

KUMARI ARIVIAL PERAVAI

YOUNG SCIENTISTS PROGRAMME 2013-2014

Study on industrial and ecological conditions

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-----Reports 3

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GREETINGS!



The fact that **industries** wax and wane is a reality of any economic system that want to remain dynamic and responsive to peoples changing taste-James Surowiecki

So with the word **industry** in our mind we had our next camp followed by the team meet to Karur on Industrial and ecological conditions. It was a fine afternoon that made me feel tensed as I

was in a hurry to reach the destination to board the bus. But on the other side I also felt happy because my first time to leave our district and get into another district to learn new things with my colleagues and friends. So as a start our camp we the young scientist were already informed to assemble in front of the boarding venue that is Thasaiyah Marriage Hall. I reached the destination with my father and sister by 4.00pm and as I reached I could see the MACET bus awaiting our arrival and as soon as everybody arrived we boarded the bus by 4.15pm. Then we

were informed that the inaugural meeting would be held in Rotary Community Hall, Nagercoil. So we reached there by 5.20 after an hour of travel.

There for the inaugural session Varsha, convenor maroon team was the master of ceremony. She first greeted us and then welcomed all the dignitaries to the dais. The dignitaries include:

- Mr.Mullanchery.M.Velaian.
- Rtn. A. Rajan, President Rotary club of Yarn city, Nagercoil
- Rtn. B. Edwin Jose, President Rotary club of Aasaramam,
- Rtn. Vishnuram, President Rotary club of Nagercoil town,
- Rtn. Chidambaram Pillai, Secretary Rotary club of Nagercoil town,
- Rtn. Chandrababu, Secretary of Rotary club of Yarn city,
- Rtn. Jesintha Dharma, Assistant Governor Rotary club

For this session the welcome address from the students was delivered by Adlin Tino of maroon team and then again the welcome address from the side of the officials was delivered by Rtn. Vishnuram. He also noted few things. First he stressed that the student's self-confidence is important for them to succeed in life. He also noted that we are moving on an intention on how to protect our environment and when we protect what happens. He also mentioned that the parents are the backbone of our success. And thereafter he conveyed his hearty welcome to one and all present there and ended his address. Thereafter Varsha gave a talk on the importance of KAP. In her talk she stated that Kumari Arivial Peravai is a "Nonprofit making organization" and they are totally dedicated and intellectual towards their aim. Thenceforth she explained the selection process completely and 57 young budding students were selected and crowned as Young Scientists and wrapped up her talk.

Next the Introductory address was delivered by Mr.Velaian. He in his talk the first thing he asserted was that this is a good opportunity for us to meet these people and rotary is the best place to conduct our meetings. Then he also told us how he got this place for conducting the inaugural meet. Mr. Suresh was the one who arranged this place by seeking permission from the Rotary officials and today we are here. Everything was arranged within 2 -5 minutes. For me this was

something like a miracle. Then he welcomed all the dignitaries on the dais once again and thereafter again explained the selection process step by step and also pointed out that every year this programme starts by June and ends by May. Later he introduced our topic for the year Nurture Nature and noted that every year we select nature based topics and all the students selected are from grade 8. He also mentioned that there is no funding source. Next he detailed that there will be various trips arranged to different places for eg: Coastal area trips or hilly areas trip etc... Thereafter he admonished that there will be a book which would be presented and inaugurated in a famous university and as our final journey the majestic and the grand ceremony that is the award ceremony would be conducted on the last week of the month of May. He also listed out few organizations which are helping us for this programme and this study trip they are:

- Lord Jeganath College of Engineering and Technology-Ljcet
- Sabare International Private Limited, Karur
- Rotary club of Nagercoil town, Aasaramam and Yarn city
- Namakkal Indian Medical Association
- Marthandam College of Engineering and Technology-Macet

He also stressed that we must be proud that these organizations has understood our aim and are ready to help us in every aspects and same like this we must honour the Rotary club for letting us conduct our programme here. He ended his words by saying that Monday-21-1-14 5am we would return to our home and like Mr. Suresh we must have many people to understand us and thanked one and all present there. From his talk what I can figure out is that Kumari Arivial Peravai is a society honouring organization and it has a peculiar respect in the society. I really feel happy about that. Next Varsha introduced another luminary in the dais he is none other than Rtn. A. Rajan, President Rotary club of Yarn city, Nagercoil and he was also called to address the gathering. He gave a very short address. He accepted that he is very proud of this organization which is really functioning only in Kanyakumari district. He also **gave a big cigar** (congratulated) that we must continue this and this organization must operate for many years more and concluded his words. Thereafter **Steffy of red team** was called on to the dais to express her talk on the topic **Industrial and Ecological Conditions**.

She started her talk with a heartfelt welcome to all the dignitaries present there. Thereafter the first point she noted was that the **first country of industrialization is the United Kingdom**. This development causes deforestation, pollution, emission of carbon dioxide etc... finally leads to global warming and increase in the green house effect. She also mentioned that there are many kinds of factories in Kanyakumari district and they include the bricks factories, cashew factories, hollow bricks factories etc...and the industrial wastes which are released from these industries affect the water bodies and one of those rivers is the Thamirabharani river which is been affected. She also noted that the brick factories also produce silicon dioxide which is harmful to the environment. She stated that the **"Most industrialized nations are the most offenders"**. Finally she listed out few ways to reduce this they are:

- Public treatment plants should be made
- Anaerobic digestion
- Conserve electricity
- Chlorination
- Filtration
- Screening
- Vacuum filtrating

She concluded by puzzling us by asking **whether industrialization is good or bad?** The answer or this is that **it is like a tool in our hand** and we must use in the right way without any damage or harm to the environment she answered. Her talk was really alluring and I could understand the problems faced by it and the uses gained from it also. Next we had **Rujen of yellow team** to deliver his speech and the topic given to him was **Lifestyle of coastal people**. He began by saying that about 2/3 of the world is covered with sea and it is about 361 million sq km. He also mentioned the sea never destroys any time but the resources in the sea might get reduced in the future. The main job of the people living in the coastal areas is fishing and it is one of the riskiest jobs in the world he denoted. According to the statics available about 70 fishermen die a day in the world but still those people are all not frightened at all but they take over all the challenges very easily and face them he stressed. Catamaran is the boat used by the fishermen and the nets

are also used and they are their properties. When they do deep sea fishing they use a larger net he claimed. We the rural and the city people don't understand that and the government doesn't takes any action towards this on the other hand if there are no fisher men then we will never get good fishes he strongly stressed. He also detailed about their daily wage that is their daily wage or salary is based on the amount of fish they get or fish a day and one day their earnings may be 25 the least and 400 the maximum but we others are using the money lavishly. For this he cited an example: A women who lives in a city does shopping and buys things that she wants without living anything that she thought but a family women who lives in a coast even if she gets rupees hundred a week she will keep it in her savings and use it when needed for immediate purposes only and this shows how lavish we are. He reminded us about the disastrous tsunami which turned up our state especially and in Tamilnadu about 6.91lakh people were wiped off and about 81%of the people lost their houses but sill they are not frightened and they are living near the coast. He ended his words by alerting that the fishes are declining in numbers and so we must be aware and take few steps for acting on that. His talk was noteworthy and I came to know few key notes about the lifestyle of coastal people. Later **Achsah of green team** was called to share a few glimpses about the coastal study tour. She gave a common feedback about the awareness the people got and she came to know about the lifestyle and the interaction with the people was very useful she admitted. She also named the beaches that we had visited on our trip and ended her feedback. Next **Jeshwini of green team** was called to deliver her talk on the topic **Pollution Conditions of river Pazhyar**. First and foremost she stated that water is one of the important resource needed to sustain life and she named the three major rivers in Kanyakumari district they are:

- ◆ Pazhayar
- ◆ Valliyar
- ◆ Thamirabharani

The river Pazhayar originates from Surulacode and flows through Palkulam, Boothapandi, Thazhikudi, Nagercoil town, Putheri, Suchindram, etc. and joins the Arabian Sea near Manakudy. She also noted that a Venadu ruler named Boothala Sree Veera Udaya Marthandavarma, who ruled this area in 1517, constructed the

Veerapuli dam and its canals. She also listed out few other dams that were constructed those days they are:

- ◆ 'Kutty' dam
- ◆ Sabari dam,
- ◆ Kumari dam,
- ◆ Pillaipethan dam,
- ◆ Mission dam etc...

So now the rivers are polluted and encroached and this causes diseases like malaria, cholera etc...Then she pointed out that the sewage is the main cause of pollution is the untreated sewage and the stretch from Putheri to Suchindram is highly polluted and according to the Environmental Protection Act of 1986 the sewage should not be let into the public water bodies. She alerted us by saying that this results in flooding, diseases like jaundice, cholera etc are caused and also the Pathogenic bacteria Echeriacholi must be only about 3 units in the water but this bacteria is spreaded for about 3000 units in the river near Nagercoil. She finally ceased her words by saying that to reduce this we must give awareness to the people, should avoid throwing wastes, regulate run off of fertilizers and do regular fertilizer testing's etc...Her talk was noteworthy and alerting. Thence forth another speech was delivered by **Anisha of maroon team** on the topic **Estuaries in Kanyakumari District**. Estuaries are the place where the river and the sea meet. She denoted that the major river in Kanyakumari District is the Thamirabharani River and the two tributaries of this river are:

- Kodhaiyar
- Parazhiyar

She also mentioned that we can get about 30 different varieties of sharks in that place. And she ended her words by saying that now theses estuaries are been polluted by sewage wastes that are untreated and left open free etc...So we must protect it. Next there was a talk proposed by Adlin Tino of maroon team on the topic Conversion of Paddy fields into Housing Lands. First she started with past news that is India was an agricultural land. 70% of our country India trust in agriculture but now those agricultural farms and field are converted into housing

lands and so many farmers from the village come to the towns and the cities. She also reminded that now no one studies horticulture. The monsoon or the seasonal rain also has an adverse effect on the farmers and their lands if the rainfall is too low then the crops do not yield and if the rainfall is too high the crops are destroyed due to flooding etc...Pollution also affects the plants in one or the other mean but even though this happens we are not ready to stop it or at least reduce it she stressed. The ways to solve this are to do awareness on crop protection and demand not to use more amount pesticides, insecticides and herbicides. Then we should not worry that studying horticulture and being a farmer gives very less income but the fact is that once we start doing agriculture without harming the plant and the soil by stopping adding all poisons that is chemical fertilizers in more amount will definitely bring us high income. She denoted that we are destroying paddy field by constructing engineering colleges and other big buildings such as houses etc...Through this view she made us understand that building so many houses is due to overpopulation and everybody are selfish that they must have their own house whereas to solve this she also noted a remedy that we can live as joint families as much as possible and stop converting paddy fields etc...into housing lands. Thus she concluded by saying that we should give equal rights to the farmers as we have but nowadays we are not doing so but it must be changed, the government must provide new policies and useful acts for the farmers and also encourage new machines invented which are worthful and harmless. This talk was really simple but through her simple talk she made us understand a big concept. It was amazing. Soon after this another talk was delivered by **Meera.R.Kathires** of **Blue team** on the topic **Nammaalvaar's efforts in Organic Farming**.

