Suitability subclass
Area in ha (%)
S2r 75 (10.84)
S3r 48 (6.93)
S3re 3 (0.47)
N 560 (81.25)
Others* 4 (0.51)
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

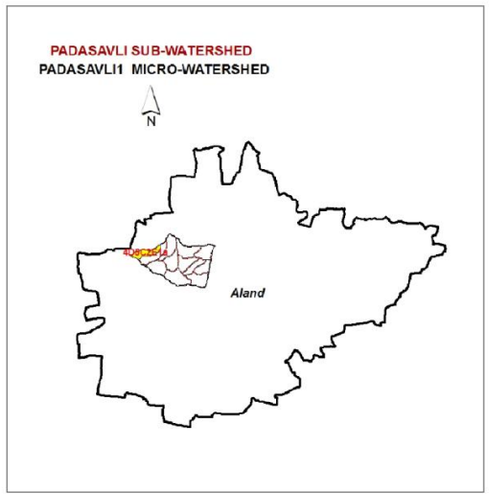
LAND MANAGEMENT UNITS

Padasavli-1 Micro-watershed

(4D5C2E1a : Area - 534.63 ha)

Aland Taluk

GULBARGA DISTRICT



LMU	Area in ha (%)
LMU-1	13 (2.53)
LMU-2	47 (8.82)
LMU-3	283 (53.02)
LMU-4	115 (21.52)
LMU-5	50 (9.28)
Others*	26 (4.80)

* - Habitation & Waterbody

References

- Stream/Drainage
- Road/Cart track
- Habitation
- Water body
- 45 Land parcel with No's
- Village boundary
- Micro-watershed boundary

Source: ICAR-NBSS&LUP, Bengaluru

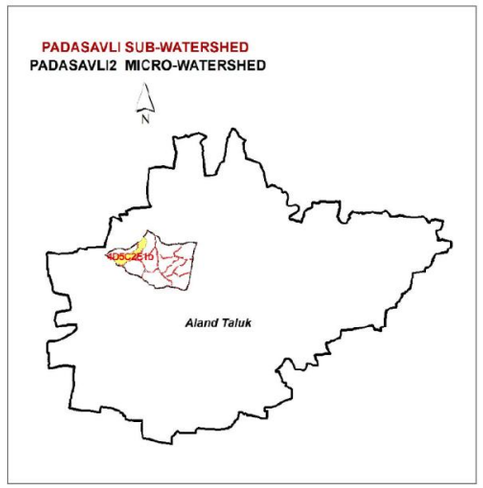
NOTE: *Proposed Crop Plan for LMU's are given in Table*

Table 4. Proposed Crop Plan for Padasavli-1 Micro-watershed, Padasavli Sub-watershed Aland Taluk, Kalaburagi District based on soil-site–crop suitability Assessment

LMU	Mapping unit	Survey No	Characters	Crops proposed				Suitable Intervention
				Field crops	Forestry Crop/Grasses	Horticulture crops (Rainfed Condition)	Horticulture crops With suitable intervention	
LMU-1	4 MGTmC3g2	**Sarasamba:** 38,39,44,45,46	Very shallow Black soil Depth (<25 cm) moderately gravelly, severely eroded	-	Neem, Glyricydia, Silviculture, Agave, Simaroba	-	-	Cresent bunds
LMU-2	1 MGT**m**C2g1 2 MGT**m**B2g1 3 MGT**m**B3g1	**Padsavli:** 211,220,275,276/1 **Sarasamba:** 31,41,42	Very shallow Black soil Depth (<25 cm) slightly gravelly, shallow 25-50 cm moderate to severely eroded	Horse gram, Green gram, chick pea	Neem, Glyricydia, Silviculture, Agave, Simaroba	-	-	Cresent bunds
LMU-3	5 NHAmB2g1 6 NHAmB2g2 7 BHImB2g2 8 BHImC3g1 12 DSImC3g2	**Padsavli:** 33,34,41,186,187,188, 189,194,201,203,204, 205,207,208,209/1, 209/2,210,212,213, 214, 215,216,217,218, 219 **Sarasamba:** 12,13,14,15,16,17, 19,35,36,37,38,39, 40,43,44,45,46,53, 54,55	Shallow black soil (25-50 cm) 1-5 % slope, moderately to severely eroded, slight to moderate gravelly & Mod.shallow (25-50 cm) mod. gravelly and severely eroded	Bajra, Linseed, Green gram, Black gram, Chick pea	Subabhul, Neem, Teak	Custard apple, Charoli, Ber, Amla Vegetable: Ladies finger, Brinjal, Cowpea, Flower: Marigold, Chrysanthemum	Custard apple, Charoli, Ber, Amla Vegetable: Onion, Tomato, Brinjal, Chillies, Bhendi Flower: Marigold, Chrysanthemum	Drip irrigation, suitable soil and water conservations like cultivation on raised beds with mulches and drip

To be continued….

LMU	Mapping unit	Survey No	Characters	Crops proposed				Suitable Intervention
				Field crops	Forestry Crop/Grasses	Horticulture crops (Rainfed Condition)	Horticulture crops With suitable intervention	
LMU-4	9 DSImB2 10 DSImB2g1 11 DSImC2g1 13 GTTmB2g1 14 KMPmB2g1	**Padsavli:** 10,12,29,31,32, 35, 36,54,195,196, 198/1,198/2, 198/3,199,200, 202,206,276/2, 277/1,277/2	Moderately shallow black soil (50-75 cm 1-5 % slope, moderately eroded & Mod.deep (75-100 cm) mod.eroded .	Sorghum, Cotton, Red Gram, Black gram, Green gram, Soybean, Sesame, Sunflower, Safflower Rabi: Sorghum, Chickpea	Subabhul, Neem, Teak	Custard apple, Charoli, Ber, Amla Vegetable: Ladies finger, Brinjal, Cowpea, Flower: Marigold, Chrysanthemum	Custard apple, Charoli, Ber, Amla, Papaya, Banana, Lime, Citrus Vegetable: Onion, Tomato, Brinjal, Chillies, Bhendi Flower: Marigold, Chrysanthemum	-do- Graded bunds, Strengthening of field bunds
LMU-5	15 MANmA1 16 MANmB2	**Padsavli:** 2/1,2/2,2/3,3,4, 5,6,7/2,7/3,8,37 ,38/1, 38/2,274	Very deep black soil (>150cm) 0-3 % slope, slight to moderate erosion	Sorghum, Cotton, Red Gram Black gram, Green gram, Soybean, Sesame, Sunflower, Safflower, Rabi: Sorghum, Chickpea	-	Vegetable: Ladies finger, Brinjal, Cowpea, coriander Field crops: Sorghum, Cotton, Red Gram, Sunflower, Safflower, Perennial component: Guava, Tamarind, Sapota, Lime, Mosambi Flower: Marigold, Chrysanthemum	Banana, Papaya, Lime. Mosambi, Guava, Tamrind Vegetable: Onion, Tomato, Brinjal, Chillies, Bhendi Flower: Marigold, Chrysanthemum	-do- Graded bunds, Strengthening of field bunds



LAND MANAGEMENT UNITS

Padasavli2 Micro-watershed

(4D5C2E1b : Area - 666.62 ha)

Aland Taluk

GULBARGA DISTRICT

0 0.25 0.5 1 Km

N

NIRGUDI

CHINCHOLIKHURD

KHANAPUR

Padasavli

Padasavli

Sarasamba

NAGALGAON

LMU-1

LMU-2

LMU-3

LMU-4

LMU-5

References

- Stream/Drainage
- Road/Cart track
- Habitation
- Waterbody
- 146 Land parcel with No's
- Village boundary
- Micro-watershed boundary

LMU	Area in ha (%)
LMU-1	157 (23.67)
LMU-2	174 (26.10)
LMU-3	223 (33.42)
LMU-4	71 (10.59)
LMU-5	30 (4.44)
Others*	12 (1.75)

* - Habitation & Waterbody

Source: ICAR-NBSS&LUP, Bengaluru

NOTE: *Proposed Crop Plan for LMU's are given in Table*

Table 5. Proposed Crop Plan for Padasavli-2 Micro-watershed, Padasavli Sub-watershed Aland Taluk, Kalaburagi District based on soil-site–crop suitability Assessment

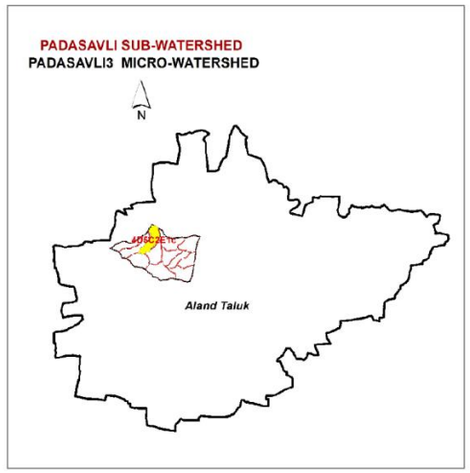
LMU	Mapping unit	Survey No	Characters	Crops proposed				Suitable Intervention
				Field crops	Forestry Crop/ Grasses	Horticulture crops (Rainfed Condition)	Horticulture crops With suitable intervention	
LMU-1	1 MGThC3g1 2 MGThC3g2 3 MGThD3 4 MGThD3g3 7 MGTiC3g1 8 MGTiD3g2 14 MGTmC3 15 MGTmC3g1 16 MGTmC3g2 17 NHAiC3g2	**Padsavli:** 53,58,78,118,119, 120,136,138,140,1 42,143,145,177,18 5,195 **Sarasamba:** 47,48	Very shallow Black soil Depth (<25 cm) slightly gravelly to highly gravelly, 5-10% slope, severely eroded & shallow (25-50 cm), moderately gravelly, severely eroded .	-	Neem, Glyricydia , Silviculture, Agave, Simaroba	-	-	Cresent bunds
LMU-2	5 MGTiB2 6 MGTiB2g1 9 MGTmA1 10 MGTmB1 11 MGTmB2g1 12 MGTmB2pb1 13 MGTmB3 21 NHAmB3g3	**Padsavli:** 37,39/1,39/2,40/1, 40/2,43,44,46,48, 52,56,121,127,128 ,134,135,146,147, 148,150,165,166/1 ,166/2,175,176	Very shallow Black soil Depth (<25 cm) slightly to mod. gravelly & shallow 25-50 cm ,highly gravelly severely eroded.	Horse gram, Green gram, chick pea	Neem, Glyricydia , Silviculture, Agave, Simaroba	-	-	Cresent bunds

To be continued….

LMU	Mapping unit	Survey No	Characters	Crops proposed				Suitable Intervention
				Field crops	Forestry Crop/Grasses	Horticulture crops (Rainfed Condition)	Horticulture crops With suitable intervention	
LMU-3	18 NHAmB2 19 NHAmB2g1 20 NHAmB2g2 22 NHAmC3 23 BHImB1 24 BHImB1g1 25 GTTiB3g2	**Padsavli:** 27,34,50,51,54,55,57,60,61,62,63,66,67,73,113,117,173,174,182,186,188,189,190,191,192,193 **Sarasamba:** 46,49,64,65	Shallow black soil (25-50 cm) 1-5 % slope, slight to moderately eroded & Moderately shallow (50-75 cm), mod. gravelly, severely eroded.	Bajra, Linseed, Green gram, Black gram, Chick pea	Subabhul, Neem, Teak	Custard apple, Charoli, Ber, Amla Vegetable: Ladies finger, Brinjal, Cowpea, Flower: Marigold, Chrysanthemum	Custard apple, Charoli, Ber, Amla Vegetable: Onion, Tomato, Brinjal, Chillies, Bhendi Flower: Marigold, Chrysanthemum	Drip irrigation, suitable soil and water conservations like cultivation on raised beds with mulches and drip
LMU-4	26 GTTmB2g1 27KMPmB1 28 KMPmB2	**Padsavli:** 111,112,114/2,114/3,116,137,139,141,144,178,179,180,183,184	Moderately shallow black soil(50-75 cm) 1-3 % slope & mod. deep (75-100cm), mode. eroded.	Sorghum, Cotton, Red Gram, Black gram, Green gram, Soybean, Sesame, Sunflower, Safflower Rabi: Sorghum, Chickpea	Subabhul, Neem, Teak	Custard apple, Charoli, Ber, Amla Vegetable: Ladies finger, Brinjal, Cowpea, Flower: Marigold, Chrysanthemum	Custard apple, Charoli, Ber, Amla, Papaya, Banana, Lime, Citrus Vegetable: Onion, Tomato, Brinjal, Chillies, Bhendi Flower: Marigold, Chrysanthemum	-do- Graded bunds, Strengthening of field bunds

To be continued….

