



குமரி அறிவியல் பேரவை  
இளம் விஞ்ஞானிகளின் 2014-2015  
அறிவியல் தமிழ் முழக்கம்  
அரசு நூலகம் வாசகர் வட்டம், பைங்குளம்  
17.01.2015, சனிக்கிழமை

யாழ்ந்த மொழிகளிலே தமிழ்மொழிபோல்  
இனிதாவது எங்கும் காணோம் !!

ச.டேனி றோவஸ்,  
மருண் அணி

உலகிலுள்ள எல்லா மொழிகளுக்கும் தாய் தமிழ் மொழி. அமுது என்று சிறப்பிக்கப்படும் தமிழ் மொழியானது தேனை விட இனிது தமிழ் மொழியின் சிறப்பு உலகமெங்கும் பரவியுள்ளது. இவ்வாறு சிறப்பிற்குரிய தமிழ் மொழியில் ஒரு அறிவியல் முழக்கமானது பைங்குளம் அரசு நூலகம் வாசகர் வட்டத்தில் 17-01-2015 அன்று குமரி அறிவியல் பேரவையின் சார்பில் சிறப்பான முறையில் நடைபெற்றது. இம்முழக்கமானது கலந்து கொண்ட அனைவருக்கும் புதியதோர் அனுபவத்ததைக் கொடுத்தது.

‘நூல் பல கல்’- என்பது ஓளவையின் அமுத மொழி. ஒருவன் நுண்ணறிவு பெற பல நூல்களைக் கற்றல் வேண்டும். அதற்கு கல்வி நிலையங்களுக்கு அடுத்தபடியாக நூல்நிலையங்களே துணைபுரிகின்றன. நூல்களைத் தொகுத்து வைத்திருக்கும் ஆலயம் நூலகம் என்றால் மிகையல்ல. ‘**நித்தம் நூலகம் சென்றிடுவோம், நெஞ்சம் நிறைந்து வந்திடுவோம்**’ என்னும் வாசகம் அறிவுக்களஞ்சியமான நூலகத்தின் அருமையை உணர்த்துகிறது. இவ்வாறு பெருமைக்குரிய நூலகத்தில் அறிவியல் தமிழ் முழக்கமானது நடைபெற்றது இந்நிகழ்ச்சிக்கு மாபெரும் சிறப்பு.

‘**Time has wings**’ என்று ஆங்கிலத்தில் கூறுவர். நேரம் நீரோடை போன்று ஓடிக்கொண்டே இருப்பதால் காலத்தை நாம் மேலாண்மை செய்ய வேண்டும். இதற்கு காலம் தவறாமை (punctuality) இன்றியமையாதது. குமரி அறிவியல் பேரவையின் வெற்றியின் இரகசியம் காலம் தவறாமை என்று கூறும் அளவிற்கு ஒவ்வொரு நிகழ்ச்சியும் சரியான நேரத்தில் ஆரம்பமாகும். இதுபோன்று அறிவியல் தமிழ் முழக்கமானது சரியாக காலை 8 மணிக்கு ஆரம்பமானது. நாம் ஒவ்வொரு நாளும் இறைவனை வழிபட்டு அன்றைய பணிகளை ஆரம்பிப்பதால் அன்றைய தினம் வெற்றிகரமாக முடிகிறது. குமரி அறிவியல் பேரவையின் ஒவ்வொரு நிகழ்ச்சியும் தமிழ்த்தாய் வாழ்த்துடன் தொடங்குவது வழக்கம். இவ்வாறு அறிவியல் தமிழ் முழக்கமும் தமிழ் அன்னையின் ஆசியுடன் இனிதே ஆரம்பமானது. இந்நிகழ்ச்சியை ரேஷமா தொகுத்து வழங்கினார்.

திரு.முள்ளஞ்சேரி மு.வேலையன், குமரி அறிவியல் பேரவையின் அமைப்பாளர், நோக்கவுரையை வழங்கினார். அவர் முதலில் நேரம் தவறாமையின் முக்கியத்துவத்தைக் கூறி தன் உரையை ஆரம்பித்தார். இந்த அறிவியல் தமிழ் முழக்கமானது நாம் வாழும் பகுதியை ஆராய உதவுவதால் இது குமரி அறிவியல் பேரவைக்கு முக்கிய நிகழ்ச்சி. “**வந்தோரை வரவேற்பது தமிழர் பண்பாடு**” அவ்வண்ணமாக திரு.முள்ளஞ்சேரி மு.வேலையன் அவர்கள்

நிகழ்ச்சிக்கு வந்த அனைவரையும் வரவேற்றார். உழைப்பானது தேனியைப் போன்று சுறுசுறுப்பாக இருந்தால் மட்டும் போதாது, அது சமூக ஈடுபாட்டுடன் அறம் சார்ந்ததாக அமைதல் வேண்டும். இவ்வாறு சமூக ஈடுபாட்டுடன் ஊர் கூடி அமைத்து ஆதரித்துவரும் பைங்குளம் அரசு நூலகத்தில் இந்த முக்கிய நிகழ்ச்சி நடைபெற்றது ஆனந்தமாக உள்ளது. சமூகம் முன்னேற தீமை விரட்டப்படவேண்டும் நன்மை செய்ய பழக வேண்டும். இந்த தன்மையை வளர்ப்பது அறிவு சார்ந்த இடமாகிய நூலகம் என்று கூறி திரு.முள்ளஞ்சேரி மு.வேலையன் தனது உரையை நிறைவு செய்தார்.

தலைமை உரையை ஆற்ற திரு.தமிழ்மாறன், அரசு நூலகர் வாசகர் வட்டத்தின் தலைவர் அழைக்கப்பட்டார். அவர் அனைவரையும் விஞ்ஞான அறிவை ஊட்டும் அறிவியல் தமிழ் முழக்கத்திற்கு வரவேற்று தன் தலைமை உரையைத் தொடங்கினார். டாக்டர் ஏ.பி.ஜே.அப்துல்கலாம் 'கனவு காண்' என்று கூறியுள்ளார். நம் வாழ்வில் சாதனை படைக்க வேண்டுமென்றால் கனவு காண வேண்டியது இன்றியமையாதது ஏனெனில் 'ஒரு முறை வந்தால் கனவு, இரு முறை வந்தால் ஆசை, பல முறை வந்தால் அது இலட்சியம்' என்று அவர் கூறியுள்ளார். இந்தியாவை உலகிற்கு குல நாடாக மாற்ற வேண்டியது இளைஞர்களின் கையிலுள்ளது. விஞ்ஞானம் வளர்ச்சி அடைந்தால் மட்டுமே ஒரு நாடு வளர்ச்சி அடையும். சமீபத்தில் செவ்வாய் கிரகத்தில் அனுப்பப்பட்ட மங்களாயான் செயற்கைக்கோள் வெறும் 450 கோடியிலேயே வெற்றிகரமாக முடிந்தது. இது இந்தியாவுக்கே பெருமை சேர்த்துள்ளது. எனவே இந்தியாவிலுள்ள 40 விழுக்காடு இளைஞர்களும் விஞ்ஞானதுறைக்கு தங்களது பங்கை அளித்து நாட்டை வளர்க்க வேண்டும். விஞ்ஞானத்துக்கு அடிப்படை அறிவியல். அறிவியல் சிந்தனை வளர்க்க சிறந்த இடம் நூலகமே. எனவே 'நூலகம் இல்லா ஊரில் குடியிருக்க வேண்டாம் நூலகமில்லா ஊருக்கு எல்லாம் பாழ்புத்தகம் தேடி படி!' என்று கூறி உரையை முடித்தார்.

அடுத்தபடியாக திரு.மாதவன்தம்பி இவாசகர் வட்ட துணைத்தலைவர், உரை வழங்கினார். அவர் சுவாமி வவேகானந்தரின் வார்த்தைகளான "என்னிடம் நூறு இளைஞர்களைக் கொண்டு வாருங்கள் இந்த உலகையே மாற்றிக் காட்டுகிறேன்"-எனக்கூறி தன் உரையைத் தொடங்கினார். மேலும் அறிவியல் வளர்ந்தால் தான் நாடு வளர்ச்சி பெறும், கேள்விகளைக் கேட்டால் மட்டுமே பதில் கிடைக்கும். ஏன், எதற்கு, எப்படி போன்ற கேள்விகளை உள்ளடக்கியது தான் அறிவியல். நம் நாட்டில் உள்ள மூட நம்பிக்கையை அறவே ஒழிப்பது விஞ்ஞான வளர்ச்சி. ஏனெனில் அறிவியல் ஒவ்வொரு செயலையும் ஆராய துணைபுரிகிறது. திருவள்ளூர் இதைத்தான் 'மெய்ப்பொருள் காண்பது அறிவு' என்று உலகப்பொதுமறையில் கூறியுள்ளார். வந்த அனைவரையும் வரவேற்று திரு.மாதவன்தம்பி உரையை நிறைவு செய்தார்.

நல்லதொரு வாழ்த்துரையை வழங்க திரு.கோவிந்தராஜ், வாசகர் வட்ட உறுப்பினர், மேடைக்கு வந்தார். 'நூலகங்களைத் கட்டுங்கள் இல்லையெனில் சிறைச்சாலைகளைக் கட்ட வேண்டி வரும்' என்றார் மாவீரன் நெப்போலியன். அறிவுச்சுரங்கமாகிய நூலகம்தான் பிள்ளைகளின் வாழ்வை சரியான பாதையில் மேம்படுத்திக் கட்டி எழுப்பும். வாழ்க்கைப்பயணத்தில் பல தடைகளைச் சந்திக்க நேரிடும். வெற்றியைக் கண்டடைய தடைகளைத் தாண்ட வேண்டியது அவசியம். இதனைச் சாதிக்க தைரியத்தை ஊட்டும் நூல்களைக் கற்று, புது வாழ்வு அடைந்து, புகழ் பெற்று வாழ வாழ்த்தி திரு.கோவிந்தராஜ் அவர்கள் தன் உரையை முடித்தார்.

பேராசிரியர் சி.சஜிவ் அடுத்தபடியாக உரையாற்றினார். பொதுவாக மனித வாழ்வு பிறப்பு, வாழ்வு மற்றும் இறப்பை உள்ளடக்கியது. இறப்பிற்குப் பிறகு, வாழ்வு வரலாற்றாக மாற்றப்படுவது அரிது. 260-வது குறள்

“கொல்லான் புலாலை மறுத்தானைக் கைகூப்பி  
எல்லா உயிரும் தொழும்”

என்று கூறுகிறது. கொலை செய்யாமலும், புலால் உண்ணாமலும் வாழும் உயர்ந்த பண்பாளனை எல்லா உயிர்களும் கைகூப்பி வணங்கும். எல்லா உயிர்களும் தொழத்தக்கதாக நாம் நம் வாழ்வை அமைத்தல் வேண்டும். இதற்கு மகத்தான பங்களிப்பது புத்தகம் வாசித்தலாகும். 'கண்டதைக் கற்கப் பண்டிதனாவான்' என்று சொல்வர். எந்த நூலும் பயனற்றதாக இருக்க வழியில்லை. பழைய நூல்களும் பயனுள்ளவையே. தெய்வநூலைப் போற்றிய ஔவையா

'அணுவைத் துளைத்து ஏழு கடலைப் புகுத்திக் குறுகத் தரித்த குறள்' என்று கூறியுள்ளார். இது 1771-ம் ஆண்டு நெல்சன் ரூதர்ஃபோர்ட் அணுவைப் பிளந்தார். ஆனால் 2000 ஆண்டுகளுக்கு முன்பே கூறப்பட்ட அணுவைப் பற்றிய சிந்தனை 18-ம் நூற்றாண்டில்தான் நிரூபிக்கப்பட்டுள்ளது என்று கூறி பேராசிரியர் சி.சஜிவ் அவர்கள் உரையை நிறைவு செய்தார்.

திரு.கோபாலன் அவர்கள் உரை வழங்க அழைக்கப்பட்டார். புனித ஊராகிய பைங்குளத்தில் அறிவு வளர்க்கும் நூலகத்தில் நடைபெறும் அறிவியல் முழக்கத்திற்கு அனைவரையும் வரவேற்று உரையைத் துவங்கினார்."வாள் முனையை விட பேனா முனையேச் சிறந்தது" என்பது பழமொழி. கருக்குள்ள வாளானது உயிரைப் பறிக்கும் ஆனால் ஒரு பேனா முனையோ மாற்றங்களைக் கொண்டு வர வழி வகுக்கும். பேனா முனையானது புத்தகங்களை இயற்ற வழி வகுத்து, வாசிப்போர் உள்ளத்தில் பலக் கருத்துக்களை பதிக்கிறது. புத்தகங்களால் பல புரட்சிகள் ஏற்பட்டுள்ளன. 1789-ம் ஆண்டு நடைபெற்ற பிரெஞ்சு புரட்சிக்குக் காரணமும் ஒரு புத்தகம் தான். ரொட்டித் துண்டுக்காய் ஏழை மக்கள் ஏமாந்த போது, புதுப்புது மலர்கள் பூக்க ரொட்டியை எருவாக்கி மகிழ்ந்த பிரெஞ்சு பிரபுக்களை ரூஸோவின் இலக்கியப்படைப்பான 'எமிலி' நூல் மூலம் வீழ்த்தி மக்களை வீறுகொள்ளச் செய்தது ஆக்கப்படப்பெற்றோ! உழுது விதைப்போர்க்கு உணவில்லை பொழுதெல்லாம் அழுது சாவதற்கா நாம் பிறந்தோமென வீழ்ந்து கிடந்த ரஷ்ய மக்களை கார்ல் மார்க்ஸின் 'டாஸ்கேப்பிட்டல்' என்ற புகழ் பெற்ற நாவல் படைப்பு தலை நிமிரச் செய்தது அவர் படைப்பென்றோ!

### 'புனிதமுற்று மக்கள் புதுவாழ்வு வாழவேண்டின் புத்தகசாலை வைக்க வேண்டும் நாட்டில் யாண்டும்'

என்றார் பாவேந்தர்.மாணவர்கள் அறிவு வளர்ச்சிக்கு முக்கியப் பங்கு வகிப்பது நூலகம். அறிஞர்களையும் உருவாக்குவது நூலகம் தான். எனவே நூல்களை நாளும் கற்று நல் அறிவு பெற வாழ்த்தி திரு.கோபாலன் அவர்கள் தன் உரையை முடித்தார்.

திரு எஸ்.ஜாண்சன் அவர்கள் அடுத்ததாக உரையாற்றினார். ஆங்கில அறிவு மட்டும் இருந்தால் நம்மால் சாதிக்க முடியாது. எனவேதான் அறிவியல் முழக்கமானது தமிழில் நடைபெறுகிறது என்று கூறி உரையை நிறைவு செய்தார்.

திரு ஷிபின்ற்றாட் அவர்கள் உரையில் தற்போது மறந்துவரும் தமிழை வளர்க்க நாம் தமிழை உள்கொள்ள வேண்டும் என்று கூறினார்.

திரு .பென்சிகர் ராஜன் அவர்கள் உரையில் தாய்மொழியின் முக்கியத்துவத்தை கூறினார்.ரஷ்யாஇஜப்பான் மற்றும் சீனா போன்ற நாடுகள் அவர்கள் தாய்மொழியில் கற்று உயர்ந்திருக்கிறார்கள். ஆங்கிலத்தில்'Mother tongue is the dress of thought' என்று கூறுவர். நம் நாட்டைப் பற்றி நாம் அறிந்து கொள்ள வேண்டும். இந்த அறிவியல் தமிழ் முழக்கமானது நம் நாட்டிலுள்ள (இந்தியாவிலுள்ள) குறிஞ்சி, முல்லை, மருதம், நெய்தல், பாலை ஆகியவற்றின் அமைப்பை ஆராய உதவுகிறது என்று கூறி உரையை நிறைவு செய்தார்.

