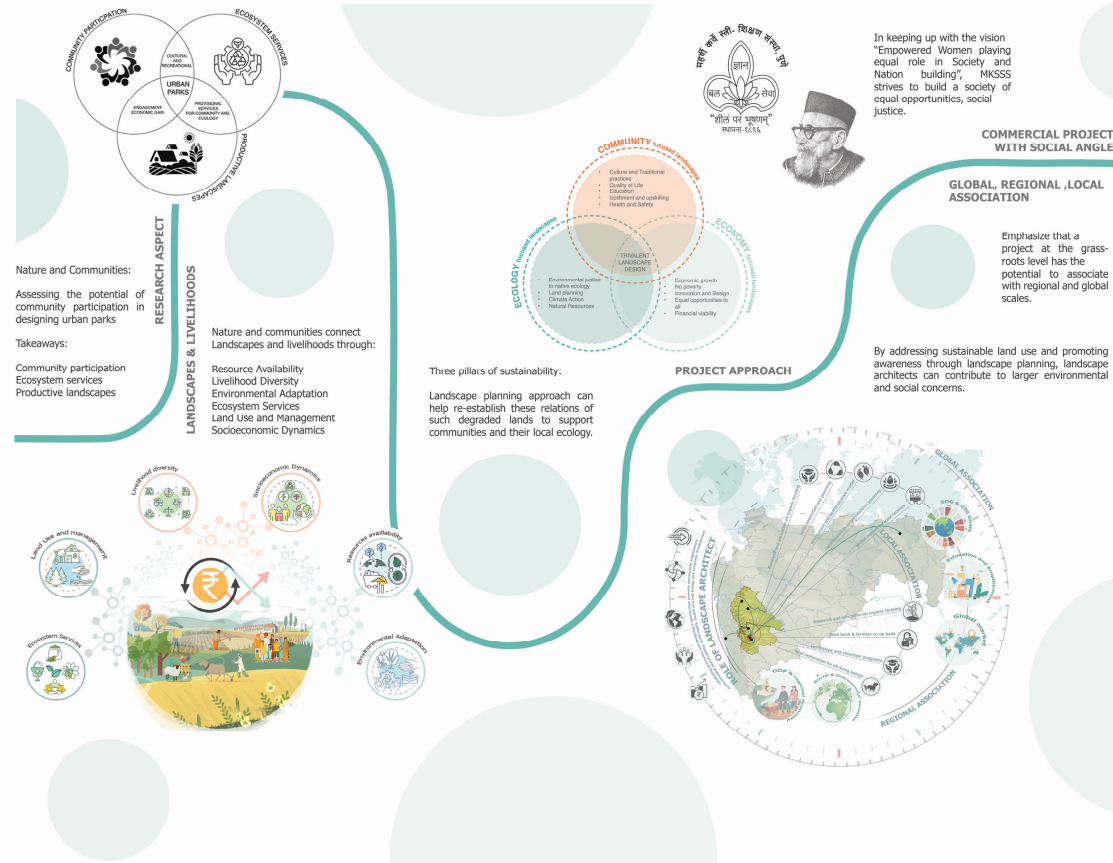


# An integrated **Landscape** approach to strengthen **Livelihoods** for rural agrarian communities around MKSSSS's site in Dhagewadi, Satara

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"Designed landscapes have the potential to serve as a unifying force, integrating **community**, **ecology**, and **economy** for sustainable development."