LMU	Mapping unit	Survey No	Characters	Crops proposed				Suitable Intervention
				Field crops	Forestry Crop/Grasses	Horticulture crops (Rainfed Condition)	Horticulture crops With suitable intervention	
LMU-5	29 MANmB1	**Padsavli:** 38/3,41,42,45 ,114/1, 181	Very Deep Black soil (>150 cm) 1-3 % slope, slight erosion	Sorghum, Cotton, Red Gram Black gram, Green gram, Soybean, Sesame, Sunflower, Safflower, Rabi: Sorghum, Chickpea	-	Vegetable: Ladies finger, Brinjal, Cowpea, coriander Field crops: Sorghum, Cotton, Red Gram, Sunflower, Safflower, Perennial component: Guava, Tamarind, Sapota, Lime, Mosambi Flower: Marigold, Chrysanthemum	Banana, Papaya, Lime. Mosambi, Guava, Tamrind Vegetable: Onion, Tomato, Brinjal, Chillies, Bhendi Flower: Marigold, Chrysanthemum	-do- Graded bunds, Strengthening of field bunds



LAND MANAGEMENT UNITS

Padasavli3 Micro-watershed

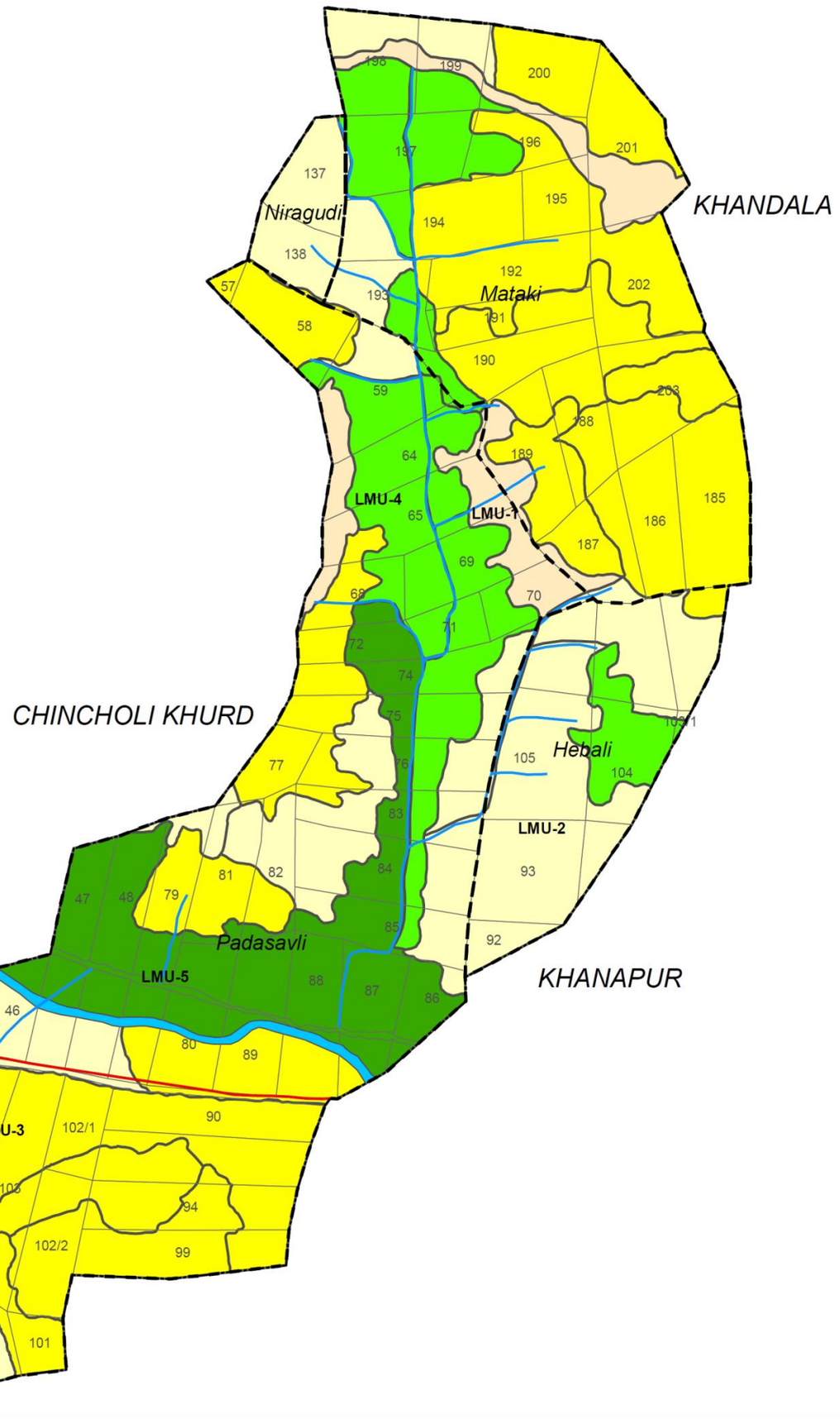
(4D5C2E1c : Area - 689.6 ha)

Aland Taluk

GULBARGA DISTRICT

0 0.25 0.5 1 Km

N



References

- Stream/Drainage
- Road/Cart track
- Waterbody
- 186 Land parcel with No's
- Village boundary
- Micro-watershed boundary

Legend	Area in ha (%)
LMU-1	36 (5.21)
LMU-2	170 (24.71)
LMU-3	315 (45.60)
LMU-4	90 (13.10)
LMU-5	75 (10.84)
Others*	4 (0.51)

* - Waterbody

Source: ICAR-NBSS&LUP, Bengaluru

NOTE: *Proposed Crop Plan for LMU's are given in Table*

Table 6. Proposed Crop Plan for Padasavli-3 Micro-watershed, Padasavli Sub-watershed Aland Taluk, Kalaburagi District based on soil-site–crop suitability Assessment

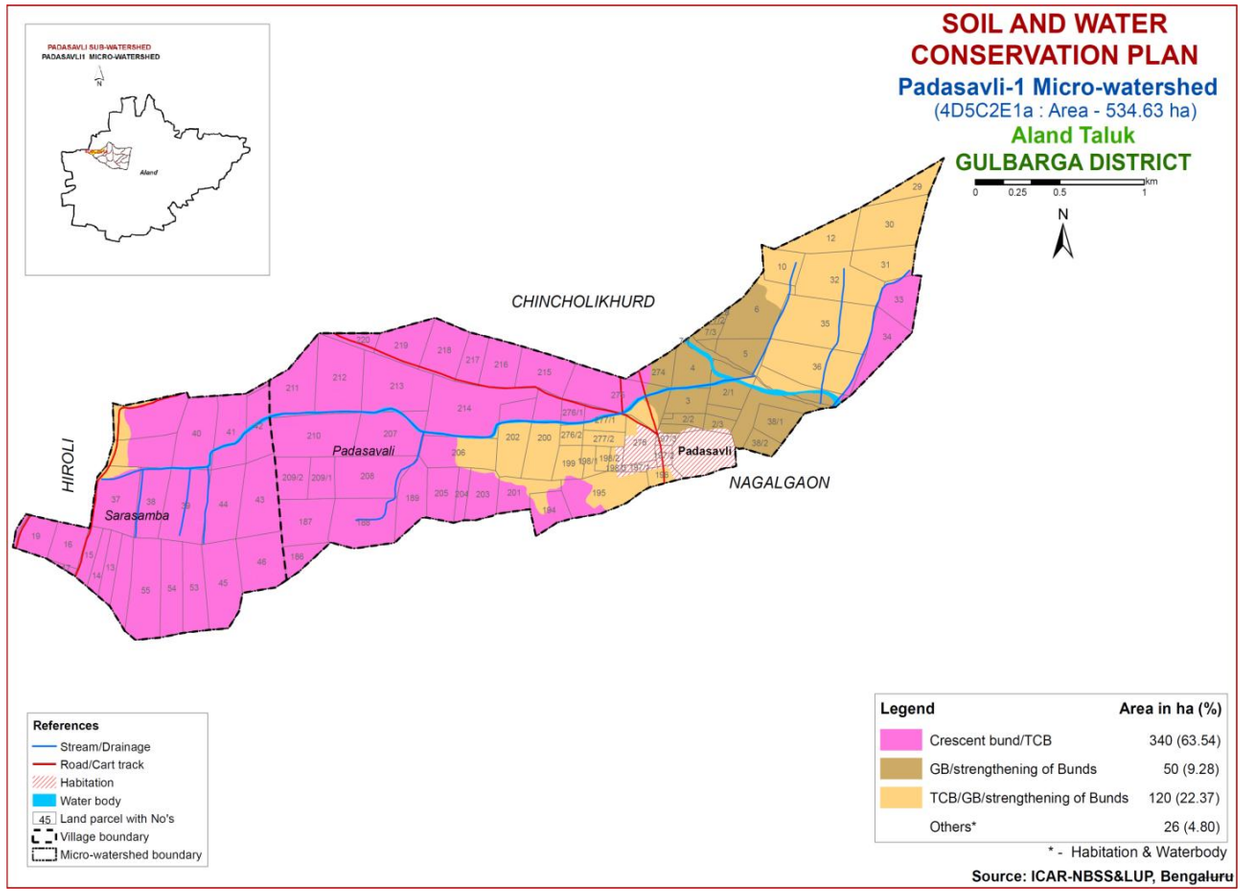
LMU	Mapping unit	Survey No	Characters	Crops proposed				Suitable Intervention
				Field crops	Forestry Crop/Grasses	Horticulture crops (Rainfed Condition)	Horticulture crops With suitable intervention	
LMU-1	1 MGThD3g2 9 MGTmC3g1 10 KNHmC3g2	**Padsavli:** 70	Very shallow Black and red soil Depth (<25 cm) slightly gravelly to moderately gravelly, 3-10% slope, severely eroded.	-	Neem, Glyricydia , Silviculture, Agave, Simaroba	-	-	Cresent bunds
LMU-2	2 MGTmB1 3 MGTmB1g1 4 MGTmB2g1 5 MGTmB2g2 6 MGTmB3 7MGTmB3g1 8 MGTmC2	**Hebali**: 92,93,94,105,106,107, 108 **Matki**: 193,199 **Nirgudi:** 138,137 **Padasvli:** 46,76,82,83, 84,104, 106,121,122	Very shallow Black soil Depth (<25 cm) slight to mod. gravelly, slight to severely eroded.	Horse gram, Green gram, chick pea	Neem, Glyricydia , Silviculture, Agave, Simaroba	-	-	Cresent bunds