She began by stating that Nammaalvaar's was an agriculturalist and a scientist on organic farming who hailed from Tanjore. In 1938 he was graduated in Anna University, Chennai. Thereafter he was working towards organic farming and he had done many experiments related to organic farming. He also had a training session in Netherland for four weeks she mentioned. She also noted that in 1990 he found a network named LEISA and promoted the concepts of organic farming etc...She abbreviated that LEISA stand for **Low External Input and Sustainable Agriculture**. After the 2004 tsunami he helped the people in the form of rehabilitation and he had also written so many books ecological farming and one of

the famous books was [Organic Farming](#) and this book gives ideas about organic farming. She ended her words by saying that USA was very concerned about ecological farming and they thought India is an industry or a factory and drastically pushed all the chemical fertilizers etc... into our country and we are using it. This shows that how our thinking is and Nammaalvaar a gift from god almighty passed away on 30th December 2013. This was really shocking and her talk was indeed informative. Thence forth a speech was given by [Joshika Raj of red team](#) on heading "[Organic Farming](#) [and](#) [Ecological Farming](#) [is](#) [the](#) [Future](#) [of](#) [India](#)."

She began by saying that our Kanyakumari district is the only district where three seas meet together and this gives beauty to our land, But in our district as we are growing day by day other plants, animals and birds are being destructed. The main reason for the wildlife to get destroyed is overpopulation she stated. As the number of people increase the number of houses also increase thus for building houses we shattering forest and converting it into housing lands. The other problem or factor that destruct wild life especially the sparrows the cell phone tower radiation causes these species to death. She named another common word which we hear everywhere is the pollution due to industrial wastes specifically water pollution when a species takes in this water they are affected. The hunting and poaching of animal species such as deer's, elephants for their tusk, horns etc...for earning income is also a factor of destruction. Thereafter she mentioned that the food chain is also collapsed due to these destructions eg: the grass is destroyed by putting fertilizers such as DDT etc...Overall we all are losing sacred medicinal plants and our life. Last but not least she concluded that once upon a time our district Kanyakumari was very fertile and green but now it is transformed into rubber plantations and housing lands. So we should understand the adverse effects of this and try to conserve wildlife as much as possible. This talk was elaborate and was understandable in simple explanation.

Next Varsha invited Mrs. Jesintha to address the gathering. She approved that this is a great honour and privilege for her to stand before a gathering of young, energetic and vibrant young scientist. She accepted that the each and every word delivered by the students were really impressive and the works done by us were

systematic and schematic works. She asserted that the content that we are trying to make others understand was really marvelous and fantastic and gave a full stop to her words by saying that "GROW, GROW AND GROW TO GREATER HEIGHTS" and wished us all best wishes.

Next a talk was delivered by **Lekshmi of yellow team** on the headline **Conservation of Coastal resources**. She at first stated that the coastal areas play a vital role in our life. The Indian coastline extends for about 7500 km and the coastline of Tamilnadu extends for about 1076km. She admonished that an estuary is a spot where the sea and the river meets and is a spot for more fish breeding. She also mentioned the importance of mangrove trees. These mangrove forests are always marshy lands. The main problems caused to the coastal areas is industrial pollution left into the sea and destroys the species in the sea and another major problem is tourism wastes so we should try reducing tourism wastes or else it will lead to natural disasters she concluded. Let's preserve our sea and hope for the best! This talk made me understand very easily what problems are caused in the coasts etc...

Soon after, another talk was delivered by **Ancy. Jenifa of yellow team** on the heading Multiple uses provided by Palmyra trees. She at first numbered that the Palmyra tree grows for about 30-40 m in height and its scientific name is Borassus. She also denoted that for I year it produces about 150 litre of palm sugar etc...She listed few countries such as France, Italy and Belgium and mentioned that from India it is exported to these countries. Through this exporting India gets about 200 crores per year. She concluded by stating that this Palmyra is an official tree of Tamilnadu and it is considered as a celestial tree because of its uses and India grows has about 10-20 cores of Palmyra in the country.

Next Ashwin Niranjana from maroon team delivered a talk on the topic "**Save soil**". All life depends on soil and there are different layers in the soil he stated. Soil is the mixture of rocky particles he defined and it is one of the most valuable resources. Plants depend on soil directly and we humans and animals depend on soil indirectly he noted. He also pointed out that about 1-8 of the soil is fertile and good soil for farming. He quoted that "A nation that destroys soil destroys itself"- Franklin. D. Roosevelt. Thereafter he listed few ways through how the soil is destroyed:

- Nutrition depletion-causes soil degradation
- Pollution
- Salinitation
- Aciditation
- Higher expenditures

He concluded by listing out few remedies of proper management of soil:

- Maximize the use of organic materials
- Reduce the judicious use of inorganic fertilizers
- Minimize the overuse of pesticides etc...
- Encourage bio pesticides
- Plant more trees
- Encourage the acts or policies based on the protection of any natural resources.

By the time he completed **Dr. James Wilson**, chairman SIGMA College arrived and Mr. Velaian introduced him to one and all present there and invited him to do the felicitation. He greeted all and first and foremost he thanked all the rotary dignitaries present there and appreciated the interest of them for encouraging young budding students like us and we the students for taking interest in these kinds of activities. He claimed that pointing out mistakes is very easy and so after pointing out we must try to rectify it. He also praised that we all have got these kinds of opportunities in our young age itself so we have to utilize this and so we all will become a complete research scholar. He ended by noting that observation is very important and blessed us and wished us all the best.

Thenceforth the last talk for the inaugural session was delivered by **Ethazi Sherin of red team** on the topic Lets breathes air! Air is important for our life. Air is a mixture of gas she defined. We inhale oxygen and exhale Carbon dioxide. The composition of air is as follows:

- Oxygen=21%
- Nitrogen=78%
- Other gases=rest amount
- Argon=1%

Then she explained the process of respiration in our body and the parts helping it. She mentioned that when we inhale our ribs widen and when we exhale it contracts. To be healthy mentally and physically we must do yoga. She also detailed the adverse effects of smoking. Smoking is a serious problem. Smoking causes a serious disease named Emphysema. It is when your alveolus burst even when you cough. There are about 4000 chemicals in a cigarette and the three main chemicals she listed are Tar, Nicotine and Carbon monoxide. So she insisted that we must stop smoking and give awareness on that. She concluded by quoting that "QUIT SMOKING AND DIE TRYING". This talk was really useful and made me aware of the adverse effects of smoking.

Later Mr.Velaian gave a small feedback on their presentation on how it was. He first appreciated one and all who presented and he also mentioned that the introduction of this camp was really fabulous .He truly accepted that the presence of Dr.James Wilson is a great thing in this precious occasion and so for this kind and good hospitality we must send postcard. He ended by saying that sending postcards is mandatory for one and all. Finally the vote of thanks was delivered by **Blessy of maroon team**. She started by saying that "Gratitude should be the altitude of all the programmes" and expressed her sincere gratitude to all the dignitaries, parents and the young scientists present there. The meet over by 6.50. Then we had a delicious breakfast provided there and freshed up ourselves and started our journey to the main spot of the camp that is Karur. We departed from here by 7.30pm and had reached he destiny by 3.30 am. Throughout my journey I had different ideas and thoughts flashing into my mind about the industry and other places we were about to visit the next day and so I couldn't sleep any time. After we reached Karur ARYAN Tex Trade the boys and the girls were allotted separate hostels and we went to the respective place and had a short sleep and woke up by 6.00am and started our routine work.

First we were taken to eat our breakfast and we had a luscious breakfast and then assembled in a place where we had our general meet. The welcome address for this meet was proposed by Praisan Lino of maroon team. He welcomed the dignitaries including: Mr.Velaian-organizer KAP, Er. Benzigar Rajan-Scientist ISRO, Dr. Krishna Raj-ISRO Medical Officer and others present there. Thereafter

Mr.Velaian called out the names of each student to present their talks. First he called **Bibisha of green team** to deliver her talk on the topic **Wildlife in Kanyakumari District**. At first she defined what wildlife is? Wildlife is traditionally refers to the animal species and not only animals it also includes small microorganisms such as fungi etc...There are different types of forest such as Mangrove forests, Evergreen forests, deciduous forests etc...she listed. Her talk was a very short talk thereafter **Jeniba of green team** was called to deliver her talk on the heading: **□□□□□□□□ □□□□□ □□□□□□□□ □□□□□□□□**. First she denoted the problems why we are not growing domestic animals. This includes higher expenditure, No time etc...So when we grow domestic animals we must give natural fertilizers such as Kadalai Kodi, Erumai pul etc...she insisted. Then she listed few diseases caused for these animals:

- □□□□□□ □□□□- FOOT AND MOUTH DISEASE
- □□□□□□□□
- □□□□□□□□□□□□□□ □□□□
- □□□□□□□□ etc...

Finally she gave a full stop to her words by saying that we must not harm these animals in any aspects and they won't harm us and we must grow one animal for each house and nourish our world. Her talk insisted me to grow domestic animals as much as possible. Thenceforth **Krishnaveni of blue team** was called to deliver her talk on the topic **Kitchen garden**. First she defined that the kitchen garden is the place where the fruits and the vegetables are grown in the house. The benefits of kitchen garden are it can save our income from not buying fruits and vegetables from outside shops or groceries. Another benefit is that this we can grow these vegetables and can sell these so we can gain good income from this. Her talk was interesting and next **Scottlin Joe of maroon team** gave his talk on the topic "**□□□□□□□□□□ □□□□□□□□ □□□□□□□□ □□□□□□□□**". At first he defined that these prairies are a type of marshy land. He alerted that these prairies are destroyed due to river flooding, wastes etc...In the earlier days in Chennai these lands were for about 5500 hectares but now it has drastically reduced to 1000 hectares. Thereafter **Blessy of maroon team** was called to deliver her talk on the title "**□□□ □□□□□□ □□□□□ □□□□□□□□□□□□□□ □□□□□□□□**". She reminded that Kanyakumari district is known for all resources especially forest and it's

mandatory for a state or a nation to give of about 33% towards forest. So she reminded us that earlier our Kanyakumari district was fully evergreen with forests but now it has turned or transformed into a drought land or a place for stone mining. She specified that it is a true fact. At that point of time I thought that why not to have a change in that fact and took a decision that we must save it from our side as much as possible. This talk was very thoughtful and understandable as mentioned above.

Later **Varsha of maroon team** was requested to present her talk on the topic "Sacred groves". She delineated that the sacred grove is a place where rare species of plants, trees especially medical plants are preserved. She numbered that earlier in Tamil Nadu there were about 5000 sacred groves and but now due to urbanization and other factors the number has drastically reduced. She determined an average that there are about 50 varieties of sacred groves in Meghalaya and Sacred groves acts as a perennial water stream. She specified that these groves provide with water and hardly experiences drought condition. She named two sacred groves they are:

1. Saamundaa Devi in Himalayas
2. Agastheeswaramm in Kanyakumari district and it's about 2.6 hectares.

Therefore she conclude by requesting that we all should create awareness about these sacred groves as these are not very clearly known to all the people and ended her words with the pleasant word thanks. Thenceforth **Nithya of red team** was called to share a few ideas on the theme "Water Conservation". She detailed that the Manimuthaaru dam was built by Kamarajar and also alarmed that the Manimuthaaru aruvi is deep and dangerous. She ended by explaining that there is about 17000 acres of water produced for irrigation and it was really amazing to hear. Later **Shanu of red team** was called to talk on the topic "Water Conservation in AVM Canal". She started with the abbreviation of AVM Canal that is Anatha Victoria Marthanda Varma Canal. This canal flows from Mandaikaadu to Kochi. The main uses:

- Drinking water
- Bathing

- Water transportation
- Importing and exporting goods from Kanyakumari and Trivandrum.

