

## TUJJAR SHARIEF CONSERVATION PROJECT

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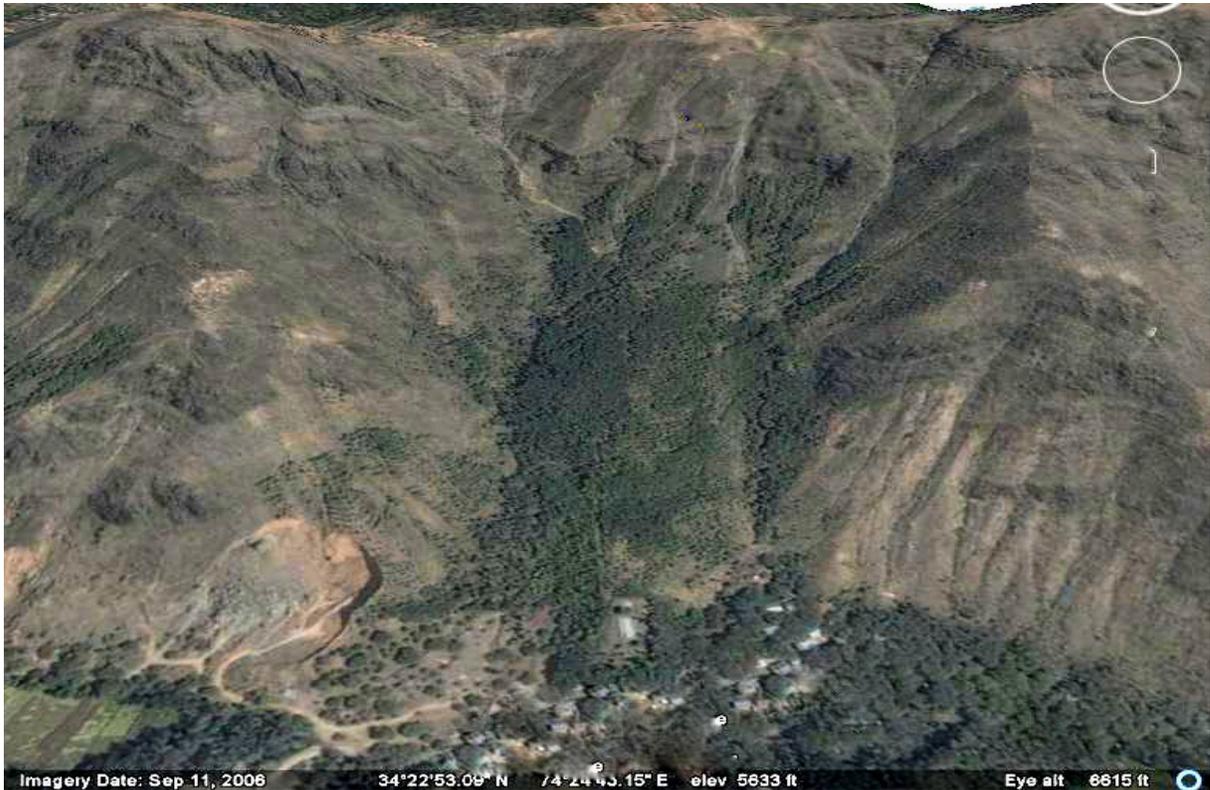
Since its inception in 1978 the Soil conservation Department has been active in tackling various problems of soil erosion across the state with remarkable results. This is especially true with respects to various challenging areas and tough topography .one such challenge was the treatment of Tujar shareef micro watershed which constituted a part of the kandi area comprised of denuded hills from sagipora to watlab. Considering the magnitude of erosion and its hazards, Tujar shareef micro watershed was fixed priority I on the basis of erosion index of the comprehensive scheme formulated for kandi belt by the Department of soil conservation in 1987-1988.



**Before Treatment**

The famous village Tujar shareef, the birth place of Sheikh sultan-ul-arifeen popularly known as Mehboob-ul-alam is situated at the base of the project area .This area in Baramulla district on sopore kupawra road is about 12 kms from sopore town. The area was giving a deserted look in absence of any kind of vegetation except two chinar trees which represented a bench mark .The

hillock being refractory and riddled with gullies was devoid of any vegetation and top soil was completely washed away exposing parent rock.



**After treatment ( Satellite imagery Sept. 11, 2008)**

The Department of soil conservation undertook the challenging job in 1989 by adopting the techniques and measures tested successfully at Rangil which had similar topography and erosion problems. During phase –I, the Department of Soil Conservation took a number of soil & water conservation measures and other technical inputs that resulted in a highly successful plantation and stabilization of hill slopes. Efforts were made to raise the indigenous species with soil binding root system.

**Species raised in the area:**

- 1 Robinia
- 2 Ailenthus
- 3 Asculus indica

### **Model techniques**

Different soil working and plantation models were adopted

- |    |                                     |                    |
|----|-------------------------------------|--------------------|
| a) | Continuous contour trenches of size | 45cm x 45cm        |
| b) | Staggered trenches of size          | 90cm x 45cm x 45cm |
| c) | Pits of size                        | 45cm x 45cm x 45cm |
| d) | Reservoir type or neck type.        |                    |

Additional support for ensuring success of plantation included

- a) Manuring - sheep manure at the time of planting
- b) Maintenance of trenches/Pits for 2 to 3 years after planting to make them effective for moisture conservation.
- c) Inspection paths – throughout the plantation inspection path was provided to ensure individual ‘plant to plant’ care. Paths were built as integral part of plantation.
- d) Check walls of stone were put across slopes at sites subject to erosion and also for insitu moisture conservation.

After the establishment of cover crop, under planting of conifers was also done to supplement the natural vegetation. Data on growth behavior of plantation under different soil working techniques and also performance of different species was collected which indicated that Rubinia planted in continuous contour trenches was most successful with its additional property of soil binding. Besides improvement in productive capacity of erstwhile barren area, a considerable improvement in gross and fodder production was achieved by introduction of improved varieties of grasses (red clover) thus ensuring sustained fodder, besides minimizing the losses to natural regeneration. The improvement in soil structure due to ground cover helped in increase in insitu moisture conservation and infiltration rate thus reducing the rate of runoff water. This impact was monitored by gauging water table in the wells of the area which has maintained a steady increase despite long dry spell in recent past. Till now an area of 438 hec has been treated out of which 61 hectares has been treated during last four years of 2005-06 to 2008-09.

The efforts have changed the micro climate resulting in an eco-system fit for survival of flora and fauna. The Tujar model is time tested and appropriate technology for rehabilitation of eroded hill slopes. Encouraged by the success achieved at Tujar, the department has taken up other areas in continuity in the kandi belt for treatment on similar pattern.