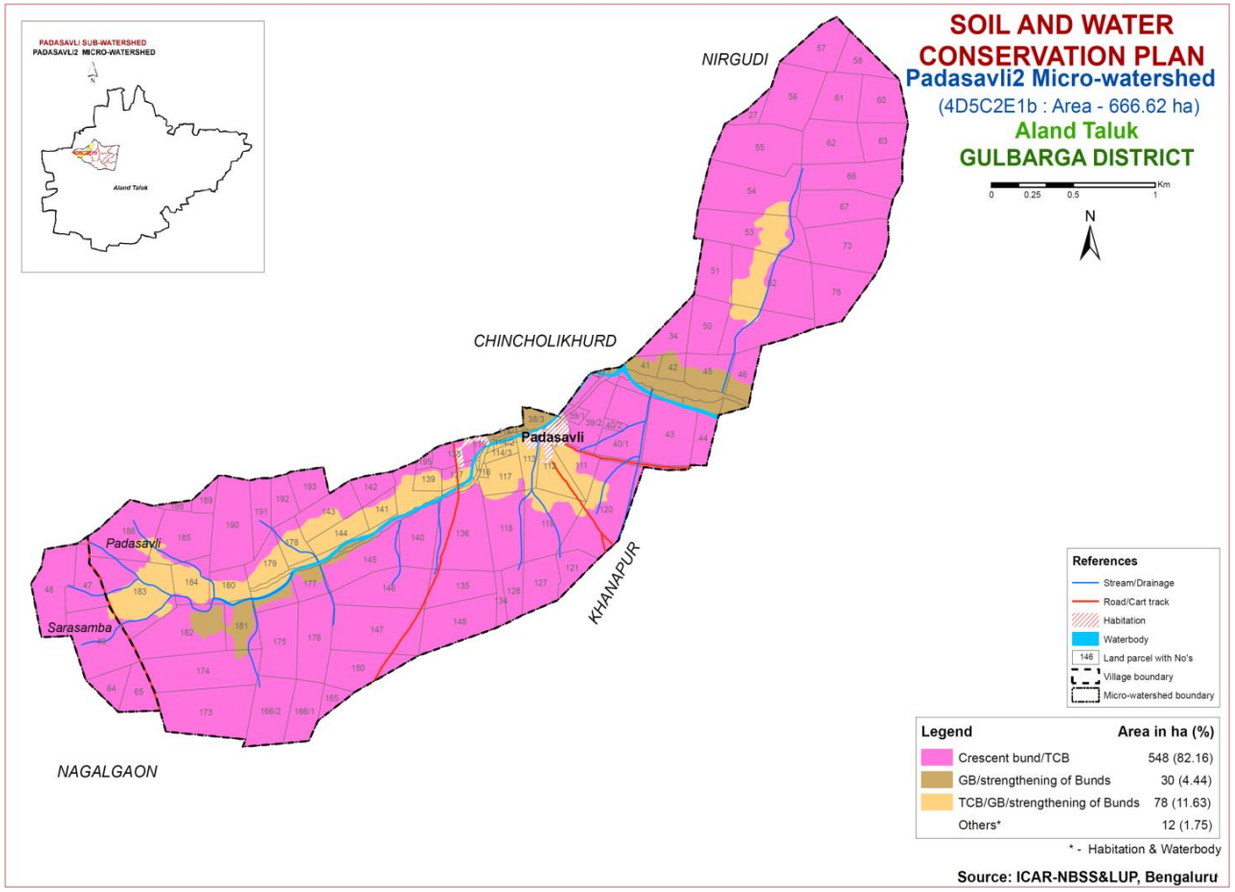
To be continued….

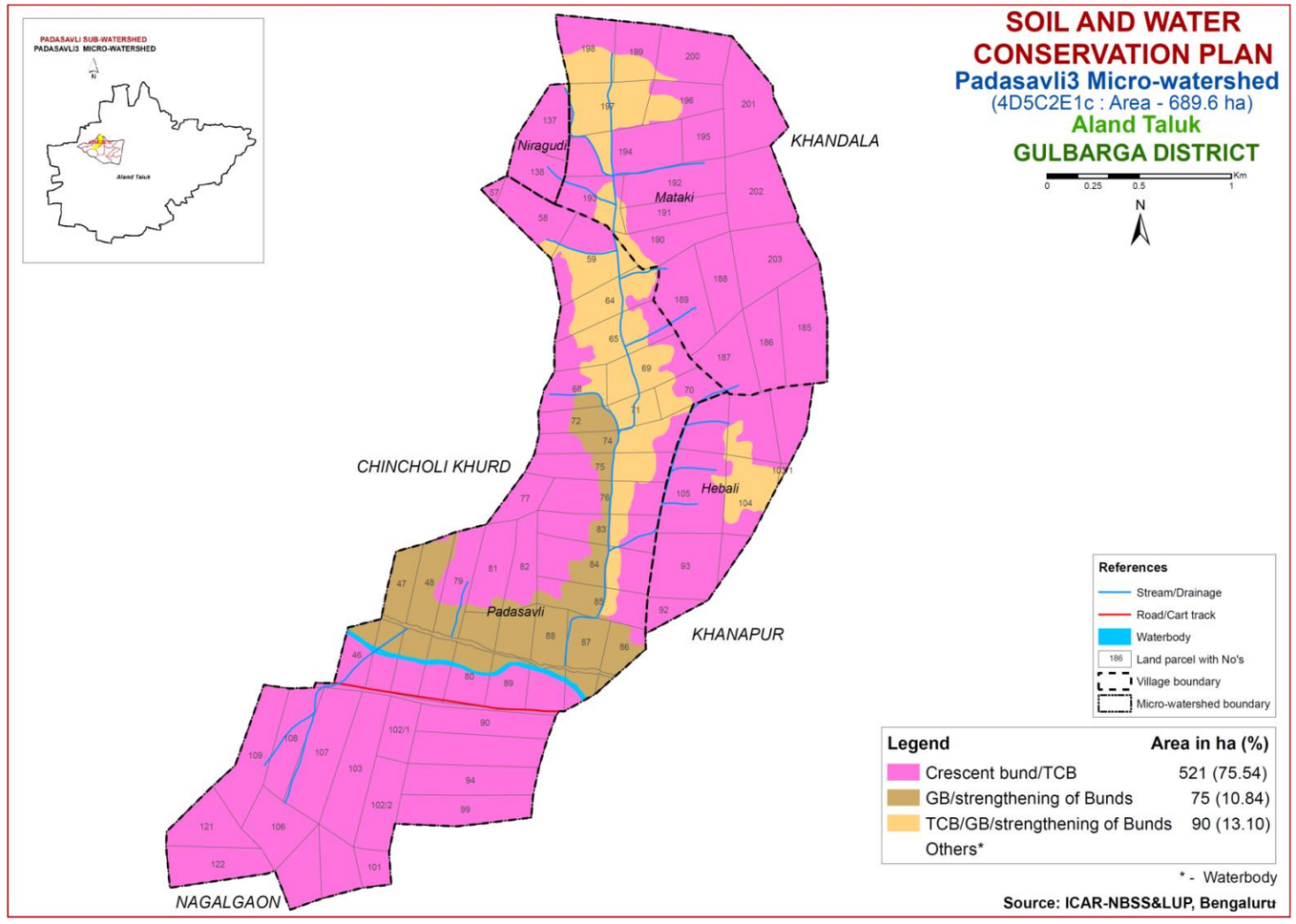
LMU	Mapping unit	Survey No	Characters	Crops proposed				Suitable Intervention
				Field crops	Forestry Crop/Grasses	Horticulture crops (Rainfed Condition)	Horticulture crops With suitable intervention	
LMU-3	11 BHIhB2g1 12 BHIiB2g1 13 BHImB1 14 BHImB1g1 15 BHImB1g2 16 BHImB2 17 BHImB2g1 18 BHImB3 19 NHAmB1 20 NHAmB1g1 21 NHAmB2 22 NHAmB2g1	**Matki**: 185,186,187, 188,189, 190, 191,192,194, 195, 196,200, 201,202,203 **Padsavli**: 57,58,68,77, 79,80,81, 90, 93,94,99,101, 102/1,102/2, 103,105,107, 108,109	Shallow black soil (25-50 cm)1-3 % slope, slight to moderately eroded ,slight to moderately gravelly	Bajra, Linseed, Green gram, Black gram, Chick pea	Subabhul, Neem, Teak	Custard apple, Charoli, Ber, Amla Vegetable: Ladies finger, Brinjal, Cowpea, Flower: Marigold, Chrysanthemum	Custard apple, Charoli, Ber, Amla Vegetable: Onion, Tomato, Brinjal, Chillies, Bhendi Flower: Marigold, Chrysanthemum	Drip irrigation, suitable soil and water conservations like cultivation on raised beds with mulches and drip
LMU-4	23 DSImB1 24 GTTmB1 25 KMPmB1 26 KMPmB2 27 KMPmB2g1 28 KMPmC3g1	**Hebali**: 103/1,104 **Matki**: 197,198 **Padsavli**: 59,64,65,69, 71,74,75	Moderately shallow black soil (50-75 cm) 1-3 % slope & mod. deep (75-100cm), moderate to severely eroded.	Sorghum, Cotton, Red Gram, Black gram, Green gram, Soybean, Sesame, Sunflower, Safflower Rabi: Sorghum, Chickpea	Subabhul, Neem, Teak	Custard apple, Charoli, Ber, Amla Vegetable: Ladies finger, Brinjal, Cowpea, Flower: Marigold, Chrysanthemum	Custard apple, Charoli, Ber, Amla, Papaya, Banana, Lime, Citrus Vegetable: Onion, Tomato, Brinjal, Chillies, Bhendi Flower: Marigold, Chrysanthemum	-do- Graded bunds, Strengthening of field bunds

To be continued….

LMU	Mapping unit	Survey No	Characters	Crops proposed				Suitable Intervention
				Field crops	Forestry Crop/Grasses	Horticulture crops (Rainfed Condition)	Horticulture crops With suitable intervention	
LMU-5	MANmB1	**Padsavli:** 47,48,72,85 ,86,87,88, 89	Very Deep Black soil (>150) 1-3 % slope, slight erosion	Sorghum, Cotton, Red Gram Black gram, Green gram, Soybean, Sesame, Sunflower, Safflower, Rabi: Sorghum, Chickpea	-	Vegetable: Ladies finger, Brinjal, Cowpea, coriander Field crops: Sorghum, Cotton, Red Gram, Sunflower, Safflower, Perennial component: Guava, Tamarind, Sapota, Lime, Mosambi Flower: Marigold, Chrysanthemum	Banana, Papaya, Lime. Mosambi, Guava, Tamrind Vegetable: Onion, Tomato, Brinjal, Chillies, Bhendi Flower: Marigold, Chrysanthemum	-do- Graded bunds, Strengthening of field bunds


SOIL AND WATER CONSERVATION PLAN
Padasavli-1 Micro-watershed
(4D5C2E1a : Area - 534.63 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI1 MICRO-WATERSHED
Aland
0 0.25 0.5 1 km
N
CHINCHOLIKHURD
HIROLI
Padasavli
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Water body
Land parcel with No's
Village boundary
Micro-watershed boundary
Legend
Area in ha (%)
Crescent bund/TCB 340 (63.54)
GB/strengthening of Bunds 50 (9.28)
TCB/GB/strengthening of Bunds 120 (22.37)
Others* 26 (4.80)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru


SOIL AND WATER CONSERVATION PLAN
Padasavli2 Micro-watershed
(4D5C2E1b : Area - 666.62 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI2 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
NIRGUDI
CHINCHOLIKHURD
Padasavli
KHANAPUR
Sarasamba
NAGALGAON
References
Stream/Drainage
Road/Cart track
Habitation
Waterbody
Land parcel with No's
Village boundary
Micro-watershed boundary
Legend
Area in ha (%)
Crescent bund/TCB 548 (82.16)
GB/strengthening of Bunds 30 (4.44)
TCB/GB/strengthening of Bunds 78 (11.63)
Others* 12 (1.75)
* - Habitation & Waterbody
Source: ICAR-NBSS&LUP, Bengaluru


