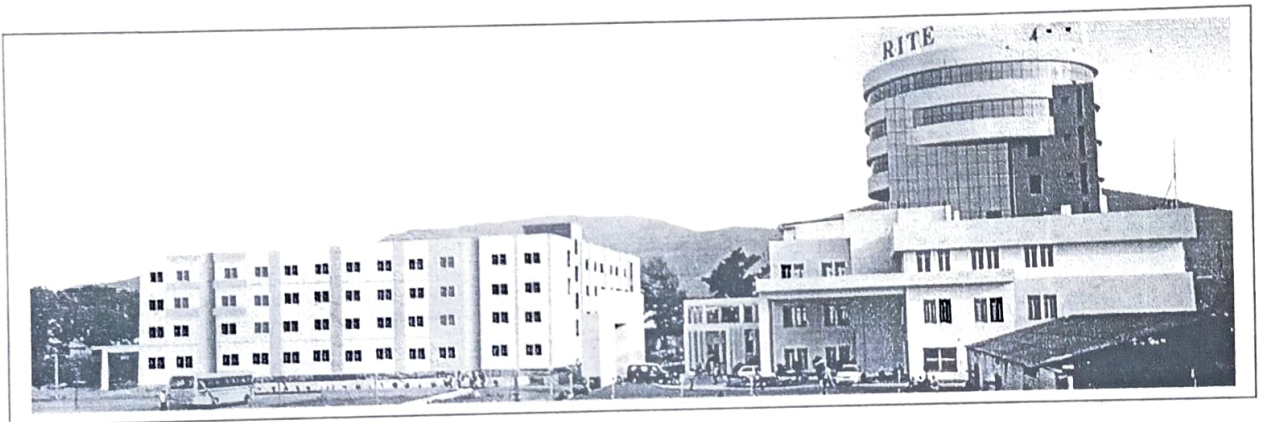
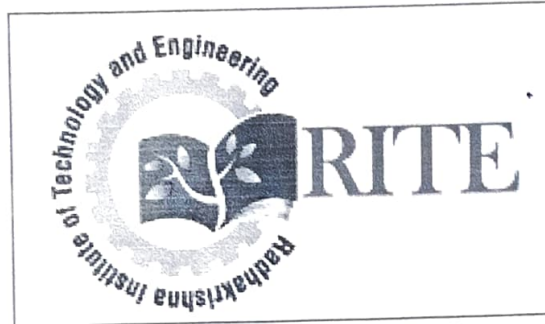


Green Campus- Clean Campus



**RADHAKRISHNA INSTITUTE OF TECHNOLOGY AND
ENGINEERING**
BARUNEI, KHURDA, BHUBANESWAR, ODISHA

S. S. S.

Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar



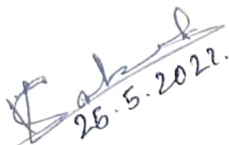
GREEN AUDIT

CERTIFICATE

This is certify that a “Green audit” for “Radhakrishna Institute of Technology and Engineering, IDCO Plot No.1, Barunei, Khordha” has been conducted in 2022 to assess the green initiatives planning and efforts in the college campus like Green Campus Management Carbon footprints, Plantation, waste management and rain water of harvesting, conservation of energy. This green audit is also aimed to access the impact of green initiatives for maintenance of eco-friendly campus.

Place: Bhubaneswar

Date: 25/ 05/ 2022


25.5.2022.
Co-ordinator


25-05-2022.
Internal Auditor



Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar

External Auditor



GREEN CAMPUS-CLEAN CAMPUS

GREEN CAMPUS

In accordance with the Green Campus Evaluation Plan, as suggested by the Internal Quality Assessment Cell (IQAC) of the Institute, The Radhakrishna Institute Of Technology And Engineering, Bhubaneswar, Odisha is conducting a green audit of the college since AY 2021-2022. The purpose of the audit was to make sure that the practices followed in the campus are healthy and environment friendly. With this in mind, the specific objectives of the audit were to evaluate the degree to which the Departments are in compliance with the applicable regulations, policies and standards and to ensure that the development of the college aims at sustainable development and green campus.


The methodology used included physical inspection of the campus and review of the relevant documentation.

OBJECTIVE AND SCOPE

Although there is no universal definition of Green Audit, we may define it as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The "Green Audit" aims to analyze environmental practices within and outside (not in our purview) the college campus, which will have an impact on the eco-friendly ambience. It was initiated with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. Later on, it is implemented as a measure to enhance a healthy environment to almost all the organizations. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit. Green audit is assigned to the Criteria 7 of NAAC, National Assessment and Accreditation Council which is a self governing organization of India which declares the institutions as Grade A, B or C according to the scores assigned during the accreditation.

The main objectives of Green Audit are as follows:

- To ensure development along with safeguarding the environment.
- To reduce energy consumption to foster environment.
- To assess whether the measures implemented by the Radhakrishna Institute Of Technology And Engineering, Bhubaneswar, Odisha have helped to reduce the Carbon Footprint.
- To assess whether investments made in increasing awareness among students regarding electricity, biodiversity and environment have helped the Institution achieve the required carbon dioxide emission and absorption in the campus.
- To assess whether non-academic activities of the Institution support the collection,



recovery, reuse and recycling of solid wastes that harm the environment.

- To identify gaps and suggest recommendations to improve the Green Campus status of the institution.

The institute has an intention to adopt the 'Green Campus' system for environmental conservation and sustainability. The goal is to reduce CO₂ emission, energy and water usage, while creating an environmentally literate campus where students can learn the idea of protection of environment and stay healthy. The Green Campus" has been a very new concept adopted by this institute. The college administration is still working on the several facets of 'Green Campus' including Water Conservation, Tree Plantation, Waste Management, Paperless Work, Carbon Footprints and Alternative Energy.