ISRO Chief general Manager, திரு.ராமசேஷன் பலச் சிந்தனைத்துளிகளை எங்கள் மனதில் தூவ வந்தார்.பரிமாற்றம் என்பது பேசும் திறன் மற்றும் கேட்டல் திறனை உள்ளடக்கியது. நாம் தாய்மொழியில் செய்திகளை பரிமாறிக்கொள்ளும்போதுதான் பல புதுப்புது சிந்தனைகள் எழுகிறது. நம் தேசத்தந்தை காந்தியடிகள் தன் சுயசரிதையை தன் தாய்மொழியான குஜராத்தி மொழியில்தான் எழுதினார். ஏனெனில் நம் தாய் மொழியில்தான் இயல்பாக பேசவும் எழுதவும் முடியும். திரு.ராமசேஷன் மூன்று முக்கியக் குறிப்புகளை எங்களுடன் பகிர்ந்து கொண்டார்.

### i) Do not think conventional

செவ்வாய் கிரகத்திற்கு அனுப்பப்பட்ட மங்கள்யான் PSLV மூலம் செலுத்தப்பட்டது.முதலில் PSLV மூலம் எழுப்ப முடியுமா என்ற கேள்வி எழுந்த போது சிலர் முடியும் என்றும் சிலர் முடியாது என்றும் கூறினார்கள். ஆனால் விஞ்ஞானிகளோ சரியான பதிலுக்கு மதிப்பீடு

செய்தனர். PSLVயிலுள்ள பகுதிகள் வெற்றிடத்திலும், குறைந்த அழுத்தத்திலும் இயங்குமா என்று பார்க்க ஒரு தாழியில் காற்றை வெளியே எடுத்து வெற்றிடத்தில் PSLVயிலுள்ள பகுதிகளை பரிசோதனை செய்தனர். இவ்வாறு மாற்றி யோசித்தல் மிகவும் அவசியமானது. மாற்றி யோசித்தால் மட்டுமே பிரச்சனைக்கான மாற்று வழியை நம்மால் கண்டறிய முடியும். மாற்று யோசனை தான் பல கண்டுபிடிப்புகளை கண்டுபிடிக்க வழிவகுக்கும்.

ii) Do not feel satisfactory

“கற்றது கைம்மண் அளவு கல்லாதது உலகளவு”. மணற்பாங்கான இடத்திலுள்ள கிணற்று நீர் தோண்டும் அளவிற்கு ஏற்ப சுரக்கும். அதுபோல் மக்களுக்கு கற்கும் அளவிற்கு ஏற்ப அறிவு வளரும். எனவே தேடுதல்களில் ஒருக்காலும் மனத்திருப்தி ஏற்படக் கூடாது. ஆர்வத்துடன் கற்றுக்கொள்ளும் போது அறிவு வளரும்.

iii) Nothing is complicated

‘மனிதன் உற்பத்திச் செய்யும் ஒவ்வொன்றும் ஆரம்பத்தில் எண்ணத்தின் மூலமாகவே உருவாகின்றன’ என்கிறார் நெப்போலியன் ஹில். எண்ணத்தில தோன்றி ஒரு கருத்தைச் சிந்தித்துப் பார்த்து திட்டமிட்ட மனிதர்கள் அனைத்தையும் உற்பத்தி செய்கிறார்கள் என்பது வெளிப்படையான உண்மை. எண்ணத்தைப் பொறுத்தே எல்லாம் அமையும். எப்பொழுதாவது ஒரு காரியத்தை முடிக்க விட்டு விட்டால் அதைச் செய்து முடிக்க முடியும் என்ற எண்ணத்துடன் செயல்பட ஆரம்பிக்க வேண்டும். ஏனெனில் இவ்வுலகில் எதுவுமே சிக்கலானது அல்ல. எல்லாம் நம் எண்ணமே.

திரு. ராமசேஷன் அவர்கள் நாம் சமுதாயத்திற்கு பயனுள்ளவர்களாய் இருக்கவேண்டும் என்று கூறி தன் உரையை முடித்தார்.

திரு. முழங்குழி பா. லாசர், குமரி முத்தமிழ் மன்றத்தின் தலைவர், சிறப்புரை வழங்கினார். அவர் தமிழ்த்தாயை வணங்கி நேரம் தவறாமை மற்றும் அமைதி காத்தலின் அருமையைக் கூறினார். உலகம் போற்றும் உத்தம கவிஞரான இரவீந்திரநாத் தாகூர் தன்னடைய மனைவியையும் இ13 பிள்ளைகளையும் மிகவும் அன்பாகவும் பாசமாகவும் பார்த்தார். அவருடைய மனைவி திடீரென இறந்தது அவரால் தாங்க முடியவில்லை. அவர் தன்னுடைய தாய் மொழியான வங்காள மொழியில் அந்த துயரத்தின் போது ஒரு கவிதையை இயற்றினார். ஆங்கிலத்தில் மொழிபெயர்க்கப்பட்ட அந்த கவிதையானது நோபல் பரிசைப் பெற்றது. தாகூரின் மனைவி பெயர் கீதா என்பதால் அக்கவிதைக்கு கீதாஞ்சலி என்ற பெயர் வந்தது. இதன் மூலம் கீதாஞ்சலி என்ற கவிதைத் தொகுப்பு எவ்வாறு உருவானது என்பதை அறிந்து கொண்டோம்.

வெள்ளையர்கள் ஒவ்வொரு நாட்டிற்கும் சென்று கொண்டிருந்த காலம் காலம். ஆஸ்திரேலியா சென்ற ஆங்கிலேயர்கள் வித்தியாசமான ஒரு விலங்கினத்தைக் கண்டார்கள். அது தன் குட்டியை தன்னடைய பையில் வைத்து துள்ளித்துள்ளி சென்றது. அது என்ன விலங்கு என்பதை அறிய ஆர்வம் கொண்ட ஆங்கிலேயர்கள் அங்கு வாழ்ந்து வந்த காட்டுவாசிகளிடம் அந்த விலங்கினத்தைப்பற்றி விசாரித்தபோது அவர்கள் ‘கங்காரு’ என்று கூறினர். கங்காரு என்றால் அந்த காட்டுவாசிகளின் மொழியில் ‘தெரியாது’ என்று அர்த்தமாம். இதனை அறியாத ஆங்கிலேயர்கள் அந்த விலங்கிக்கு ‘கங்காரு’ என்ற பெயரிட்டனர். இந்த கதை வேடிக்கையாக இருந்தாலும் இரண்டு உண்மையை உணர்த்துகிறது.

🌱 நாம் புதிய விசயங்களை கற்க ஆர்வம் கொள்ள வேண்டும். அதனால் தான் ஆலபர்ட் ஐன்ஸ்டீன் “**I have no special talents; I am passionately curious**” என்று கூறியுள்ளார்

🌱 நாம் எந்த ஒரு விசயத்தையும் நன்கு ஆராய்ந்த பின்னரே ஏற்றுக் கொள்ள வேண்டும். எனவே தான் திருவள்ளூர்

“எப்பொருள் யார்யார்வாய்க் கேட்பினும் அப்பொருள்  
மெய்பொருள் காண்பது அறிவு” - என்று கூறியுள்ளார்.

நாம் நம் தாய் மொழிக்கு மதிப்புக் கொடுத்தாலே ஒழிய நாடு வளர்ச்சி பெறாது. ஆங்கிலேயர்கள் கோகோகோலாவை பல நாடுகளுக்கு அறிமுகம் செய்யும் போது சீனா வந்தனர். சீனர்கள் ஆங்கிலேயர்களிடம் கோகோகோலாவை சீன மொழியில் மொழி பெயர்த்தாலே ஒழிய நாங்கள் ஏற்றுக்கொள்ள மாட்டோம் என்று மறுத்தனர். எனவே கோகோகோலாவின் பெயர் சீனாவில் போக்குகூலு என்று அழைக்கப்படுகிறது. இதன் மூலம் அவர்களின் மொழி உணர்வை நாம் அறிய முடிகிறது.

திருவள்ளூர் இயற்றிய முப்பாலில் மூன்று பாக்கள் அடங்கியுள்ளது: அறத்துப்பால்இ பொருட்பால்இ காமத்துப்பால். அறத்துப்பால் நம் வாழ்வை வளப்படுத்த தேவையான வழிமுறைகளை உள்ளடக்கியது. அவற்றுள் முக்கியமானது ஒழுக்கம். எனவே தான் வள்ளூர்

**“ஒழுக்கம் விழுப்பம் தரலான் ஒழுக்கம்  
உயிரினும் ஒம்பப் படும்”**

என்று ஒழுக்கத்தின் பெருமையை எடுத்துரைத்துள்ளார். பொருட்பால் போருக்கான வழிமுறைகளை எடுத்துரைக்கின்றது. எனவே தான் வள்ளூர் காலம் அறிதல் என்னும் தலைப்பின் கீழ்

**“பருவத்தோடு ஓட்ட ஒழுகல் திலுவினைத்  
தீரமை ஆர்க்கும் கயிறு”**- என்று குறிப்பிட்டுள்ளார்.

இலட்சியத்தோடு வாழும் அனைவருக்கும் வாழ்வில் தடைகள் ஏற்படும். வாழ்க்கையில் நாம் எப்படித் தடைகளை எதிர்கொள்கிறோம் என்பதைப் பொறுத்து அவை துன்பமாகவோ அல்லது வெற்றியாகவோ அமையும். இதற்கு சிறந்த எடுத்துக்காட்டாகஇ ஒரு போட்டியில் 12 பேர் கலந்து கொள்கின்றனர். அவர்களுள் 11 பேர் வெற்றி பெறுகின்றனர். தோல்வி அடைந்தவன் கவலையுற்று இருந்தபோது அவனுடைய ஆசிரியர்கள் மனம் தளராதேஇ நீ இதை விட பெரிய காரியங்களைச் சாதிப்பாய் என்று நம்பிக்கையின் வார்த்தைகளைக் கூறினார்கள். இந்த வார்த்தைகளின் மூலம் சந்தித்த தோல்வியையே வெற்றிக்கு அடித்தளமாக மாற்றிய அந்த மாணவன் இன்று உலகமே போற்றும் விஞ்ஞானியாக மிளிர்கிறார். அவர் நம்முடைய முன்னாள் குடியரசுத்தலைவர் ஏ.பி.ஜே.அப்துல்கலாம்.உலகமானது வாழத் துடிப்பவர்களுக்கு முதுகெலும்பாகத் திகழ்கிறது.எனவேத் தடைகளைத்தாண்டி வெற்றிக் கனிகளைப் புசிப்போம்.

**“அழிவதாஉம் ஆவதாஉம் ஆகி வழிபயக்கும்  
ஊதியமும் சூழ்ந்து செயல்”**

என்று திருக்குறள் நமக்கு உணர்த்துகிறது.ஒரு செயலைத் தொடங்குவதற்கு முன்இ அச்செயலைச் செய்வதால் வரும் தீமைகளையும்இ செய்து முடித்த பின் வரும் பயன்களையும் எண்ணிப்பார்க்க வேண்டும்.இதை காந்தியடிகள் செயல் ஆகக் காட்டியுள்ளார். ஒரு முறைத் தேர்வில் 10 வினாக்களுக்கு 9 வினாக்களை சரியாகவும் ஒரு வினாவைத் தவறாகவும் எழுதினார்.இதனைக்கண்ட ஆசிரியர் பக்கத்து மாணவனைப்பார்த்து சரியாக எழுதும் படி கூறினார். காந்தியடிகளோ அது தவறுஎன்று உணர்ந்துஅந்த தவறைச் செய்ய முன் வரவில்லை இருப்பினும் அவருக்கு அடி கிடைக்குமோ என்ற அச்சம் இருந்தது.பிறகு தேர்வுத்தாளைப் பார்த்த அதே ஆசிரியர் காந்தியடிகளை அழைத்து “நான் உனக்கு ஆசிரியர் அல்ல நீயே எனக்கு ஆசிரியர்” என்று கூறினார்.இதேப்போன்று நாமும் நம் வாழ்வில் தவறைச் செய்ய நம்மை தாமதப்படுத்திக் கொண்டு நல்லதே செய்வோம்.

ஒரு முறை ஆங்கிலேயர்கள் டாக்டர்.இராதாகிருஷ்ணனிடம் இந்தியர்கள் முட்டாள்கள் அவர்கள் கருப்பாக உள்ளதால் கடவுளுக்கு இந்தியர்களை பிடிக்காது என்றும் வெள்ளையாக இருக்கும் ஆங்கிலேயர்களைப் பிடிக்கும் என்றும் ஆணவத்தோடு கூறினார். அந்நேரத்தில் இந்தியர்கள் எல்லோரையும் விட சிறந்தவர்கள் என்று நிரூபித்துக்காட்ட டாக்டர்.இராதாகிருஷ்ணன் சிறந்த ஒரு விளக்கத்தை அவர்களுக்குக் கொடுத்தார்.கடவுள் மனிதனைச் செய்ய கோதுமைத் துண்டை வேகவைத்தார். ஆனால் அது முழுமையாக வேகவில்லை .இந்த முழுமையாக வேகாத வெள்ளை மாவை வைத்து செய்தவர்களே வெள்ளையர்கள்.மறுபடியும் மனிதனைச் செய்ய கோதுமை மாவை எடுத்தார்.இந்த முறை மாவை

அதிக நேரம் வேக வைத்ததினால் அது கரிந்து போயிற்று.கரிந்த கோதுமையினால் செய்யப்பட்ட மனிதர்கள் ஆப்பிரிக்கர்கள்.மேலும் கடவுள் சரியாக வேகவைத்த மாவினால் மனிதர்களைச் செய்ய விரும்பினார்.ஆகவே அம்முறை சரியாக வேகவைத்து அதில் செய்த மனிதர்கள் தான் இந்தியர்கள் என்று டாக்டர்.இராதாகிருஷ்ணன் கூறினார்.”Action speaks louder than words“. எனவே அன்று டாக்டர்.இராதாகிருஷ்ணன் சொன்ன வார்த்தைகளைநாம் நிரூபிக்க நாம் சிறந்தவர்களாக நம்மை மாற்றிக் கொள்ள வேண்டும்.