SOIL AND WATER CONSERVATION PLAN
Padasavli3 Micro-watershed
(4D5C2E1c : Area - 689.6 ha)
Aland Taluk
GULBARGA DISTRICT
PADASAVLI SUB-WATERSHED
PADASAVLI3 MICRO-WATERSHED
Aland Taluk
0 0.25 0.5 1 Km
N
Niragudi
KHANDALA
Mataki
CHINCHOLI KHURD
Hebali
Padasavli
KHANAPUR
NAGALGAON
References
Stream/Drainage
Road/Cart track
Waterbody
Land parcel with No's
Village boundary
Micro-watershed boundary
Legend
Area in ha (%)
Crescent bund/TCB 521 (75.54)
GB/strengthening of Bunds 75 (10.84)
TCB/GB/strengthening of Bunds 90 (13.10)
Others*
* - Waterbody
Source: ICAR-NBSS&LUP, Bengaluru

PART - B

Hydrological Inventory of Padasavli Sub-watershed, Aland Taluk, Kalaburagi District, Karnataka for Watershed Planning and Development

Sujala - III
Karnataka Watershed Development Project-II
Watershed Development Department
Government of Karnataka

THE WORLD BANK

Hydrological Inventory of Padasavli Sub-watershed, Aland Taluk, Kalaburagi District, Karnataka for Watershed Planning and Development

Prepared by
ICAR-National Bureau of Soil Survey and Land Use Planning
Regional Centre, Hebbal, Bangalore - 560 024

ICAR - NBSS & LUP

Phone:080-23412242

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Sh. R.S.Reddy	Consultant
Sh. A.G.Devendra Prasad	Consultant
Smt. K.Karunya Lakshmi	Research Associate
Ms. Seema, K.V.	Senior Research Fellow
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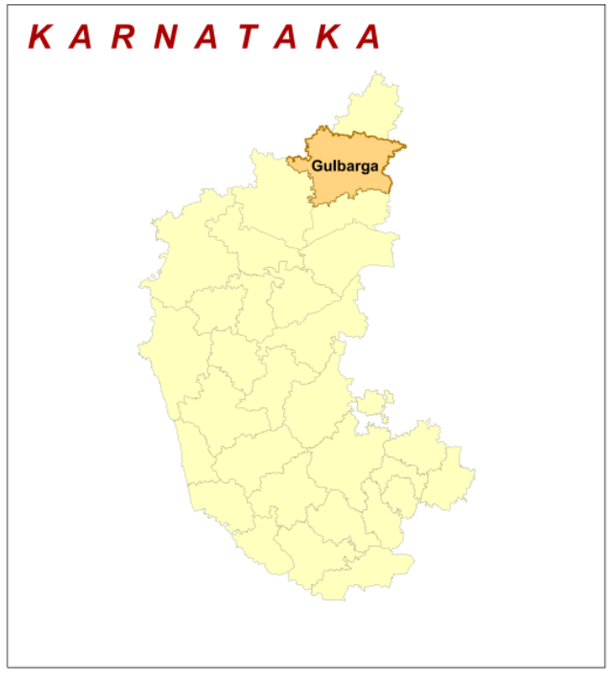
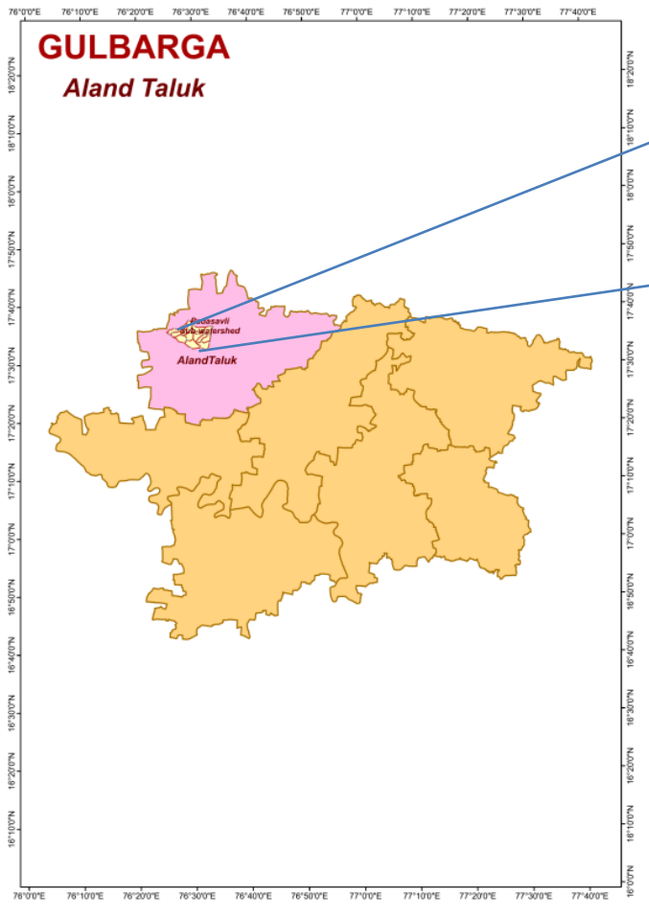
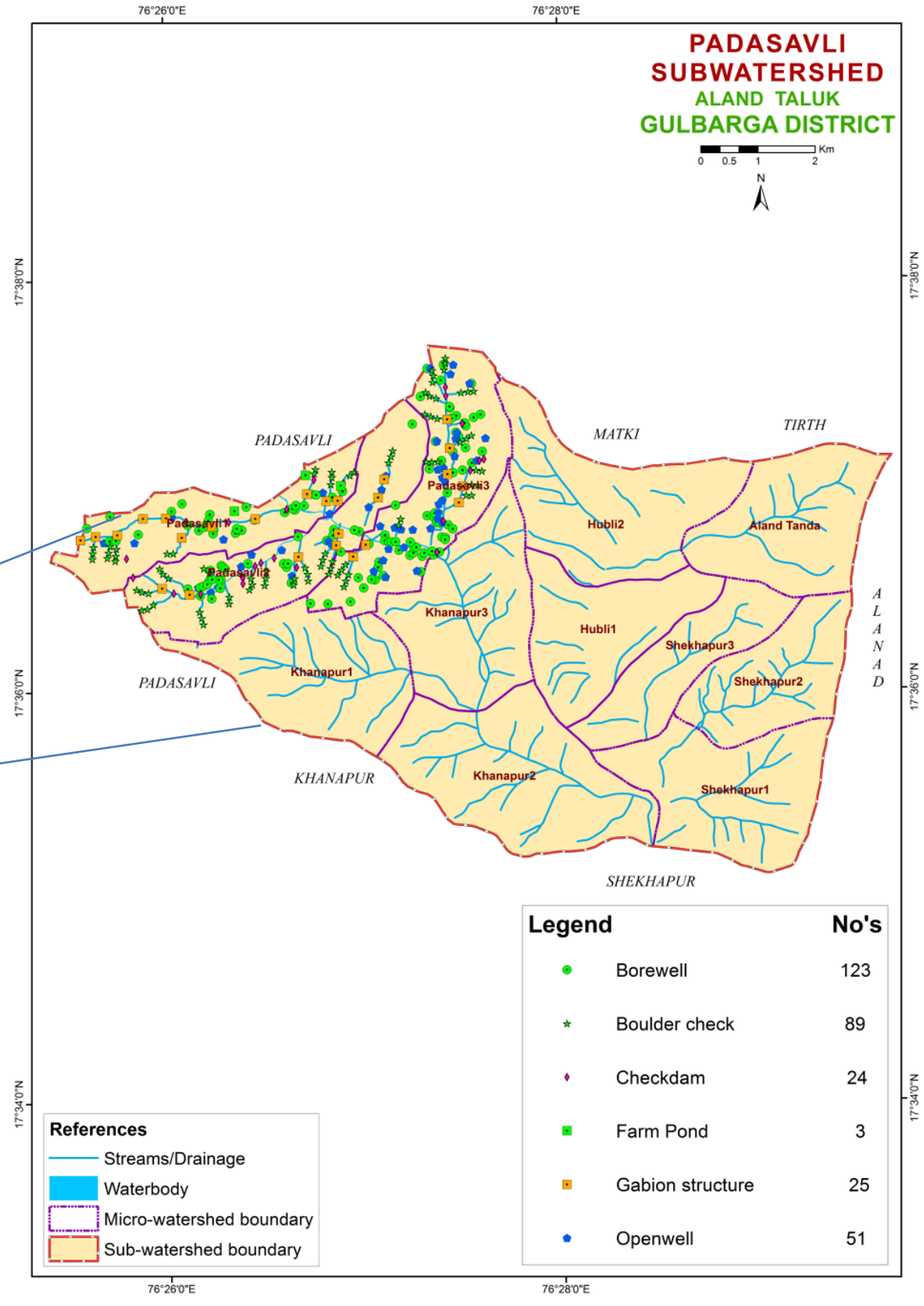
INTRODUCTION

- The inventory and documentation of spatial and temporal changes in hydrological components of Padasavli sub-watershed (4D5C2E) in Aland taluk, Kalaburagi district, has been undertaken for integrated planning, development and management at the level of soil mapping units.
- Padasavli sub-watershed (Aland taluk, Kalaburagi district) is located between $17^0$34'13''–$17^0$38'17'' North latitudes and $76^0$25'49''- $76^0$34'13'' East longitudes, covering an area of about 7541 ha.
- This sub-watershed encompasses of 12 MWs namely, Padasavli-3 (4D5C2E1c), Hubli-2 (4D5C2E2b), Padasavli-2 (4D5C2E1b), Aland Tanda (4D5C2E2a), Padasavli-1 (4D5C2E1a), Khanapur-3 (4D5C2E1e), Hubli-1 (4D5C2E2c), Shekhapur-3 (4D5C2E2d), Shekhapur-2 (4D5C2E2e), Khanapur-1 (4D5C2E1d), Khanapur-2 (4D5C2E1f) and Shekhapur-1 (4D5C2E2f) micro watersheds. Land Resource Inventory (LRI) was generated for three among the twelve micro-watersheds.
- Average annual rainfall (1960-2014) of the Hobli (Block) pertaining to the sub-watershed is 772 mm.
- In this sub-watershed major *kharif* crops grown are Maize, Soyabean, Redgram, Sugarcane, Sunflower, Cotton and major *rabi* crops are Sorghum and Bengalgram.
- Hydrological components namely rainfall (annual, *kharif*, *rabi* and summer), PET, AET, runoff, surface soil moisture, ground water status and water balance are presented.