AUDIT GOALS OF THE INSTITUTE

The institute, with the advice of the Internal Quality Assessment Cell (IQAC) has set up an environmental quality assessment body (GREEN CAMPUS) that aimed at performing the green audit of the institution. The main objectives of the audit are :

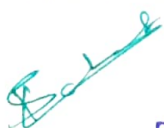
- More efficient resource management
- To provide basis for improved sustainability
- To create a green campus
- To enable waste management through reduction of waste generation, solid- waste and water recycling
- Recognize the cost saving methods through waste minimizing and managing
- Point out the prevailing and forthcoming complications
- Impart environmental education through systematic environmental management approach and Benchmarking for environmental protection
- Financial savings through a reduction in resource use
- Enhancement of college profile

METHODOLOGY

The Green Audit taken up by the Green Audit team of The Radhakrishna Institute of Technology and Engineering, Bhubaneswar, Odisha had been divided into three (3) stages:

I. The Pre Audit Stage

In the pre-audit stage, meetings provide an opportunity to support the capacity and objectives of the audit and enable discussions on the feasibility associated with the audit. The meeting provides the first opportunity to meet the audit and deal with several practical knowledge and concerns. The meeting provided the chance to gather information that the audit team can study before arriving on the site. The audit procedure and audit plan was handed over at this meeting and discussed in advance of the audit itself. In The Radhakrishna Institute Of Technology And Engineering, Bhubaneswar, Odisha the planning of audit processes was discussed in the pre-audit meeting. Audit team was also selected in this meeting with the help of staff and the college management. The audit protocol and audit plan were handed over at this meeting and discussed in advance of the audit itself.



The Management of the college has shown the commitment towards the green auditing during the pre-audit meeting. They were ready to encourage all green activities. It was decided to promote all activities that are environment friendly such as awareness programs on the environment, planting more trees on the campus, etc., after the green auditing. The management of the college was willing to formulate policies based on green auditing report.

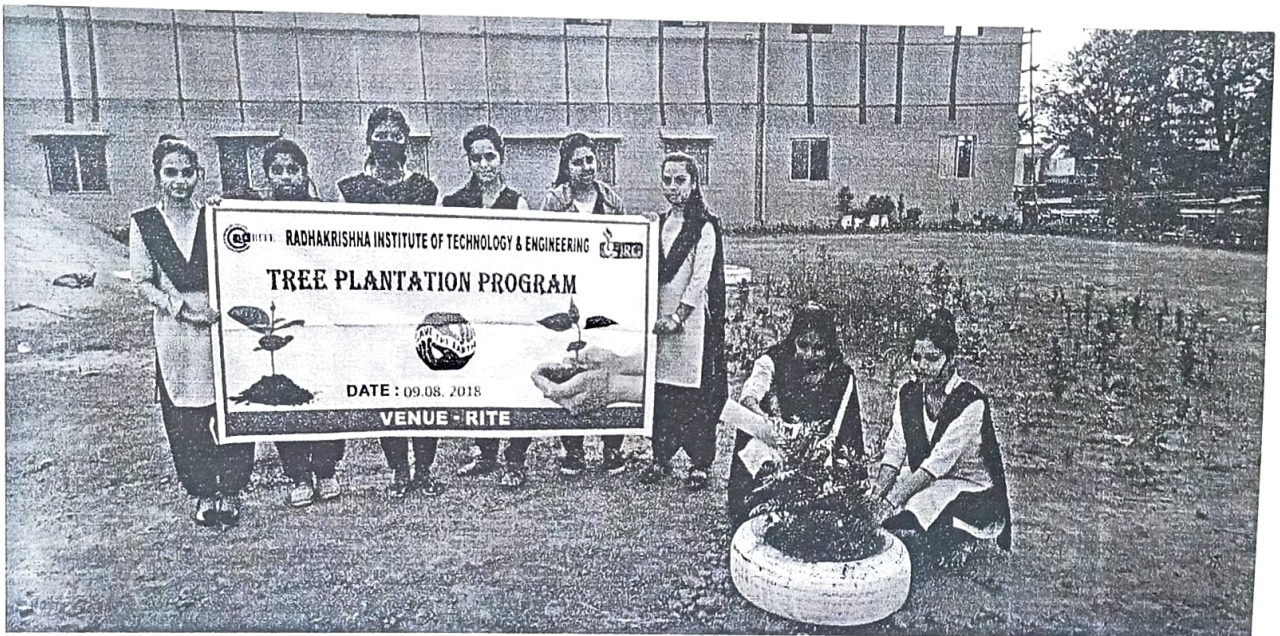
II. The Audit Stage:

The Audit Stage encompasses of the team selection and the field works performed. Looking after the unique structure, location and ambiance of the college, the Green Audit Team focused on Material Issues pertaining to college which have the highest influence on the Green Attributes of the College. The Audit stage also focused on the Methodology adopted. Checklist approach is adopted for transparent evaluation of the topics and, increase readability for independent reader.

III. The Post Audit Stage :

The post-audit stage ensures formulation of Draft findings and sent to management response. Since the audit is done internally, it was important to ensure management approval for the draft. After getting draft approval, the audit team went for final report formulation.