தங்க இடமின்றி உண்ண உணவின்றி ஊர் ஊராக திரிந்து வந்த ஒரு ஏழை சிறுமி “நான் உலகத்தில் புகழ் அடைய வேண்டும்” என்று தன்னம்பிக்கையோடு வாழ்ந்து வந்தாள்.அவளுக்கு மேரி என்று பெயர்.அவர் செல்வந்தர் ஒருவர் வீட்டில் வேலைக்காரியாகப் பணி செய்தாள்.அவளுக்கு விஞ்ஞானத் துறையில் ஆர்வம் இருந்ததோடு திறமையும் கொண்டிருந்தாள்.ஒருமுறை அவளுடைய எஜமான் வெளியூர் சென்று திரும்பியபோது நான் மேரியை விவாகம் செய்ய வேண்டும் என்று எஜமானின் மகன் கூறினார்..உடனே அவனுடைய தகப்பனார் யாருடைய குமாரத்தியான மேரி என்று கேட்டார்.உடனே அவன் நம் வீட்டில் வேலை செய்கின்ற மேரி என்று கூறினார்.உடனே அவனுடையத் தகப்பனார் நீ அவளை விவாகம் பண்ணினால் ஒரு சொத்தும் உனக்குத் தரமாட்டேன் என்று கோபமாக கூறினார். பண ஆசைப் பிடித்த அவருடைய மகன் மேரி வேண்டாம் என்று தன் மனதை மாற்றிக் கொண்டான்.இதைப் பக்கத்து அறையில் கேட்டுக்கொண்டிருந்த மேரி வீட்டைவிட்டு வெளியேறி ‘இந்த கோடீஸ்வரர் முன் நான் வாழவேண்டும்’ என்று முடிவெடுத்தாள்.அவள் தன்னம்பிக்கை உடையவளாய் இடைவிடாமல் முயற்சி செய்து ரேடியத்தைக் கண்டுபிடித்தாள்.இவ்வாறு வீட்டு வேலைக்காரியாகப் பணி செய்த அந்த ஏழை நோபல் பரிசைப் பெற்ற மேரி கியூரி ஆவார்.இதுவரையிலும் ஒரே குடும்பத்தில் இருந்து ஐந்து பேர் நோபல் பரிசைப் பெற்றது மேரியின் குடும்பம் மட்டுமே.எனவே நாமும் தன்னம்பிக்கையோடு விடாமல் முயற்சி செய்யவேண்டும்.ஏனெனில் ‘முயற்சித் திருவினையாக்கும்’.

விலை மதிப்பற்ற மனித உறுப்பினை நாம் பயன்படுத்திக் கொள்ள வேண்டும்.எனவே விவேகத்தை இழக்காமல் வாழ்வில் பலவற்றை சாதிப்போம் என்று கூறி திரு.முழங்குழி பா.லாசர் உரையை நிறைவு செய்தார்.

ஜிபி ஏடிநான்இஎடின் ஜிஜோஇஜெபின்இநிஷாந்த் மற்றும் அபினா பின்னூட்டம் கூறனோம். திரு.முள்ளஞ்சேரி மு.வேலையன்இ அவர்கள் உரையுடன் தொடக்கவிழா முடிவுக்கு வந்தது.

அடுத்ததாக மெரிஸா ‘தென்னிந்திய நதிகள்’ என்னும் தலைப்பில் கருத்துக்களை பகிரீந்து கொண்டார். தென்னிந்தியாவில் மூன்று பெரிய நதிகள் ஓடுகின்றன.

கிருஷ்ணா நதி: 1300 கி.மீ. நீளம் பாய்கிறது .மகாராஷ்டிரா, கர்நாடகம் மற்றும் ஆந்திரப்பிரதேசம் போன்ற மாநிலங்களின் வழியாக கிருஷ்ணா ஆறு பாய்கிறது. மகாராஷ்டிராவலுள்ள மகாபாலேஷ்வர் என்ற இடத்தில் தொடங்கும் கிருஷ்ணா ஆந்திரப்பிரதேத்திலுள்ள ஹேமசலதேவி என்ற இடத்தில் வங்காள வரிகுடாவில் கலக்குகிறது.விஜயவாடா இவ்வாற்றின் கரையிலுள்ள மிகப்பெரிய நகரமாகும்.

கோதாவரி நதி-1450 கி.மீ.நீளம் பாய்கிறது. மகாராஷ்டிரா மாநிலத்தில் நாசிக் நகருக்கு அருகில் திரிம்பாக் என்ற இடத்தில் உற்பத்தியாகிறது.கிழக்கு நோக்கி தக்காண மேட்டு நிலத்தில் பாய்ந்து மகாராஷ்டிரா மற்றும் ஆந்திரப்பிரதேசம் மாநிலங்களை வளப்படுத்தி கௌதமி கோதாவரி, வசிஷ்ட கோதாவரி என இரண்டு கிளைகளாக பிரிகிறது.இந்த நதி வங்காள வரிகுடாவில் கலக்குகிறது. இந்த நதியில் படகுப் போக்குவரத்து உள்ளது.

காவேரி நதி-கர்நாடக மாநிலத்திலுள்ள மேற்குத்தொடர்ச்சி மலையிலுள்ள குடகு மாவட்டத்தைச் சேர்ந்த தலைக்காவேரி என்ற இடத்தில் 1400 அடி உயரத்தில் தோன்றுகிறது.இதன் நீளம் 800 கி.மீ. பூம்புகார் என்னும் இடத்தில் வங்காள வரிகுடாக் கடலில் கலக்குகிறது.இது பொன்னி ஆறு என்றும் அழைக்கப்படுகிறது.காவிரிக்கு ‘பொன்னி’ என்று பெயர் வந்ததற்கு அதன் நீரில் அடங்கியிருந்த தாதுக்களில் தங்கத்தாது அதிக அளவில்

இருந்திருக்கிறது. கபினி,ஹேமாவதி,ஆர்க்காவதி,சிம்சா,சுவர்ணவதி ஆகியவை கர்நாடக பகுதியில் பாயும் துணை ஆறுகள்.பவானி,அமராவதி,நொய்யல் ஆகியன தமிழக பகுதியில் பாயும் துணை ஆறுகள் ஆகும். கர்நாடக மாநிலத்தில் சிவசமுத்திர அருவியும் தமிழகத்தில் ஒகேனக்கல் அருவியும் காவிரியில் உள்ள இரு அருவிகளாகும்.

திரு.ஜாண்சன் அவர்களும் திரு பி.கோபாலன் அவர்களும் பின்னூட்டம் கூறினர்.

அர்கினீஷ்யா முல்லைப் பெரியாறு அணைபற்றிக் கூறினாள்..மேற்குத்தொடர்ச்சி மலையில் தொடங்கி மேற்கு நோக்கி ஓடி அரபிக்கடலில் கலக்குகிறது.இவ்வாற்றின் நீரை கிழக்கு நோக்கித் திருப்பி மழை மறைவுப் பகுதியான மதுரை மாவட்டத்திற்கு பயன் பெற வகை செய்வதற்காகவே இவ்வணைக் கட்ட திட்டமிடப்பட்டது. அப்பகுதிகளுக்கு அங்குள்ள வைகை ஆற்றின் நீர் வளம் போதுமானதாக இல்லை.

வரலாறு:

1790 மார்ச் 6 சென்னை மாகாணத்தில் மதுரை மாவட்டம் உருவானது.

1798 -ல் இராமநாதபுரம் மன்னர் சேதுபதி முலலை,பெரியாறு நதிகளை இணைத்து அணை கட்டி தண்ணீர் முழுவதையும் மதுரை மற்றும் இராமநாதபுரம் பகுதிக்கு கொண்டு வரத் திட்டமிட்டார்.

1867 அணைத்திட்டம் நிறைவேற்றுவதில் கால தாமதம் ஏற்பட்டது.

1882 திட்டம் ஆங்கிலேய அரசால் ஏற்றுக் கொள்ளப்பட்டது.

1884 செலவத் திட்டம் தயாரித்து சமர்ப்பிக்கப்பட்டது

1893 60 அடி உயரத்திற்கும்

1894 94 அடி உயரத்திற்கும்

1895 டிசம்பர் 155 அடியும் கட்டி முடிக்கப்பட்டு சுற்றுச் சுவரும் கட்டப்பட்டது.

கட்டி முடிக்கப்பட்ட இந்த அணையை சென்னை மாகாண ஆளுநராக இருந்த வென்லாக் பிரபு திறந்து வைத்தார்.

1955 பெரியாற்றின் குறுக்கே மின் உற்பத்தி செய்ய திட்டம் வகுக்கப்பட்டது.

1970 தமிழகம் 140 மெகாவாட் திறன் கொண்டமின் நிலையத்தை அமைத்துள்ளது.

திரு.கோபாலன் மற்றும் திரு.ஷிபிந்றாட் பின்னூட்டம் கூறினர்.

அடுத்தபடியாக லீனா வடகிழக்குப் பருவமழை பற்றி கருத்துக்களை பகிர்ந்து கொண்டாள். வடகிழக்குப் பருவமழை விவசாயத்திற்கு முக்கிய பங்கு வகிக்கிறது.செப்டம்பர் முதல் ஜனுவரி அல்லது பிப்ரவரி மாதம் பெய்யும் இந்த பருவ மழை ஆந்திரா தமிழ்நாடு மற்றும் புதுச்சேரி போன்ற மாநிலங்களில் செழிப்பை கூட்டுகிறது.இப்பருவ மழையை நம்பித்தான் விவசாயமே நடைபெறுகிறது. இப்பருவ மழை வங்காளவிரிகுடா வழி பயணிக்கையில் குளிர்ந்த வறண்ட காற்றை உட்கொண்டு பின்னர் மழையாக கரைகளில் பொழிகிறது.தற்போது தமிழகத்தில் வடகிழக்குப் பருவமழையானது குறைந்துகொண்டே வருவதால் தானியங்களும் கேள்வரகும் பயிரிடப்படுகிறது. திரு பி.கோபாலன், திரு.ஜாண்சன் மற்றும் திரு.பென்சிகர் ராஜன் பின்னூட்டம் கூறினர்.

எடினீஜிஜோ 'வைகை 'ஆறு என்னும் தலைப்பில் பேசினார். 'வைகை' என்றால் கையை வெளியே போடு' என்னும்படுகின்றது. இது கம்பம் பள்ளத்தாக்கைச் சுற்றி 250 கி.மீ. - கள் வட கிழக்காக பாய்கின்றது. 1895-ம் ஆண்டு ஆற்றின் குறுக்கே அணை ஒன்று கட்டப்பட்டது ஆற்றில்சேரும் சில கிளை நதிகளாவன சுருளியாறு,முல்லையாறு,மஞ்சளாறு,கிருதுமால் மற்றும்

வராகநதி .கோடைக்காலத்தில் இந்நதி வறண்ட நிலையில் தோற்றமளிக்கும்.ஆற்றின் நீர் குடிப்பதற்காகவும் விவசாயத்திற்காகவும் பயன்படுகிறது.

வரலாற்றுக்கதை:

பாண்டிய மன்னனின் மகள் மீனாட்சிஇபார்வதியின் அவதாரம் மீனாட்சி தன் சிறு வயதிலேயே சிவபெருமானை திருமணம் செய்வதாக தீர்மானம் எடுத்துக் கொண்டாள்.எனவே பாண்டிய மன்னன் சிவபெருமானை ஒரு விருந்திற்கு அழைத்தார்.மன்னனோ சிவபெருமான் தன் உறவினர்களோடு விருந்திற்கு வருவார் என்று எண்ணி பிரம்மாண்டமான விருந்துக்கு ஏற்பாடு செய்தார்.ஆனால் சிவபெருமானோ தன் நண்பர் ஒருவரை மட்டும் அழைத்துக் கொண்டு விருந்துக்கு சென்றார்.இதனால் கோபமடைந்த மன்னன் தான் தயாரித்து வைத்திருந்த உணவை எல்லாம் காட்டினார்.உடனே சிவபெருமான் தன் நண்பனாகிய குண்டோதரன் என்னும் ராட்சசனைக் காட்டி 'இவன் தயாரித்து வைத்த உணவை உண்பான் என்று கூறினார். தயாரித்த அணைத்து உணவையும் உண்ட குண்டோதரனுக்கு தாகம் ஏற்பட்டது. அவன் தாகத்தை அடக்க மதுரையிலுள்ள கிணறுகளும் ஏரிகளும் போதவில்லை.எனவே சிவபெருமான் தன் சடையிலிருந்து ஒரு கொளுத்தை எடுத்தவுடன் கங்கை நதி பாயத் தொடங்கியது. குண்டோதரனின் தாகம் தணிந்தபின் மீதமிருந்த தண்ணீர் வைகை நதியாக மதுரையில் பாய்கிறது என்று நம்பப்படுகிறது என்று கூறி உரையை முடித்தார்.

திரு.கோபாலன் மற்றும் திரு.ஷிபிந்றாட் மற்றும் எஸ்.ஜாண்சன் போன்றோர் பின்னூட்டம் கூறினர்.

அபிராமி 'சென்னை மாநகரம்' என்னும் தலைப்பின் கீழ் தன் கருத்துக்களை பகிர்ந்தாள். தென்னிந்தியாவிலுள்ள தமிழ்நாட்டின் தலைநகரம் சென்னை.இது 1996-ம் ஆண்டு வரையிலும் 'மெட்ராசு' என்று அழைக்கப்பட்டது இந்தியாவின் நான்காவது பெரிய நகரமாகிய சென்னை வங்காள விரிகுடாவின் கரையில் அமைந்த துறைமுக நகரங்களில் ஒன்று சென்னை 'கோலிவுட்' எனப்படும் தமிழ்த் திரைப்படத்துறையின் தாயகமும் சென்னை மாநகரமே. சென்னையில் சுமார் 7.45 மில்லியன் மக்கள் வாழ்கின்றனர்.சென்னை தகவல் தொழில்நுட்பத் துறையில் நாட்டில் இரண்டாம் இடத்தில் உள்ளது.இந்தியாவின் சிறந்த பல்கலைக்கழகமான ஐ.ஐ.டி. சென்னையில் உள்ளது. சென்னை நபரில் உள்ள மெரினா கடற்கரை உலகின் நீளமான கடற்கரைகளுள் ஒன்று.சென்னை 'ஆசியாவின் டெட்ராய்ட்' என்று அழைக்கப்படக் காரணம் அது வாகனத்துறையில் ஏற்பட்டுள்ள வளர்ச்சி.சென்னை மாநகரம் தற்போது குடிநீர் பற்றாக்குறை,அதிக மக்கள்தொகை மற்றும் வாகன நெரிசல் போன்ற பிரச்சனைகளை சந்திக்கிறது என்று கூறி அபிராமி முடித்தாள்.திரு.கோபாலன் இதிரு.பென்சிகர் ராஜன் மற்றும் எஸ்.ஜாண்சன் போன்றோர் தங்கள் கருத்துகளை பகிர்ந்து கொண்டனர்.

இமாகுலேட் ரிஷ்வி அடுத்ததாக தென்மேற்குப் பருவ மழையைப் பற்றி தகவல் கூறினாள்.ஜூன் மாதம் முதல் செப்டம்பர் மாதம் வரையிலும் பெய்யும் இப்பருவமழை கேரளா,கர்நாடகா,மகாராஷ்ட்ரா மற்றும் குஜராத் போன்ற மாநிலங்கள் பசுமை மாறாமல் இருக்க உதவுவதோடு விவசாயத்திற்கும் பொருளாதார வளர்ச்சிக்கும் முக்கியப் பங்கு வகிக்கிறது.கோடைக்காலத்தில் வட மற்றும் மத்திய இந்தியா வெப்பமடைந்து இப்பகுதியிலுள்ள அழுத்தத்தை குறைக்கிறது.இதை நிரப்புவதற்கு இந்தியப்பெருங்கடலிலிருந்து ஈரம் நிறைந்த காற்று விரைகிறது.ஈரப்பதம் நிறைந்த இந்த காற்று இமயமலையை நோக்கி திருப்பப்படுகிறது.இமயமலை இக்காற்றை ஒரு சுவர் போல் மத்திய ஆசியாவுக்கு செல்வதைத் தடுக்கிறது. இதனால் மேகங்கள் எழும்பி வெப்பநிலையைக் குறைப்பதன் மூலம் தென்மேற்குப் பருவ மழையைப் பொழிகிறது.இந்த பருவமழையானது இந்தியாவுக்கு 80₹ மழையைக் கொண்டு வருகிறது.திரு.கோபாலன் மற்றும் திரு.பென்சிகர் ராஜன் பின்னூட்டம் கூறினர்.