Then she named that this canal was constructed during the reign of **Marthanda Varma Maharaja of Travancore state**. Finally she specified that this canal is shrinking day by day due to the main reasons:

- Overpopulation
- Dumping of wastes etc...

As before it had numerous uses but now it is said to be the houses of mosquitoes. So we should protect it she stopped. This talk made us all think for a moment about the pathetic condition of AVM canal. Next **Jayavarshini of red team** delivered a talk on the topic **Endangered birds**. At first she noted that the word endangered birds means the birds which are in a stage of extinction. First she listed few threats to these birds:

- Habitat degradation
- Agricultural development
- Overpopulation

Next she named few birds that are included in the list of extinct species they are:

- Nilgiri Pipit
- Oriental White
- Malabar Trogon
- Spot billed Pelican

Finally she listed out one way in how to reduce this that is replanting. Indeed this talk was informative and made me understand few new things. Later another talk was given by **Dawnlyn lal of blue team** on the topic Reservoirs and Water resources in Kanyakumari District. He classified that the water resources are divided into two they are:

- Surface water
 - Ground water
- } Resources

The surface water resources include rivers streams etc... Few are:

- Thamirabharani River: Originates in the Western Ghats and travels about 68 km.
- Thadavayaar-it originates in Western Ghats and flows for about 5 km.

He also named the 6 reservoirs they are:

- Pechipparai dam
- Perunchani dam
- Sittar 1
- Sittar 2
- Upper Kodhaiyar and Lower Kodhaiyar
- Neiyyar dam

His talk was valuable and thereafter the last talk for the session was proposed by **Nishika of Yellow team** on the topic **Disaster Management in local areas**. First she defined disaster is a problem in which many people or a group of people die.

There are two types of disasters they are:

- Natural disaster
- Manmade disaster

The disasters out of the human control are typhoons, cyclones etc...Then she listed out few precautions to avoid disasters:

- Don't destroy coral reefs almost 93 countries had destroyed coral reefs.
- Don't disturb mangrove forest because they can withstand the pressure of disasters.
- Sand dunes must be protected because they are natural protectors.
- Implement efficient processes, devices etc...
- Should be read to take public awareness risk.

Finally we had our feedback session and the feedbacks were given by :

- Livee
- Steffy
- Achsah-have clarified voice, show actions, research within the scope and don't memorize.

- Fathima-views on the talks
- Miss. Juliet Mary-this is a very good opportunity so we should research and find new things.

Thereafter Dr. Krishna raj was requested to speak out a few words. He admonished that we must add more to our talk and within the scope our research must be based on. Next Mr. John Rabikummar gave a few ideas. What he detailed was:

- The research we do is of two types they are: Basic and re-search
- We must properly collect the data
- We should be totally involved in our research
- We should prepare and present it our self.

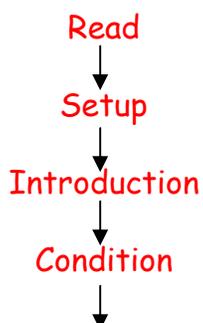
His tips were useful and were very helpful to present my talk on the next meet. Later Er. Benzigar Rajan shared a few ideas with us. He first confessed that we must see things practically and research and understand. In a talk we must include for about 5-10% globally, India and Tamil Nadu and 70% must be Kanyakumari district. He insisted that we must not mug up anything. He concluded by saying two formulas for presenting in a good manner:

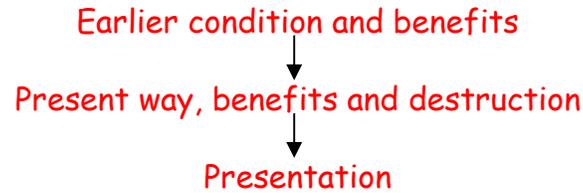
- Understand → Cherish → Present
- Efficiency + Hard work = Makes you present the best

This talk was impressing and gave me a clue how to present my talk in a better manner. Thenceforth Mr. Edwin Sam was asked to share a few words with us. He specified that the presentation must be in a way of:

- Analyzing and Presentation

We must always do a systematic way of research that is:





His flow chart was very useful in a way that it is easy to understand and made us learn an easy method of filing up information and presentation.

This meet session came to an end by 8.25 am and then our next place to observe was **the Sabare industry**. Before that we had our breakfast to boost up our self and entered the industry by 9.25 am. In the industry first as we entered we had three guides they are: **Mr. Senthil Nathan, Mr. Ganesh and Miss. Bharathi**. At first we didn't know in which part of the industry were we that time? We were all puzzled. So we got the answer from Mr. Senthil raj as he was the first one to explain things to us. First we were in the **Final production warehouse** that is the material handling section. Mr. Senthil Nathan guided us in this section. First he defined that a ware house is a storage place of materials. Then he showed a final product or output that is the fabric made. The output of the fabric is based on the designs and the styles. He classified that the fabric are of two types they are:

- **Weaving fabric**
- **Non weaving fabric**

The methods of weaving are classified into:

- Plain view
- Drill view
- Dobby
- Jacquard

Thereafter he next gave the definition for fabric that it is a cloth which is of different types. Later as we came to an end of this section we moved to the next section that is the **Raw materials section or the yarn section**. Mr.Senthil Nathan guided us in this section also. We could see different things. So as raw material is the first thing needed for the production so he named the material that is **Yarn**. Then he detailed few things about this yarn as follows:

- Yarn is of two types they are **polyester or poly cotton and cotton**.
- Yarn is measured in **kilograms**.
- The specification for this yarn is **counts**.
- The count varies from about **2-330 counts**.
- The least count the yarn is harder and thick.
- As the count increases the diameter and the width is becomes lesser.

As he finished he next detailed that the market mainly uses 40 count yarn for pants and 60/80 for shirts. When the yarn is purchased it is segregated into horizontal and vertical yarns. He exemplified that if we take a stitching machine used in the house we can see two parts that is the bobyene and the cone and this is used for weaving so the bobyene consists of the warp and the cone with the weft. This was more understandable. Later he stated that the warp is used in the bobyene because it can withstand high pressure and can give a high quality product. Then the starch is added to make it stronger and not breaking and make it suit to high pressure.

Thenceforth he defined that **weaving** is interlace of yarn for making fabric and for different designs of fabric different programming is done. The cone is in the form of cheese or cylindrical form. When the yarn is packed it is marked with numbers for easy identification. After the yarn is segregated into the two types the conical yarn (maximum 2000 cones) is fixed in the warping machine and this process is called **warping** he explained detailly. So after this warping is done the **drawing** process is done then each and every single yarn is loaded into another machine for even distribution and this process is called as **beaming** and the beam is divided into two they are:

- **Load beam**
- **Empty beam**

So as the yarn moves from one beam to another the starch is added. So the process of adding starch is named as **sizing**. Then he stated that:

- **Beam specification= $-n^5$**
- **No. of yarns= $+count$**

He admonished that according to the drawing the products are produced and the designs are given in the drawing section and the use of drawing section is to get the feel of the fabric. He also numbered that there are about 64 weaving machines in their industry and he also defined us the uses few equipments:

- **Savo frame-it is used for forming the structure of the fabric.**

Then we were shown few equipments namely the hield wire and the dropper. So the hield wire acts according to the thickness shown it makes the hole size. The dropper is to show the flaws in weaving and if the yarn has cut it stops the machine and also it is of 1 mm, 2 mm, 3 mm etc... he explained. Thereafter we came to know little information about automatic looms. **Automatically working room is called as the autoroom he illustrated.** The things he demonstrated are: in and auto room everything is in a sensing method and an equipment named as reed is used for the construction or designing of yarn and it is also used for checking and identifying the flaw in the fabric too. **In one loom it consists of about 5 beams.** He also named the two brands of weaving machine used in their industry that is: **Sulzer and Vomatex.** He mentioned that as there are specifications for yarn etc... the specification for machines are found using the size and the RPM. **RPM stands for Revolution per Minute** he abbreviated. Then he divided that:

- Vomatex is divided into two they are 360 cm and 190 cm
- Sulzer is of two types they are 360 cm and 220 cm
- Sulzer 360 cm is divided into two they are: Sulzer 7100 (small) and 7200 type (big).

He divulged that the Vomatex machine uses a rapier tape which is used to carry weft yarn to interlace with the warp and the projectile is used in Sulzer and this also works like the rapier tape and in the market now they are using the machines named as the air jet and water jet and they are used to carry the yarn. He concluded by saying that the balance cone is used to convert small cone into big and also mix cone. Thereafter we had a tea break by 10.40 am and then we were separated into teams and were sent into the **Automatic loom section.** So for our team we had Mr. Ganesh to guide us. The information that we got from him are:

- Bombay is called as the Manchester of India.

- There is an used in the automatic loom section is because when there is moisture the yarn doesn't breaks and the motor in the AC absorbs moisture from the air and sends it to the room.
- Vomatex and Sulzer are the machines used here.

In an automatic loom the advantages are:

- Increased productivity
- No wastage is there
- Good quality can e obtained
- Less manual work 1 person can operate 5 machines.

Then he also gave us some more information about the process and also demonstrated few machines.

- A reed helps in fabric consumption and joins the thread and forms the fabric.

We could also see the inspection table and this table is used for checking any damages and holes through the lightly and to do this soap oil, white petrol etc... are sprayed through a gun and the metre box also helps to find the defects. Next he stated that he folding machine is used to remove all the folding in the fabric and the roofing of this place is quoted with aluminium and this acts as a heat assistant and prevents heat. He also named few countries in which the fabrics are exported:

- International trade with USA, Europe etc...
- Domestic trade in Kolkata, Mumbai etc...