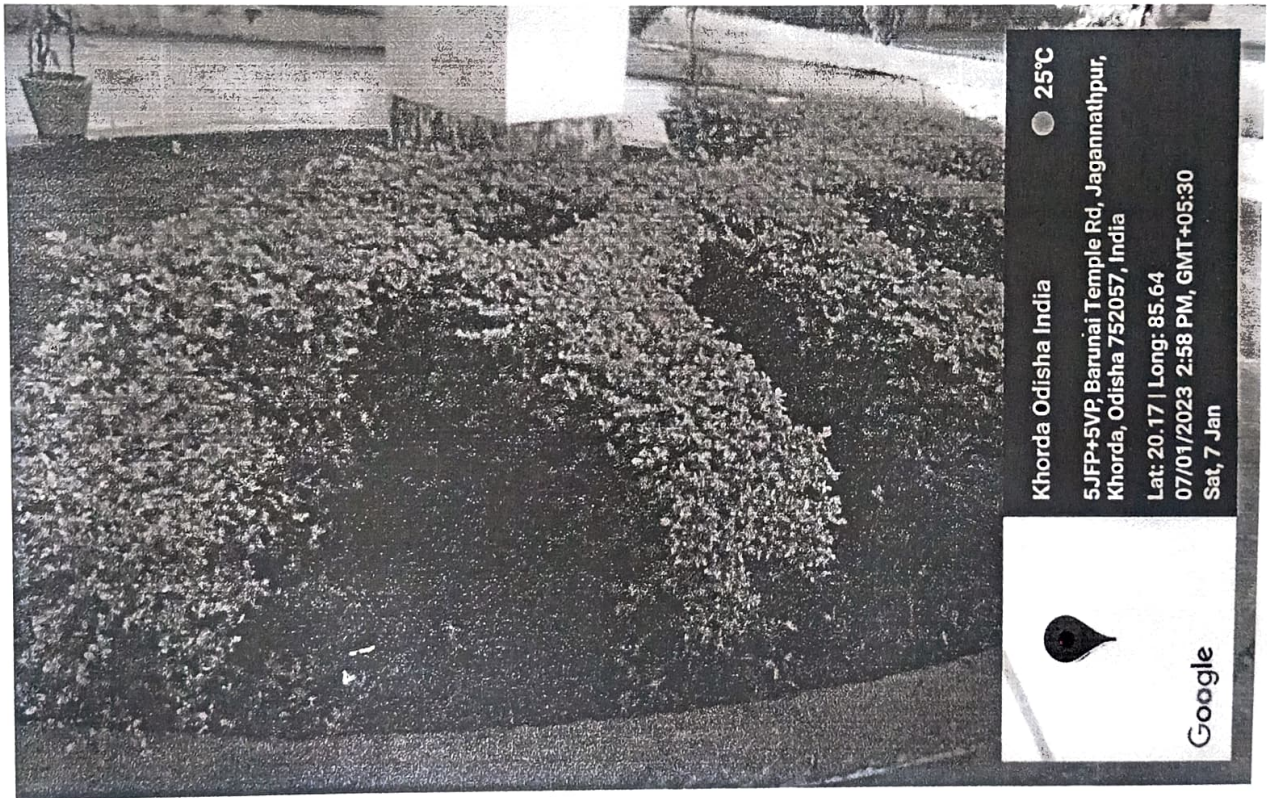
Some of the Go-Green Events



Sch
Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar

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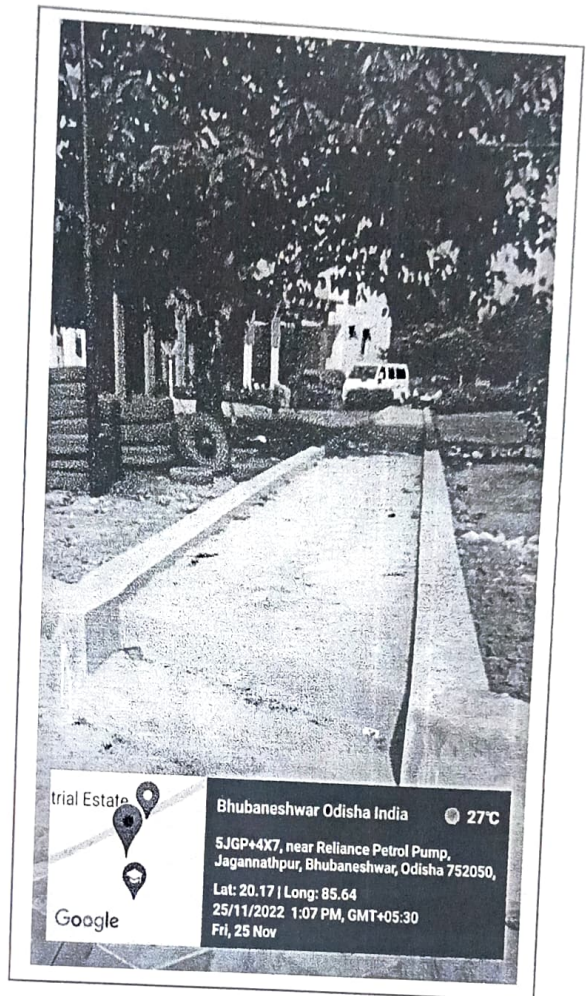
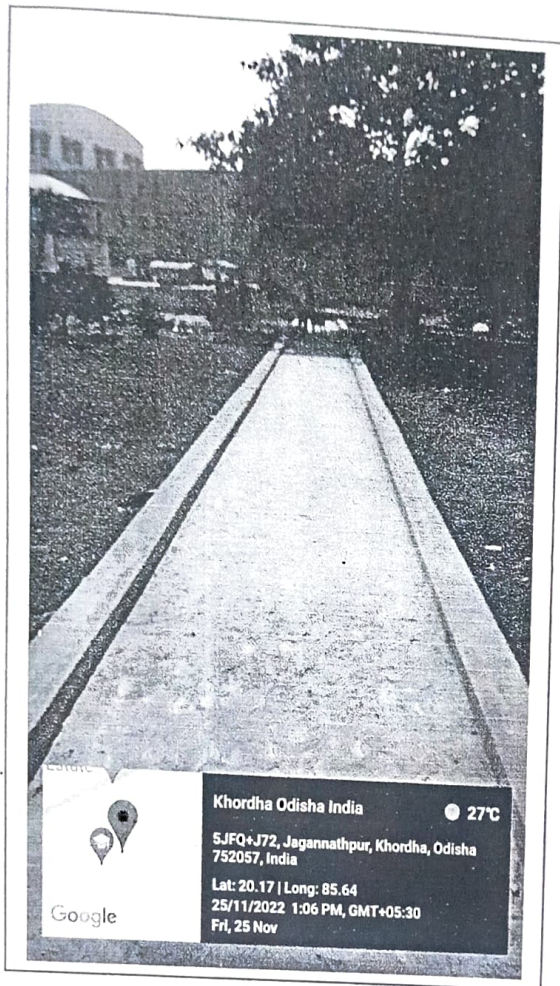


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Principal
 Radhakrishna Institute of Technology
 and Engineering, Bhubaneswar





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Principal
 Radhakrishna Institute of Technology
 and Engineering, Bhubaneswar



List of Plants and Trees present in Radhakrishna Institute Of Technology & Engineering Campus

AREA-1(MAIN GATE AREA)

