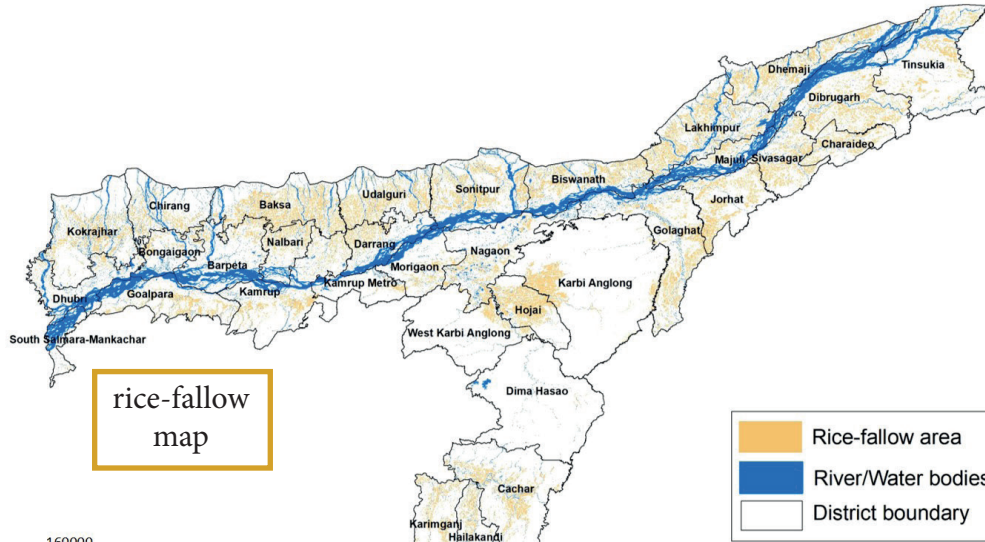# Rice-fallow areas and their usage (A GIS based approach)
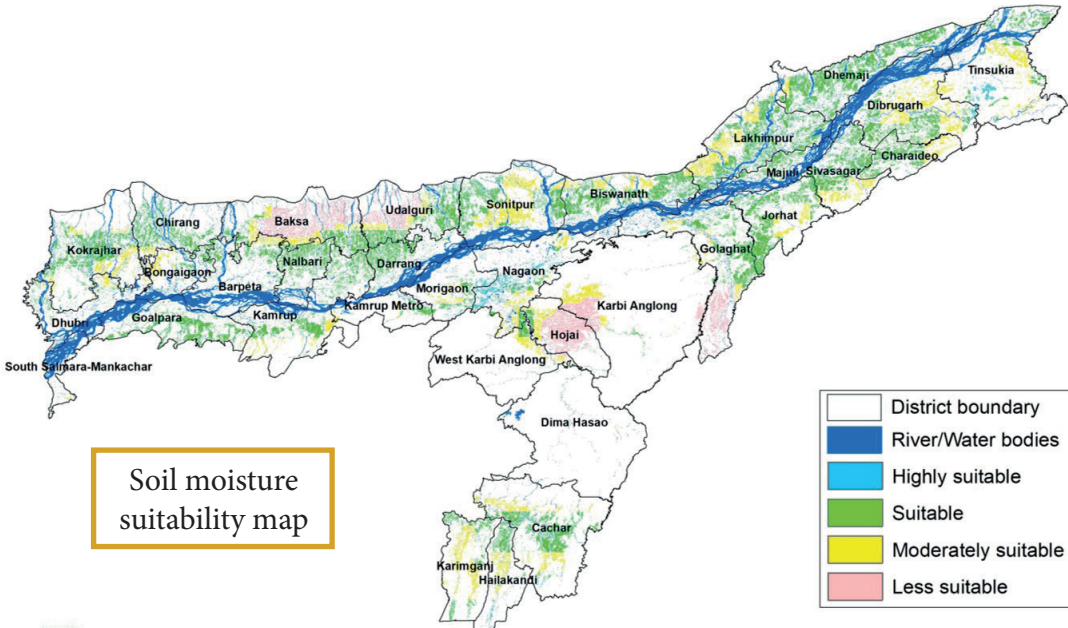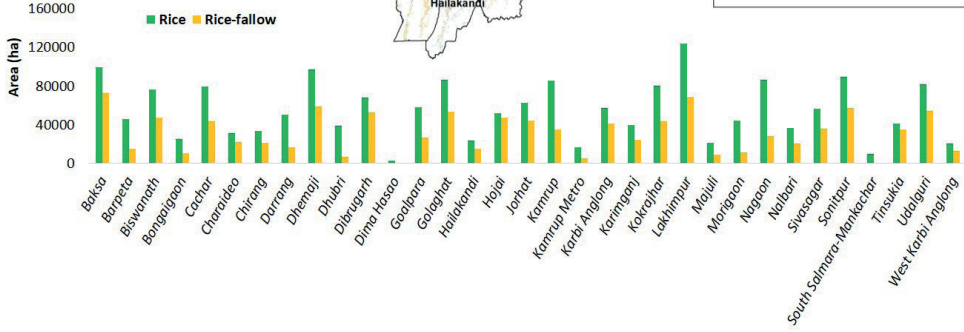