With this we came to the end of the automatic loom section and came out by 11.30 am and now as usual it was the feedback session. The feedback was given by:

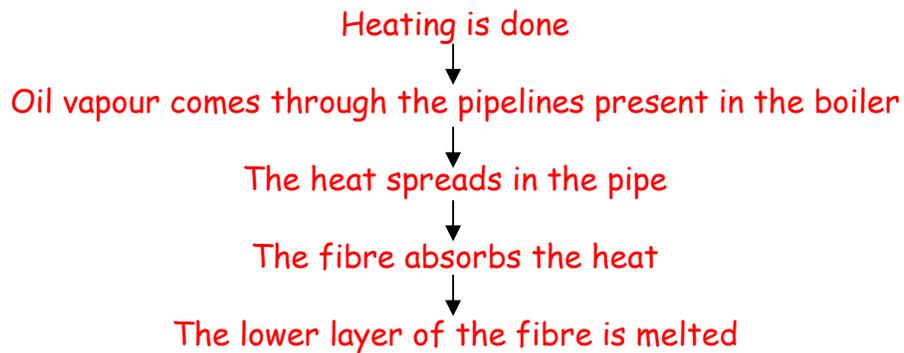
- Varsha maroon team
- Achsah green team

We left this section and went to the next section that is the **Cotton Manufacturing**. Here Mr.Senthil Nathan introduced a new faculty named Mr.Senthil Raj and he guided us for this section. He explained us that:

- The raw material used here is fibre or sponge.
- They manufacture the cotton in gloves.
- The fibre bonding is done through heating and ply wadding so this give a sheet form.
- GSM stands for Gram per Square Meter and this decided in one sq how much gram is produced.
- Buy the fibre, mix it and put it in the machine give you a final output that is the bonding sheet.
- To get the fibre we must grind the waste plastic bottles thrown out and the input in the factory is fibre.
- 1 kg of fibre costs about 110 Rs.
- Fibre doesn't burn but it melts.
- Segregating the fibre is done by 6-15 deniers.
- We have to plan the ration when we want to produce the fibre for eg: $a + b = c$ (output mixing).
- Low melt is a common fibre and this must be there at least 10-30% in the mixing.

Thenceforth he explained how to do the mixing. First we must spread the fibre and put it like a layer. This must be done manually. After spreading load in the machine and once the process is finished the mixing is completed. Later he detailed the process. First there is a machine named as **pre opener**. After the fibre is separated, manually this machine will help in separating the thick places of the fibre some more. Then the fibre will be loaded through the conveyer belt into the **mixer** and this mixer mixes the fibre one another. After the mixing is done the level of the fibre will be maintained and if the level is not maintained then the sensors will give a beep sound and the motor will fix it properly. How it does is that there the fibre will be given more pressure or heavy weight and evenly distributes everywhere .Next we saw large beams and here he explained that the **coding machine** is the next machine in the process and this helps in completely opening the fibre and there are about 28 beams in a coding machine. In this machine wires like teeth takes in the fibre. Then we could get the output that is the fibre as layer but not sheet.

Then we saw the **lapper** that is to determine the width of the fibre and the number of folds is adjusted. Thereafter we were taken to the section where we could have a glance on the oil boiler. Through the conveyor belt the fibre is loaded into the oil boiler (heats and grips the cotton) after we get the output as layer and here what happens is that:



Then we saw the winder area. Here the fibre is rolled. Later we were shown one roll present there which was about 180g. Next after the winder is done it is covered. The covers are machined and with the help of a vacuum pump the air in the cover is pumped out. The cover is Glithon cover. Soon after that process the quality inspection is done he denoted. Next we went to a section where we saw the boiler. Here he demonstrated that machine. The boiler in that industry works for 24 hours a day. There is about 3500-3800 logs loaded into the machine (approx 3.5 tonnes). Then the parts in the boiler were also listed with its uses:

- The fan-blows the air in the pipe so the fibre is heated at a temperature of about 230 degree Celsius.
- Oil tank-oil will flow through this till the oven and again flow back when the heat is absorbed.
- Compressor-absorbs the air from out and leaves it out when needed.

Soon after he concluded his words by telling that the oil in the tank can be used for more than 8 years and there are 4 pipelines which would be filled with oil at the same time. Finally he said that the temperature would be maintained at correct levels and if it is not so then the control board will identify and give a beep sound and the operator of this section is Mr.Ganapathy and stopped. Then the feedback for this session was given by **Ethazl of red team** and **Meera of blue team**. We left

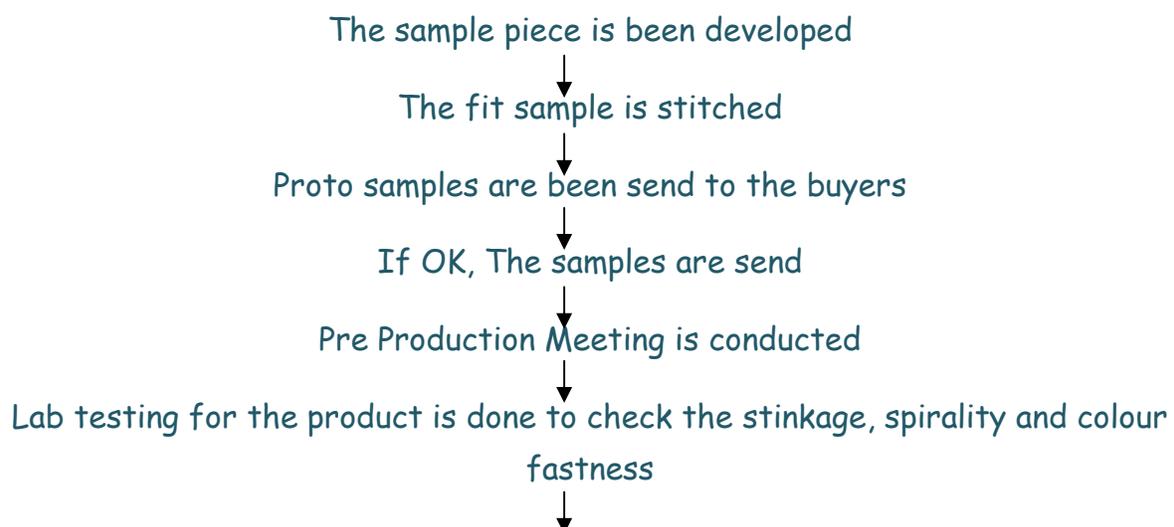
the place by 1.05pm for our lunch. We were provided with delicious lunch and again assembled back to the next session that is the **Home Tex** section. In this place we were introduced to a new person named Ms.Priya the inventory incharge of that industry and she was there to guide and explain to us. First she gave an introduction on the process and then detailed it. She claimed that the fibre after its processing is over come to the section. So the process that takes place here is:



Thenceforth she showed us a hand weaved fabric and that was made in a mat machine and also it can be only purchased in readymade. She also noted that if the checking is done only we can expect good output. Then the cutting is done using different materials and we were also shown a round arc and this is used to cut round materials she cited. USA is the country which is the main importer of goods from this industry and if any terms are not clear it is cleared through the letter of credit. The money is transferred through banks. The stitching session is fully automated and the embroidery is done before or after stitching the fabric. The process of production is according to the buyer's requirement. Before packing the fabric will be given a steam iron and the final checking will be done by the checking table. The buyers would inspect the box even after packing she denoted. There would be some approvals given for delayed works. The maximum number of orders to be given is 1000 and the input in this section is the metre and the output is the piece. With this the section got over and then we had a look at the **Newly installed division.**

This place Mrs. Priya explained that the all machines used in this section especially stitching are fully automated and another machine named lay machine was showed to us. In this machine long dressed can be cut according to the buyer's requirement. In that section they make single and double cart bed spread according to the size of the bed. She listed that one bed spread consists of 2 pillow cover,1 bed spread and 1 bed cover. Thenceforth she gave some instructions on how to uses the fire extinguisher and 1 in 6 months the fire extinguisher should be filled she noted.

Later we had a visit to the **needle detection section**. Here we had Mrs.Vanitha the quality controller and she was the one who demonstrated the process. She stated that before the product is packed it is kept under the needle detector and if any metal things are near it then the product wasn't go to the next section for the next process it would give a beep sound and give away the product back out and after this process the packing is done. Thereafter we went to the **embroidery section**. There we saw the embroidering process going on and different colored threads nearly 8-10 colours were kept for each machine. If one thread breaks then the machines will automatically stop. We saw about 8 embroidery machines in the industry. Next we went to the **garment making section**. Mr.Durai was been introduced to us and he spoke a few rods with us and the main thing he noted was Tirupur is the place which is known as the T-Shirt factory and Karur is known as Chinna Tirupur. Later Mr.Sedhuraman the quality manager guided us here. He explained the process in a short manner and the process is as follows:





He thereafter gave some more details that the 4point system is based on the inches etc...that is

1. 0-3=1 point
2. 3.1-6.1=2 point
3. 6.1-9=3 point
4. 9 above=4 point
5. 5 point means holes

Then he ended his words by pointing out that once the product is bundled the bundle would have the bundle number, size, quantity, colour and the cutter name. Therefore the feedback for this session was told by K.Fathima of green team and got over by 4.00 pm. Thus 4.15pm we had another meet in the hall of the industry. Here the dignitaries on the dais were Mr.Velaian, Er: Benzigar Rajan, Mr.Senthil Nathan and the coordinators. So here at first Er: Benzigar Rajan shared a few ideas with us. He started with a three line golden words

“□□□□□□□□□□ □□□□□□ □□□□□
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We can know everything if we start knowing first everything with our scope he pointed out. He also numbered that Tamil Nadu comprises about 30 districts. Then

he explained the importance of Karur that is it does not have sea and coastal areas and desert areas too. Then he named one river which flow through Karur is the Amaravathi River. Karur is an industrial town and earlier our Kanyakumari district had about 323% of forest but now it has drastically reduced to about 19%. Another important news to note is that Karur does not have many forests. Few other features about Karur are the raw material used to make floor mats is largely produced here sugar cane grows in a large number here and paddy and coconut is not found as it is found in Kanyakumari district he asserted. Then he named few types of studies related to that industry as follows:

- The engineering based on land, water, building and transportation-civil engineering
- Machineries and power supply-mechanical engineering
- Needed to process yarn-chemical engineering
- Fabric production-textile engineering
- Fire and exit management-safety management engineering
- Industrially hardened computer, motors etc...- electronics engineering
- Employees details, salaries etc...-accountancy
- To sell the goods-marketing

Then he gave us few other details too. Manchester was in UK and at present it is in the Milan in Italy and it is famous for fabrics. In Tamil Nadu the Manchester are Coimbatore, Tirupur and Karur. He noted that in Milan we could get costly shirts and pants. Kanchipuram is famous for pattu and silks. He concluded by saying that the Noiyyal river passes through Coimbatore and now it is polluted with wastes from Tirupur etc... This talk was very informative and I truly say that he is a book of knowledge on anything and everything.

Thereafter Dr. Edwin Gladson gave a small talk. He stated that we all did well. We should use the given ideas in the right and the proper way. We are talking globally so we must talk in the scope. We must ask for ideas and preplan everything and present it. Indeed this talk was helpful to enrich our skills and then Mr. Senthil Nathan he shared a few words. He claimed that we are all lucky students. We must continue researching and wished us all the best.