'காவேரி ஆற்றுப்பாசனம்' என்ற தலைப்பில் விஜயராஜ் கருத்துக்களைப் பகிர்ந்து கொண்டார்.மேற்குத்தொடர்ச்சி மலையிலுள்ள குடகு மாவட்டத்தில் அகஸ்தியர் தீர்த்தத்தில் உற்பத்தியாகும் காவேரி நதியானது குடகுஇ மாண்டியாஇ பெங்களூர்இ சாம்ராஜ்இ தர்மபுரிஇ சேலம்இஈரோடுஇ நாமக்கல்இ கரூர்இ திருச்சிஇ நாகப்பட்டினம்இ தஞ்சாவூர் ஆகிய இடங்கள் வழி பாய்கிறது.காவிரியிலுள்ள இரு அருவிகள் சிவசமுத்திர அருவி மற்றும் ஒகேனக்கல் அருவி

மேலும் மேட்டூர் அணை,கிருஷ்ணசாகர் அணை,கல்லணை மற்றும் மேலணை போன்ற அணைகள் காவிரியின் குறுக்கே கட்டப்பட்டுள்ள அணைகளாகும்.ஹாரங்கி அணை,கபினி அணை போன்ற தடுப்பணைகளும் காவிரியின் குறுக்கே கட்டப்பட்டுள்ளன.அணையின் நீர் மின் உற்பத்திக்கும் வீட்டுத்தேவைகளைப் பூர்த்தி செய்யவும், விவசாய நிலங்களுக்கு பாசனப்படுத்தவும் பயன்படுகிறது. இந்த ஆறு பருவமழையின் போது நிரம்பி வடிந்து விவசாய நிலங்களுக்கு அதிகளவில் பயன்படுகிறது. திரு.கோபாலந்திரு.எல்.எட்.வின்சாம்,திரு.பென்சிகர் ராஜன் மற்றும் எஸ்.ஜாண்சன் பல தகவல்களை கூறினர்.

‘தாமிரபரணி’ பற்றி கூற ராகுல் அழைக்கப்பட்டான்.வற்றாத ஜீவநதியாகிய தாமிரபரணி 125 கி.மீ. பாய்கிறது.அது நெல்லை மாவட்டம் பாபநாசம் மேற்குத்தொடர்ச்சி மலைப் பகுதியில் தோன்றி தூத்துக்குடி மாவட்டம் புன்னக்காயல் அருகே கடலில் கலக்குகிறது. இந்நதி நெல்லை-தூத்துக்குடி மாவட்ட மக்களின் குடிநீர் தேவையைத்தீர்த்து விவசாயத்திற்கும் பயன்பட்டு வருகிறது. தாமிரபரணி ஆறானது மகாபாரதம் ராமாயணம் போன்ற பல நூல்களில் குறிப்பிடப்பட்டுள்ளது.தாமிரபரணியில் சேரும் சில கிளை ஆறுகள் கரையாறு, சேர்வலாறு, மணிமுத்தாறு,காதாநதி, பச்சையாறு,சிறீறாறு மற்றும் பல.மேலும் நதியின் குறுக்கே கோடைமேலழகின், நதியுண்ணி, கனாடியன், அரியநாயகிபுரம், பாலவூர் , சுதாமலி, மருதூர் போன் அணைகளும் தென்கோடைமேலழகின், வடகோடைமேலழகின், கோதாகன், பலயம், மருதூர் மேலக்கல்,மருதூர் கீழக்கல் போன்ற கால்வாய்களும் கட்டப்பட்டுள்ளன.திருநெல்வேலி மக்களுக்கு உயிாநாடியாக வழங்கும் தாமிரபரணியின் குறுக்கே குற்றாலம் நீர்வீழ்ச்சி உள்ளது.இந்நதி மட்டும் வறண்டால் திருநெல்வேலி மாவட்டம் பின் பாலைவனமாக மாறிவிடும்.திரு.கோபாலன்,திரு.எல்.எட்.வின்சாம்,திரு.பென்சிகர் ராஜன் மற்றும் எஸ்.ஜாண்சன் போன்றோர் பின்னூட்டம் கொடுத்தனர்.

விஷால் ‘தமிழக நெல் வளம் ‘ பற்றி பல கருத்துக்கள் கூறினான். விவசாயிகள் நெற்றி வியர்வை சிந்தி விவசாயம் செய்து அதன் விளைச்சலை நாம் உட்கொள்ள அறுவடை செய்து தருகின்றனர்.தமிழர்கள்அதிகளவில் உட்கொள்ளும் உணவு வகை நெல்.அதில் அதிகளவு மாவுச்சத்து காணப்படுகிறது. விவசாயிகள் சரியான காலத்தில பயிர் செய்து காலத்தில் அறுவடை செய்கின்றனர்.இருப்பினும் அவர்கள் வருமானம் குறைவாகவே உள்ளது .இன்று அதிகரித்துக்கொண்டிருக்கும் மக்கட்தொகையினால் உணவுத் தேவையானது அதிகரித்துக் கொண்டே இருக்கிறது.எனவே விவசாயத்தைப் பெருக்க வேண்டும் என்ற நோக்கத்திற்காகவும் விவசாயிகளை உற்சாகமுட்டும் வகையிலும் ஒவ்வொரு புத்தாண்டிலும் உழவர் திருநாளானது உற்சாகத்துடன் கொண்டாடப் படுகிறது. தமிழநாட்டிலுள்ள நெற்களஞ்சியங்களில் முக்கியமானதும் பெரிதுமான களஞ்சியம் தஞ்சைநெற்களஞ்சியம்.கன்னியாகுமரியில் முன்பு காணப்பட்ட நெல் வகையான சம்பா மிகவும் சிறப்பிற்குரியதாகக் கருதப்படுகிறது. சம்பாவிலே 18 வகைகள் காணப்பட்டது.ஆனால் தற்போது நெற்பயிர்கள் அழிந்துகொண்டே வருகின்றன என்று கூறி தன் உரையை முடித்தார்.திரு.கோபாலன்,திரு.எல்.எட்.வின்சாம்போன்றோர் பின்னூட்டம் கொடுத்தனர்.

ஹரீதா ‘பிரம்மபுத்திரா ‘என்னும் தலைப்பின் கீழ் கருத்துகள் கூறினாள் .பிரம்மபுத்திரா ஆறானது திபெத்திலுள்ள கயிலை மலையில் ஸாங்-போ என்ற பெயரில் புறப்பட்டு இந்தியா மற்றும் வங்காளதேசம் ஆகிய நாடுகளில் பாய்ந்து வங்காள விரிகுடாவில் கலக்குகிறது. இந்நதி 2800 கி.மீ. பாய்கிறது.அசாம் மாநிலத்தின் முதன்மையான ஆறு பிரம்மபுத்திரா.இந்நதியில் சேரும் கிளை நதிகளாவன மனாஸ்,ராய்தாக்,தீஸ்தா,தனசிரி,தபாங்,லோகிட் முதலியன.திபெத் மொழியில் பிரம்மபுத்திரா யார்லங் ஸாங்போ என்றும் அஸ்ஸாம் மொழியில் புர்லங்-பூதர் என்றும் அழைக்கப்படுகிறது.வசந்தகாலத்தில்(ஜூன் முதல் அக்டோபர் வரை)வெள்ளம் அதிகளவில் ஏற்படும்.பிரம்மபுத்திரா நதி அதிகளவில் பாசனத்திற்காகவும் பயன்படுத்தப்படுகிறது.இந்நதியின் சராசரி ஆழம் 124 அடி.திரு.பென்சிகர் ராஜன் மற்றும் எஸ்.ஜாண்சன் போன்றோர் பின்னூட்டம் அளித்தனர்.

அகீஷா ‘கங்கை நதி’ பற்றி தகவல்கள் கூறினார்.இந்தியாவின் தேசிய நதியான கங்கை இமயமலையின் உத்தரகாண்டம் மாநிலத்திலுள்ள கங்கோத்ரியில் பகீரதியாகத் தொடங்கி தேவப்பிரயாக் என்னுமிடத்தில் அலகநந்தா ஆற்றுடன் கலந்து கங்கையாகிறது.இந்த நதி ஒரு வளமான கழிமுகத்தை உருவாக்கி வங்காள விரிகுடாவில் கலக்குகிறது.கங்கையின் துணை ஆறுகள் யமுனைஇகோசி என்பவையாகும்.மேலும்கங்கை நதியானது இந்துக்களின் புனித நதியாகத் திகழ்கிறது..இந்நதியை இந்துக்கள் புனித நதியாக வழிபடுகின்றனர்.இந்நதிக்கு

கிருமிகளைக் கொல்லும் திறன் உள்ளதாக நம்பப்படுகிறது.ஏனெனில் .இந்நதி மூலிகைகள் நிறைந்த காடுகளைக் கடந்து ஓடுகிறது.திரு.கோபாலன் மற்றும் எஸ்.ஜாண்சன் மேலும் பல தகவல்களைக் கூறனார்கள்.

ஜிபி ஏடி 'இந்திய நீர் நிலைகள்' என்னும் தலைப்பில் புது தகவல்களைப் பகிர்ந்து கொண்டார்.ஒரு நாட்டின் வளர்ச்சியை மதிப்பிட அந்நாட்டிலுள்ள நீர் நிலைகள் உதவுகின்றன. இந்திய நீர் நிலைகள் ஆறு,ஏரி மற்றும் அணையை உள்ளடக்கியது.

ஆறு: இந்தியாவில் ஏறத்தாள 25 முக்கிய ஆறுகள் உள்ளன.இந்தியஆறுகள் இரு வகையாகப் பிரிக்கப்பட்டுள்ளன.வட இந்தியஆறுகள் மற்றும் தென்னிந்தியஆறுகள். இந்தியாவின் முக்கிய ஆறுகள்

சிந்து-2900 கி.மீ.நீளமுடையது.மின் உற்பத்திக்குப் பயன்படுகிறது.

கங்கை - 2510 கி.மீ.நீளமுடையது.இந்தியாவின் புனித நதி இதன் முக்கிய துணையாறு யமுனா பிரம்மபுத்திரா-மானசரோவர் ஏரியில் உற்பத்தியாகியறது.2880 கி.மீ.நீளமுடையது.

நர்மதா- மத்தியபிரதேசத்திலுள்ள அமார்க்காண்ட் என்ற இடத்தில் உற்பத்தியாகி மேற்கு நோக்கி பயணிக்கிறது.

தப்தி- 724 கி.மீ.நீளமுடையது மத்தியபிரதேசத்தில் உற்பத்தியாகி அரபிக்கடலில் கலக்குகிறது.

கோதாவரி- 1465 கி.மீ.நீளமுடையது .தென்னிந்திய ஆறுகளில் மிக நீளமானது.இந்திய நிலப்பகுதியில் 10மு இதன் பரப்பாகும்.

கிருஷ்ணா- மகாராஷ்டிராவில் மகாபாலீஷ்வர் என்னமிடத்தில் உற்பத்தியாகிறது.தென்னிந்திய ஆறுகளில் இரண்டாவது நீளமானது.

காவேரி: 760 கி.மீ. நீளமுடையது.தென்கங்கை என்று சிறப்பிக்கப்படுகிறது.

ஏரி: இந்தியாவில் ஏறத்தாள 170 ஏரிகள் உள்ளன. அவற்றுள் சில: ஊட்டி, சோலாவரம், சிங்கநல்லூர், கோடைக்கானல். குமரி மாவட்டத்தில் 2700 குளங்கள் தான் உள்ளன.

அணை: ஒரு நீரோட்டத்தின் குறுக்கே கட்டப்படும் ஒரு அமைப்பு அணை. இந்தியாவில் ஏறத்தாழ 3200 அணைகள் உள்ளன. அவற்றுள் பெரியது தெஹ்ரி அணை. அணைகள் வெள்ள அபாயத்தைக் குறைப்பதோடு நீர் மின்சார உற்பத்தி செய்ய உதவுகிறது.

சூரியா விஜய் 'இமயமலை' என்னும் தலைப்பின்கீழ் கருத்துகள் கூறினாள். சுமார் 5000 கிமீ சுற்றளவு கொண்ட இமயமலை பனியின் இருப்பிடமாக கருதப்படுகிறது. இம்மலை இந்தியாவையும் திபெத்தையும் பிரிக்கிறது. இமயமலையைச் சுற்றியுள்ள பகுதியில் 4 கோடி மக்கள் வசிக்கின்றனர். உலகிலேயே ஒப்பற்ற மிகப்பெரிய மிக உயர்ந்த மாபெரும் மலைத்தொடரான இமயம் ஒரு அரணாகக் கருதப்படுகிறது. ஏனெனில் அது கடும் குளிர்க் காற்றை வரவிடாமல் தடுக்கிறது. இமயமலைத் தொடரில் 5000-க்கும் மேற்பட்ட நதிகள் உற்பத்தியாகின்றன.அவற்றுள் முக்கியமானது சிந்துஇ பிரம்மபுத்திரா மற்றும் கங்கை. முற்காலத்தில் இமயமலையில் பல சாமிகள் வாழ்ந்தனர். 2400 கிமீ நீளமான வட்டவில்லாக அமைந்துள்ள இமயமலை 5 நாடுகளில் பரவியுள்ளது. அவை பூட்டான்இ இந்தியாஇ நேப்பாளம்இ சீனா மற்றும் பாகிஸ்தான். இமயமலைப் பகுதியில் நூற்றுக்கணக்கான ஏரிகள் உள்ளன.

காவியா ஸ்ரீ 'சிந்து நதி' பற்றிக் கூறினாள். பாரதியின் 'சிந்து நதி மீதினிலே' என்ற பாடலால்சிந்து நதி இன்று அறியப்படுகிறது. இது பாகிஸ்தானில் பாயும் முக்கிய ஆறு. இந்த ஆறு இமயமலைத் தொடரில் கயிலை மலையில் மானசரோவர் அருகே தொடங்கி காஷ்மீர் மற்றும் பாகிஸ்தான் வழியாகச் சென்று அரபிக் கடலில் கலக்கிறது. இதன் நீளமானது 2900 கி.மீட்டரிலிருந்து 3200 கிமீ வரையிருக்கும். மக்கள் இந்நதிக்கரையில் கிமு 6000-த்தில் குடியேறியதாகக் கருதப்படுகிறது. சிந்து சமவெளி நாகரீகம் இவ்வாறு படுகையிலேத் தோன்றி

வளர்ந்த பழமைமான பண்பாடு. சிந்து நதிக்கரையில் குளியலறை ஒன்று தொல்லியலாளர்களால் கண்டுபிடிக்கப்பட்டுள்ளது.

ஜிஸ்வியா 'இந்தியபெருங்கடல்' குறித்து கருத்துகளைப் பகிர்ந்தாள். உலகின் 3-ஆவது பெரிய நீர்த்தொகுதி இந்தியபெருங்கடலாகும். இதன் எல்லை: வடபகுதியில் இந்தியாஇமேற்கில் ஆப்ரிக்காஇ கிழக்கில் ஆஸ்திரேலியா மற்றும் தெற்கில் தெற்குப்பெருங்கடல். இந்தியபெருங்கடல் சுமார் 6 கோடி ச.கிமீ பரப்பளவுடையது. அதன் சராசரி ஆழம் 3890 கிமீ. 40முகச்சா எண்ணெய் இப்பெருங்கடலிலிருந்து எடுக்கப்படுகிறது. இந்த பெருங்கடலின் கடற்கரையில் தாது மண் அதிகளவில் உள்ளது. இந்த சமுத்திரத்தின் முத்து என இலங்கைத் தீவு அழைக்கப்படுகிறது. கடலின் கரையிலுள்ள முக்கிய நகரங்கள்: சிட்டிஇ ஜெகர்தா. இந்த கடலிலிருந்து தான் ஆழிப்பேரலை ஆரம்பித்தது. திரு.கோபாலன், திரு.எல்.எட்.வின்சாம், திரு.பென்சிகர் ராஜன் மற்றும் எஸ்.ஜாண்சன் போன்றோர் பின்னூட்டம் கொடுத்தனர்.

