



Divi's Laboratories Ltd.

**AN IMPACT ASSESSMENT REPORT ON DIVI'S INTERVENTION IN
ENVIRONMENT DEVELOPMENT**

PLANTATION PROJECT, CHOUTUPPAL MANDAL, TELANGANA

A CSR INITIATIVE OF DIVI'S

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Report Prepared by
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EXECUTIVE SUMMARY

DIVI'S CORPORATE SOCIAL RESPONSIBILITY

Divi's Laboratories is a leading manufacturer of Active Pharmaceutical Ingredients (API) with its headquarters located in Gachibowli, Hyderabad, Telangana, India. Divi's believes and cares deeply in the Business-Society Ecosystem which forms the basis for its CSR component. Its involvement in the social welfare and philanthropic activities started within a few years of launching its business and has been actively contributing with the key objectives of enhancing quality of life and sustainable improvement in the social, economic and environmental conditions of the needy.

ENVIRONMENT DEVELOPMENT

Green belt development through plantation drives on massive scale in the areas surrounding the manufacturing units of Divi's Laboratories has been one of the major areas of work under the company's CSR initiatives. The main aim is to ensure safer environment, preservation and protection of natural resource capital. It is believed that through green belt development ecological balance could be maintained and the communities can have increased oxygen availability in the air for healthy life standards.

As part of this initiative, Divi's has been taking up avenue plantation, intense forestification through special techniques (Miawaki), plantation drives besides actively participating in the State government programmes of Harithaharam and Vanam -Manam programmes.

THE STUDY

Approached by the Company, Deeksha, a non-profit organisation working in the areas of Child Rights, Adolescence issues, Health, Livelihoods and Gender equality with both urban and rural communities in Telangana and Andhra Pradesh states, took up an impact assessment of this initiative with particular reference to Choutuppal mandal, Yadadri-Bhuvanagiri District of Telangana State.

THE PLANTATION PROJECT – FROM SAPLINGS TO NATURAL FORESTS

The plantation component of Divi's CSR initiative is a complex of various programmes as observed by the study team. One is participation in the government driven plantation

programmes of Harithaharam every year. More than a lakh plants have been planted on either side of the State high-ways and national high-way. Secondly, avenue plantation has been taken up in 26 villages of Choutuppall mandal. Thirdly, saplings of fruits and flowering plants have been distributed in the villages to the individual households for promoting greenery in and around homes and in the village. Additionally, intense forestification is taken up by growing natural forests through Miawaki technique in villages where land is made available by the Panchayat. Support has been taken from Grama Panchayat (GP) and the district administration wherever deemed necessary to continue the activities and with an idea towards sustaining the initiative. Among these various initiatives, the avenue plantation was taken up in project mode for a period of two to five years. This was implemented in 25 villages and 1 municipality of the mandal. Separate team were appointed to take care of the plants and provisions were made for regular water supply. The respective village GP was pitched in at every step, right from selection and recruitment of the persons, to maintenance of the entire plantation programme. This involved appointment of *Vrikshamitras*, providing saplings, arranging water supply, protection of plants and overseeing their growth.

A total of ₹2,59,33,068 was spent in Choutuppall mandal for this project during the years 2020-2021 and ₹77,35,800 in 2021-2022. A total of 1,20,000 saplings were planted across 26 villages. For every 1000 saplings planted, 1 Vrikshamitra is appointed and is paid an amount of ₹7000 per month. The entire spending for the project was channeled through the respective GPs.

SCOPE OF THE STUDY

Thus, while the study team's particular focus is on understanding the impact of this project on the green belt development in the area, simultaneous attention has also been put into understanding the impact of the other initiatives of natural forests and plantation drives taken up by the company.

OBJECTIVE OF THE STUDY

The main objective of the study is to understand and assess the impact of Plantation Project of Divi's in the community.

METHODOLOGY

The project was initiated in the year 2020 covering all 26 villages and completed in the year 2022. Now it is under sustainability period. Most of the Vrikshamitras appointed earlier have stopped from their duties with the closure of the project. They are now either working under other schemes of GP or went back to their own occupations. A few have joined Divi's as daily wage labourers / contract employees. Hence the study was proposed to be taken up using free flow interactions, physical observation and interviews with available Vrikshamitras and the other stakeholders including the Panchayat members and the Project coordination team. Accordingly, the tools have been developed and administered.