Country /City	India , Pune
University / School	University of Pune , Dr. Bhanuben Nanavati College of Architecture., Department of Landscape Architecture
Academic year	2022-23
Title of the project	An Integrated Landscape approach to strengthen Livelihoods of rural agrarian communities around MKSSSS's site in Dhagewadi, Satara, Maharashtra, India
Authors	Pranita Sawant (Student) , Dr. Swati Sahasrabudhe and Anupama Khatavkar ( Mentors and Guides for Landscape Architecture Project )

## TECHNICAL DOSSIER

<b>Title of the project</b>	An Integrated Landscape approach to strengthen Livelihoods of rural agrarian communities around MKSS's site in Dhagewadi, Satara, Maharashtra, India.
<b>Authors</b>	Pranita Sawant (Student) , Dr. Swati Sahasrabudhe and Anupama Khatavkar ( Landscape Architecture Project Guide and Mentor )
<b>Title of the course</b>	Masters in Landscape Architecture
<b>Academic year</b>	2022-23
<b>Teaching Staff</b>	Dr. Swati Sahasrabudhe and Anupama Khatavkar
<b>Department / Section / Program of belonging</b>	Department of Landscape Architecture, Second Year – Semester IV , Landscape Architecture Project
<b>University / School</b>	University of Pune , Dr. Bhanuben Nanavati College of Architecture for Women, Pune , India.



### Written statement, short description of the project in English, no more than 250 words

India being an agrarian country is currently facing the ever-changing economic trends that are causing pressure on the natural resources of the region. This includes activities like quarrying and exploitation of water resources leaving the land disturbed and non-productive. To re-establish the relations between, community, ecology, and economy – the three pillars of sustainability, such lands can be developed to support communities through education, and skill development. Practical and vocational skills will help them upscale their financial feasibility. The development through a landscape approach has manifold impacts including a revival of non-productive land. MKSS as an Institute is based on the three eternal values of “Bala” (Strength); “Dyana” (Wisdom) and “Seva” (Service) set out by Maharshi Karve at the beginning of his journey (S. Sahasrabudhe 2022). Holding onto the values, as an institute, they continue to work for the welfare and upliftment of the communities to empower them. They have proposed to develop their site in Dhagewadi, near Limb village in Sarata district, Maharashtra, India, to benefit the rural communities surrounding the location. The site having an abandoned quarry, low biomass, and poor soil, is an example of a non-productive land. Through resource planning, spatial enjoyment and a regenerative approach, the intent of this thesis is to provide an economy-based landscape model for uplifting communities in a geographical setting. The proposal aims to demonstrate design strategies and management plans to boost the relationship between the three pillars of sustainability thereby creating an interactive landscape system.

For further information

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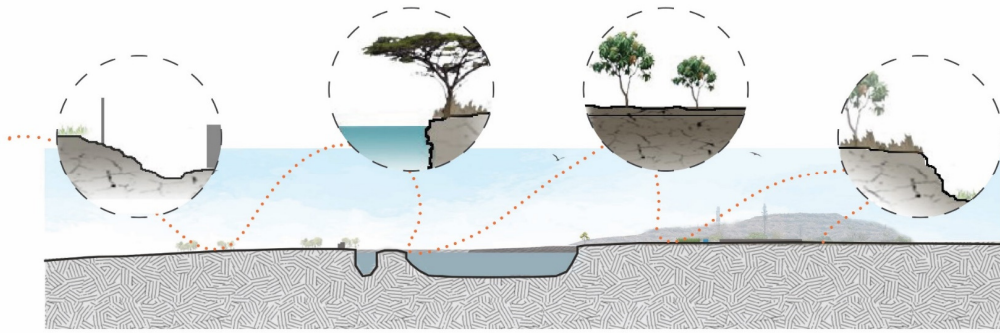
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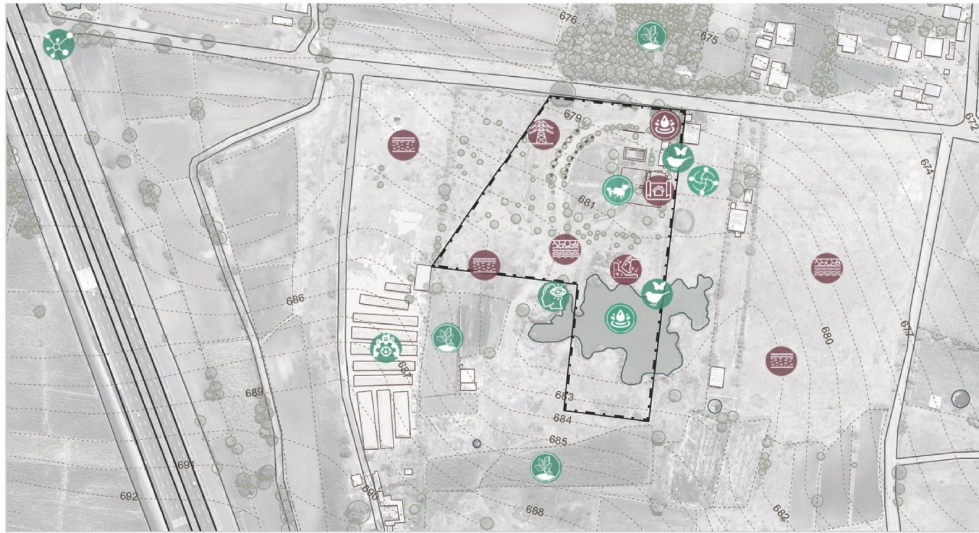
Barcelona November 2023