'இந்திய சதுப்புநிலங்கள்' பற்றி ஐயணா கருத்துக்கள் பகிர்ந்தாள். சதுப்புநிலங்கள் சேறு நிறைந்ததாகத் தோற்றமளிக்கிறது. கடலும் நிலமும் சேருகின்ற இடம் சதுப்பாக இருப்பதுதான் சதுப்புநிலம். இந்தியாவில் சுமார் 60 விதமான சதுப்புநிலங்கள் உள்ளன. இந்தியாவிலுள்ள சில சதுப்புநிலங்கள்: சுந்தர்பன்ஸ்இ மணக்குடிஇ அந்தமான்இ கொரின்கா மற்றும் பல. சதுப்புநிலங்கள் அதன் அருகிலுள்ள கிராமங்களை வெப்பமண்டல புயல்களினின்றும் சூறாவளியினின்றும் பேரலைகளினின்றும் பாதுகாக்கும். சதுப்புநிலத்தில் சுந்தரி மரம்இ அகர்இ கியோரா போன்ற மரங்கள் வளருகின்றன இந்நிலங்களில் ஆமைகள்இ முதலைகள்இ பாம்புஇ கரியல்ஸ் போன்ற மிருகங்கள்.

ரேஷ்மா 'இந்திய தொழில் நகரங்கள்' பற்றி தகவல் பகிர்ந்து கொண்டாள்.

டெல்லி : சிறந்த சுற்றுலா தளம். இந்தியாவின் தலைநகரான டெல்லி தகவல் தொழில்நுட்பம்இ தொலைத்தொடர்புஇ உணவு விடுதிஇ வங்கிஇ ஊடகம் போன்றவற்றில் சிறந்து விளங்குகிறது. இந்நகரத்தில் 32.82மூ மக்கள் வேலை வாய்ப்பை பெற்றிருக்கிறார்கள்.

கல்கத்தா : கிழக்கு இந்தியாவின் முக்கிய நகரம். சால்ட் வேக் மற்றும் ராஜர்வார்ட் போன்றவை இங்கு காணப்படுகின்றன. United Bank of India-வின் தலைமையிடம் கல்கத்தா.

மும்பை : இந்தியாவின் 2-ஆவது பெரிய நகரம். டாடா குழுமத்தின் வீடு மும்பை. ஏற்றுமதி மற்றும் கடல் வழி வியாபாரம் அதிகமாக நடைபெறுகிற நகரம் இது.

சென்னை : தமிழ்நாட்டு சுற்றுலாத் துறையின் மையம் சென்னை. கல்வி பெற சிறந்த நகரம் இது தான். இங்கு மரவேலை முக்கிய தொழிலாக இருக்கிறது.

கோவா : இந்தியாவிலுள்ள சுற்றுலாத் தலங்களில் 12.5மூ இடங்களை கோவா பிடித்துள்ளது. சுற்றுலாத் தலத்தை அடுத்து 2-ஆவது இடத்தைப் பிடிப்பது சரங்கத் தொழில்.

பூனே : பொருளாதாரத்தில் 7-ஆவது பெரிய நகரம். தகவல் தொழில்நுட்பத்தில் சிறந்து விளங்குகிறது. சுமார் 225 ஜெர்மானிய நிறுவனங்கள் வியாபாரத்தை விரிவுபடுத்தியுள்ளனர்.

பெங்களூரு : Silicon Valley of India. தகவல் தொழில்நுட்ப நிறுவனங்கள் இங்கு அதிகமாகக் காணப்படுகின்றன. இந்நகர் மென்பொருள் நிறுவனங்களுக்கு நரம்பாக விளங்குகிறது.

பிரபின் குமார் 'இந்திய கடல் போக்குவரத்து' பற்றி பேசினான். 7514 கிமீ நீளமுடைய இந்திய கடற்கரையில் 13 துறைமுகங்கள் உள்ளன. பெரிய துறைமுகங்கள்: சென்னைஇ கல்கத்தாஇ கோவா. 137 நடுத்தர துறைமுகங்களுள் குஜராத்தில் 43-ம்இ தமிழ்நாட்டில் 10-ம்இ கேரளாவில் 17-ம் உள்ளது. நம் நாட்டைச் சுற்றி 3 கடல்கள் இருப்பதால் கடல் வழி போக்குவரத்து நெரிசலின்றி நடக்கும். கடல் வழி போக்குவரத்து தான் குறைந்த விலையில் இரு கண்டகளுக்கு செல்ல வழிவகுக்கும்.

அடுத்ததாக நான் ‘கோதாவரி நதி’ என்னும் தலைப்பில் நான் பேசினேன். இந்தியாவின் 2-ஆவது நீளமான கோதாவரிநதி மகாராஷ்டிரா மாநிலத்தில் நாசிக் குன்றுகளின் அருகில் மேற்கு தொடர்ச்சி மலையிலுள்ள திரிம்பாக் என்னுமிடத்தில் உற்பத்தியாகி 1465 கிமீ பாய்ந்து வங்காள பெருங்கடலில் கலக்கிறது. கோதாவரியில் சேரும் கிளை ஆறுகள்: மஞ்சிராஇ சபரிஇநூதான வர்தா மற்றும் பல .மேலும் நதியின் குறுக்கே கட்டப்பட்ட சில அணைகள் டோல்ஸ்வேரன்பேரேஜ்இ போலாவரம் புராஜெக்ட் மற்றும் பல.மேலும் மேல்சிலேறுஇ கீழ்சிலேறுஇமேல் கோலாபிஇ மேலஇந்திராவதிஇ காத்தர் இ பென்ச் முதலியன.இந்தியாவிலுள்ள அனைத்து நதிகளுக்கே இல்லாத ஒரு சிறப்புக்கோதாவரிக்கு உண்டு .அதாவது இந்த நதியில் இருந்து கச்சா எண்ணெய் எடுக்க முடியும்..இந்தியாவிலேயே இரண்டாவது பெரிய சதுப்பு நிலக் காடான கோரினூரா சதுப்பு நிலக் காடுகள்கோதாவரி டெல்டாவில் உள்ளது. கோதாவரி நதியில் கெண்டை,இறால்,கெளுத்தி ஆகிய மீன்கள் கிடைக்கின்றன.ஆனால் தற்போது வளர்ந்து வரும் நகரமயமாக்கத்தாலும்,தொழில்மயமாக்கத்தாலும் கோதாவரி நதியானது மாசடைகிறது. மாசடைந்த நதி நீரைப் பயன்படுத்தும்மக்களுக்கு இரத்தப்புற்றுநோய் .கல்லீரல் புற்றுநோய்,நுரையீரல்புற்றுநோய் ஏற்படுகிறது.எனவே நதிநீர் மாசடைவதைத் தடுக்க 1987,1993,2001 ஆகிய ஆண்டுகளில் அரசாங்கம் சில வழிமுறைகளைக் கொண்டு வந்தது.வெள்ளம்,வறட்சி என்ற நிலை மாறி மக்களுக்கு வேலை வாய்ப்பு தந்து உதவுகிறது. மேலும் உணவு மற்றும் மின்உற்பத்தியை அதிகரிக்க வீணாகக்கடலில் கலக்கும் கோதாவரி நதியை, கிருஷ்ணாநதிக்கு திருப்பிவிடும் நதிநீர் இணைப்பு திட்டம் செயல்படுத்தப்பட உள்ளது. திரு.கோபாலன் மற்றும் திரு.பென்சிகர் ராஜன் பின்னூட்டம் கூறினர்.

ஷிபி’தஞ்சை நெற்களஞ்சியம்’ பற்றி கருத்துகள் பகிர்ந்தாள். தமிழகத்தின் பெரிய நெற்களஞ்சியம் தஞ்சாவூர். நெற்களஞ்சியம் என்றால் நெல் பாதுகாக்கும் அரண் .”Rice bowl of Tamilnadu” என்று சிறப்பிக்கப்படுவது தஞ்சை. இது காவேரி டெல்டாவில் அமைந்துள்ளது . தஞ்சையில் அதிகளவு நெல் பயிரிடப்படுகிறது. தஞ்சையில் வேளாண்மைக்கு முன்றுகாலங்கள் உள்ளன. குருவை(ஜன்-செப்டம்பர்)சம்பா(ஆகஸ்ட்-ஜனவரி)தலடி(செப்டம்பர்-பிப்ரவரி).இங்குள்ள மொத்த நெற்சாகுபடி 10.615 LMT மற்றும் 7.077 LMT. திரு.கோபாலன் மற்றும் திரு.பென்சிகர் ராஜன் பலத் தகவல்களைக் கூறினர்.

அபிலா ‘இந்திய வர்த்தகம்’ பற்றி பேசினாள்.இந்திய வர்த்தகம் இரண்டு வகையாக பிரியும். உள்நாட்டு வர்த்தகம் மற்றும் வெளிநாட்டு வர்த்தகம். உள்நாட்டு வர்த்தகம் என்பது உள்நாட்டுத் தேவைகளைச் சந்திக்க உதவுவது.வெளிநாட்டு வர்த்தகம் என்பது வெளிநாடுகளில் செய்யப்படும் வர்த்தகம் சார்ந்தது.பழம்>மீன் போன்றவை இந்தியாவிலிருந்து ஏற்றுமதி செய்யப்படும் பொருட்கள்.கண்ணாடி>மருந்துகள்>ஆடை போன்றவை இந்தியாவிற்கு இறக்குமதி செய்யப்படும் பொருட்கள். இந்தியாவின் நாட்டு வருமானம் சுமார் 950 மில்லியன் அமெரிக்க டாலர் ஆகும். சென்சஸ் அட்டவணைப்படி புள்ளிகள் அதிகரிக்கும் போது பொருட்களின் விலையும் அதிகரிக்கும்இ புள்ளிகள் குறையும் போது பொருட்களின் விலையும் குறையும் . மேலும் பங்குச் சந்தை பற்றியும் தகவல்களை பகிர்ந்து கொண்டாள். திரு.பென்சிகர் ராஜன் மற்றும் திரு.எட்வின்சாம் பின்னூட்டம் கூறினர்.

உணவிற்கு பின் 01:40 மணிக்கு ஜெரிஷியா ‘இந்தியாவில் பன்னாட்டு கம்பனிகள்’ பற்றிக் கூறினாள்.

நோக்கியா : தலைமையிடம் பின்லாந்தில் உள்ளது. உலகின் மிகப்பெரிய கைப்பேசி உற்பத்தியாளராகும். 2013-ஆம் ஆண்டு மைக்ரோசாப்ட் நிறுவனம் இதனை 7.17 பில்லியன் டாலர்களைக் கொடுத்து தன்னகப்படுத்த முடிவு செய்தது.

மைக்ரோசாப்ட் : உலகின் மிகப் பெரிய மென்பொருள் தயாரிப்பு நிறுவனமாக விளங்குகிறது. வாசிங்டனிலுள்ள ரெட்மாண்ட் நகரத்தில் இதன் தலைமையிடம் உள்ளது. உலகளவில் பங்குச்சந்தையில் மிகக் கூடுதலான மொத்தமதிப்பைக் கொண்டுள்ள நிறுவனமாகவும் இது விளங்குகிறது.

யுயேண்டே : தென் கொரியாவின் சியோலைத் தலைமையாகக் கொண்டுள்ளது. சிறு மகிழுந்து தயாரிப்பில் இந்தியாவை உலகளவில் தயாரிப்பு மையமாக ஆக்குவதில் பெரும் பங்கு வகிக்கிறது. இந்நிறுவனம் இந்தியாவில் சென்னையிலுள்ளது,

போர்ட் : இதன் தலைமையகம் டியர்போர்னிலுள்ளது.மகிழுந்து தயாரிக்கும் ஓர் நிறுவனமாகும். இந்நிறுவனம் பிகோ என்னும் ஓர் புதிய மகிழுந்தை வெளியிடவுள்ளது.

ஹோண்டா : இதன் தலைமையகம் ஜப்பானிலுள்ளது. ஜப்பானிய பன்னாட்டு கூட;டு நிறுவனமாகிய இக்கம்பனி மோட்டார் சைக்கிளை உற்பத்தி செய்கின்றது.ஹோண்டா உலகின் ஆறாவது பெரிய ஆட்டோமொபைல் உற்பத்தியாளராகும்.

நெஸ்லே : இதன் தலைமையகம் சுவிட்சர்லாந்தில் உள்ளது. இதன் 8 கிளை இந்தியாவிலும் அவற்றுள் 4 தமிழ்நாட்டிலுள்ளது.

திரு.பென்சிகர் ராஜன், திரு.பி.கோபாலன் மற்றும் திரு.எஸ்.ஜாண்சன் கருத்துக்கள் கூறினர்.

அருணா 'இந்திய சாலை போக்குவரத்து' பற்றி பேசினாள். சுதந்திர இந்தியாவில் போக்குவரத்தானது தேசிய பொருளாதாரத்தில் முக்கிய பங்கு வகிக்கிறது.

மேரி சுஷ்மிஜா 'மாகாந்தி' பற்றி பேசினாள். மகாந்தி இந்தியாவின் கிழக்குப் பகுதியில் பாயும் நதியாகும். 800 கிமீ நீளமுடைய இந்நதி சாத்திரா மலைத்தொடர்களில் தொடங்கி கிழக்குத் திசையில் சத்தீஸ்கர் மற்றும் ஒரிசா மாநிலங்களின் டுரியாகப் பாய்ந்து வங்காள விரிகுடாவில் கலக்கிறது. இதன் துணை ஆறுகள்: ஜாங்கு, ஹாஸ்டியோ. இந்நதி ஒடிசா மாநிலத்தின் கட்டாக் என்னும் இடத்தில் இரண்டாக பிரிகிறது: காத்தஜோரி மற்றும் மகாந்தி. இந்நதியில் இப், ஓங், டெல் என்ற நீரோடைகள் சேருகிறது. இங்கு 150 கிமீ வரை நீர் வழி போக்குவரத்தானது நடைபெறுகிறது. இந்நதிக்கரையில் நெல், எண்ணெய், விதை, கரும்பு போன்ற பயிர்கள் பயிரிடப்படுகின்றன. இன்று தொழிற்சாலை மற்றும் வீட்டுக் கழிவுகளினால் தண்ணீர் மாசடைந்து அதில் வாழும் உயிர்களுக்கு ஆபத்து விளைவிக்கிறது. நீர்மின் நிலையமான ஹிராகுட் அணை இவ்வாற்றில் அமைந்துள்ளது. திரு.பென்சிகர்ராஜன் மற்றும் திரு.எஸ்.ஜாண்சன் பின்னூட்டம் கூறி தகவல் பகிர்ந்தனர்.