Tool 1: Interactions with the community including GP members

Tool 2: Interview Schedule with Vrikshamitras

Tool 3: Field / site observations by the Study team

SAMPLE

Stratified sampling method was used to identify the villages for the study. The list of the villages was arranged in alphabetical order and those with the presence of 5 and above Vrikshamitras were shortlisted. Further, stratified sampling method was used to identify the sample of 8 villages covering 30% of the total villages for the study.

Table 1 – Details of the villages visited

Sl.No	Name of the village	No. of saplings planted	No. of Vrikshamitras
1	Allapur	6,000	6
2	Ankireddygudem	5,000	5
3	Aregudem	7,000	7
4	D. Malkapur	10,000	10
5	D. Nagaram	7,000	7
6	Nelapatla	6,000	6
7	Panthangi	7,000	7
8	Peepal Pahad	6,000	6

LIMITATIONS OF THE STUDY

- Detailed schedules are developed to interview Vrikshamitras, interaction with community members and pointers for physical observation. However, most of the Vrikshamitras who worked earlier were not available on the day of visit to the villages, but the tool could be administered with few available members.
- GP has taken responsibility to protect the plants and look after watering needs after completion of Divi's support to the project. As such, Vrikshamitras have taken up other livelihood activities. Hence, the study team could not interview all the Vrikshamitras as planned in the sample.

OBSERVATIONS

Villages for plantation are identified by Divi's during their field visits and understanding the needs. Once the villages are identified the respective GPs are consulted for collaboration in the project implementation. Thus, 26 villages in Choutuppal mandal were taken up for plantation programme, in addition to the national high-way green belt activity.

Table 2 – Details of total no. of villages covered under the project

Sl. No	Village Name	No. of Plants	No. of Vriksha Mitras	Population in each village
1	Allapur	6000	6	4200
2	Ankireddygudem	5000	5	2100
3	Aregudem	7200	7	4200
4	Chinna Kondur	4120	4	2100
5	Chintalagudem	3000	3	1580
6	Choutuppal	11045	10	19,092
7	D.Malkapur	10715	10	5000
8	D.Nagaram	6000	7	4200
9	Damera	3000	3	1620
10	Dharmojigudem	2100	2	1800
11	Gundlabavi	4300	3	5208
12	Jai Kesaram	3200	3	2100
13	Katrevu	2300	2	1150
14	Khaitapur	2000	2	1700
15	Koyyalagudem	2000	2	8200
16	Kuntlagudem	2150	2	2000
17	Mandollagudem	3000	3	4200

18	Maseedgudem	3090	3	1750
19	Nelapatla	6180	6	2100
20	Panthangi	11000	7	2226
21	Pedda Kondur	3200	3	2100
22	Peepalpahad	6150	6	6300
23	S. Lingotam	4250	4	2100
24	Yanagantithanda	4000	4	2100
25	Yellagiri	3000	3	1300
26	Yellambavi	2000	2	2500
	Total	1,20,000	112	92,926

The key observations of the assessment team from the field visits are presented below:

1. Field / Site Observations

- Avenue plantation was taken up generally to a stretch of 4 to 5 km on the approach road to the village and connecting the village to the nearby villages/main road. In some villages the stretch has been extended to a longer distance connecting all the villages in that line as in the case of Koyyalagudem to Allapur (stretch of 5 villages).
- Mostly trees of the variety of Kanuga (Pongamia Pinnata), Subabul, Neem, Tamarind, Wood-apple, Jamoon, Gulmohar, Peepal, Banian, Silk Cotton tree, etc are planted on either side of the road, at a distance of about 10 feet.
- The plants are all well grown now and majority of them are alive. Few plants however have not survived but new saplings have been planted in their place. In few villages it is observed that the road extension work has resulted in loss of the plantation to some extent. Eg: Nelapatla, Devalamma Nagaram and Allapur.
- In many villages the avenue plantation has changed the face of the roads with lush green stretch on either side of the road giving a pleasant feeling to the onlookers. In such places it is clearly evident that the day time temperatures are varying from the other parts even during the summer.
- The plants provided to households are now bearing fruits and flowers, like Guava, Papaya, Curry leaves, Hibiscus, Mehendi, etc. This would help in increased consumption of fruits and vegetables leading to better health of the families.