SCHOOL PRIZE



SECTION CC

0 25 50 100m



**Legend**

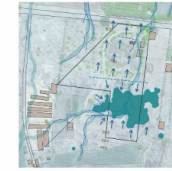
- Site
- Roads
- Farmlands
- Built structures
- Vegetation
- Water features
- Contours
- Highway

0 45 90 180 Meters

**Issues & Values Site Level**



I1: Irregular grading of site and poor soil. Current grading can cause top soil erosion.



I2: Unchanneled water flow during monsoon.



I3: Low and poor quality top soil.



I4: Low ground water.



I4: Adhoc structures built, poor land planning.



I5: High tension lines on the site.



V1: Infrastructure context around the site, which can provide more opportunities for engagement.



V2: Agrarian context and sense of community within the vicinity.



V3: Quarry as an asset for water resources and restorative approach.



V4: Pollinators observed on the site.



V5: Proximity and connectivity with highway, major cities, educational institutes and farms.



V6: scenic views from the site.

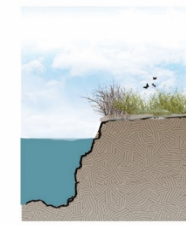
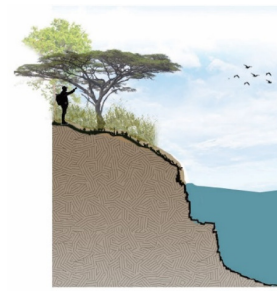
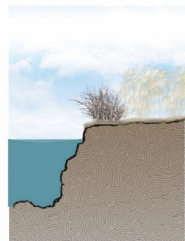
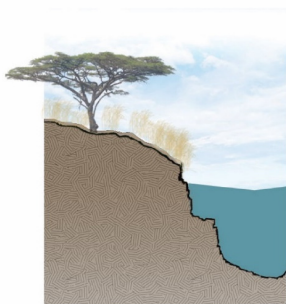
**PROPOSAL : PHASE 01 - ECOLOGICAL RESTORATION OF SITE**

The first stage of restoration would be to encourage growing grasslands and ensuring minimum invasive species through assisted natural regeneration.

This would allow the site to develop through natural courses of evolution.

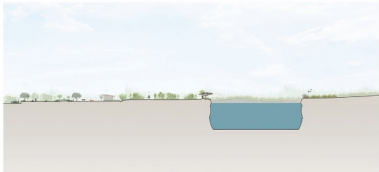


Phase 1 of natural regeneration for about 5 years



The phase 2 of natural regeneration would be mature grasslands and scrublands, that would bring back the native site vegetation and host the biodiversity.

Phase 2 of natural regeneration



The pathway has medicinal plants on one side that can be harvested for further processing, the have information panels which describe the usage of the plant. The plants can be experienced through taste and smell.