'இந்திய எல்லைப் பிரச்சனை' என்னும் தலைப்பில் ஜெனிஷா பேசினாள். இந்திய-சீன எல்லைப் பிரச்சனை பற்றி அவள் கருத்துகள் கூறினாள். இந்தியாவிற்கும் சீனாவிற்கும் உள்ள எல்லைக் கோட்டின் அளவு 4056 கிமீ தூரம். 1890-ல் பேச்சு வார்த்தையின் மூலம் எல்லைக் கோடு நிர்ணயிக்கப்பட்டது. 1954-ல் ஏற்றுக்கொண்ட பஞ்சசீல கொள்கைக்கு மாறாக இந்தியாவின் மீது சீனா போர்தொடுத்தது. 1962-ல் நடந்த இந்திய-சீன போரின் போது சீனா கைப்பற்றப்பட்ட பகுதி சுமார் 38000 சகிமீ தூரம் கொண்ட பகுதியாகும். 1962-ல் நடந்த சண்டைக்கு பின் சீனா சட்ட விரோதமாக அருணாசல பிரதேசத்தில் 2000 சகிமீ இடங்களையும் ஜம்மு-காஷ்மீர் மாநிலத்திற்கு உட்பட்ட லடாக் பகுதியில் 38000 சகிமீ பரப்பளவு கொண்ட அக்சியாசின் பகுதியையும் 1963-ல் பாகிஸ்தான் சீனாவிற்கு தானமாக கொடுத்த 5180சகிமீ தூரத்தையும் ஆக்கிரமித்துக்கொண்டது. இவ்வாறு இந்திய-சீன எல்லைப் பிரச்சனை நீடிக்கிறது. திரு.பென்சிகர்ராஜன் மற்றும் திரு.எஸ்.ஜாண்சன் பின்னூட்டம் கூறினர்.

மெஜாலின் ஆர்னோ 'குமரி நதி பாசனம்' என்னும் தலைப்பில் பேசினாள். குமரி மாவட்டமானது வளமிக்கது. அதில் பாயும் நதியின் பரப்பளவு 1846 சகிமீ. முண்டந்துறையிலிருந்து நீரோடி வரையிலும் வாழும் மக்களுக்கு முக்கிய நீர் ஆதாரமாக விளங்கிய ஏ.வி.எம். கால்வாய் தற்போது குப்பைத்தொட்டியாக மாறிக்கொண்டிருக்கிறது. 4400-க்கு மேல் கன்னியாகுமரியில் காணப்பட்ட குளங்களில் சுமார் 2650 குளங்களைக் காணவில்லை. மீதமிருக்கும் 1750 குளங்களும் கூட பாசி பிடித்துள்ளது. புத்தேரிக் குளமானது சைபீரியாவிலிருந்து வரும் பறவைகளுக்கு கூட சரணாலயமாக விளங்குகிறது. குமரி மாவட்டத்திலுள்ள 10 சிற்றணைகளும் பாசனத்துக்கு பயன்படுகிறது. வாய்க்கால்களும் குளங்களும் அணைகளும் கூட பாசனத்துக்கு பயன்படுகிறது. திரு.பென்சிகர்ராஜன், திரு.எஸ்.எடவின் சாம் மற்றும் திரு.பி.கோபாலன் பின்னூட்டம் அளித்தனர்.

இந்துஜா 'மும்பை நகரம்' பற்றி தகவல் கூறினாள். மகாராஷ்டிராவின் தலைநகர் மும்பை. ஏறத்தாழ 14 மில்லியன் மக்களுடன் உலகின் மிக அதிக மக்கள்தொகை நிறைந்த நகரங்களில் இரண்டாவதாக விளங்குகிறது. மும்பா + ய = மும்பை. மும்பா என்பது மும்பா தேவியைக் குறிக்கிறது. ய என்பது தாயைக் குறிக்கிறது. பாம்பே என்று அழைக்கப்பட்ட மும்பை நகரம் பல வம்சத்தினர்களால் ஆட்சியெய்யப்பட்டது. இங்கு 1 சகிம்-ட்டரில் 21000 பேர் வசிக்கின்றனர். இங்கு கோங்கனி, ஹிந்தி, குஜராத்தி, மராத்தி, ஆங்கிலம் ஆகிய மொழிகள் பேசப்படுகின்றன. அரபிக் கடலுக்கும் விந்திய மலைகளுக்கும் இடையே கச்சா எண்ணெய் பிரித்து எடுக்கப்படுகிறது. ஈரப்பதமான பருவநிலை மற்றும் உலர்ந்த பருவநிலை ஆகிய இரண்டு பருவநிலைகளை மும்பை பெறுகிறது. பின்னூட்டம் அடுத்தப்படியாகக் கூறப்பட்டது.

பெனோஜ் 'இந்திய மாநிலங்கள்' பற்றி பல தகவல்களைக் கூறினாள். வரதம் என்னும் பெயரிலிருந்து பாரதம் என்னும் பெயர் வந்தது. நம் நாட்டில் பேசப்படும் மொழிகளில் 22 மொழிகள் மட்டுமே அரசால் அங்கீகரிக்கப்பட்டது. Seven sisters of North-East என்று கூறப்படும் 7 மாநிலங்கள்: அஸாம், மணிப்பூர், நாகலாந்து, மேகாலயா, மிசோராம், திருப்பூர் மற்றும் அருணாசலபிரதேஸ்.

#### ஆந்திர பிரதேசம்

- மாவட்டங்கள் : 13
- தலைநகர் : ஹைதராபாத்
- நிறுவப்பட்ட ஆண்டு : 1956
- மொழி : தெலுங்கு
- சிறப்பு : நீண்ட கடற்கரை

#### அருணாசல பிரதேசம்

- மாவட்டங்கள் : 16
- தலைநகர் : இடாநகர்
- நிறுவப்பட்ட ஆண்டு : 1987
- மொழி : ஆங்கிலம், இந்தி
- சிறப்பு : பிரம்மபுத்திரா நதி நுழைகிறது

#### பிஹார்

- மாவட்டங்கள் : 38
- தலைநகர் : பாட்னா
- நிறுவப்பட்ட ஆண்டு : 1912
- மொழி : உருது, இங்கி

#### அஸாம்

- மாவட்டங்கள் : 27
- தலைநகர் : டிஸ்பூர்
- நிறுவப்பட்ட ஆண்டு : 1947
- மொழி : அஸாம்மீஸ்

### குஜராத்

- மாவட்டங்கள் : 33
- தலைநகர் : காந்திநகர்
- நிறுவப்பட்ட ஆண்டு : 1960
- மொழி : குஜராத்தி
- 

### ஹரியாணா

- மாவட்டங்கள் : 20
- தலைநகர் : சண்டிகார்
- மொழி : ஹரியாணி

### ஹிமாசல் பிரதேசம்

- மாவட்டங்கள் : 12
- தலைநகர் : ஷிம்லா
- நிறுவப்பட்ட ஆண்டு : 1971
- மொழி : இந்தி

### சத்திஸ்கர்

- மாவட்டங்கள் : 18
- தலைநகர் : ராய்பூர்
- நிறுவப்பட்ட ஆண்டு : 2000
- மொழி : சத்திஸ்கரி

### ஜம்மு & காஷ்மீர்

- மாவட்டங்கள் : 22
- தலைநகர் : ஸ்ரீநகர்  
(கோடைக்காலம்),காஷ்மீர்  
(குளிர்க்காலம்)
- நிறுவப்பட்ட ஆண்டு : 1947
- மொழி : உருது

### கோவா

- மாவட்டங்கள் : 2
- தலைநகர் : பானாஜி
- நிறுவப்பட்ட ஆண்டு : 1987
- மொழி : கோங்கனி
- சிறப்பு : சின்ன மாநிலம்

### ஜார்ஹண்ட்

- மாவட்டங்கள் : 22
- தலைநகர் : ராஞ்சி
- நிறுவப்பட்ட ஆண்டு : 2000
- மொழி : இந்தி

### கர்நாடகா

- மாவட்டங்கள் : 30
- தலைநகர் : பெங்களூரு
- நிறுவப்பட்ட ஆண்டு : 1956
- மொழி : கன்னடா

### கேரளா

- மாவட்டங்கள் : 14
- தலைநகர் : திருவனந்தபுரம்
- நிறுவப்பட்ட ஆண்டு : 1956
- மொழி : மலையாளம்

### மத்திய பிரதேசம்

- மாவட்டங்கள் : 50
- தலைநகர் : போபால்
- நிறுவப்பட்ட ஆண்டு : 1956
- மொழி : ஆங்கிலம், இந்தி, போஜ்புரி

### மகாராஷ்டிரா

- மாவட்டங்கள் : 35
- தலைநகர் : மும்பை
- நிறுவப்பட்ட ஆண்டு : 1960
- மொழி : மராட்டி, இந்தி

### மேகாலயா

- மாவட்டங்கள் : 7
- தலைநகர் : சில்லாம்
- நிறுவப்பட்ட ஆண்டு : 1971
- மொழி : ஆங்கிலம், இந்தி

### மிசோராம்

- மாவட்டங்கள் : 8
- தலைநகர் : ஐஷால்
- மொழி : ஆங்கிலம், இந்தி

### நாகலாந்து

- மாவட்டங்கள் : 11
- தலைநகர் : கோஹிமா
- நிறுவப்பட்ட ஆண்டு : 1963
- மொழி : ஆங்கிலம், நாகா

ஓடிசா

- மாவட்டங்கள் : 30
- தலைநகர் : புபனேஸ்வர்
- நிறுவப்பட்ட ஆண்டு : 1936
- மொழி : ஒடிசி

பஞ்சாப்

- மாவட்டங்கள் : 20
- தலைநகர் : சண்டிகார்
- நிறுவப்பட்ட ஆண்டு : 1966
- மொழி : பஞ்சாபி

ராஜஸ்தான்

- மாவட்டங்கள் : 33
- தலைநகர் : ஜெய்பூர்
- மொழி : ராஜஸ்தானி
- சிறப்பு : பெரிய மாநிலம்

தமிழ் நாடு

- மாவட்டங்கள் : 32
- தலைநகர் : சென்னை
- நிறுவப்பட்ட ஆண்டு : 1956
- மொழி : தமிழ்

தெலுங்கானா

- மாவட்டங்கள் : 10
- தலைநகர் : ஹைதராபாத்
- நிறுவப்பட்ட ஆண்டு : 2014
- மொழி : தெலுங்கு

### த்ருபுரா

- மாவட்டங்கள் : 8
- தலைநகர் : அகர்தலா
- மொழி : பெங்காலி

### உத்திர பிரதேசம்

- மாவட்டங்கள் : 70
- தலைநகர் : லக்னோ
- மொழி : ஹிந்தி

### உத்திரகாண்ட்

- மாவட்டங்கள் : 13
- தலைநகர் : டெஹ்ராடூண்
- மொழி : ஹிந்தி

### மேற்கு வங்காளம்

- மாவட்டங்கள் : 20
- தலைநகர் : கொல்கத்தா
- மொழி : பெங்காலி

அபினா 'நவீன உரங்கள் பூச்சிக்கொல்லி தாக்கங்கள்' பற்றி கருத்துக்களைப் பகிர்ந்து கொண்டாள். உரங்களில் நைட்ரஜன், பொட்டாசியம் மற்றும் பாஸ்பரஸ் என்னும் தனிமங்கள் சேர்க்கப்பட்டிருக்கும். நவீன உரங்களை விவசாய நிலங்களில் பயன்படுத்துவதன் மூலம் மண்ணின் தன்மை கெடுகிறது. உரங்களில் சேர்க்கப்பட்டிருக்கும் இரசாயன பொருட்கள் நிலத்தடி நீரில் சேரும் போது அது மாசடைகிறது. இன்றைய காலக்கட்டத்தில் நோயின் மூலக் காரணம் உணவு தான். இரசாயன பொருட்கள் கலந்த உணவை உட்கொள்ளும் போது மனிதனுக்கு பல நோய்கள் வருகிறது. பூச்சிகள் தாவரங்களுக்கு வருவதைத் தடுக்க பூச்சிக்கொல்லிகள் தெளிக்கப்படுகிறது. இது பூச்சிகளைக் கொல்லுவதோடு நிறுத்திவிடாமல் நமக்கு எமனாக மாறுகிறது. இது நம் வாழ்வாதாரத்தைப் பாதிக்கிறது. இது போன்ற பிரச்சனைகளிலிருந்து தப்பிக்க அதன் மாற்றுவழி இயற்கை விவசாயமே.

நிஷாந்த் 'மேற்குத் தொடர்ச்சி மலை' பற்றி தன் சிந்தனைகளைப் பகிர்ந்தான். மேற்குத் தொடர்ச்சி மலை இந்திய துணைக்கண்டத்தின் மேற்புறத்தில் அரபிக்கடலுக்கு இணையாக அமைந்துள்ள தொடர்மலையாகும். மேற்குத் தொடர்ச்சி மலை அரபிக்கடல் இருந்து

வரும் குளிர்ந்த காற்றைத் தடுத்து அதன் மேற்பகுதியில் அமைந்துள்ள கேரளா மற்றும் மேற்கு கடற்கரையில் நல்ல மழையைத் தருகின்றது. இதனால் இம்மலைத்தொடரின் கிழக்குப் பகுதியிலுள்ள தக்காணப் பீடபூமி குறைந்த அளவு மழைப்பொழிவையே பெறுகிறது. உலகில் பல்லுயிர் வளமிக்க எட்டு இடங்களில் மேற்குத் தொடர்ச்சி மலைகளும் ஒன்றாகும். இங்கு சுமார் 5000 வகை பூக்கும்தாவரங்களும், 139 வகை பாலூட்டிகளும், 508 வகை பறவைகளும், 176 வகை இருவாழ்விகளும் உள்ளன. இங்கு கோதாவரி, கிருஷ்ணா, காவேரி, தாமிரபரணி, வைகை ஆகிய நதிகள் உற்பத்தியாகின்றன. இம்மலை 9000 கிமீ நீளமாகும். இதற்கு யானை மலை, சாயத்திரி மலை என்னும் வேறு பெயர் உண்டு. திரு.பென்சிகர் ராஜன், திரு.பி.கோபாலன் கருத்துக்கள் கூறினர்.

ஜாசுலின் 'இந்தியத் துறைமுகங்கள்' என்னும் தலைப்பில் பேசினாள். கப்பல் நிறுத்தும் இடம் துறைமுகம் என்று அழைக்கப்படுகிறது. இஃது இருவகைப்படும்: செயற்கைதுறைமுகம் மற்றும் இயற்கை துறைமுகம். இந்தியாவில் மொத்தம் 13 பெரிய துறைமுகங்களும் 187 சிறிய நடுத்தர துறைமுகங்களும் உள்ளன.

மசன்னை துறைமுகம்: இரண்டாவது பெரிய துறைமுகம். வங்காள பெருங்கடலில் உள்ளது.

தூத்துக்குடிதுறைமுகம்: இங்கு இரப்பர் மற்றும் மீன் ஏற்றுமதி செய்யப்படுகிறது.

விசாக்கப்பட்டினம் துறைமுகம்: ஏற்றுமதியிலும் இறக்குமதியிலும் இரண்டாவது இடத்தில் உள்ளது.

பரதீப் துறைமுகம்: இது செயற்கை துறைமுகமாகும்.

கொல்கத்தா துறைமுகம்: வங்காள பெருங்கடலில் உள்ளது.

புதுமங்கலூர் துறைமுகம்: அரபிக் கடலில் உள்ளது.

கொச்சி துறைமுகம்: அரபிக் கடலில் உள்ளது. சுற்றுலாத்தளம். மிளகு மற்றும் மீன் ஏற்றுமதி செய்யப்படுகிறது. இங்கு படகு வசதி உண்டு.

மும்பை துறைமுகம்: பாம்பே துறைமுகம் என்று அழைக்கப்பட்டது. இங்கு கடல் வழி போக்குவரத்து காணப்படுகிறது.

மர்மகோவா துறைமுகம்: இங்கு நிலக்கரி ஏற்றுமதி செய்யப்படுகிறது.