Finally in the meet we were asked questions and were called o give feedback on each and every session that day. So the students who said are:

- Varsha-Garments and quality control
- Ethazl-Cotton manufacturing
- Rujen-Home tex
- Blessy-Raw material warehouse section
- Fathima-Embroidery section
- Tino-Quality control
- Praisan-Quality control
- Lekshmi- Quality control
- Achsah- Quality control
- Krishna Kumar- Quality control
- Ashwin Niranjan- Quality control

And the meet got over by 5.30 pm in the evening and then we had an hour break and again assembled in the canteen with all our cultural programmes ready. We had our cultural programmes after our tea break and the order for the cultural programmes was:

- Yellow team
- Red team
- Blue team
- Green team
- Maroon team

Then we had some other programmes too and then we were asked to give our opinions on the programmes. To give the feedback a student from each team was called:

- Varsha
- Steffy
- Achsah
- Dharshini
- Lekshmi

Our cultural programmes got over by 8.45 pm. Then we had our dinner and we winded up the day as usual with the prayer. And went to the respective places to stay and had our sleep. After a long vigorous nap we woke up the next day by 5.00 am in the morning. As usual we followed our daily routines and got dressed up and assembled in the side of the canteen. By 6.45 am we started our meet. That is Mr.Velaian gave us few instructions and insisted us to follow them all. The first and foremost instruction that we got was that we must eat good and healthy foods. We must sleep well. The next thing is that we must not intake beverages because they have a long term affect and would affect our bones and makes the bone fragile. He also noted that we must be very punctual and wake up early in the morning. The benefit in waking up early in the morning is that we can acquire more oxygen from the atmosphere and this is the purest form of oxygen. Then he again introduced Dr.Krishna Raj and even he added few more points to what Mr.Velaian had noted. Thereafter after the meeting we had our breakfast it was mouth watering indeed. After our breakfast Steffy of red team was called to thank the people who had helped us in all the aspects and then Mr.Velaian also thanked and we left the spot by 7.45 am. Now our vision was to go to an organic farm and that was located at **Panikkampatti a village in Namakkal**. So we reached the destiny by 9.40am.As soon as we reached we didn't have anyone to explain. So we all had a visit to the whole farm. We could see lot of things within that little time. We saw lots of such as weeds, medicinal plants and their usages and their names were explained and listed out by Dr.Edwin Gladson. The plants are:

- Parthenium-this is poisonous and they are weeds and its pollen may cause asthma.
- □□□□□□-seeds are poisonous
- □□□□□□□□ □□□□□□□□-cures dandruff and it is edible
- □□□□□□ □□□□□□□□□□ - cures typhoid and is also known as (□□□□□□□□□□□□)
- □□□□ □□□□□□□□-gives black hair
- □□□□□□□□□ □□□□□-gives calcium
- □□□□□□□□□□□□-it is a blood purifier
- □□□□ □□□□□□□□□-dissolves kidney stones and they are sweet in taste
- □□□□□□□□ □□□□□-cures stone diseases etc...

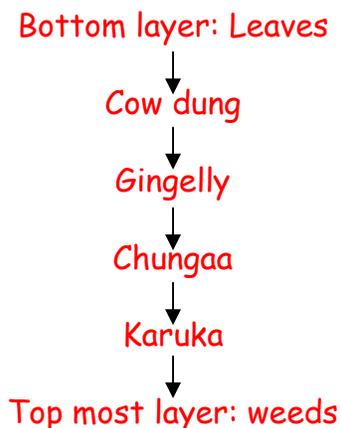
- **Amalaki**-cures tooth ache,virus fever,it is a rare species and is found in two colours white and pink
- **Shankhpushpi**-this breaks hoemotoxic poisons
- **Amalaki** **Shankhpushpi**-cures constipates and ulcer and it is rich in vitamin A and little vitamin C
- **Amalaki** **Shankhpushpi**-cures ulcer,it is and antioxygen,gives calcium, helps in hair growth
- **Amalaki**-cures diabetes
- **Goose berry**-it will prevent us from the attack of lies

Thereafter we could see other plants too such as turmeric plant, Hibiscus esculantus that is ladies finger. Then we came to know little extra information that is, a **vermicompost is the preparation of manure using earth worms and the natural manure is powerful than cowdung**.Then we saw a plant named "**Narichaaravai**" and this only used in the preparation of manure. As soon as we completed our field study Mr.Gopalakrishnan the proprietor of the farm arrived. Then we all assembled together for a short introductory meet with him. The welcome address was delivered by Varsha and then Mr.Velaian had given the introductory address. He explained us how he had got introduced and had seeked permission from Mr.Gopalakrishnan to visit the farm. Thereafter he elaborated the selection process to get a clear idea on the programme. Next Mr.Gopalakrishnan was requested to give a brief account. He started by saying that this organic farming is his family occupation and thenceforth explained everything in a practical manner. First e questioned us that 1 pair of rat in one year breeds how many more rats? We all said 50,000 etc... but the actual answer was 7 lakh/year. We were all shocked hearing the answer and he explained the mystery that is for about 28 days it breeds 8-12 rats. Then he claimed that

- 1 day: Owl eats about 4-6 rats
- 1 day: Snake eats about 8-12 rats
- 1 day: Anaconda eats about 15 rats
- 1 day: Chaarapaampu eats about 6 rats

From this he made us understand that we should not disturb the animals and so they also will not disturb us. Soon after he demonstrated us an earthworm that he

killed at that moment in our presence just using iodized salt. Through this he asserted that even when we put one pinch of table salt to the earthworms it dies then when we put so much chemical fertilizers such as urea etc...into the soil think of the problems and how much would die. He mentioned that we must not use so much pesticides and herbicides in the soil. He also listed that organic fertilizer comprises vermicompost, panchakavium, amirthakariser, lemon and egg solution and fish solution. sea mosses is the other source that can be used in organic farming like earthworms he stated. With this he ended his talk and he was honoured with a book by Dr. Krishna raj. Later we had our field study with him. First we went to the spot where we could see natural manures (vermicompost) being made and here he claimed that when making vermicompost it can have any vegetable wastes etc...but it should not consist of plastic, chemicals, stones and glass pieces. The earthworms will even eat hair and there are all sorts of waste materials used in the form he denoted. Then he structured the layer of how to make the natural manure.



From this structure he detailed that the upper layer will be dry and inside moisturized. Every day we must sprinkle water and continue it for about 45 days and in about 60 days the manure will be partially decomposed. The manure turns black and it must be stored in a cool shady place he insisted. Then we entered into a shed, in this place the decomposed manure was put on the floor. The decomposed material will be put over the coconut shells arranged or spread on the floor for about three feet width and 15 feet height. Then for two days we must sprinkle water over it and it must be cooled, thus finally leave the earthworm over the decomposed material. There after he admonished that there are about 3,000

variety of earthworm in the world and 566 varieties in India. They are categorized into:

- Topmost layer
 - Middle layer
 - Bottom layer
- } Earthworms

The top most layer earthworm goes in 6-9 feet depth into the soil, then the middle layer earthworm goes for about 3-3.5 feet depth and the bottom layer earthworm goes for about 15 feet depth into the soil. He stated that the top layer earth worm is used for, making vermicompost and the two best varieties are the Eudrilus and the Eugenieieae. With this he denoted that these two are the best varieties and they are the African varieties. Eudrilus take in about 5 gram of vermin compost and breeds more number and adapts to cold climates. An earthworm eats waste through mouth and excretes in the form of "Nangul Kurnai Mangu" and in moisture situation it is best and active he pointed out. Thereafter we left the shed and came out here he showed us real earthworms and Lekshmi of yellow team had taken the earthworms in her hands. At this moment he asserted that he had first got 25 earthworms from Mr. L.S Rangaraja in 1992 in Annamalai University. He also rated that:

- 1kg of earthworm=400 rupees
- 1000kg=400000
- 10tonne=4000000

He also mentioned that these earthworms are being exported to Malaysia and Australia. Then he explained few features:

- The egg of the worm: small and white
- □□□□□□ □□□□ – it does not glow and the head alone glows green.
- Eudrilus- full body glows in violet colour
- Lambito Mortue-head glows in green, light brown egg and worms cannot be identified
- Earthworm-invertebrate

Later he clarified all our doubts and Anisha of maroon team asked a question that can we grow earthworms near plants? Yes we can grow using four tank system but we can grow near sugarcane etc...Then we all assembled back to one place and here he explained the steps in making few things as follows:

□□□□□□□□□□□□:

- Cow dung-approx 20kg
- Cow urine-10 litre
- Water-180 litre
- Jaggery-1/2 kg

Mix all these things in a 250 litre barrel and stir it 50 times clockwise three time's day and store it in a shady place. After 24 hours add about 1 fist full of soil into the solution. Next day morning pour this liquid in the flowing water for irrigation and within 24 hours the crops turns green colour and use the solution within 3 days.

Fish mixed solution:

- Waste fish-1 kg
- Jaggery-1 kg
- Water-100 litres

Make the fishes into pieces. Put it into a plastic container. Add jaggery. Stir it like curd. Cover it with a jute junny. Don't go near for 3-4 days. Then pour this into flowing water one evening. This solution will control pests and can be used in all the plants.

Lemon egg solution:

- Lemons-20-25
- Hen eggs-10
- 5 litre container
- Jaggery and water stirred $\frac{1}{4}$ kg.

Squeeze the lemon. Add $\frac{1}{4}$ kg of jaggery solution mix and keep the eggs without breaking in the containers.10 days don't go near. After 10 days the shell dissolves. The egg turns to be like a boiled one. Add jaggery the 10th day. Then tie it again

very tightly. Solution the 20th you can spray it to the pants and the lemon contains citric acid and egg shell calcium. Thus the plant grows well.

Then he detailed about **Azuni** an insect. This takes the nectar from the leaf and then leaves something like honey in the leaf. To eat this ants come and so when they eat it thinking nectar they cause diseases to the plant such as Churutu noi. So to prevent the plant from the Azuni we must neem leaf or seed otherwise the garlic must be smashed and grinded and then added with 10% of water must be sprayed to the plant. From this what we can achieve is that the neem is bitter, and due to the bitterness the Azuni cannot eat he nectar and causes vomiting. At that moment he also told about the Malaysian articles about him too. So he concluded his words by saying that he has met Dr.APJ Abdul Kalam, had travelled to Malaysia for about 30 times and Nammaalvaar has visited the farm and so we the young generation can also select Horticulture and organic farming as your profession and really it is a good work. For this session the feedback was given by **Achsah of green team**. His talk was really amazing, informative and no more words to express because he made me understand more new things ad this was the first time I had visited a farm and learnt something really new to me.

Thereafter Mr.Velaian introduced Dr.Ramesh from the Kuzhithalai IMA and he is the president of the Kuzhithalai IMA. He wished us all the best and encouraged us to innovate and create and research something new and new day by day. He winded up by saying that how much we can do for organic farming we must try doing.

Soon after his talk we had our lunch break. We were been provided with mouth watering food and it was delicious too. The lunch break got over by 2.00pm and again we gathered over the same place for a short meet with Dr.Ramesh the President of IMA. Steffy was anchoring the session and she also revealed the activities of KAP. Thereafter Dr.Ramesh addressed the gathering.