LOCATION MAP OF PADASAVLI SUB-WATERSHED

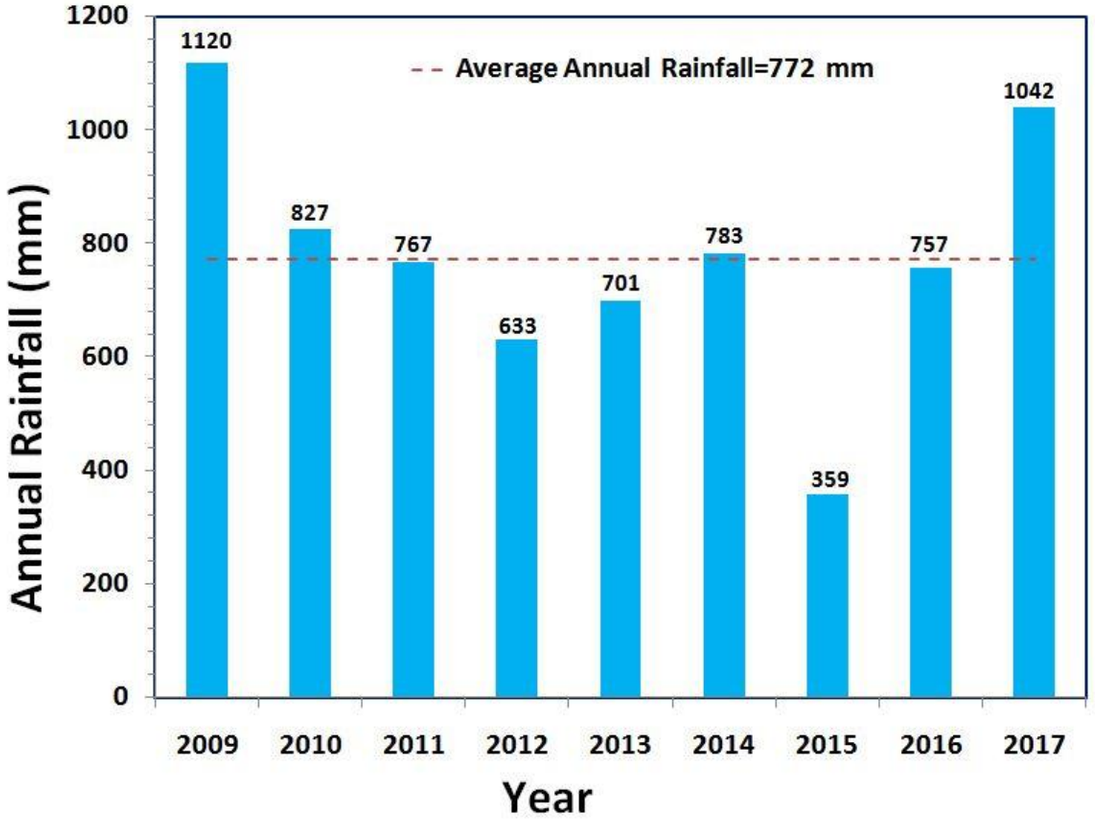






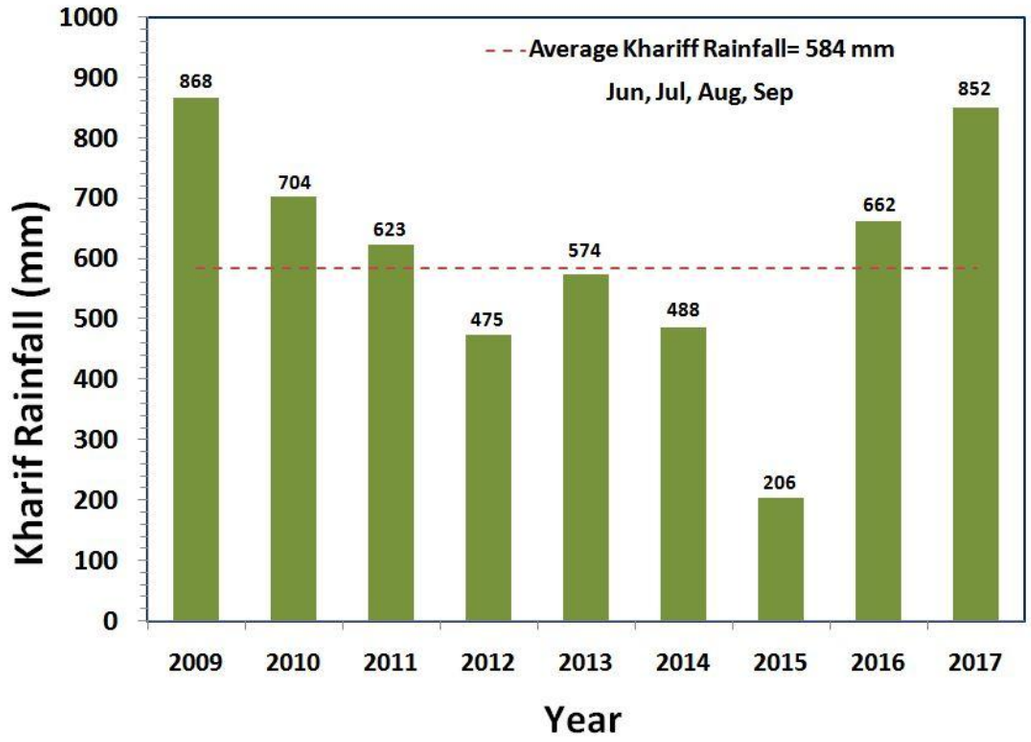
Soil & Water Conservation Structures in Padasavli Sub-watershed, Aland taluk, Kalaburagi district

RAINFALL INDEX

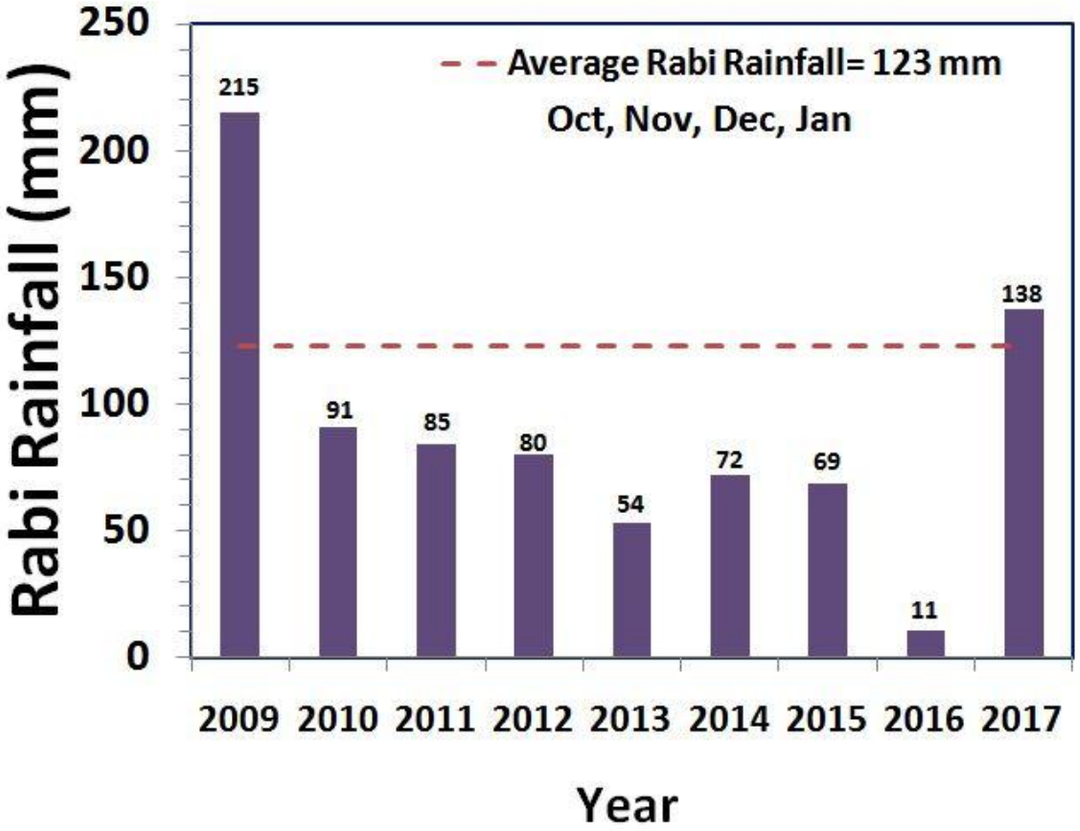


The average annual rainfall (1960-2014) recorded at the Aland station in Aland taluk of Kalaburagi district is 772 mm. The annual rainfall at Aland station (Hobli H.Q.) is presented. During the years 2012, 2013, 2015 and 2016 the annual rainfall was deficient by 18%, 9%, 53% and 2% respectively.

The *kharif* rainfall (Jun–Sep) is an average about 77% of the annual rainfall and it typically follows the annual rainfall patterns. During the years 2012, 2013, 2014 and 2015 the *kharif* rainfall was deficient by 19%, 2%, 16% and 65% respectively.