ஜே.என்.பி.டி. துறைமுகம்

எண்ணூர் துறைமுகம்

காண்ட்லா துறைமுகம்

காரைக்கால் துறைமுகம்

சப்ரீனா 'பரவிவரும் இயற்கை விவசாயம்' என்னும் தலைப்பின்கீழ் பேசினாள். "நோயற்ற வாழ்வே குறைவற்ற செல்வம்". இயற்கை விவசாயமானது செயற்கை உரங்கள் மற்றும்பூச்சிக்கொல்லிகளைப் பயன்படுத்தாமல் இயற்கை பொருட்களையே பயன்படுத்தி உணவு உற்பத்தி செய்வதால் இதன் நன்மை ஏராளம். தூரமான உணவு பொருட்களை உற்பத்தி செய்யும் இயற்கை விவசாயம் பின்லாந்தில் அதிகமாக பயன்படுத்தப்படுகிறது. இஃது நம் ஆரோக்கியத்தைப் பராமரிக்க உதவுகிறது. தமிழ்நாட்டில் இயற்கை விவசாயத்துக்கு அதிகளவில் ஆதரித்தவர் திரு.நம்மாள்வார். அவர் இழுவை இயந்திரத்துக்கு கூட எதிர்ப்பு தெரிவிக்கும் வகையில் 'இழுவை இயந்திரம் சாணி போடுமா?' என்று கேட்டார். இயற்கை விவசாயம் மண்ணிலுள்ள நுண்ணுயிர்களைப் பாதிப்பதில்லை.

‘டெல்லி மாநகரம்’ பற்றி ராகுல் பேசினான். இந்தியாவின் இரண்டாவது பெரிய நகரமான டெல்லி 11மில்லியன் மக்கள்தொகையைக் கொண்டு உலகில் 8-வது பெரிய நகரமாக திகழ்கிறது. கிமு 6-ஆம் நூற்றாண்டிலிருந்தே இங்கு மக்கள் வாழ்ந்ததாக நம்பப்படுகிறது. இங்குள்ள செங்கோட்டையில் சுதந்திர தினத்தன்று பிரதமர் கொடியேற்றுவார். டெல்லி மாநகரம் முகலாய அரசால் கட்டப்பட்டது. பிரஞ்சு நாட்டைச் சார்ந்த எட்வின் டியூடனி குடியரசு தலைவர் மாளிகையை வடிவமைத்தார். திரு.பென்சிகர்ராஜன் மற்றும் திரு.எஸ்.ஜாண்சன் பின்னூட்டம் கூறி தகவல் பகிர்ந்தனர்.

நிவேத் சங்கர் ‘பருவநிலை மாற்றமும் இந்திய பாதிப்புகளும்’ என்னும் தலைப்பில் சில வார்த்தைகள் கூறினான். இன்று பருவநிலை மாற்றத்தினால் வெப்பநிலையில் மாற்றமும் ஆழிப்பேரலையும் வெள்ளப்பெருக்கம் ஏற்படுகிறது. ஆழிப்பேரலையானது பெரும் பாதிப்புகளை ஏற்படுத்தும். உதாரணமாக டிசம்பர் 26, 2004 அன்று இந்தியாவில் ஏற்பட்ட ஆழிப்பேரலை பல உயிர்களைக் கொன்றது; இல்லங்களை நொறுக்கியது; பெரும் பாதிப்பை விளைவித்தது. வெள்ளப்பெருக்கத்தினால் ஆற்றின் கரையிலுள்ள நிலங்கள் பாதிப்படைகிறது; விவசாய நிலங்கள் நாசமடைகிறது. வெப்பநிலை அதிகரிப்பதால் புவி வெப்பமடைகிறது. அடுத்ததாக பின்னூட்டம் கூறப்பட்டது.

ஷாமினி ‘விண்வெளி தொழில்நுட்பமும் பயன்பாடுகளும்’ பற்றி பேசினாள். விண்வெளி தொழில்நுட்பம் வளர்ச்சி அடைந்தால் மட்டுமே ஒரு நாடு வளர்ச்சி பெறும். நம் புவியைப் பற்றியும் வேறு கிரகங்களைப் பற்றியும் அறிய உதவுவதோடு பேரும் புகழும் சேர்க்கிறது. மங்களயான் என்னும் செயற்கைக் கோள் வெற்றிகரமாக அனுப்பப்பட்டதும் விண்வெளி தொழில்நுட்ப வளர்ச்சியினால் தான். புவி சந்திக்க நேரிடும் சில ஆபத்துக்கள் கூட விண்வெளி தொழில்நுட்பம் மூலம் கணிக்க இயலும். விண்வெளி தொழில்நுட்ப வளர்ச்சி கல்வி வளர்ச்சிக்கு கூட அடித்தளமாக அமையும்.

ஷியாம் ‘இந்தியக் கல்வி முறை’ என்னும் தலைப்பில் பேசினான். SSA இந்தியக் கல்வி முறையைப் பற்றி விழிப்புணர்வு ஏற்படுத்துகிறது. இந்தியக் கல்வி முறை மனப்பாடம் செய்யும் திறனை ஊக்குவிப்பதால் மாணவர்களின் சிந்தனைத் திறன் குறைகிறது. சிந்தனையை இந்தியக் கல்வி முறை ஊக்குவிப்பது இல்லை. இன்றையக் காலக்கட்டத்தில் வேலைக்கும் படிப்புக்கும் எந்த ஒரு தொடர்பும் இல்லை. கல்வி முறையை மேம்படுத்த, பார்க்கும் வேலைக்கும் படிப்புக்கும் தொடர்பு இருத்தல் வேண்டும். அனைவரும் ஒரே கல்வி வழங்க சமச்சீர்க் கல்வியானது அறிமுகப்படுத்தப்பட்டுள்ளது. இக்கல்வி முறையில் செய்து கற்றலுக்கு முக்கியத்துவம் கொடுத்தப்பட்டுள்ளது.

‘இந்திய பாலைவனம்’ பற்றி ஜெபின் கருத்துரை வழங்கினான். உலகின் 4-வது பெரிய பாலைவனமான தார் பாலைவனம் இந்தியாவிலுள்ளது. இது 10000 வருடம் பழமையானது. இங்குள்ள முக்கிய நகரம் ஜோத்பூர். ஜோத்பூரின் மேற்கில் இந்தஸ் நதியும் வடக்கில் 16 மீ உயரமான மணல்திட்டிகளும் உள்ளன. ஞாலவன மணலில் அதிகமான உப்பு காணப்படுகிறது. தார் பாலைவனத்தில் 2 வகை மரங்கள் உள்ளன. இங்கு பாயும் ஒரே நதி லூனி. நதி பாய்ந்தாலும் கூட இங்கு வறட்சி நிலவுகிறது. எனவே இப்பாலைவனத்துக்கு தண்ணீர் வழங்க இந்திராகாந்தி கால்வாய்த் திட்டம் செயல்படுத்தப்பட உள்ளது. தார் பாலைவனத்தில் காணப்படும் சில விலங்குகளாவன: கருப்பு ஆண் மான், ஓநாய், கழுதை, ஓட்டகம்.

நவீன்ஜித் ‘இந்திய நெசவு தொழில்’ பற்றி குறிப்புகள் பகிர்ந்தான். ஐழங்காலத்தில் அதிகளவில் பாராட்டப்பட்ட தொழில் நெசவு. கை வைத்து மட்டுமே முன்பு நெசவு தொழில் நடைபெற்றது. பின்; இயந்திரங்கள் இத்தொழிலுக்கு அறிமுகப்படுத்தப்பட்டது. இவ்வாறு இயந்திரங்கள் உதவியுடன் செய்யப்பட்ட நெசவு தொழிலுக்கு விசைத்தறிகை நெசவு என்று பெயர். பேரறிஞர் அண்ணா கைத்தறி ஆடைகள்தான் அணிந்தார். நெசவு தொழிலுக்கு இந்தியாவில் மும்பையும் தமிழ்நாட்டில் கோயம்புத்தூரும் பேர்போனது. ஆங்கிலேயர் வருகைக்குப் பின் நெசவு தொழிலானது இந்தியாவில் நலிந்தது. தற்போது அதிகரித்துக்கொண்டேயிருக்கும் ஆடை இறக்குமதியினால் நெசவு தொழிலும் நலிவுற்றுக்கொண்டே போகிறது.

ஆட்லின் பாலா 'இந்திய தொழில்கள்' பற்றி கருத்துகள் பகிர்ந்தாள். நம் நாடு விவசாய நாடு. விவசாயம் என்பது உணவு உற்பத்தியையும் கால்நடை வளர்த்தலையும் குறிக்கிறது. கடற்கரைப் பகுதிகளில் மீன் பிடித்தல் முக்கிய தொழிலாகும். நெசவு தொழில் கம்பளம், பாய் போன்றவற்றை உருவாக்குதல் ஆகும். இந்தியாவில் செய்யப்படும் கைவினைப் பொருட்கள் ஏற்றுமதி செய்யப்படுகிறது. இந்திய தொழில்களை ஊக்குவித்து உற்பத்தியை அதிகரிக்க நமது பிரதமர் 'Make in India' என்னும் திட்டத்தை நடைமுறைப்படுத்தியுள்ளார்.

அக்ஷயா 'இந்தியத் துறைமுகங்கள்' என்னும் தலைப்பில் பேசினாள். 7600 கிமீ நீளமுடைய இந்தியக் கடற்கரையில் 13 பெரிய துறைமுகங்களும் 187 சிறிய நடுத்தர துறைமுகங்களும் உள்ளன.

சென்னை துறைமுகம்: இரண்டாவது பெரிய துறைமுகம். வங்காள பெருங்கடலில் உள்ளது.

தூத்துக்குடி துறைமுகம்: இங்கு இரப்பர் மற்றும் மீன் ஏற்றுமதி செய்யப்படுகிறது.

தூத்துக்குடி துறைமுகம்: ஏற்றுமதியிலும் இறக்குமதியிலும் இரண்டாவது இடத்தில் உள்ளது.

பரதீப் துறைமுகம்: இது செயற்கை துறைமுகமாகும். ஓரிசாவிலுள்ளது.

கொல்கத்தா துறைமுகம்: வங்காள பெருங்கடலில் உள்ளது.

புதுமங்கலூர் துறைமுகம்: அரபிக் கடலில் உள்ளது.

கொச்சி துறைமுகம்: அரபிக் கடலில் உள்ளது. சுற்றுலாத்தளம். மிளகு மற்றும் மீன் ஏற்றுமதி செய்யப்படுகிறது. இங்கு படகு வசதி உண்டு.

மும்பை துறைமுகம்: பாம்பே துறைமுகம் என்று அழைக்கப்பட்டது. இங்கு கடல் வழி போக்குவரத்து காணப்படுகிறது.

மர்மகோவா துறைமுகம்: கோவா பொழிமுகத்தில் உள்ளது. இங்கு நிலக்கரி ஏற்றுமதி செய்யப்படுகிறது. 18-வது பெரிய துறைமுகமாகும்.

காண்ட்லா துறைமுகம்: 10 அடி ஆழமுடையது. இங்கு பஞ்சு ஏற்றுமதியும் இறக்குமதியும் செய்யப்படுகிறது.

காரைக்கால் துறைமுகம்: தமிழ்நாட்டின் நுழைவாயிலில் உள்ளது.

ஜே.என்.பி.டி. துறைமுகம்

எண்ணூர் துறைமுகம்

'தகவல் தொழில்நுட்பம்' பற்றி ருத்ரா தகவல் பகிர்ந்தாள்.

தொலைப்பேசி : தகவல் பரிமாற்றத்துக்கு உதவுகிறது. அலெக்ஸாண்டர் கிரகாம் பெல் தொலைப்பேசியைக் கண்டுபிடித்தார். இக்கண்டுபிடிப்பின் மாற்றியமைப்பு தான் கைப்பேசி.

கைப்பேசி : தகவல் பரிமாற்றத்துக்கு பயன்படும் இக்கருவியைச் செல்லும் இடத்துக்கு எல்லாம் எடுத்து செல்லலாம். இதில் இணையதள வசதிகள் உண்டு.

தொலைக்காட்சிப்பெட்டி : ஜே.எல்.பரீட் என்பவரால் கண்டுபிடிக்கப்பட்டது. 11தாலைவில் நடக்கும் காட்சிகளை உடனுக்குடன் அறிய உதவுகிறது.

கணினி : சார்லஸ் பாப்பேஜால் கண்டுபிடிக்கப்பட்டது.இதில்தொழில்நுட்பம் வளர்ந்துள்ளதால் கல்வி சார்ந்த விஷயங்களுக்கு இது துணைபுரிகிறது.

மடிக்கணினி : கணினியின் மாற்றியமைப்பு தான் மடிக்கணினி. கணினி போன்று தகவல் அறிய உதவுகிறது. இக்கருவியைச் செல்லும் இடத்துக்கு எல்லாம் எடுத்து செல்லலாம். இதில் இணையதள வசதிகள் உண்டு.

செயற்கைக்கோள் : 1945-ஆம் ஆண்டு கண்டுபிடிக்கப்பட்டது. இதுதகவல் பரிமாற்றத்துக்கு பயன்படுகிறது.

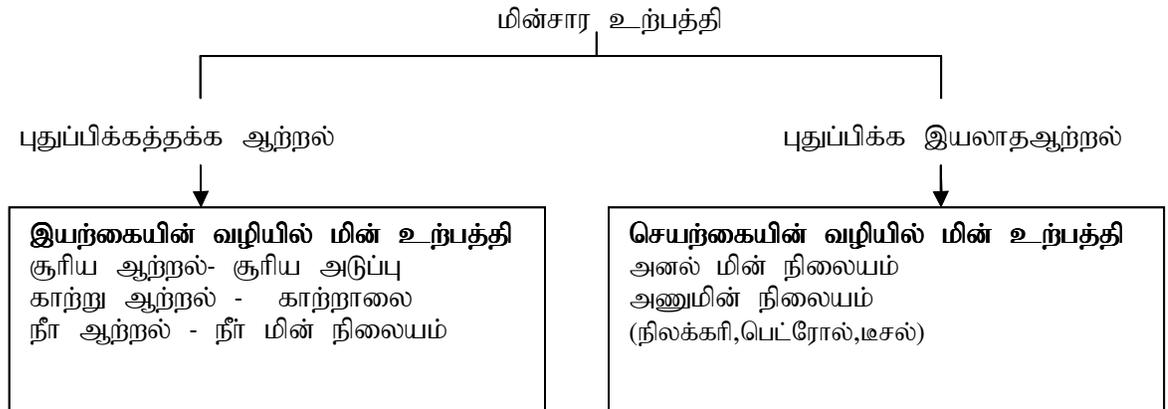
சியானா 'காலநிலை விபரங்கள்'பற்றி விவரித்துக் கூறினாள். மலையின் அமைப்பு மற்றும் இடத்தின் அமைப்பு காலநிலையைப் பாதிக்கும் காரணிகள் ஆகும். வடமுனையில் டிசம்பர் மாதம் நீண்ட இரவைக் கொண்டதாகவும் ஜூன் மாதம் நீண்ட பகலைக் கொண்டதாகவும் இருக்கிறது. ஆனால் தென்முனையில் டிசம்பர் மாதம் நீண்ட பகலைக் கொண்டதாகவும் ஜூன் மாதம் நீண்ட இரவைக் கொண்டதாகவும் இருக்கிறது. ஒரு இடத்தின் காலநிலையைப் பொருத்து தான் அவ்வடத்தின் விவசாயம் அமையும். ஷிம்லாவின் சராசரியான வெப்பநிலை 22°C ஆகும். தமிழ்நாட்டில் கன்னியாகுமரி மாவட்டத்தில் 3 காலநிலை நிலவுகிறது. தமிழ்நாட்டிலேயே சிவகங்கை மாவட்டம்தான் குறைந்த அளவு மழை பெறுகிறது.