APART

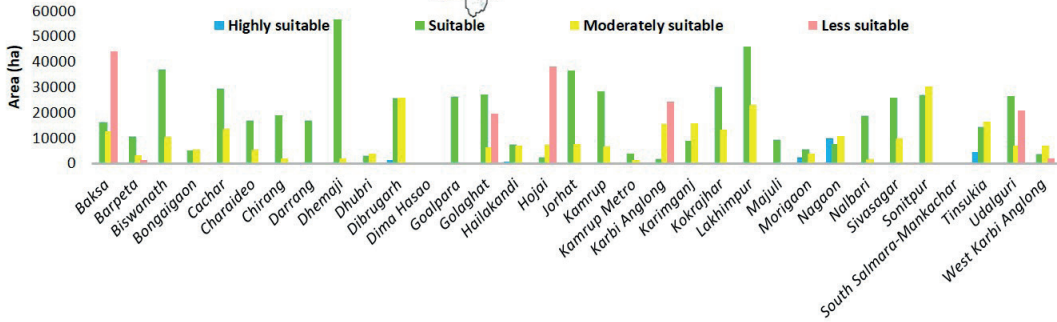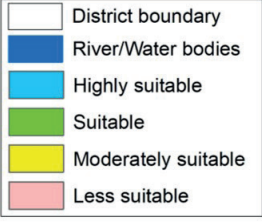## Assam Agribusiness and Rural Transformation Project (APART)

Mapping areas suitable for targeting technologies
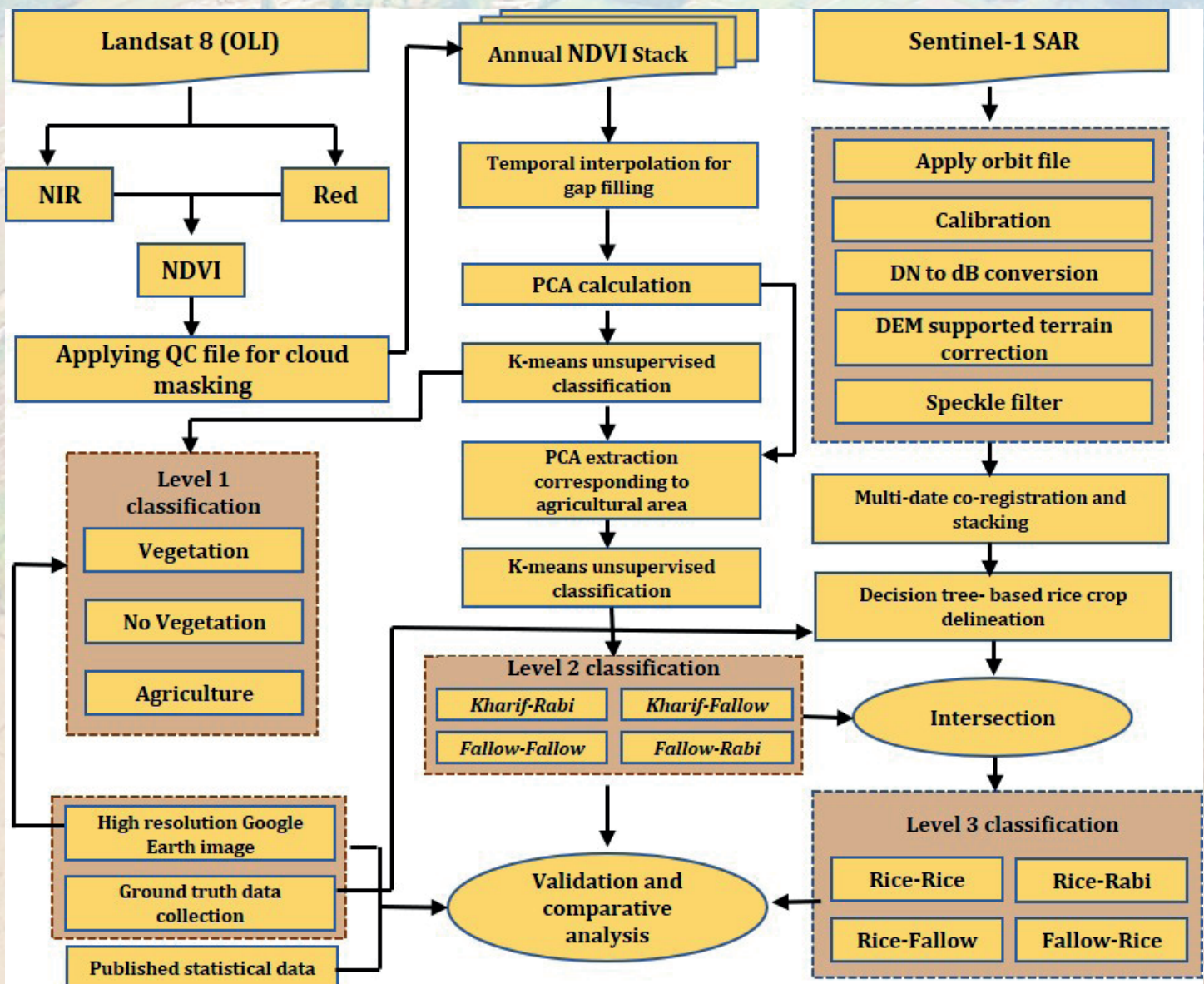