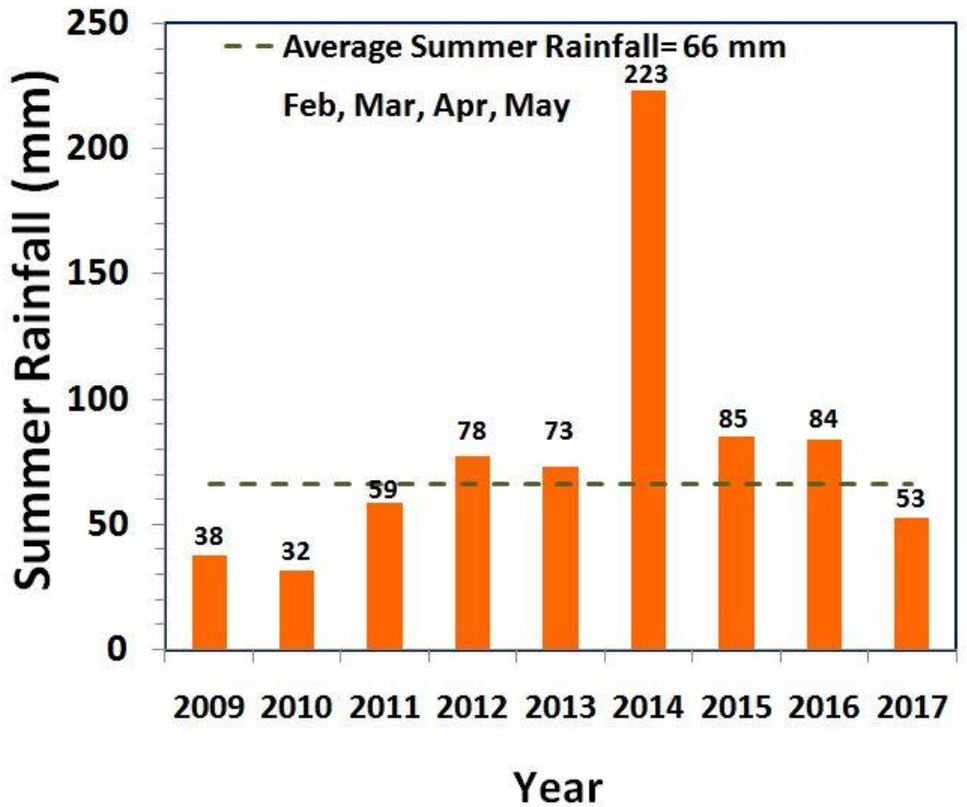


RAINFALL INDEX

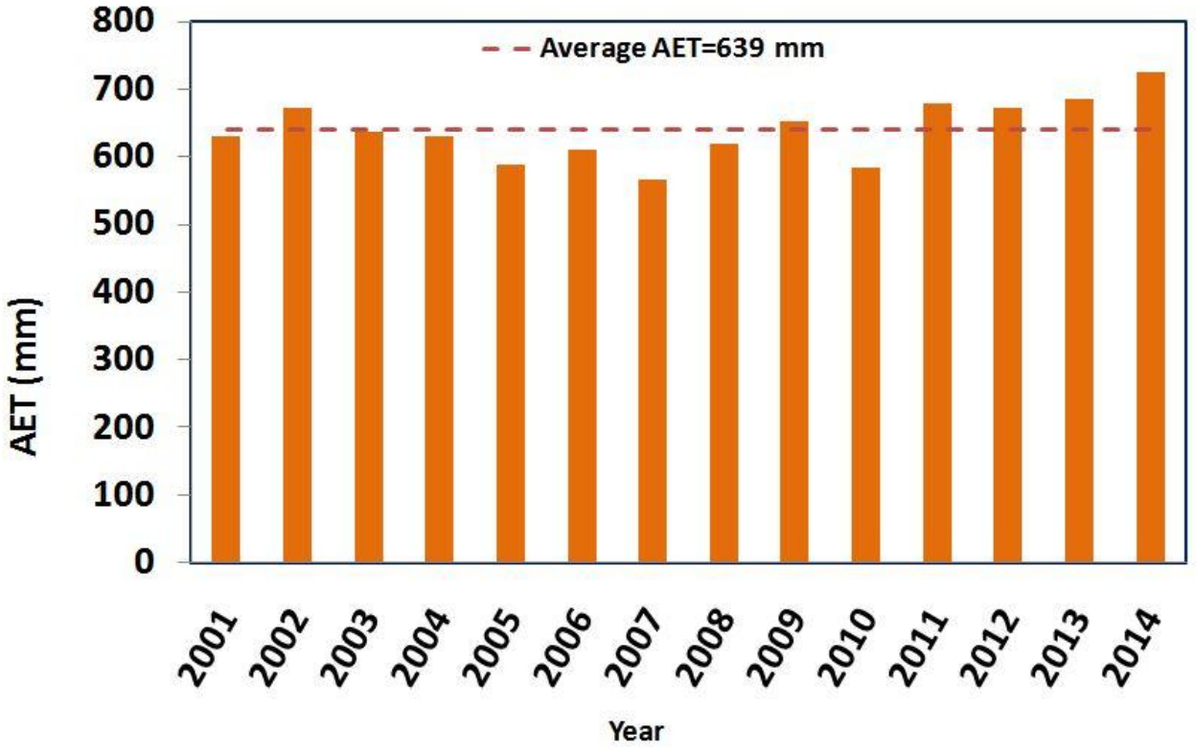


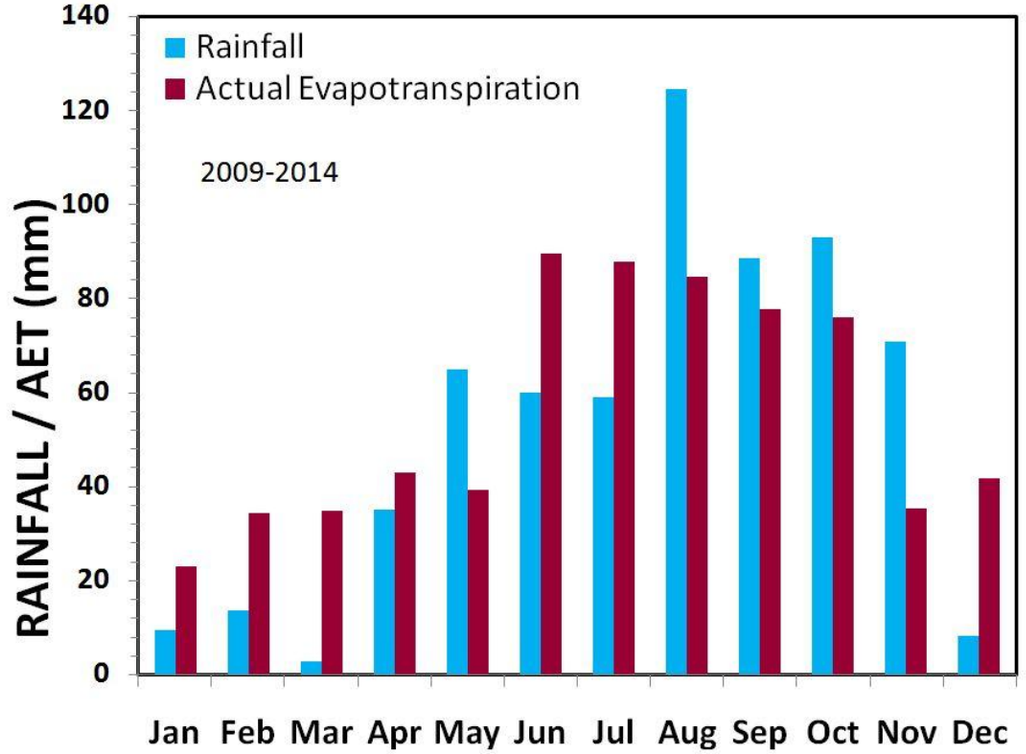
The average *rabi* rainfall (Oct-Jan) is about 12% of the average annual rainfall. During the years 2009 and 2017 high *rabi* rainfall was received, where as other years showed deficient rainfall.

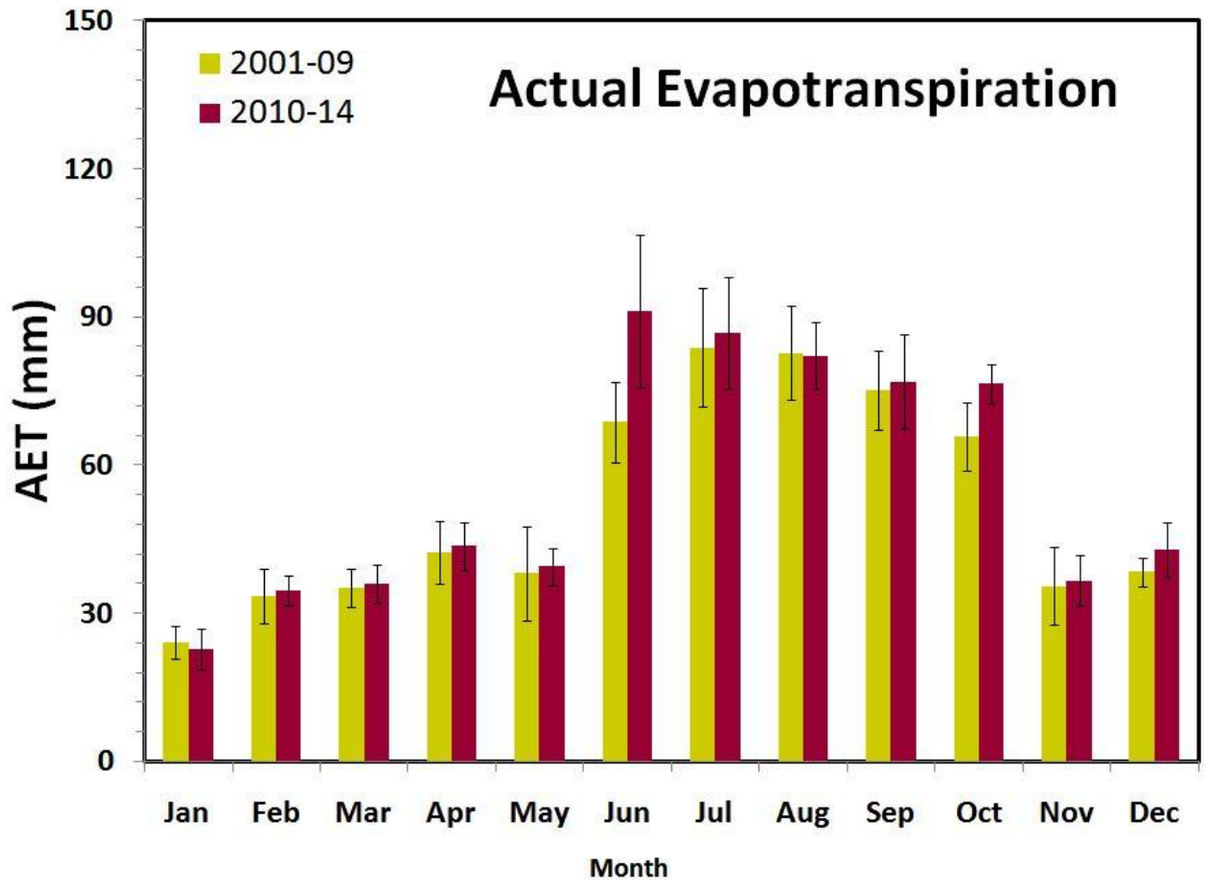
The average summer rainfall (Feb-May) is about 11% of the average annual rainfall.