- Tree guards were given to each village corresponding to the number of saplings provided. However, the study team observed that the tree guards are not present in most of the areas for various reasons, including that the trees are grown up.
- The study team witnessed and felt good that some of the metal tree guards are being used by the villagers to protect the plants in their front yard.

2. Interaction With Community Including GP Members

The study team interacted with the Sarpanches, Karobars, Vrikshamitras and wage labour working in plantation programmes to understand the processes followed and the impact of the Plantation programmes of Divi's. Similarly, the interactions with community members also gave a fair idea about the impact of the interventions.

- The plantation project with the support of Divi's started in the year 2020 and the intervention continued till 2022. Subsequently, the GP has continued the initiative through other programmes like National Rural Employment Guarantee Scheme (NREGS).
- Number of saplings provided per village depended on the extent of road, need, etc. This ranged from 2000 to 11000 plants per village.
- During the project period, Vrikshamitras were appointed at a monthly salary of ₹7000. The tasks were to take care of the plants, set up tree guards till the saplings are grown, water them and ensure their proper growth. If the plants do not survive for various reasons, the Vrikshamitras have to plant new ones in their place by getting the saplings from the nursery grown by the GP.
- Provision for water tanker has been made by the GP with the budgets provided by Divi's. In case of non-availability of the tanker with GP, it was the responsibility of the Sarpanches to arrange water supply through private agencies. Vrikshamitras used to water the plants.
- As the project period is completed the responsibility to protect and maintain the plantation has been shifted to GP. Therefore, the Vrikshamitras whose term is completed are entrusted similar work under NREGS. The works are allotted in turns taking care of the number of days that each person gets.

- Water requirements have become comparatively less or none as the plants are grown up. Wherever replacements are made or plants are still small, water is being provided by the GP as part of the NREGS schedule of jobs.
- At some places the farmers were extending their lands to the road limits and encroaching the area developed under this avenue plantation. As such the trees got disturbed in a few places (Sarpanch, Nelapatla).
- To the question of whether this initiative has been fruitful, the community and the GP members responded quite positively. Though their responses include impact of the efforts of all the plantation programmes they are clear that the support by Divi's is pertinent in terms of continuity in support, financial contribution, planning and monitoring. They claimed that :
 - village approach roads are pleasant now with trees on either side
 - the green cover has been extended and shade is available now
 - ground water levels have significantly improved (no measure but general observation)
 - getting fresh air with increased oxygen levels (as measured by Divi's)
 - during summer months also, the temperatures are dropping in the afternoons and the ground is cooling due to the shadows and cool breeze from the trees
 - contributed to consistent employment to the unemployed – full time during the project period and later through NREGS

"Earlier there was no sight of small birds in and around the farm lands. But now with the grown-up trees small birds have place to nest and breed. They have comeback. It is a good sign for farmers. These birds capture and eat insects and pest in the fields, resulting in less need for spraying chemical pesticides. This will contribute to a better health to us and the land, as well" – Ramulu, Peepal Pahad

"I am sure some of the vanished farmer-friendly insects would comeback with the growing greenery. The increased movement of birds would also add to increase in diverse plants as birds' droppings contain different seeds from fruits and nuts" – Danayya, Allapur

3. Interaction with Vrikshamitras

Out of 8 sample villages the study team could interact with Vrikshamitras from 5 villages. In the remaining villages they could not be contacted for various reasons.

The Vrikshamitras are identified and recruited by the respective GP of the village at the rate of 1 person per 1000 plants. There were also women among the Vrikshamitras. The role of Vrikshamitras in the plantation project includes transplanting the saplings, making pits around the plants, keeping the surroundings of the plants clean, watering the plants, placing tree guards for protection of plants, replacing the dead plants and regular maintenance of the plantation. They are paid ₹7000 per month and the payments were made on monthly basis through the GPs.