He appreciated our efforts in going there and researching new things. He encouraged us to continue our works and have a bright future. He ended up by saying that India would shine with students and people like us. Thereafter the vote of thanks was proposed by **Steffy** of red team from the student's side and By Mr.Velaian from the authorities and we started our journey to another place that

is the sericulture farm in Panikkampatti. In our journey we could see lots of green lands, paddy fields and so on. We reached the **sericulture farm** by 2.30pm. In this farm too we had Mr. Gopalakrishnan and he introduced the guide for the session Mr. Ramaswamy. He also gave a few details about him saying that Mr. Ramaswamy learnt to be a lawyer and had been too but all of a sudden he changed his aim towards organic farming according to his family conditions. Now he is responsible for the maintenance of about 95 acres of land. Then Mr. Ramaswamy was given the turn to share a few pieces of information about his sericulture. He stated that silkworms produce silk and these silks are not only used in sarees but also in tires etc... As India is the number one in all industrial aspects from our country this Sericulture industry that has overtaken China. Thereafter we walked into the place where we could see silkworms producing silk and here he noted that the silkworms can only do the production if the place is silent. Foggers and sprinklers are used to maintain the temperature level and these sprinklers may be about 2-5 litres of capacity and the foggers about 22-28 degrees Celsius. Then he revealed the importance of our Kanyakumari district that we must be proud of. Our district is the only place where there is a balanced sunrise and sunset. We had a lot of different varieties of crops that anyone else doesn't have. But now we have destroyed all those varieties so **we don't have to be frightened of other terrorist whereas we have our own terrorist**. He pointed out that they have a variety of crop named Mappillai chamba. **Navarai and Mappillai chamba** are the crops that have a high diabetic value thus curb it. Through this he clarified that diabetes is not due to heredity it is because of our intake of food. He also insisted us to take a few good foods especially Spinach the only food rich in vitamin C and we must avoid meat because our body's mechanism would be disturbed. Vitamin C taken in the form of tablets would not be stored in the body he claimed. We must support farmers and can have home gardens he requested. A few other food crops that we can consume are **Thimai, Saamai and Viragu** and the crop named Viragu can live for about 75 years and will not die and even water is not needed but all these resources had been destroyed by us the humans he blamed. He gave some other tips too.

- Never consume brinjal because 3 days after pesticides are added to it.

- Be aware of BT brinjal because these are genetically modified brinjal and they are grown with the genes taken from crocodiles and frogs and also we must add medicines to them 3 days once or else it will destroy.
- We must not buy China products because they are highly harmful especially toys etc...

He again gave few ideas about silkworms. In a 2 acre land about 200 eggs of silk worms can be kept. From 1 egg about 500 silkworms can be taken and it grows 10000 times faster. He noted that 1 kg silkworm is about 540 rupees. He also said that 200 eggs produce about 85% of yield and we can earn about 87500 rupees from it. Sericulture has increased in Tamilnadu and doing fast approach too he stated. In Tamilnadu the silkworms are given by the government and in Andhra etc... they are private. He also divulged that one cocoon is about 1-3km in length and it is based on the quality. He concluded his words by saying that **Silkworms were first identified in China and at that they were grown for about 7 days in a centre in China and then given to the consumers.** So that time 100 egg=1000 rupees he mentioned. For this session the feedback was given by Varsha of maroon team .This session was very informative and made me beware of lot of things especially the diet intake. We departed from here by 3.15 and left the place by waving hands to our guide and Mr.Gopalakrishnan.

Then our final goal for the day is to reach Namakkal IMA for a conference with the doctors. On the way to IMA we had a glance at the Kaveri River. The journey was totally awesome on the way we could see cycle races etc...And finally we reached **Nala Hotel** by 4.45pm the venue for the conference. And we entered into the conference hall by 4.57pm.As we entered I was amazed with the arrangements made for us and we were all seated in the placed in an AC Hall. So as I sat I could see the motto of IMA that is **"Serving for the health of people with Safety, Dignity and Humanity"**. This one was really interesting and impressive too. So the meeting started by 5.30pm and the guests on the dais include:

- Mr.Mullanchery.M.Velaian-organizer of KAP
- Dr. Malliga Kulandivel-President Indian Medical Association, Namakkal Branch
- Dr.Umamaheshwari-Secretary, Indian Medical Association, Namakkal
- Dr.Hemalatha-Finance Secretary Indian Medical Association, Namakkal

- Dr. Krishna raj-Doctor ISRO
- Mr. John Rabikumar- coordinator maroon team
- Dr.Edwin Gladson-coordinator green team

The matsr of ceremony for the session were Livee and Meera. So as we start the meets with the prayer the IMA Prayer was read out by Dr.Hemalatha. Thereafter the Welcome address was proposed by Dr.Umamaheshwari. She welcomed one and all gathered there and asserted that **"It is time to know the concern, if we don't concern about industrial and ecological conditions"**. She concluded by saying that children will be the opening eyes for the elders and surely will make a change. Thenceforth the introductory address was delivered by Mr.Velaian as usual. He began by saying that the IMA has done everything for us and wherever we go we are getting good hospitality. His praise was fully to Dr.Vijayakumar the head of IMA and he also remembered about the last years Satyamangalam trip. He also noted that this voluntary organization doesn't have any legal registration and fully praised IMA for their interest too. Then he gave us few details about forest saying that earlier our forest was for about 33% but now it has transformed to 19%. He introduced all the guides and coordinators and said that this year we are going to research everything based o nature and are going to reveal a book in a university. He winded his words by saying that this organization can be run only be people who have self-interest and are ready to spent their own money and time and at that moment we had three women rubies with us for this we must thank God and we all really lucky he emphasized and thanked everyone.

Soon after that Varsha of maroon team gave a talk on the activities of KAP. She stated that this is a nongovernmental organization that is rendering services on science and technology. Thereafter she listed the topics of the previous year as follows: The organization got advanced on 2003 and the topics:

- 2008-climatic changes
- 2009-planet earth
- 2010-water resources
- 2011-Energy and Environmental challenges
- 2012-Food and agricultural challenges
- 2013-Nurture Nature

Thus she explained the selection process and made us all remember our memories again. Later Steffy of red team was called to give away her talk on the topic Industrial and ecological conditions that she had already given in the Rotary Community hall. Thus her talk was very informative and was also easy to understand as she had already delivered the talk in the inaugural session of the camp. Then **Achsah** of green team was called to deliver her talk on the topic **"Love forests"**. She began with the quoting that **"Forest is the cradle of Human Civilization"**. The forest fed us with food, shelter and taught man hunting. Thus forest is a complex ecosystem. The forest not only included large animals it also consist of small microbes too. The trees absorb carbon dioxide and give out oxygen for us to breath but we destroy it but to note is that **"Forests are the lungs of earth"**. There are lots of trees in the forest and in that about 1500 species provide timbers etc...Bamboo tree is a good fodder and oil can be produced from Sandalwood and Eucalyptus trees she named. Another important thing she pointed out was about 1.6 billion people depend for living habitats upon forests. This forest acts as an air pollution filter and creates a special environment. She also numbered that India top ten forests covers about 69.73 hectares of forest which equals about 21% of forest. She named few animals such as Asiatic lion, Asiatic elephant etc...Tamil Nadu has about 17.96% of forest and the forest in Kanyakumari district are verdant and virgin and they are 75 million years old she stated. Thereafter she listed the threats to forest.

- Deforestation causes the declination of forest
- The rubber monopoly has transformed forest into rubber plantations

So if we destroy forest like this then within 100 year we won't have any forest in our universe at all she alerted. The drawback that we get from cutting forest is that we get little amount of rainfall and thus our land would get converted into drought. Therefore about 20-50% of the world's forest declines, so for this we must give strict awareness and she ended her words by saying that **"Love forest and strive for forests"**. Her talk was really valuable and gave me lots of ideas about the destruction of forest. My loud applause to her. Later Dawnlyn of blue team was requested to share his ideas on the topic **Reservoirs and water resources**. This was the same talk that he had proposed in the rotary community

hall and it was very useful and had all statistics in a correct way. Soon after his talk Mr. John Rabikumar delivered a talk on the heading "**Soil Erosion**". He thanked the IMA on behalf of the gathering once again. He praised that it is good to hear from the students the details of nature based topics. Then he reminded us about the sections that we had visited in the Sabare industry. Through that he stated that Industry is must for a nation. He also defined that Industry is the source of supply to the growing population. We don't have rights to destroy our Earth and live in that. He also mentioned that in 1970 India was in a need of food and it was the time of starvation and to help us from that he green revolution provided us with food but we are degrading it in all the means. Earlier Kanyakumari district had about 55000 hectares of land for agriculture and now due to the destructions caused by us it has reduced to 17.5000 hectares in the present statistics of 2013 and 2014. He also alarmed that now if we use the industries for all aspects we may have to pay for the rapid use of industrialization. He also remarked that he water bodies are encroached especially by engineering colleges etc... and this is because man needs money for anything and everything. He confessed that the medicinal plants and the traditional plants are all destroyed. We are destroying the soil fertility and are making unclean water. The water which was available once is ultimately lost now and the net result of this is almost 50% of the people lose their jobs he claimed. Nowadays most of the people forget agriculture and now Kanyakumari district produces more engineers that farmers. Agriculture is gradually drifting away from our minds and made us remember about it. Another worst thing is that he fertile lands are converted into traditional cash crops such as rubber etc... He wrapped up his words by saying that we must realize the condition or else it would be too late if don't take any act now on and so we the 57 young scientist will research and make project and try reducing this. His talk was really motivating in researching and encouraged me to research and to collect more information.

Thenceforth Ethazl Sherin of red team was asked to deliver her talk on the topic Air we breathe. The points that she noted was:

- Air is a mixture of gas.
- The air is composed of 78% of nitrogen, 21% of oxygen and argon for 1%.

- Kanyakumari district has about 200 industries.
- These industries produce toxic gases such as carbon monoxide and this gas stops blood circulation.
- The industries also produce carbon dioxide which causes global warming.
- Another alternative source to reduce pollution is Electrostatic preceptors.

Her talk short but an edifying talk. It made me understand the importance of keeping the air clean. Later a talk was delivered by Dr.Edwin Gladson on the title Present condition of Kanyakumari forest. He first greeted us and then mentioned that he had visited forest to take census of its conditions etc...He stated that Kanyakumari district is a model ecosystem and there are so many rare species found here. Few are Poovan Kurunthai and this species cures asthma etc...He also listed out few endangered species:

- Indian giant squirrel
- Indian leap squirrel
- Indian horn bill-destroyed due to hunting and poaching
- Elephants
- Emerald pigeon
- Toads

He also alerted that before there were very little bicens and now near Muthukuzhivayal we can see about heard of bicens and 1 herd consist of about 17 bicens. So he concluded by saying that the situation of our district and the resources are becoming worse and worst day by day and so we 57 students must create awareness to the public and this is a rare and a golden opportunity for us to know about these things and so we must use it in a proper manner. His talk was exemplary and I truly accept that he is a dictionary of forest.