SL NO	NAME OF THE PLANT	TOTAL NUMBERS
1	WADELIA(BED)	1000
2	POTTEDE PLANTS,DECORATIVE	20
3	MINITAGR	60
4	VERIGATED TAGAR	03
5	FICUS PANDA	10
6	BIRDS OF PARADISE	1000
7	SEASONAL BEDS	02
8	VERIGATED FICUS OF STARLIGHT	05
9	KARABINA	20
10	BAGONVILLA	02
11	ROSES	100
TOTAL		2222

AREA-2(STAFF QUARTER)

SL NO	NAME OF THE PLANT	TOTAL NUMBERS
1	BAGON VILLA	5
2	AKALIFA	20
3	CERA	50
4	MOON BEAM	3
5	CRUISING	3
6	TECOMA	3
7	ALMONDA	3
8	ROSES	6
9	FANCY BAMBOO	10
10	ANELIA	10
11	TODAY TOMORROW YESTERDAY	10
12	BLOSSOM	2
13	BURFLOWER	1
14	MANGO	1
15	JASMINE	1
16	VELVEETA	10
17	CULIOUS	10
TOTAL		148

AREA-3(MAIN ROAD SIDE)

SL NO	NAME OF THE PLANT	TOTAL NUMBERS
1	PANDA	10
2	FICUS YELLOW	60
3	FICUS BLACK	60
4	SINGAPORE EXUNA	30
5	ARICA PALM	200
6	CERA	200
7	YELLOW HEAVEN	100
8	VELVEETA	20
9	MINI ALMONDA	100
10	TODAY TOMORROW YESTERDAY	200
TOTAL		980

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AREA-4(BOYS HOSTEL AND CANTEEN AREA)

SL NO	NAME OF THE PLANT	TOTAL NUMBERS
1	BIRDS OF PARADISE	200
2	RABBISH PALM	6
3	SMALL MOON BEAN	200
4	VERIGATED MOON BEAM	200
5	SINGONIUM-BED	10
6	WHITE LILLY	200
7	WATERLIA VERIGATE-BEED	4
8	ANTHONIUM	4
9	RED DROSHNA	100
10	YELLOW BAMBOO	100
11	CASIA BIFLORA	15
12	CASIA FISTULA	10
13	RIBBON GRASS	100
14	TOBIA ROSIA	20
15	FURMISH PALM	50
16	FANCY BAMBOO	50
TOTAL		1269

AREA-5(FRONT ADMIN BUILDING)

SL NO	NAME OF THE PLANT	TOTAL NUMBERS
1	DECORATIVE POTS	60
2	ANELIA	10
3	CERA	20
4	YELLOW GRASS	10
5	SINGONIUM	20
6	LOLIVA	1
7	THUJA	9
8	ARDENIUM	5
9	ARICA PALM	50
10	COLONOMA DRASHRA	20
11	FANCY BAMBOO	50
12	VERIGATED DRASHRA	100
13	MINI MOON BEAM	3
14	FICUS YELLOW	3
15	FICUS BLACK	10
16	BAGON VILLA	10
TOTAL		381

AREA-6(WORKSHOP AREA)

SL NO	NAME OF THE PLANT	TOTAL NUMBERS
1	PLAMERIA	20
2	SEASONAL BED	3
3	TODAY TOMORROW YESTERDAY -BED	2
4	ARDENIUM BED	1
TOTAL		26



AREA-7(MAIN GARDEN)

SL NO	NAME OF THE PLANT	TOTAL NUMBERS
1	BUDDHA BAMBOO	30
2	FOX TAIL PALM	30
3	JAYCIA LAWN	1
4	SEASONAL BED	2
TOTAL		63

AREA-8(GIRLS HOSTEL)

SL NO	NAME OF THE PLANT	TOTAL NUMBERS
1	PLUMERIA	10
2	FICUS	20
3	KANTIA PALM	10
4	CASSIA	3
5	ARICA PALM	10
6	SEASONAL BED	2
7	IXORA	3
8	SIVGONIUM	10
9	MOON BEAM	2
TOTAL		70

AREA-9(ADMIN BUILDING BACK SIDE)

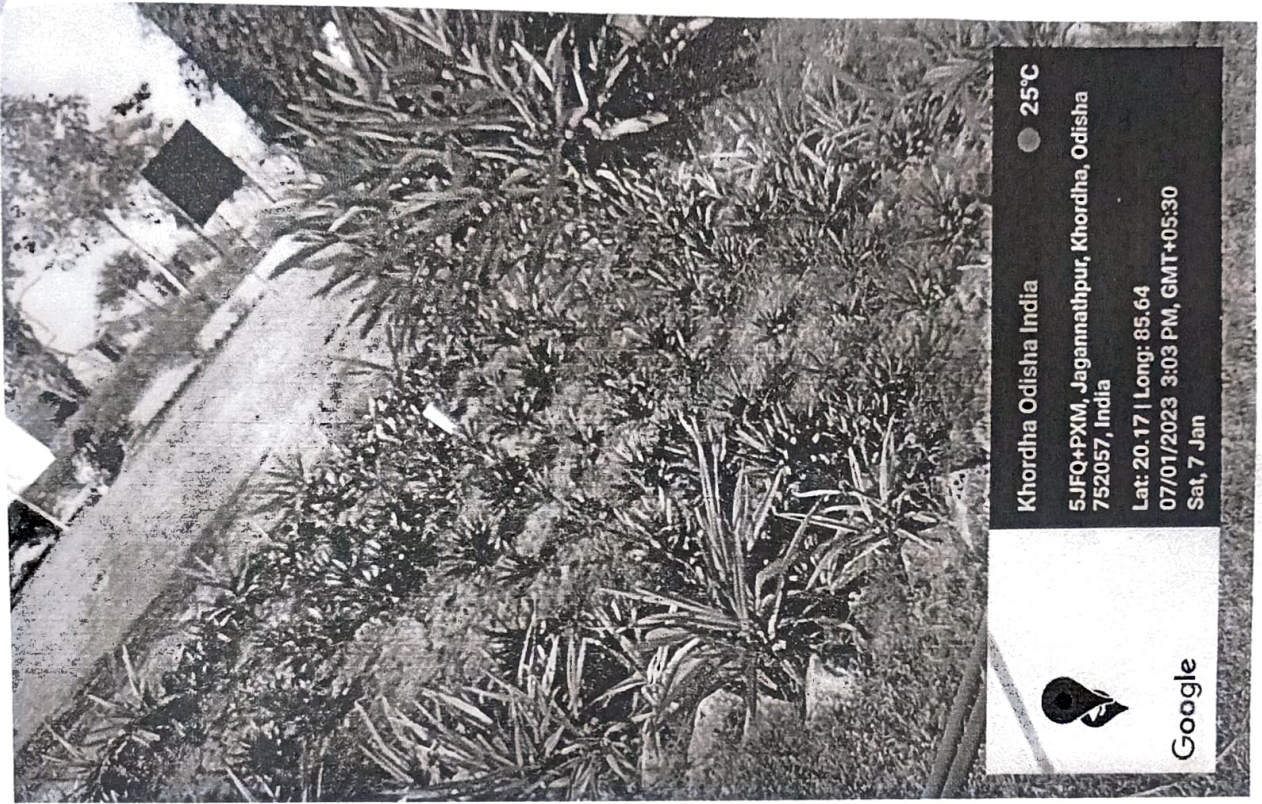
SL NO	NAME OF THE PLANT	TOTAL NUMBERS
1	BANANA TREES	20
2	GREEN HOUSE PRODUCTION UNIT	1
3	NEEM TREE	2
4	FOREST PLANTS	60
TOTAL		83