EVAPOTRANSPIRATION

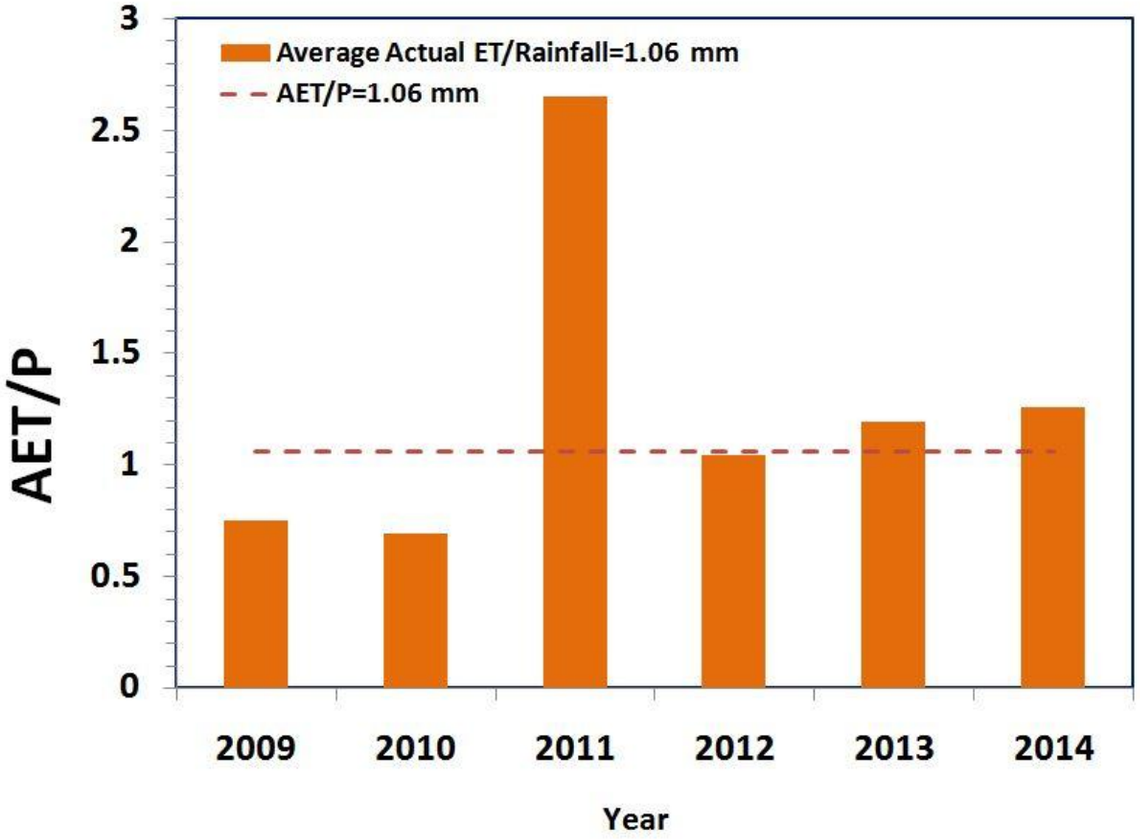




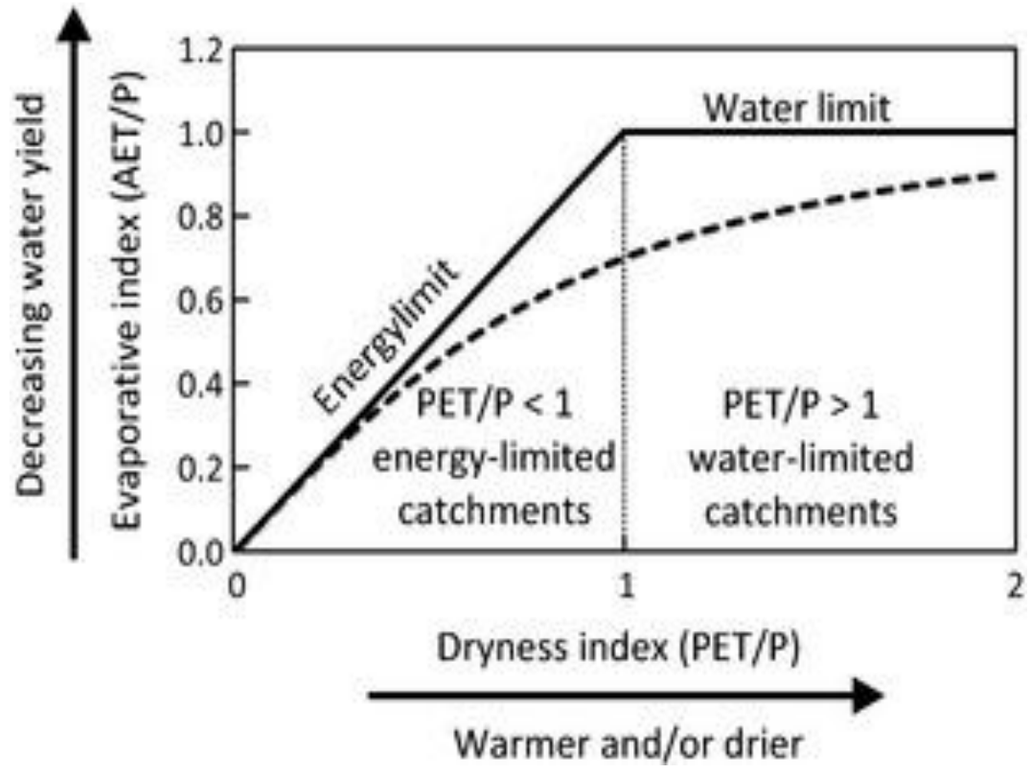


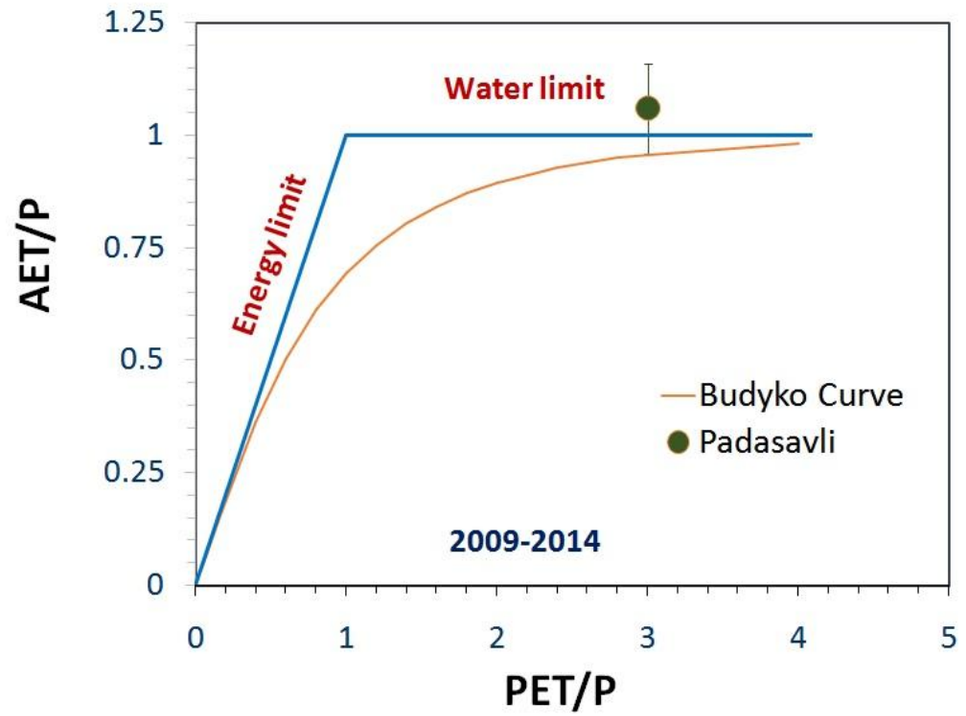
The average annual actual ET is lower than the average rainfall. During *kharif*, average rainfall and ET was found to be 606 mm and 340 mm respectively, whereas in *rabi* it was about 90 mm and 176 mm. In comparison to the 2001-2009, the annual ET increased by 7% during 2010-2014.

EVAPOTRANSPIRATION INDEX

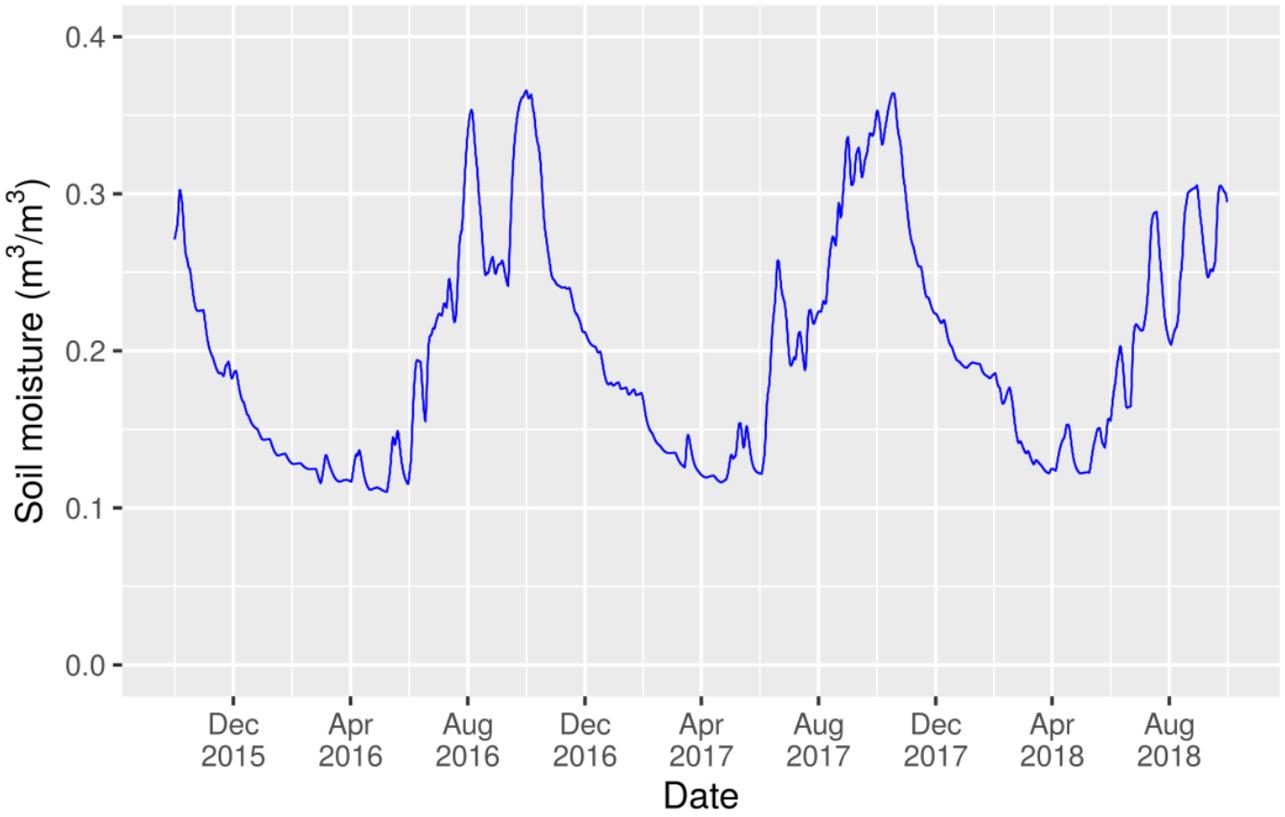


The average AET/P ratio was about 106%, which is higher than the sustainable limit of about 80%. Even during extremely lower rainfall year of 2012, AET was 640 mm. This suggests the presence of water storage and utilization from other sources such as groundwater, which buffered the lower rainfall.

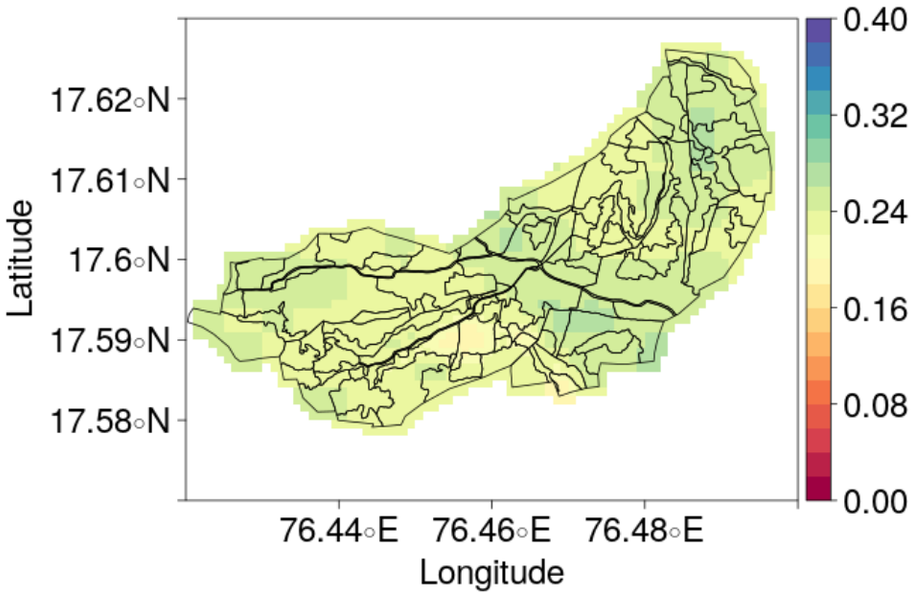




SATELLITE RETRIEVED SOIL MOISTURE

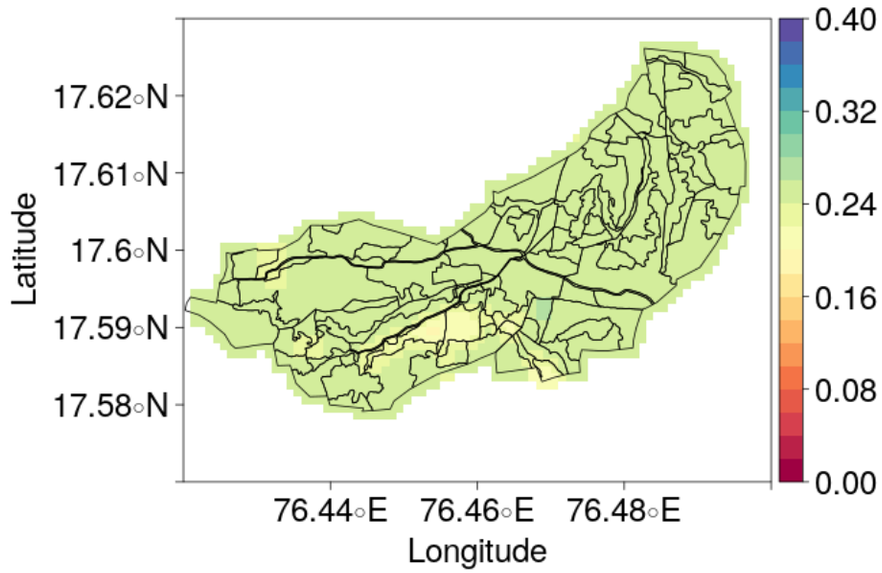


Padasavli– *rabi* Soil Moisture



The method developed for retrieving soil moisture from multi-satellite observations allowed to map surface soil moisture behavior in the micro-watershed. The available surface moisture was varied in the range of 12-26% in *kharif* and 19-37% in *rabi* seasons of 2016 and 13-34% in *kharif* and 20-35% in *rabi* seasons of 2017.