rice-fallow map

Soil moisture suitability map

Identification of low-productive rice-fallow and stress-prone areas are the key activities in the Objective IV of IRRI-supported activities, APART where we seek opportunities for optimization of cropping systems through the use of advanced geospatial technologies.

Rice is the most important staple crop of Assam, grown extensively throughout the state. However, production on these lands does not meet the full potential as they are kept fallow in the succeeding cropping season. These are termed as rice-fallows i.e., rainfed areas which were earlier sown with rice crop but are left vacant due to various stresses and socio-economic factors. Some of the reasons observed in the region through field surveys include nonavailability of artificial irrigation sources, usage of long-duration paddy varieties, poor socio-economic condition of the farmers, menace of stray animals, etc. Utilization of these rice-fallow areas with suitable crops is essential for the upliftment of the socio-economic condition of the farmers as well as to harness the full potential of these areas.

Methodology of rice-fallow area extraction

Demonstrations *in rice-fallow areas of suitable crops*

District	Rice-fallow areas (ha)	No. of Beneficiary	Area targeted (ha)
Barpeta	14781	70	31
Goalpara	26532	11	11
Golaghat	53286	85	50
Kamrup	35188	49	33
Nagaon	28413	81	61
Sivasagar	35661	11	18
Morigaon	11464	71	45
Darrang	16800	10	10
Sonitpur	56986	19	22
Biswanath	47296	39	29
Jorhat	44242	25	26
Majuli	9103	15	20
Dhubri	6798	68	25
Lakhimpur	69149	8	8
Kokrajhar	43265	6	6
Nalbari	20523	5	5
Total		573	400

Maize & pulse demonstrations in rice-fallow areas during rabi 2018-22 under Objective IV, APART

Geospatial technologies were utilized for identifying suitable rice-fallow areas in Assam which can be targeted for suitable crops in *rabi* season, i.e., maize, pulse etc. Demonstrations were planned and implemented in identified districts, initially with pulse and later on maize. In each year, 100 ha were targeted with the beneficiary farmers from 2018-19 to 2021-22. The aim of these demonstrations was to increase the cropping intensity with efficient utilization of resources and more financial gains to the growers.

1. The World Bank is the funding agency of APART.

2. Department of Agriculture, Govt. of Assam is the nodal dept. of APART.

3. ARIAS Society is the state level coordinating and monitoring agency for APART.

4. Assam Agricultural University is one of the implementing agencies of APART.

5. International Rice Research Institute (IRRI) is the rice global leader providing technical support for paddy value chain in APART.