PHOTOGRAPHS ATTACHED



Rel
Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar






● 25°C


Khordha Odisha India

5JFQ+PXM, Jagannathpur, Khordha, Odisha
752057, India

Lat: 20.17 | Long: 85.64
07/01/2023 3:03 PM, GMT+05:30
Sat, 7 Jan

 Google

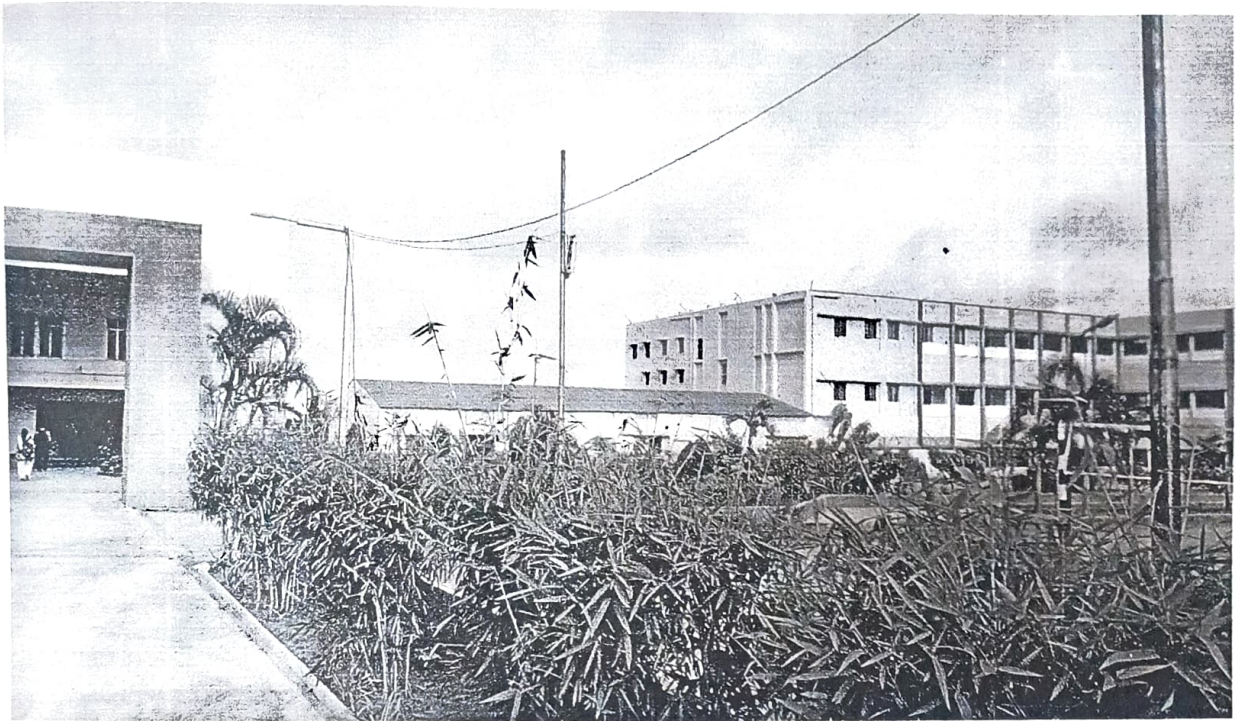




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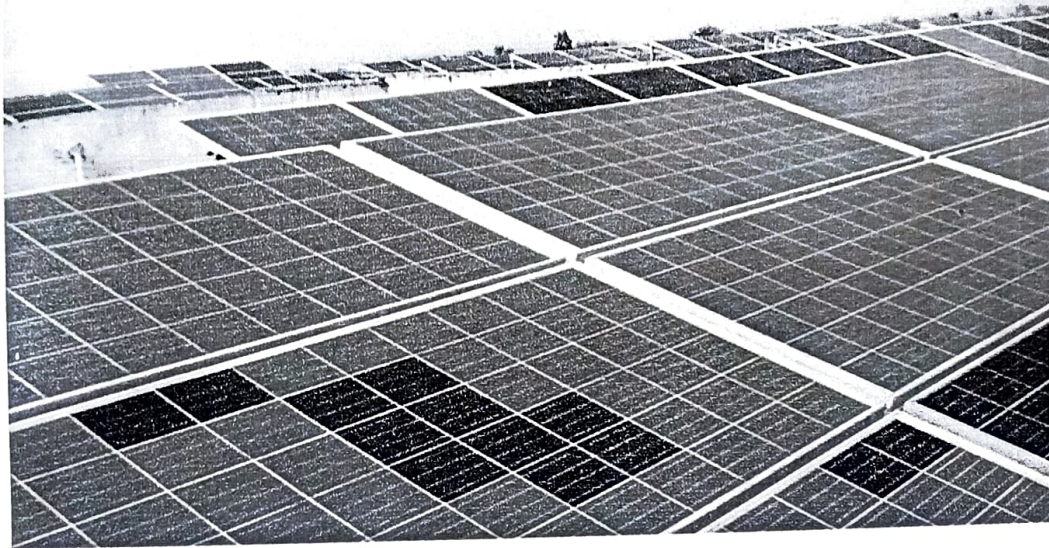