Some of the key observations made by the Vrikshamitras are detailed below:

- Plantation was done on either side of the approach roads, streets in the village, covering about 4 to 5 kms in and around the village. Some of the saplings were also distributed to the households to plant them in their backyard or around their houses.
- The plantation area was divided into stretches and each stretch was allotted to 2 to 3 Vrikshamitras for ease of completing the works. They used to walk through the plantation for about 3 to 4 kms to carry out the required activities.
- Even after completion of the project the plants which are replaced later are being watered now once in two days. The GP is ensuring protection of these trees and young plants as part of other programmes, viz., NREGS, Harithaharam, etc.
- It was reported that the survival rate was about 70%, hence almost 30% replacements had to be made. The current plantation survival rate is of 90%.
- During the lockdown period Vrikshamitras could not take care of the plants which resulted in low survival. In such areas the dead plants had to be replaced and had to be protected with great care.
- Fruit bearing plants distributed to individual households like Papaya and Guava are now yielding fruits. While sharing this, one of the Vrikshamitras expressed happiness that they are eating fresh and pesticide free fruits.
- Most of them expressed that with the growing trees there is shade on either side of the streets, thereby the pedestrians, particularly farmers and wage labours who

walk to the fields from the village get respite from the scorching heat during summers.

- The growing trees in and around the village has become advantageous to the villagers as the monkeys got trees to jump on and play, unlike coming into the houses and destroying the backyards earlier. They envisage that when the trees grow bigger the monkeys get shelter and food outside the village itself and the villagers would be free of the monkey menace.
- The coming of birds due to the greenery around is also helpful to protect the crops, felt some of the Vrikshamitras. The birds on the trees eat away the pests that attack the crop, and protect the crop from harmful worms. However, they are worried that in some places the farmers are cutting down big trees or branches which are leaning on the borders of their fields. This is defeating the purpose of the plantation and maintenance of ecological balance.
- *On one hand the avenue plantation resulted in clearance of bushes and making the area clean on either side of the road. On the other, some farmers having fields adjacent to the roads are taking advantage of this condition. They are extending their field area towards the cleared common land on the road side thereby the trees are losing their base or their roots are disturbed. As such they are falling down or dying. Such plants are being replaced again but the problem persists – Ramanarasimha, Nelapatla & Ramulu, Peepal Pahad*
- *With the avenue plantation in the village, we got employment with regular and timely salary every month. Now since the project is completed, we had to go back to the original wage labour searching for work in the fields or elsewhere – some Vrikshamitras claimed.*

MIAWAKI NATURAL FOREST DEVELOPMENT

Divi's CSR division, as part of the company's commitment towards providing safer environment by decreasing carbon footprint and maintaining ecological balance, initiated intense forestification using Miawaki technique. Developing dense forest within a short span of time is possible in this method, hence Divi's adapted this technique. They are collaborating with GP and District Administration in implementing this programme under the name "Yadadri Natural Forest".

As part of the assessment the study team visited three sites – Ankireddygudem, Aregudem and Panthangi, observed the forest grown and interacted with the caretakers of the place. The major observations are as following:

- ✓ The shared responsibilities are – GP provides land, water source and saplings. It also identifies the caretakers to work in the natural forest; Divi's arrange for fencing the area and the budgets required. In case, there is no water source and digging borewell is required, Divi's takes it on.
- ✓ In all three places the caretakers have previous experience of working as Vrikshamitras or having knowledge about the plants and vegetation.
- ✓ The extent of these natural forests ranged from half acre to four acres. A minimum of 21 varieties are planted and the saplings were supplied by the GP from its 'Palle Pravruthi Vanam'.
- ✓ The land used for growing natural forest is saline and hence the survival rate of the plants is a concern (Ankireddy gudem).
- ✓ In Pantangi GP the natural forest has grown dense and the trees have reached a height of 2 – 5 meters. There are more than 40 varieties of plants / trees existing. It doesn't require any maintenance now. With no human movement inside the forest, it has become a habitat to a variety of birds, squirrels, insects, moths and fungi. Their movement also resulted in growing of new plants and grass. This bio-diversity would be definitely helping in ecological balance while the natural forest contributing to sinking carbon, air purification and oxygen generation.
- ✓ More such natural forests are desired to be grown in the surrounding villages of Divi's company so as to reduce the effect of its carbon footprints.

CONCLUSION

Most of the Vrikshmitras are happy that they had secured employment for at least two years period through this plantation project. However, for some it is not just a job but an emotional attachment with the plants they have taken care of. They have taken the task of growing plants and maintaining them as very dear to their heart, just like rearing the children.