Next Dr.Hemalatha was requested to felicitate the gathering. She at first quoted that "**Service to humanity is Service to life and Charity Begins at home**". Then she praised our fluency in English and then mentioned that they are proud of us and it is a special day for IMA. She also reminded that our concern is about the mother earth. She also asserted that the thinking has become different from earlier. So as there are many industries creating pollutions the government must

provide nemes to prevent water bodies etc...she confessed. Pollution starts from our own thoughts and so the change begins from our self. She also mentioned that anything we learn we must treat it properly. So with she said a nonfiction that once upon a time in their hospital the hospital wastes were drained then after knowing the adverse effect they started to properly dispose it. She also gave some tips that:

- Don't use more plastics
- Implement pollution reducing equipments in your home
- Reduce the usage of private vehicles

She ended by saying that we can change one by one and change begins from our self. After that Dr. Malliga Kulandeivel was requested to give the presidential address. She first praised that she proud of KAP. This is an organization that is functioning in a different manner. India will become a rich nation with all our thoughts to be implied. She also stated that the **development in science is the development of a nation**. So she said us to follow the prevention method according to the proverb **Prevention is better than cure**. She praised Dr.Vijayakumar for introducing young scientist to the IMA and noted that IMA is for the welfare of the public and the society. She also pointed out that Kanyakumari district stands first in education. She concluded her words by saying that Namakkal is only the zero garbage place and to make our place better we must be involved in the activities related to it and try implementing it practically. And she wished us all the best.

For this whole session Achsah the leader of green team gave the feedback. After the feedback Dr. Kulandeivel was requested to felicitate the gathering. He first said us that now the children are growing and their education is also growing. Then he stated that we should not commit mistakes because we can correct the mistakes but the scar cannot be healed. He also narrated a fiction for this saying:

- ◆ There was a boy and his father. The boy was very naughty and doesn't obey anyone. So one day the father called him and said that the number of mistakes you commit I will hammer nails on the door. The boy accepted it. But after few days he thought why we can't change and changed his

character and became a good boy. Then he met his father and asked I have changed myself then why can't we remove the nails from the door. The father said him o remove everything and he did it so. After he removed he asked his das that dad I had removed all the nails but the holes are still there. So the father taught him a lesson that correcting your mistake is easy but to dissolve the scar and pain that you had given others is impossible.

So this story made us understand better. Then he said that the developing nations have more resources. Being a social scientist we must think out of box. He claimed that we must build the infrastructure of public transport. We must understand and decide our future he asserted. Then he made us understand the importance of our mother tongue Tamil and stated that about 1/3% must only be in English rest all in Tamil we must be able to talk in Tamil very well. Then he said us a nonfiction:

- ◆ One day Gandhiji had gone to Rajaji's house. At that time he had noticed that Rajaji and his son were having a conversation in English. So Gandhiji went back and wrote a letter to Rajaji saying that "Rajaji we are all Indians so why to talk English we can talk in our mother tongue, this is really beautiful than anything" he wrote. From this letter Rajaji understood the importance of mother tongue and realized his mistake.

So through this he made us understand the importance of mother tongue. He ended up his words by saying that Think about India and wished us all the best with a quoting that "**Education is not preparation for life, Education is life itself**". Later we had Dr.Ravichandran and IMA member to felicitate the gathering.

He at first started with the greetings and stated that this is a new event held in IMA. Future India lies in our hands and we must practically try implementing the sources which we had discussed he confessed. Last but not least we must think how to implement this privately too and wished us all the best. After this talk Dr. Chandra Ponnuswamy was requested to felicitate the gathering. She appreciated us for being a part of this programme. She praised that this is a wonderful programme and she is astonished with the fluency of our English. But still we must

not forget out Tamil as even the Thirukkural is written in Tamil. She concluded her words by wishing us all the best and saying:

“□□□ □□□ □□□□ □□□□

KAP- □□□□ □□□ □□□ □□□□ □□□□”

Thus they were continuously talking about Tamil Steffy took up the challenge and gave short feedback in Tamil. Thus as we came to the end of the programme the vote of Thanks was delivered by Mr. Johnson. He thanked all the dignitaries in the dais and everyone else present their whole heartedly and his special thanks was to IMA. Then we had our dinner with the IMA Members the food was awesome and delicious and we departed from Nala Hotel by 8.00am with heartfelt of thanks to the IMA with all their addresses. We had our journey back to home and reached the Thasaiyah Marriage hall where we started our journey to the trip by 5.00am in the morning and waved hand to our friends and came back home happily.

So for this my heartfelt thanks goes to Mr.Velaian the organizer of KAP who had arranged such a wonderful study tour by taking initiate effort. This was my first trip to Karur, an industry, organic farming and sericulture especially the conference everything was a new experience for me in my life for the first time. Then I express my gratitude to the IMA members and doctors for such a marvelous hospitality. Then I am grateful to Dr.Suyambu for giving us a chance to visit an industry with all the facilities required. Then my boundless thanks to the Rotary Community hall and the members for arranging all he facilities needed for our inaugural session. Thereafter I thank Mr.Gopalakrishnan and Mr.Ramaswamy to mould our brain with lots of information about organic farming and sericulture. Last but not the least I thank the coordinators and guides because without then anything is impossible. My final thanks goes to the parents who had taken initiate effort in bringing the students to the places wherever necessary, thank you all once again!

“The only source of knowledge is experience”-ALBERT EINSTEIN

My boundless thanks to KAP!

THANKYOU!

2.Ethazi Sherin Joseph,

Red team.

"Learn from yesterday, live for today and hope for tomorrow"

With a wonderful and enthusiastic mind I got ready for the industrial visit to Karur. My mother dropped me in Thasaiya mandapam. I was happy but at the same time sad because I was going to miss my family and friends. But still I was glad that I am going to learn something new from this trip. We sharply started at 4.30 pm from Marthandam and reached in Nagercoil at 5.20 pm in rotary community hall. The compare of the programme was Varsha. The programme was started by a prayer of the rotary officials. The welcome address was given by Rotarian. Mr. Vishnu Ram. He talked in Tamil. He first of all praised KAP for doing this wonderful job. He said that we must keep the environment clean and neat. He winded up by saying some of these words. Next he welcomed every dignitary who was in the dais. Then Varsha of maroon team was asked to speak out the process of KAP. She explained our KAP process so fluently that, by



seeing it the guests were so surprised. The introductory address was given by Velaian sir who is the organizer of KAP. He said that we have got a good chance of meeting here. He also introduced about industrial and ecological conditions for

young scientists 2013-2014. He described about three groups of Rotary club, that is Aasramam, Nagercoil town and Yarn city Nagercoil. The President of Rotary club of Aasramam is Mr. Edwin Jose; the president of Rotary Club of Nagercoil town is Mr. Vishnu Ram; assistant governor Mrs. Jessinta; the secretary Mr. Chidambaram. He outlined about the KAP process from June to May. He thanked everyone and winded up. Mr. Rajan gave the presidential address. He said that he was so proud to see us. He added that we all will become the best scientist. Then steffy was called out to speak on the topic Industrial and Ecological conditions. She said that the first country to industrialize was United Kingdom. Deforestation is done for production. Smokes released leads to global warming. Dust affects the human. Air pollution and water pollution are caused by industrialization. Then she concluded it. Next Rugen talked on lifestyle of coastal people. He said that 1 by 4 of the earth is land and the rest is water. The coastal work of people is fishing. Daily at least 70 people die by doing fishing. For fishermen, fishing is the only occupation by which they survive. One of the dangerous jobs is fishing. Diseases caused to the coastal region people are malaria and cancer. Then Achsha was called out to give a feedback on the coastal study tour. Then Jeshvini talked on pollution in Palayar River. She said that the casement area is 397 sq/km of Palayar. This river is dumped full of garbage and sewage. Major problem of Palayar is pollution- sewage water. Waste water enters palayar from buildings and flats. Diseases like cholera and malaria are caused by this pollution. Even in this condition the people take a bath in Palayar River. We must stop this problem. Sewage must never enter palayar. The people must help and co-operate for the improvement of Palayar River. By this she winded up. Next Anisha talked on estuaries. An estuary means the place where two rivers join together. Here more

fishes are found. There are so many small rivers in KK district. She also briefed on estuaries. Next Anlin Tino talked on conversation of paddy fields into housing lands. Then Meera talked on " Namalvar's Efforts" in organic farming. He was born in 1938. In 1963 he worked in Kovilpatti. This was his first experience in farming. He then worked in industries. He brought more efforts in organic farming. He was very much inspired in ecological farming. In 31st December 2013 he was rested in peace. Then Joshika talked on animal's welfare. She said that organisms die because of people population. Animals are destroyed only because of us. Deers are destroyed as we take their horns for our benefits. For our benefits we destroy the animals (organisms). Then she ended up. Next the felicitation was given by Mrs. Jessinta. She started that we the young and energetic and the enthusiastic young scientist will surely become popular and well known in all the fields. She appreciated us a lot. Then Lexhmi was asked to speak on conservation of coastal environment. She stated that mangroo wet lands grows in marshy areas. The coastal and environmental population was also briefed by her. Then she said about the multiple uses given by the palvela trees. These grow up to 30 meter in height. This variety is found in India. In Tamil Nadu more trees are found. Then Ashwin talked on conservation of energy. He said that all life depends on soil. The outermost part of the earth is soil. Plants are grown in top soil. It takes hundreds of years to form. A nation which destroys soil destroys itself. Proper management must be done to soil. We increase the maximum soil erosion. Encouraging planting more plants. Next James Wilson sir gave a small talk. He said that population is destroying the forests. Please make use of this opportunity. Then I was called to the stage to give a talk on " Let us all breathe air". The session was ended up by Velaian sir. Then Blessy said the vote of thanks. Then we had our

supper done. We freshed up and boarded the bus. We set to sabari international, karoor at sharply 7.30 pm. We reached there at 3.30 am. Then we went to our respective room with our luggages and had a short sleep till 6.30 am. We woke up and had our breakfast at 8.10 am and then we gathered in a place for the meeting at 8.15 am. First vibisha talked on kumari wild life. Forest is the heritage of nation. Then she briefed on forests. Next Krishna Veni talked on kitchen garden. She said that it is a garden in our house itself. We have to save our incomes. Next Scotlin talked on wetland also known as sadhupu nilam. Scientist has said that these lands are being destroyed. Then Blessy talked on the topic forest. Then Varsha talked on secret mangroves. She said that they are rich in bio diversity. This is the worship place of plants. It provides lively hood to the community. Manimutharu dam was constructed by Kamarajar. Agusteeswaram in kanyakumari has secret groves at present. Then Shanu talked on AVM channel. She added that water is important for our life. The abbreviation of AVM is Anandha Victoria Marthandavarma. It is now used for bathing, washing, etc. the pollution is increased. The population is too now increased. Next Jayavarshini talked on endangered birds. She said that many birds are being destroyed and so on. Then Varsha of red team talked on tourist place. Then Bowshica was asked to speak on minerals. Then Dharshini spoke on water. Next Donglin Lal talked on water resources. Then Amirtha Vishalini talked on agriculture. At last suggestions were given by Juliet mam, Fathima, Achsha, john Rabikumar sir. Next we had a field visit at about 9.35pm. We went to see the production of weaving. We were guided by Mr. Senthil Nathan. We entered the department of various- material storage location where all the materials are stored. He explained the types of fabric: stripes, plain, dots, designed. Fabric is a cloth. They produce full cotton or fabric mixed cotton. Yarn is a