The other side has native grasses and tall shrubs - that will help increase site biomass, and edges outdoor learning areas



Provides global markets for local farmers - market spaces, stores, training, occasional exhibitions can cater to people from different regions



For all produce and objects made on site, a store in major cities like Pune and Satara can be set up under one brand name by MKSSS



Exploring ways that can help engage various age groups



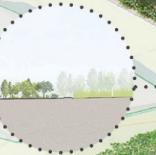
Pathways- It also provides an experiential value through taste, touch, smell and information about the species.



Pathways- provide environmental as well economic benefit



Permaculture area helps restore the land while contribute to educative landscapes and support biodiversity by creating microhabitats



Once the quarry is restored it can be used for commercial purposes like fisheries or recreational activities



Quarry site provides a comfortable microclimate and great views while creating small habitats for pollinators



Permaculture promotes holistic welfare of human and nonhuman stakeholders



Vegetated swales can help channelize water as well as contribute to the produce for retail or raw material like fodder, biomass

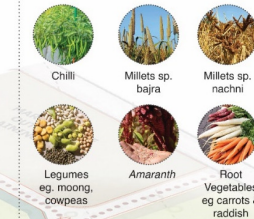


**Planting scheme**

**Edge Buffer Planting**



**Crops & Vegetables**



**Plants along pathways- medicinal plants and pollinator species**



**Grasses**

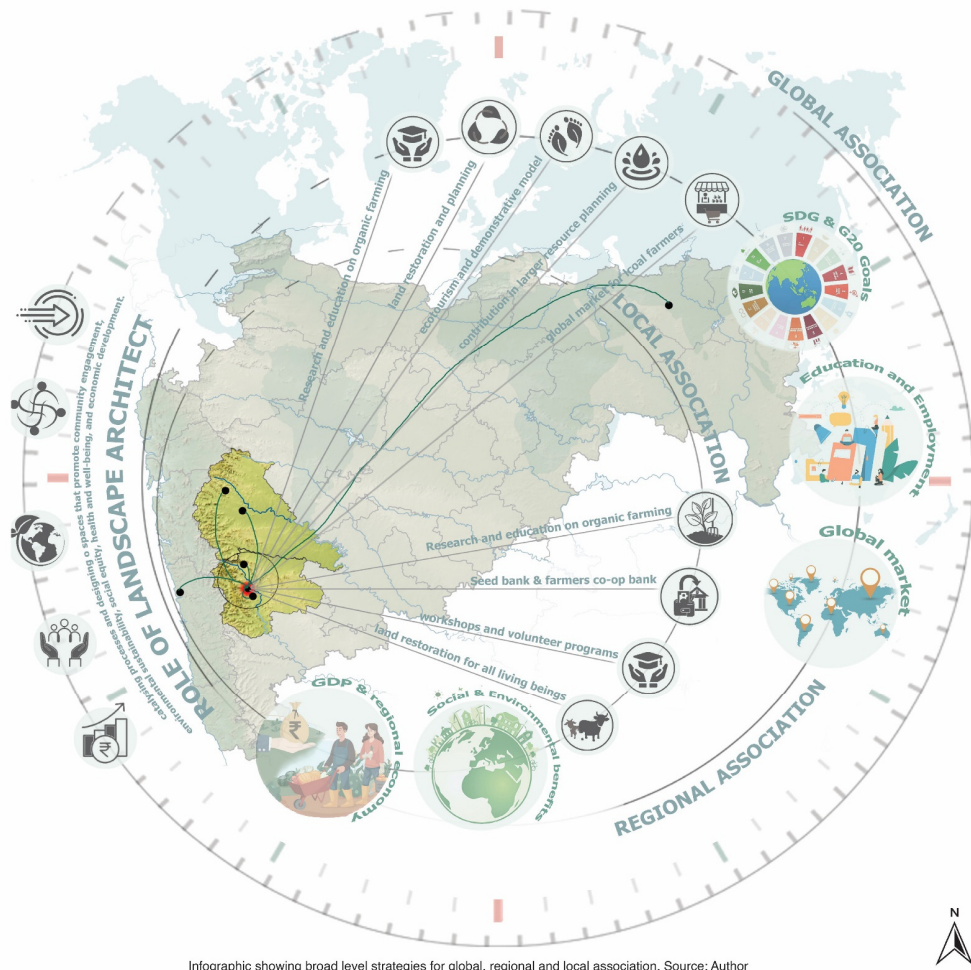


**Permaculture guilds**



Annual activity wheel of festivals based on season, year and occupation and proposed welfare center, Source: Author