- It is observed that GP has identified Vrikshamitras from poor and most needed families. Care has been taken to appoint persons who would commit to the job and

deliver the work without causing concerns. Both men and women were appointed, sometimes husband and wife together were taken in.

- Virkshamitras were identified from the same village. Most of them were wage labour, some had small farm land and then work for wages. Appointment was through open selection by the GP.
- Most of the Vrikshamitras are non-literate or neo-literate. Educational qualification was not a criterion for selection as Vrikshamitra but they have to reside in the village.
- The duration of their employment varied from 2 to 4 years. If anyone discontinued, GP identified new person with information to Divi's team.
- Total amount towards the project expenditure was transferred to GP account and GP expended it for various works under the project including payment of salaries.
- Coordinating team (Divi's CSR unit staff) used to visit weekly once, interact with Vrikshamitras/GP members, monitor growth of plants, look after the watering arrangements, do the documentation (photo) and discuss with the respective GP members on the concerns for resolution.

"Happy to see the green cover extending wide, allowing the birds to come and walkers to rest for some time in the shade. Though it is challenging to work and coordinate with different stakeholders we are excited that the next generation would enjoy the fruits of this effort" – Coordinating team, Divi's

SUGGESTIONS FOR SUSTAINABILITY

At many places the green cover achieved through avenue plantation is reflecting the concerted efforts of all those involved in working towards sustainability of the initiative. Sametime, there is increased focus by the State government in developing green-belt across the villages and high-ways through various programmes, viz., Haritha Haram, Palle Prakruthi Vanam, etc. The CSR interventions of Divi's towards protection of natural capital and maintaining ecological balance added value to the State's initiatives, complimenting each other in achieving the goals. However, it is hard to distinguish impact of individual programmes as there is overlapping of different schemes of plantation implemented simultaneously.

- Divi's has been closely associated with the communities in the surrounding villages of their manufacturing units from the beginning. The long association builds trust and relationship between the company and the community and would enable to mutually work towards achieving larger development goals. This being the major strength, different stakeholders in the villages, including students, could be involved in the community-based CSR activities in order to get greater impact.
- There have been creative and successful experiences from past in developing natural forests by different organisations. Taking cue from such experiences, Divi's may explore the idea of mobilizing community and students for collection of seeds and throwing the seed balls on to the waste lands and hill-locks during rainy season to allow natural forests to grow.
- Involving grassroots institutions like SHGs, youth associations and other community groups, along with GP in the activities initiated would further strengthen the sustainability of the impact.
- Catching young is important and feasible in bringing attitudinal change and social responsibility among young people. Towards this it would also be a great idea to promote volunteerism among students as part of Divi's intervention in schools. It can be through inculcating the habit of growing plants, sharing seeds and saplings with friends and celebrating green days, etc.

Students from ZPHS, Peepal Pahad, are very enthusiastic towards plantation and promised to grow plants at home and the school. They took oath that each student would grow at least 10 plants and gift plants on friends' birthdays.

- Integrating different community-based CSR interventions contributes to achieve comprehensive result. Towards this Divi's may consider growing flowering plants and fruit bearing trees around the RO water plants to make best use of the water running waste after purification.

"Divis gave us job and we had livelihood through plantation work. We are happy that we now have lot of greenery around us. Though the project is over, I cannot delink myself from the trees I planted and cared... I love to walk through the stretch of the plantation almost every day... they are like my own kids..." – Somayya, Devalamma Nagaram.

PHOTO GALLERY



Pic 1 – National Highway Road side Plantation



Pic 2 – Yadadri Model Forest (Miawaki Forest), Panthangi



Pic 3 - Avenue Plantation from Highway to the Village



Pic 4 - Avenue Plantation in the Village



Pic 5 – A young Tree giving shade to the passengers waiting for transportation



Pic 6 – Well grown *Kanuga* trees on the road from Highway to the Village



Pic 7 – Vrikshamitra with a growing tree guarded by green fiber mesh : She continues taking care of the trees even after completion of the project



Pic 8 – Interaction with SHG women in Peepal Pahad



Pic 9 – Interaction with Vrikshamitras



Pic 10 – Lush green trees on road side between the villages



Pic 11 – Frontyard / Domestic plantation

To Exist As A Nation, To Prosper As A State, To Live As A People, We Must Have Trees

– Theodore Roosevelt

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