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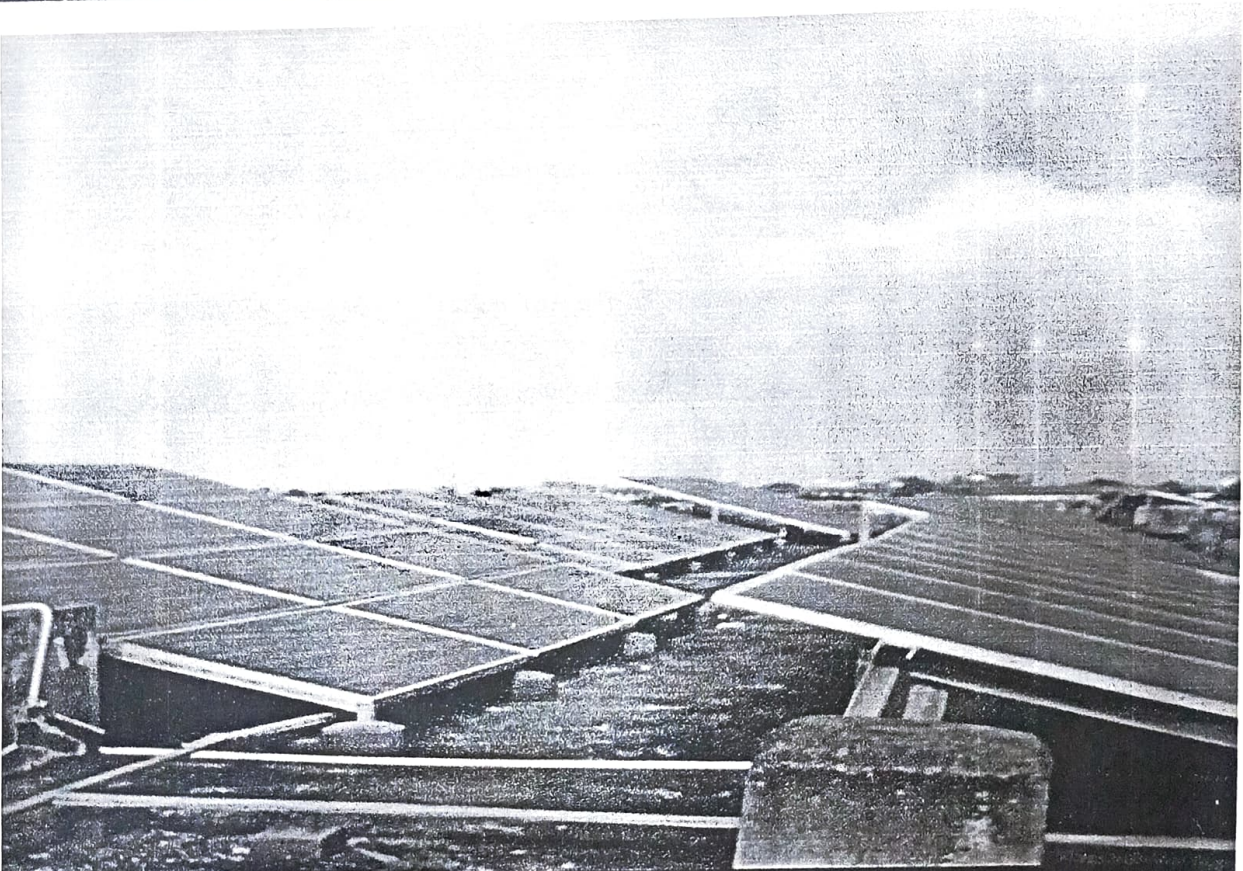
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Bhubaneswar Odisha India ☁ 31°C
5JGP+4X7, near Reliance Petrol Pump,
Jagannathpur, Bhubaneswar, Odisha 752050,
Lat: 20.18 | Long: 85.64
18/10/2022 2:23 pm, GMT+05:30