raw material. Every material is exported. Yarn is measured in Kg. Yarn has the count of 2 to 3000. The bed sheet has only 2 counts. It is used in market. Yarn is divided into two types: horizontal fabric and vertical fabric. Barbin + wool = Weaving. They are of two types: warp and weft. Warp, the quality will be high. Warp is low intension. Starch is added to make the yarn thicker. Interlace of yarn to make fabric is called weaving. It is in corn form as well as cylindrical base. Cheese is a yarn holding material. Warping is the process of starch pasting. Warp is segregated and then warped. We saw the beam. Empty beam and load beam. Beam and weft is the input. Here 2000 corns can be loaded. Sizing is the process of adding starch to the warp yarn to strengthen the warp yarn. Beam's specification is yens and counts. Yens mean number of yarns. After the drawing process it is send to production. Every production is machine oriented. Heald wire is used to frame the drawing. We went to the drawing section. All looms are automatic. Thicknesses of looms are: 1mm, 2mm and 3mm. length: 145 mm and 146 mm. there are 64 weaving looms. The machines are of two companies. Leonada vamatex and sulzer. There are 4 identifications to stop the beam: waft and warp wool failure, current cut and mechanical problems. Then we saw the folding process. Minimum one month they get 6 lakh profits. The specifications are: warp count* weft count, PPI- picks per inch, EPI- ends per inch, EPI*PPI. The format of fabric: warp count*weft count: EPI*PPI: width and view. The feedback was given by achsha and steffy. Then we marched towards the cotton manufacturing factory. Here our guide was Mr. Senthil raj. He briefed that the basic thing that is used is fabric. The output of this line is cotton. Polyvading is the name of the cotton. GSM means gram per square meter. Minimum used is 60 gram to 6000 gram. 60 gram fiber will be like paper and 6000 gram will be thicker. Always the mixing process differs according

to the thickness. First the fiber is purchased then mixed the it form layers then heat it as well as cool it, then bond it and the cloth is ready. Raw material is fiber. Polyester fiber means plastic. According to the GSM, the ratio changes. They buy it from reliance. Fiber A+ fiber B= product. The fiber melts due to the heat. Specification is Denel. The melted fiber becomes sheets and comes out of the machine. The layers are then kept in the pre-opener which will make it some more thin. Then the layers are arranged in the form of ABABAB and then loaded into the mixer. The layers in the mixers will maintain the level. The fiber will start going through in an even form and the weight has to be applied. Cooling machine opens the fiber evenly and the two beams that are big rotate and send the fiber to one after other. The machines name is cording machine. There are 28 beams and 29 rolls. Here the layers start bonding with each other. Next we went to the Gross laper machine section. Here he explained that here they give the GSN. The gram needed is set here. 120 inches is the machines width. Woven: there heating process occurs here. The oil boiler begins to heat the fiber. The oil travels from boiler to woven. The heat vapor is absorbed by the fiber. The melting process is also occurred here. The layer is winded up and then collected. Covers are purchased to cover the final cotton. Through vacuum the air is sucked and then rolled and packed in white covers. There will be quality inspection. Then we went to see the boiler. The boiler runs 24 hours a day. 3500 kg of woods are needed for burning, per day. The motor will blow the heat. The fan will blow the heat to the fiber. The oil will be changed every 6 to 7 years gap. The feedback was given by me and we thanked the sir. Then we arrived at canteen and had our lunch at 2.00 pm. Then we went to the last process of cotton that is package. Here Miss. priya was our guide. The fabric is first checked. Then they cut the pieces of cotton, stitch

it and then start packing it. Carpet is bought and extra designs are made to it and traded. The stock is always exported. Only when orders are placed they start the work. Their exports are to UK and china. They ask approval if they are delayed in production. Designing is also done here and embroidery work too. As soon as they orders they make notices and paste it everywhere. Money transfer is through banks. Major damages are sent for cutting and then repaired. It is then packed and covered. Before this the cloth is ironed. Maximum orders are more than 1000 pieces. In the packing boxes the prices will be labeled. For inspection often people come. Here there is no dying process. 2 pillow cover, 1 bed sheet, 1 bed cover is packed in one set. The feedback was given by Anisha. If any metal passes through the needle detection machine then it will come back. Only after the calibration the packing process happens. The embroidery machine is also automatic. Then sethuram sir explained on the orders got by them. First the photo is only received by them. According to the photo we make the sample of the cloth. Before production the sample is confirmed. Before production lab test, that is whether the cloth color is going when washing or not is done. Then fabric inspection is done. Then cutting the cloth. After all checking the stock is bundled up. They then load it up. The vascar label that is the care information is put. The input is zig zag and the output is trimming, checking, ironing, packing and pre-final. Then we went to an auditorium for a common meeting. Benzigar Rajan sir explained on this industrial visit. He told us to understand and learn. In Tamil nadu there are 30 districts. 4 taluks are there in Karur. It is a small district boarded by dindukal, Namakkal. Paalai and neythal is not found in karoor. Amaravathy is the main river flowing in this district. Industrial firm is karoor. In karoor, forest area is less. We need more machinery for a factory. We need power for

that. They get power from EBI. We need chemicals to process yarns. We need more knowledge on textiles. We need programmable logical computers. We need an administrator. We need an account division. We need storage place. There must be a purchase department and marketing department. Then he winded up. Then Edwin Gladson sir said that we must think out of the box. Take a simple topic and talk on that, Research about that scientifically. Use your opportunity. Everyone is scientist. Please use our help. We will support you in any means. For this session the feedback was given by Ethazl, Stefy, Varsha and blessy. Then we went back to hostel got dressed up and reached the canteen for conducting the cultural meeting. We had drama and then we had some cracking jokes session. After that we had our dinner and went back to hostel and slept at 9.00 pm. After a long and peaceful sleep we got up at 5.00 am and took a bath, got dressed and reached the place for a common meeting. Here we discussed on our reports and feedbacks. Had some general knowledge and set to the canteen for having our breakfast at 7.00 am. After breakfast we got into the bus to go to panikampetti. We reached there by 9.40 am. We had a field visit. Edwin Gladson sir said that naturally they produce organic fertilizers. Earthworm is used for making organic fertilizers. Turmeric plants, ladies finger, hibiscus esculents are the plants that we saw. Vermy composed is made with the help of earthworm. Turmeric is underground stem. Poonai vananki is good for cold and cough. Poovan kurunthal is a good medicinal plant. Then he said some medicinal plants name. As soon as we finished our field visit the owner of the farm returned from his work. We gathered around him and sat to hear an informative speech. Varsha compared the programme. Velaian sir briefed our KAP process. Then Gopalakrishnan sir who is the owner of the farm said that agriculture is our generation doing job.1 pair of rats

gives more than 7 lakh of rats within 1 year. One day an owl eats 4 to 5 rats. A snake eats 8 to 12 rats per day. Earthworm dies in salt. Urea means salt. Tonnes of fertilizer poured in soil will kill more than thousands of organisms. Earthworm is a organic fertilizer. Amirthakalaisal is a lemon egg solution composed of fish and pinnaku which is used to make the soil more mineral enriched. Earthworm to be grown: plastic, chemical and glass will not be eaten by earthworms. It will eat hair. Every organic waste can be used to make the manure. The leaves are spread. Cow dung is layered. Other organic waste are put and mixed with water. The manure becomes hot and then mix it. So after some days the manure is formed and also the food of earthworm is formed. There are 500 varieties of earthworms. For this process they usually use the Earthworm named Audulus Eugenia an African variety. Earthworm has no skeleton. Then was the interactive session where anisha asked a question why is this process very tough? He said that even heat and tank method can be used. Earthworms can't be grown in pannai tree, paddy and coconut tree. Then he showed some methods of making manure. Fish mixed solution, lemon egg solution, and so on. As soon as he finished there came another eminent personality Dr. Ramesh who is a doctor in the government hospital. He requested us to use this opportunity and improve your knowledge. He was so surprised to see us because in this small age we are doing an excellent job. At the same time another eminent personality came over there, Dr. Ramesh who is also a doctor in Kuzhuthalai hospital. The feedback was given by Stefy. He wished us a bright future. The lunch was provided by him so we thank him from the bottom of our heart. At sharp 2.20 we left the place and reached a place where sericulture was practiced. There Mr. Ram swami guided us. Sericulture means a process where silkworm is used to make wool. The worms are kept in 28 to 30

degree Celsius. Fugues mean spring less. Mist royal means a device that controls and maintains the temperature. A machine named sprinkler is used in this process. He advised us that we must have traditional food. Take more Spanish. Have all types of vegetables. Avoid having meat. Support your neighboring farmers. Make a kitchen garden. After 25 years you all won't get fresh vegetables. The only assent is agriculture. The BT brinjal is made by taking a cell from crocodile or frog. To make this three days once fertilizer must be poured. Don't ever buy china products, even the toys. Brinjal is not good for health. Then we went to see the silkworms. There are 2 acers of mulberry. These are v1 variety. Within 45 days they can consume about 2 tonnes of leaves. 1 kg of cocoon is equal to 540 rs. These are latest worms. Silkworm s found in china. Oosor is the headquarters of sericulture. The feedback was given by Varsha. We then thanked him for his informations and departed to IMA. We reached there by 5.35 pm. The comparing was done by Meera and levee. The dignitaries in the dais were

- Dr. Umamageshwari- Secretary, Indian Medical Association, Namakkal.
- Dr. :Dr.Malliga Kulandaivel - President Indian Medical Association, Namakkal Branch.
- Dr.K.Hemalatha- Finance Secretary Indian Medical Association, Namakkal.

Mr. Mullanchery M.Velaian- Organiser, Kumari Arivial Peravai.

The welcome address was given by Dr. Umamageshwari. She said that children are the opening eyes of nature. The introductory address was given by Velaian sir. Then Varsha was called upon to read out the activities of kumari arivial peravai. Then stefy talked on

industrialization, Achsha on forests and Donglin lal on water. Then John Rabikumar sir talked on agricultural lands. Edwin Gladson sir talked on forest in Kanyakumari. He mentioned that many trees are being destroyed. We have got a golden opportunity to express our talents. Your vocabulary is good. Your aim is so good. Thinking level is excellent. We create pollution. IMA is disposing waste and it is good. Then I gave a talk on air. Next Dr. Malliga Kulandaivel spoke some words. She encouraged us. And said that we will become great scientists. She wished and greeted us. Implement this opportunity. The feedback was given by Achsha. Then Dr. Kulandaivel said that we are surprised by seeing you here. You all are thinking out of the box. More fertilizers are found in India. Your future will be so bright. You all are Tamilians so speak in Tamil, don't forget your mother tongue. Then the feedback in Tamil was given by Stefy. Then we came almost to the end of our programme. Mr. Johnson gave the vote of thanks. The meeting ended by 8.00 pm. We all came out of the hall and had our dinner. The dinner was so well prepared. The IMA Namakkal organization took care of us in a very well manner. After the dinner we thanked the IMA for their help and departed. We had a good sleep in the bus and reached Marthandam by 3.30 am. As I belonged to Kuttaikuzhi I came in the same bus till my home by MACET bus. I reached my home by 3.45 am. I freshed up and had a small sleep and took my bag again and set to school at 8.30 am. It was really an exciting journey. Special thanks to KAP for arranging the informative and memorable camp.

"Gratitude is the inward feeling of kindness received. Thankfulness is the natural impulse to express that feeling. Thanksgiving is the following of that impulse". Once again I thank you all