**PROJECT SUMMARY  
PROPOSED ANNUAL ACTIVITY WHEEL**



Infographic showing broad level strategies for global, regional and local association, Source: Author

### Regional Level Strategies



- Education and awareness for farmers in the district of Satara
- Schools in the district can have early exposure
- Vegetable patch for village school children
- Workshops



- Organic farming training
- Seed bank for local varieties



- Farmers' welfare society
- Co-operative bank for farmers
- Educating farmers on new policies and laws related to them.
- Bringing together farms from nearby villages to participate and grow the community



- Providing raw material from cowshed- like urine, cowdung etc for companies that make further products
- Fodder to be grown from activating grazing lands



- Hosting village farm tours
- Leisurely experiential farming
- Exhibition for all organic produce/ products



- promoting circular and creative economy practices - (rethink)

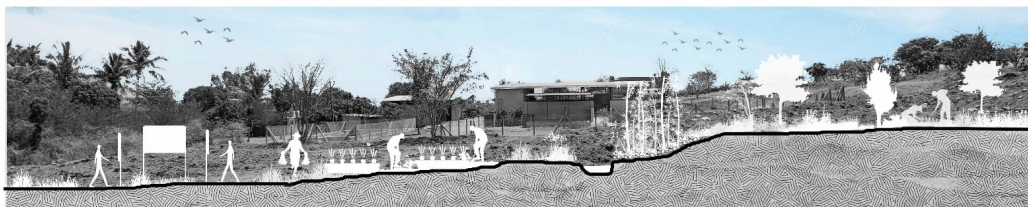


- Pooling in nearby warehouses to provide for small scale industries
- Warehouses and cottage industries for participating
- Marketing products under the brand label of MKSSS in markets of major cities, online portals

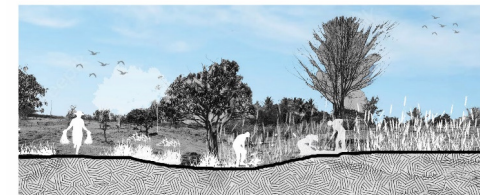


- Means to increase ground water
- Restoring disturbed nonproductive land

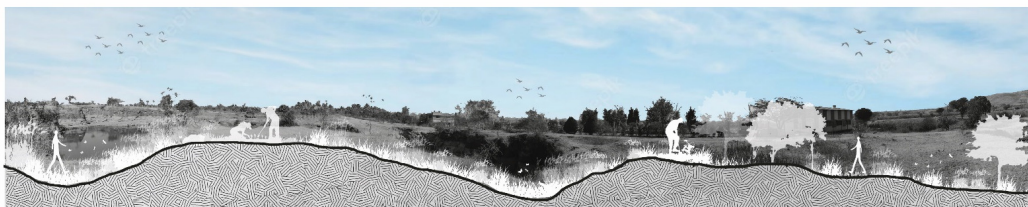
Landscape architects in agrarian economies have a responsibility to promote the sustainable use of land and raise awareness about relevant issues through landscape planning and design. By considering the site's unique context and integrating various aspects, they can create transformative and impactful projects that contribute to the well-being of both local and global communities.



Indicative broad level site section through exhibition area promoting Karve Philosophy and various site activities, organic vegetable area, swale and permaculture area



Indicative broad level site section through experimental cropping areas



Indicative broad level site section through grassland restoration works carried out by volunteer programs near the quarry area



Indicative broad level site section through cow shed, open grazing area and pollinator corridors along pathways