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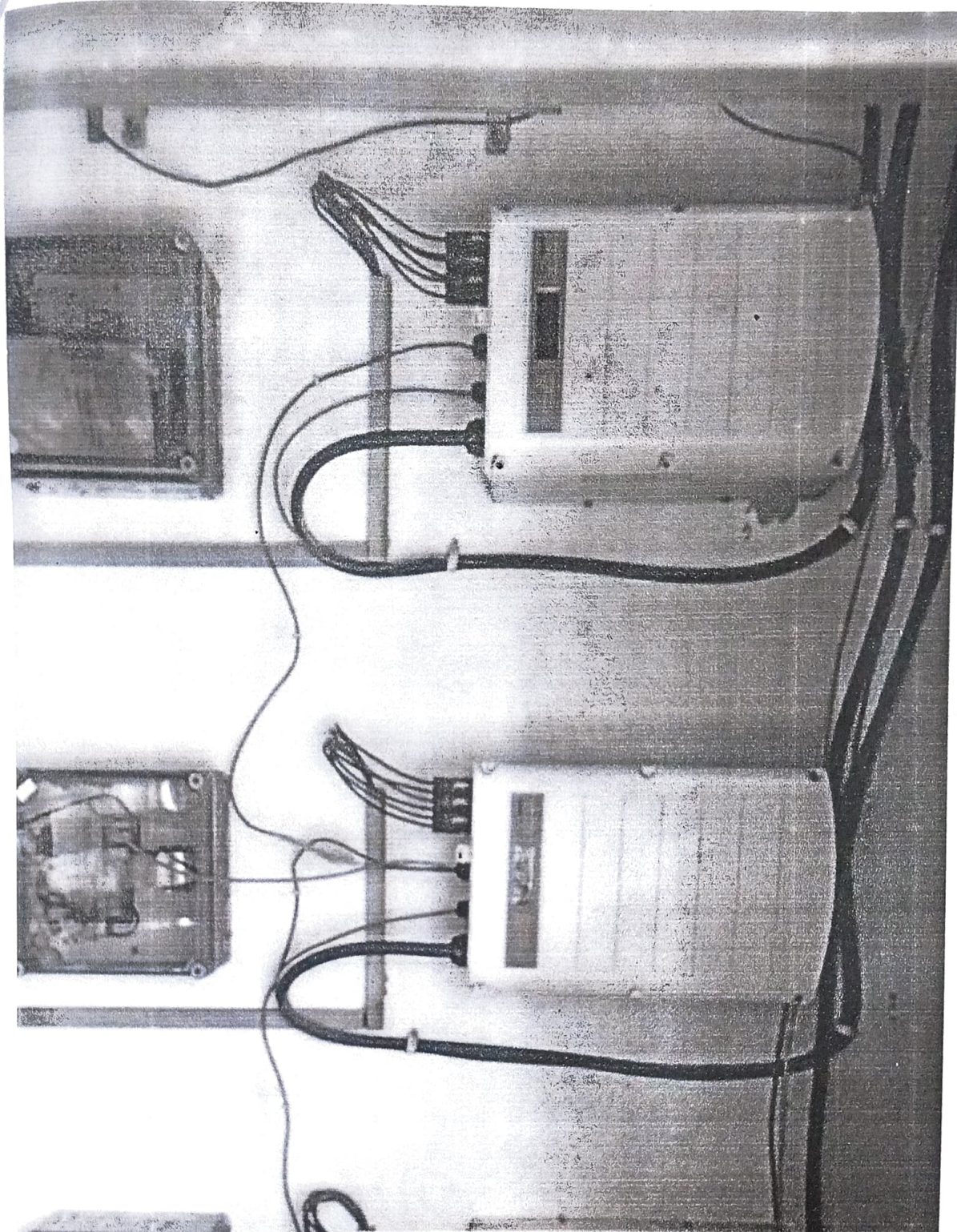


Bhubaneswar Odisha India ☁ 31°C
5JGP+4X7, near Reliance Petrol Pump,
Jagannathpur, Bhubaneswar, Odisha 752050,
Lat: 20.18 | Long: 85.64
18/10/2022 2:26 pm, GMT+05:30

Signature

Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar





Khordha Odisha India

☁ 31°C

F12 iid centre Tite administrator building,
Jagannathpur, Khordha, Odisha 752057, India

Lat: 20.17 | Long: 85.64

18/10/2022 2:20 pm, GMT+05:30

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Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar



TAX INVOICE

CREDIT


**KALINGA
KOMMERCIALS**

 23, Shubham Market
 Ram Mandir Square
 Janpath, Bhubaneswar
 Odisha

GSTIN/UIN: 21AANPD9614Q1ZC

INVOICE NO: 12201 0005

Date: 30-04-2021

CHALLAN NO:

Date:

REVERSE CHARGE:

NO

PURCHASE ORDER NO.:

PURCHASE ORDER DATE:

Phone No.: 0674-2380800, Email ID: mktg@kalingasolar.com, Website: www.kalingasolar.com

BILLED TO:

 M/s JRG Educational Trust
 IDCO Plot No. 1, Barunel Industrial Estate
 Khorda- 752055

PARTY'S GSTIN/UIN:

DELIVERED AT:

SL No	Description	HSN/SAC Code	Unit	Qty	Rate	Total Amount
1	Solar Module 335 Wp Waaree SL No- WS0720901059-7665, 7689, 7691, 7694, 7738, 6791, 6980, 6979, 6378, 6944, 8517, 6574, 6966, 6976, 6975, 7090, 7092, 6977, 8444, 8263, 8271, 7846, 8489, 6681, 8785, 6701, 8598, 6946, 8514, 6801, 8567, 8379, 8497, 7808, 7817, 6306, 8230, 8471, 7755, 8302, 8413, 8732, 8690, 8393, 9151, 8592, 8343, 8788, 8525, 8629, 8792, 6742, 6644, 6641, 8660, 7838.	8541	No	56	7,168.00	4,01,408.00

JRGET, KHORDHA

 Sl.No. 5104 Material In/Out
 Date 30/04/21 Time 2:30
 Security Sign

Taxable Amount 4,01,408.00

CGST %	2.5	10,035.20
SGST %	2.5	10,035.20
IGST %	0.0	-
GRAND TOTAL		4,21,478.40
ROUND OFF		-0.40
GRAND TOTAL		4,21,478.00

 Bank Details: A/c No-1617282010347, Bank: Canara Bank, IFSC- CNRB0001617
 Branch- Laxmisagar, Cuttack Road, Bhubaneswar

 Subject to Bhubaneswar jurisdiction
 Goods are supplied on consumer risk
 Received material in good conditions

Customer's Seal and Signature

 Received by JRGET STORE
 Signature.....
 Date.....

For Solar panel (Boys hostel)

 Principal
 Radhakrishna Institute of Technology
 and Engineering, Bhubaneswar


E & O

Kalinga Kommercials

Authorised Signature



Oxygen produced by our campus

A single mature tree can absorb carbon dioxide at a rate of 48 lbs./year and release enough oxygen back into the atmosphere to support 2 human beings."

Out of 5242 trees we have approximately 500 mature trees. So total 500 trees absorb carbon dioxide at a rate of $500 \times 48 \text{ lbs/year} = 24000 \text{ lbs/year}$ and they release oxygen back into atmosphere to support 1000 human beings.

"One acre of trees annually consumes the amount of carbon dioxide equivalent to that produced by driving an average car for 26,000 miles.

Irrigation facilities

Available water resources are used for irrigation purposes. Action is needed to protect water in qualitative and quantitative terms. Among the several actions that are expected to contribute to the protection of water is the optimization of irrigation management. In this framework irrigation professionals are challenged to achieve maximum irrigation efficiency at scheme as well as at end-user (farm or landscape setup) level. Irrigation efficiency is a complex concept at upper levels as the losses of someone could be the gains for someone else. At end-user level, irrigation audits which register and analyze information regarding water and soil characteristics, the design, installation and maintenance of the system, the available flow, the operating pressure, the application uniformity and the irrigation schedule provide a useful tool for system evaluation and maintenance, upgrade decisions. In the framework of the present work, selected case studies, part of an irrigation auditing initiative, which is in progress and will include 100 audits at the Regions of Epirus and Western Greece, are presented. Extended literature review was made in order to design the auditing procedures. Special fact sheets have been prepared and pilot audits were used in order to evaluate them and make final adjustments.