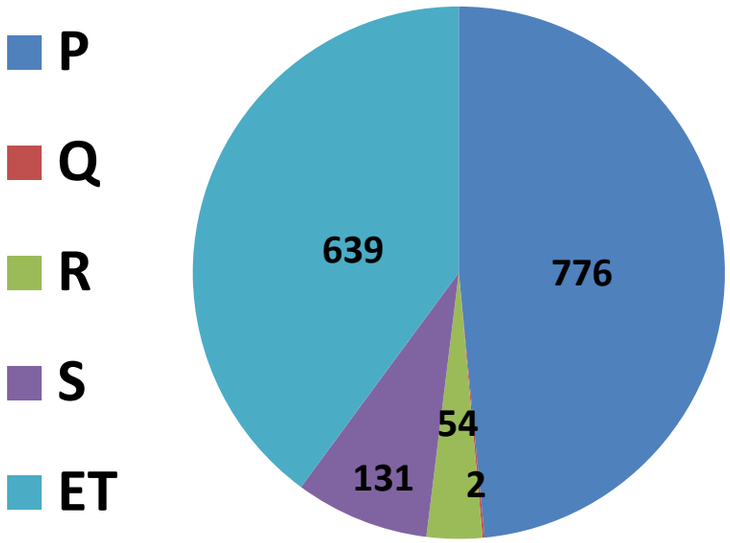
Padasavli– *kharif* Soil Moisture



WATER BALANCE

$$Q = P - E - R - S$$

- Q = Runoff
- P = Precipitation
- E = Evapotranspiration
- R = Groundwater recharge
- S = Soil moisture storage change

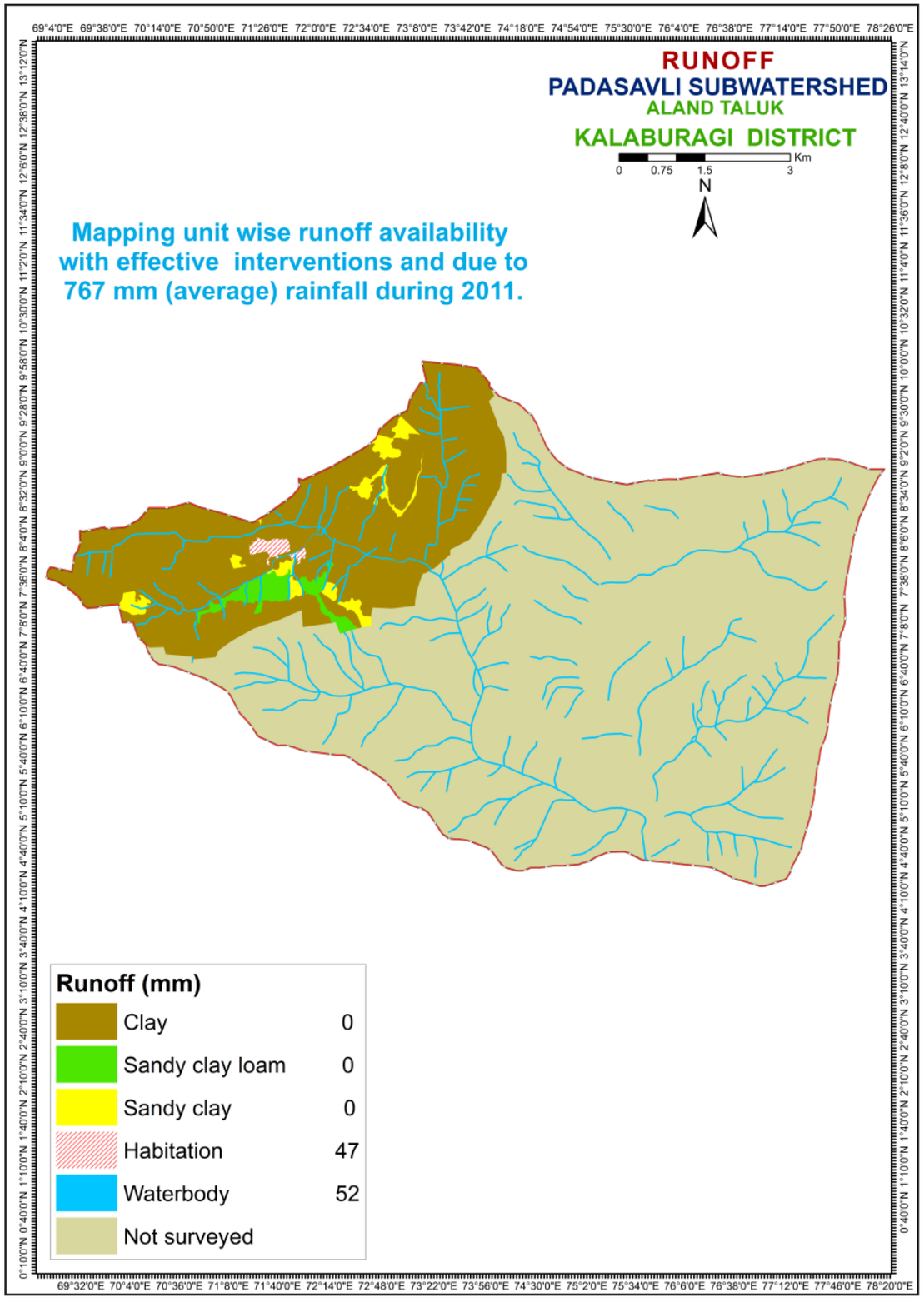


During August-September months, Precipitation is slightly higher than Evapotranspiration, hence slight Runoff can occur in the watershed.

P = 776 mm (average of 2009-2017) ET = 639 mm R = 54 mm S = 131 mm Q =2 mm

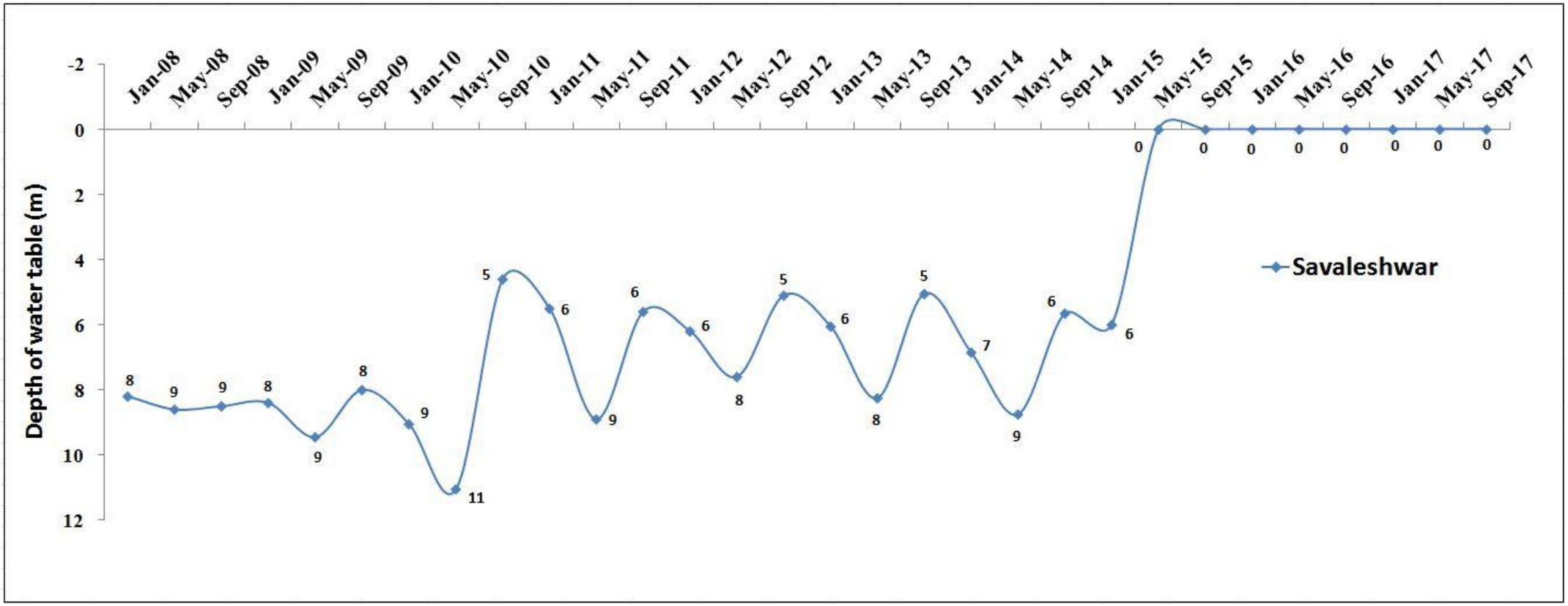
Sl. No.	Parameters	Average_ 2011 (mm)
1.	Rainfall	767
2.	Runoff availability with existing conditions	26
3.	Runoff availability with effective interventions	2
4.	Runoff allowed as environmental flow at the outlet	0.21
5.	Runoff excess for harvesting by construction of structures	2

RUNOFF


RUNOFF
PADASAVLI SUBWATERSHED
ALAND TALUK
KALABURAGI DISTRICT
0 0.75 1.5 3 Km
N
Mapping unit wise runoff availability with effective interventions and due to 767 mm (average) rainfall during 2011.
Runoff (mm)
Clay 0
Sandy clay loam 0
Sandy clay 0
Habitation 47
Waterbody 52
Not surveyed

GROUND WATER STATUS

SAVALESHWAR STATION



The total number of wells present in Padasavli Sub-watershed as per LRI data is 174 (123-Borewells and 51-Open wells). The groundwater level was found from the data obtained from KSNDMC for the nearest station Savaleshwar. The above graph depicts the groundwater levels during the years 2008-2014 was slightly varying except May 2010. Whereas groundwater levels during the years 2015-2017 were constant. Deepest levels were found in 2010.

SUMMARY

- The average annual rainfall of 772 mm in the Padasavli sub-watershed as recorded from the Aland station data by KSNDMC.
- 77%, 12% and 11% of the annual rainfall occurs during *kharif*, *rabi* and summer seasons respectively and exhibited a higher temporal variability.
- The evapotranspiration estimation tool developed indicates that the watershed water balance is in deficit .The cropping & irrigation choices are not appropriate and need to be altered to shift the deficit water balance.
- The estimated runoff available to use is 2 mm for an average annual rainfall of 776 mm (2009-2017). The utilizable groundwater is 38 mm (70% of 54 mm recharge estimated). This means the total available water resource combining the soil moisture store for kharif & rabi (131 mm) and utilizable runoff plus recharge is 171 (=131+38+2)
- The average actual evapotranspiration estimated in the watershed based on the current land use and irrigation practices for the kharif and rabi seasons is 515 mm. Hence the amount of water use for kharif and rabi seasons may be estimated as 644 mm (i.e 125% of AET). This demand for the two seasons is higher by 473 mm, i.e. (644-171). The AET in June-Sept months is more than rainfall.
- The total number of wells present in Padasavli Sub-watershed as per LRI data is 174 (123-Borewells and 51-Open wells). The groundwater level was found from the data obtained from KSNDMC for the nearest station Savaleshwar. Deepest levels were found in 2010.