The audits have been applied on a variety of agricultural irrigation systems (big guns, sprinklers bubblers, drip lines, emitters etc) as well as on sprinkler irrigation systems for landscaping setups (parks and athletic facilities). After each audit, a report is handed to farmers and irrigation managers. The report contains information regarding the findings and proposals for improvements. The majority of the systems that were audited up to now presented serious problems regarding design, construction, maintenance and management. The feedback was positive and most of them agreed to keep records regarding water savings data. It has to be noted that no relevant national legislation or official standard exist in Greece. In this framework, an objective of the initiative is to develop a practical auditing guide and make it available to relevant stakeholders and

policy makers.

“Developing Kitchen Gardens to ensure nutritious intake for the families living in drought prone areas”

Kitchen Garden program has been launched in a systematic way. As described in the project proposal rural people even though they are farmers, use very few food combinations in their diet. This is because they lack in knowledge and they don't have access to the required ingredients. We focused the program on these two aspects.

AWARENESS BUILDING MEETING:

We have organized meetings where farmers were present in the meeting. In the meeting it was explained that the aim of this project is to ensure balanced diet to the malnourished and poor families. The project is to inculcate preventive health care habits among rural people; nutritious food intake will be a prominent part of this program. In the meetings the present food intake and its effect on the body was discussed. Also various diseases and health disorders caused by insufficient diet was discussed. At every place people were made to establish link between their food intake and their health. Teachers were invited in the meeting so that they could suggest the names of the children who are malnourished. In the meeting names of the probable project participants were selected. Local bodies like SHGs, farmer's groups, teachers participated in the beneficiary selection process. Participating families should have about 2000 sq.ft. land near their house. They should have some source of water required to maintain kitchen garden. The beneficiary family must be willing to participate in training, learn and adopt the new practices.

TRAINING TO THE PROJECT PARTICIPANTS:

After the selection of beneficiaries, we arranged one day training on kitchen garden. In the first batch 43 projects participates including 35 women 5 farmers and 3 students were present. We discuss concept of kitchen garden, objectives, its need etc. Direct access to nutritionally rich food, savings on food and decrease in health expenses were discussed. One of the easiest ways of ensuring access to a healthy diet that contains adequate macro-and micronutrients is to produce many different kinds of foods in the kitchen garden. This is especially important in rural areas where people have limited income-earning opportunities. Kitchen gardens are also becoming an increasingly important source of food and income for poor household's urban areas. Consuming a nutritionally adequate diet is vital for a healthy and active life. Promoting appropriate diets and healthy lifestyles are central activities in reducing malnutrition, and promoting nutritional wellbeing for all. First the theory part of the project was taken. Then the design of kitchen garden was discussed. Location of every plant and the reason to plant at particular place was discussed. Plantation in various shapes and sizes of plots were

also discussed. To gain practical experience, the participants made the layout of demonstration plot at RITE campus., Ms. Sweta Mohapatra, Dr. Debadutta Das conducted the training.

DEMONSTRATION UNIT:

A model kitchen garden has been established for demonstration purpose at Kunj campus, Bhubaneswar. The kitchen garden is designed to provide sufficient vegetables to the common staff mess run at the campus. We are getting fresh and sufficient quantity of vegetables from 15th August 15. Fresh vegetable is picked twice a day (just before cooking the food!). Following vegetables are planted

- Spinach.
- Brinjal
- Okra Vegetable
- Fengureek
- Beans
- Bittergourd
- Tomatoes
- Chole, Rajma
- Fruit plants

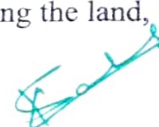
Standard layout of kitchen garden is given below (this is in Odia, attached just to see the layout). Daily 6-7 persons visit this model kitchen Garden and get the knowledge of doing it.

KITCHEN GARDEN PLOTS:

Once the project participant is identified, we conduct the baseline survey for all the participants. This survey is essential to measure the impact and the progress of the program. In the baseline survey format contains information about the family, their economic condition, present access to nutritional ingredients/ vegetables, present health status of all the family members, present medical expenses etc. So far 51 participants have completed the installation and remaining 24 plots are in process. We have trained three local youths in installation of the system. With the help of these youth the beneficiaries install the system. While designing the system, gray water has been properly utilized. Specific species like Colocasia Antiquorum, Acorus Calamus have been planted. These local varieties are used in daily cooking.

PEOPLE'S PARTICIPATION:

There has been overwhelming response from the villages to this program. Selection of beneficiaries was a tough job. Still with the support of local people only needy families were selected to participate in the program. The beneficiaries do their role of preparing the land, applying manure, preparing the beds with a lot of interest.

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Principal
Radhakrishna Institute of Technology
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As entire support is being provided in kind, they come to Kunj campus to collect the material. We have seen that there has been exchange of seeds among the beneficiaries!

DIFFICULTIES FACED:

- Initially when the project was announced, people thought that this will be an income generating activity like another project "sub-soil irrigation" which is being implemented by RITE. People attended the meeting with that intention. However, we had guessed the same before, so our team was prepared to convince the participants. Now every project participant is involved in the program to ensure good health of his/her family.
- During the training it was shown to all the training how to fit the irrigation system. When our staff visited first plots who installed the system, we found lots of flaws. So, we decided to train local youth who are already into plumping activity. We identified three youths and after training them they have been assigned the job of fitting the system.
- Beneficiaries are inclined to use chemical fertilizers to get maximum output. In the training program Dr. Debadutta Das explained the bad effects of chemical fertilizers on human body. He also explained that the kitchen garden project has been designed by considering organic inputs. He also assured that if prescribed practices are adopted, everyone will get the output enough to feed the family as planned in the project.

Principal
RITE, Bhubaneswar




Principal
Rodhakrishna Institute of Technology
and Engineering, Bhubaneswar