ஷலோமி 'அலையாத்திக்காடுகள்'என்னும் தலைப்பின் கீழ் கருத்து கூறினார். அலை+ஆற்றி =அலையாற்றி. அலையை ஆற்றும் தன்மையுடையது. சதுப்பு நிலத்தில் சுந்தரி மணல் காணப்படுகிறது. இம்மணல் வகை வளமிக்கது. அலையாத்திக் காடுகளிலுள்ள மரம் மிதவைக்கப்பல் செய்யப் பயன்படுகிறது.

சுந்தர்பன்ஸ் உலகத்திலேயே மிகப்பெரிய அலையாத்திக்காடு. இங்கு பிரம்மபுத;திராவும் கங்காவும் சேருகிறது. 1000 ச.கி.மீ. நீளமுடையது.ஹெரிடேரியா மற்றும் சைரோபோரா போன்ற மரங்கள் உள்ளது.

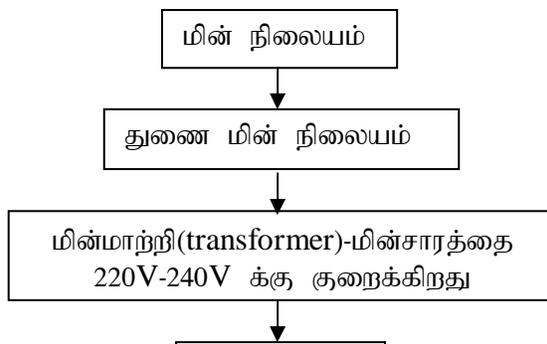
பிச்சாவரம் - 50 ச.கி.மீ. நீளமுடையது. இரண்டு பொழிமுகங்களின் நடுவிலுள்ளது. அகீஷ்னியா,ரையோபோரா போன்ற மரங்கள் இங்குள்ளன. இங்கு மாஸ்க்பர் என்ற மீன்வகை காணப்படுகிறது.

மீரா இந்திய மின் உற்பத்தியும் பகிர்மானமும்' என்ற தலைப்பின் கீழ் பேசினார்.



2014 -ம் ஆண்டு ஒவ்வொரு வீட்டுக்கும் சூரிய அடுப்பு வைத்தல் பற்றி விழிப்புணர்வு கூட்டங்கள் நடைபெற்றது . இது நடைமுறைக்கு கொண்டு வரப்பட்டால் புதுப்பிக்க இயலாதஆற்றலை நம்பியிருக்க வேண்டியதில்லை.

**மின் பகிர்மானம்**



திரு.ஜாண்சன் மற்றும் கோபாலன் பின்னூட்டம் கூறினர்.

ஆஷ்மி இந்திய தேசிய ஒருமைப்பாடு என்னும் தலைப்பில் சில வார்த்தைகள் கூறினாள்.நம்நாட்டில் பல கலாச்சாரம்>பல மொழி>பல மதம்>பல இனம் என்று வேறுபாடுகள் இருப்பினும்>இந்தியா ஒற்றுமைக்காக பேர் போனது.எனவே இந்தியா 'வேற்றுமையில் ஒற்றுமை' என்று சிறப்பிக்கப்படுகிறது. தற்போது இவ்வொற்றுமையில் சீர்குலைவு ஏற்படுகிறது.அரசியல்வாதிகளுக்கிடையில் பிரச்சனை,அண்ணன் தம்பிக்கிடையில் பிரச்சனை, தண்ணீர் பிரச்சனை, எல்கைப் பிரச்சனை என்று எங்கு பார்த்தாலும் சண்டைகளும் விவாதங்களும் நிலவுகிறது.எனவே இதைத் தடுக்க கன்னியாகுமரி முதல் காஷ்மீர் வரை 6500 கி.மீ. நடைப்பயணமானது நடைபெற்றது. தேசத்தில் ஒருமைப்பாடு நிலவினால் மட்டும் தான் நாடு வளர்ச்சி பெறும். திரு.பென்சிகர் ராஜன் சில \$டுதல் தகவல் கூறினார்.

திரு.முள்ளஞ்சேரி மு.வேலையன் இறுதியாக நன்றியுரை வழங்கினார். அறிவியல் தமிழ் முழக்கமானது நல்லதொரு ஆய்வோடு முடிவடைந்தது. 'நன்றி மறப்பது நன்றன்று' என்ற வள்ளுவரின் வாக்குக்கேற்ப திரு.முள்ளஞ்சேரி மு.வேலையன் அவர்கள் வந்த அனைவரைக்கும் நன்றிகூறினார். நாட்டுப்பண்ணுடன் அறிவியல் தமிழ் முழக்கமானது இனிதே முடிந்தது. பைங்குடம் அரசு நூலகத்தைப் பார்வையிட சென்றபோது ஒரு சிறிய கிராமத்தில் இவ்வாறு வளர்ச்சி அடைந்த நூலகம் என்னை வியக்க வைத்தது.

'தெருவெங்கும் தமிழ் முழக்கம் செழிக்கச் செய்வீர்' என்னும் பாரதியின் கனவை நனவாக்கியதோடு எனக்கு புதியதோர் அனுபவத்தை கொடுத்த குமரி அறிவியல் பேரவைக்கு நன்றி.

**Gby Atee,**

Our first meet after the hard scrutinizing selection process was held on 26/10/14 at LMS Boys Higher Secondary School and it was a meet of regulation. Then was the two days Scientific Awareness Camp on 8/11/14-9/11/14 at CSI Institute of Technology, Thovalai which was exemplary, and the next meet at MACET on 22/11/14 which was the Management Concept in Thirukkural and the fourth meet at Govt. Medical College, Asaripallam on 29/11/2014. It trained us to become doctors and the next camp was a Study on Sustainable Environment on 6th and 7th of December. It was a two days camp which was held at various places like Thirukurumkudi Nambikovil then PSN College and then finally at Vivasaya Seva Sangam, Puliyanakudi. With so much of eagerness I was ready for the next camp. The Coastal Environmental Study Camp was one of the best. After all these we had planned for the team meet on 04/01/2015 at Hindu Vidhyalaya School, Marthandam. It was our first team meet and it proved us the real power of team

work. With an expectation that the next meeting would also be the best we all assembled at Government Library, Pienkulam on the 17th of January for the ARIVIAL TAMIL MUZHAKAM. This meet endowed us with a chance to articulate our talent in our Mother Tongue TAMIL, and this was the specialty of this meet.

With so much of gusto I arrived at the library and as Kumari Arivial Peravai stands for punctuality the meet commenced as it was sketched at sharp 8:00am. Reshma, the leader of Maroon team compeered the inaugural session. She welcomed all the eminent ones on to the dais which was followed by the Tamil Thai Vazhtu sung by the members of green team. Subsequently she welcomed the organizer of KAP, the sculptor of our characters, a seasoned scholar and navigator of this flagship of knowledge, Mr. Mullanchery M. Velaian to give away the introductory address. Mr. Velaian first highlighted the importance of punctuality and continued by saying that this program helps us look things in a research-full manner. Compared with the preceding Arivial Tamil Muzhakam this is something indeed different because of the place we have chosen. He reveled that he was very proud to conduct the meeting at this library.

He introduced the members of the library; Mr. Tamilmaaran who is the head of the library, Mr. Mathavan Thambi and Mr. Kovintha Raj the members of this library, Er. Ramaseshan, Er. Benziga Rajan and Mr. Lazar the guest speaker. "All that begins well ends well". He began with good news that Er. Benziga Rajan is donating Rs.5000 to the library for its welfare and development, which was a really good start. He then quoted some of the specialty of this library and stated that each and everything written in the library is written to convey a unique and worthy message. Where ever there is a library the society will have fewer problems and the youth of that society will be better than those of a society without a library. He also welcomed all the members of KAP who are the secret behind KAP's success. Rtd. Chief General Manager, Er. Ramaseshan is a member of KAP who is with it from the year this revolution begun. Because of eminent personalities like him we the young scientists get chance to visit IIT and important places like this. As he is a member of green team the members of green team presented him with the scarf of honor. He asserted that he was happy to have Mr. Lazar, the one who taught Tamil for him during his SSLC. He once again welcomed all and happily halted.

Then it was the turn of Mr. Tamilmaaran to give away his talk. He in his talk quoted Koottalumoodu as a holy place. He welcomed us all to the library and was grateful to Er. Benziga Rajan. He asserted that Er. Benziga Rajan once in his talk said that this library will develop soon and thanked him for his donation. We are born to achieve and we must "DREAM" as A.P.J. Abdul Kalam insisted unto. He included that the dreams that we dream must be realistic. He narrated a small

story in which a child keeps changing his aim when he sees different people in different profession. We the youth must dream and assist in developing our nation. 40% of the Indians are the youth thus everything is in our hands. The better or the worse of our nation depends on the youth. Only the Indians were able to send a rocket to Mars, called the Mangalyan with very little expense when compared with the other nations. Thus "What Indians can't none in this world can, so we must". This library is regarded as the second biggest in our district. It is believed that Internet is reducing our interest towards learning. The youth of Chennai visited the book fare held there and made use of it prolifically; and this incident proved that the belief is wrong. There are sayings that "Where there is no temple don't live there". But in this era it must be reformed as "Where there are no libraries don't inhabit there".

Followed by his talk Reshma requested Mr. Mathavan Thambi the assistant head to converse with us. He asserted that he is really happy to see us all. "Give me 100 active youth and I will make India the best",- Vivekanantha. He said that Mr. Velaian is doing this kind of a service. India is sending rockets in low cost and this is due to the development in science. Because of the development in science and technology the superstitious beliefs has wrinkled off. On December 15th the library was raised to 'Full Time Library'. With this he concluded and it was over to the next person.

Mr. Kovintha Raj asserted that they are happy that Mr. Sajevee of their locality is a member of KAP. Mr. Lazar have possession of இலக்கிய மன்றம் and we are lucky to have him amidst us. He also requested us to conduct our further meetings in this library. He mentioned that they are pleased to have us.

Subsequently Mr. Sajeev welcomed all to the library. He cited that the head, Mr. Tamilmaaran is a person known for his hard work. Many become famous once they depart from the Earth. Not all people become famous during their life on Earth. KAP is providing us an opportunity to become famous at this very young age. He in his talk included the 260th kural which conveys the message that 'during our existence on Earth we must be someone who is extolled and remembered all the time'. Owvaian stated in the past that 'atom ought to be split and 7 seas must be inserted inside it'. Sir Elson Rubbherth Ford later on was the first person to split atom. This shows that the Tamilians were very much intelligent. Every single thing that we see or come across must in a way develop us. Finally he stated that everyone here is old, normally the youth are more powerful. Instead here the old ones are showing the right trail to the youth which is making them even more successful.

The Mr. Gopalan was welcomed to share with us his views. He mentioned that this place is famous for the fire work shows and was pleased that there is an intelligence improving library in this region. "Pen is mightier than a sword". All tremendous revolution is through books. The common men of France were starving for food so they surrounded the fort. At that instance a party was going on in the fort so all were drunk and were comatose. The princess went out to the fortress and asked the people what they want. They replied her that they don't have bread to eat. She answered back, "If you don't have bread then eat cakes". Her answer made them go red and they turned to destroy the kingdom. They were motivated by the author and this revolution was made due to the scripts that were written. He ended by saying that just as KAP is developing youth, libraries are also developing the youth.

Next was the turn of Mr. Johnson to give his talk. He asserted that we shouldn't develop only in English. It is very important for us to excel in our mother tongue Tamil more over. He cited that the Dr. Abdul Kalam of Kanyakumari district is Mr. Mullanchery M. Velaian. After his short but heartening talk was the talk of Mr. Shibin Tad. He quoted that we the citizens of Tamil Nadu have forgotten Tamil. So it is a must for us to develop our skill on Tamil language.

Then was the turn of Er. Benziga Rajan to give his talk. The most important thing is that we must develop our skill in our Mother Tongue Tamil. In Russia there are nearly 5 crore scientist, but none are skilled in English. They excel in their Mother Tongue. Even in Japan and China the people learn science in their Mother Tongue. The topics on which we are to speak today is related to the land forms of India. India has all kind of landforms:

- Three seas: Indian Ocean, Bay of Bengal and Arabian sea.
- Punjab: Fertile land
- Thar Desert 4th biggest.

We are doing research on this and this will be very useful for us in future. He concluded by advising us to use opportunities fruitfully.

Then Er. Ramaseshan was welcomed to converse with us. He emphasized that conversation properly what we think matters a lot. Though our mother tongue is Tami many hesitate to talk in our Mother Tongue. Father of our nation, Mahatma Gandhi wrote his autobiography in his mother tongue which was later on translated into English. Language shouldn't be a hurdle for us in any means. We must be skilled in our mother tongue, so that it won't change into a hurdle.

We Indians are able to send mission to Mars with less expense because of our hard work. The scientists were sure that PSLV will be successful

always. There were many opposition teams who were discouraging them, but they didn't bother it, which made them successful. We must learn to overcome our hurdles. Once the rocket was launched the scientist feared, weather there would be any problem. Even then they didn't lose hope and they worked even harder. It is a well known fact that there is vacuum in space. So the scientists of Mahendragiri created a vacuum in a chamber and created all possible failures in it. This made it easy for them to solve the problems which were expected to occur to the launch vehicle carrying Mangalyan.

Similarly when we come across problems we must try think in a different angel. He closed his talk by giving us a valuable piece of advice which said:

- Don't get satisfied in learning
- Don't think conventionally
- Find simple ways to solve any problem

Next the chance was Mr. Lazars', the guest speaker to give a rouse motivating talk. It is the Tamil culture which encourages us to being something with honor and thanks. He paid tribute to Tami and then continued with his talk. The first thing that he mentioned was about the punctuality that we are good at. He then stated that Jeans pant was invented in order to avoid washing it often as it doesn't become dirty easily. He first met Mr. Velaian at the age of 13 who was enacting in a drama. Later he directed dramas and is regarded as கவிஞர்.

Rabinthranath Tagore loved his wife and his 13 children so much. He wrote Geethanjali when his wife passed away, which he dedicated to his passed away wife. Geethanjali was later translated and he won the Nobel Prize for his notable work. Foreigners once visited Australia; they saw an animal running with its child in its pouch. They asked the tribes what it was and they answered Kangaroo, which means 'I don't know' in the tribal language. But we still use it now. He cited that Tamil language has everything in it. The Americans took Coca-Cola all around the world. The Chinese said that they would accept the drink in the country only if its name is in Chinese. The Americans accepted it and thus it was named Cokukulu.

If we lose a chance it means that God has kept an even better chance for us. Abdul Kalam was one student among who wasn't selected. He wasn't discouraged and thus is known now. The 11 others were selected but none know who they are. We shouldn't get discouraged in any situation. He stated that he participated in all the competitions but didn't win any. His mother motivated him by saying not to lose hope and to try again. "This world will be against the ones who want to live and no one will be ready to show the right trail for us".

Mahatma Gandhi wrote an exam and out of the 10 questions one was wrong. So his teacher asked him to look at his neighbors' paper and correct it. But he didn't and after the exam, the teacher called him and said that I am no more your teacher but you are my teacher. Though Gandhi was a barrister he wasn't able to talk in the court but Reshma who is anchoring the meet is talking so well at this young age and must be appreciated.

"If Indians shouldn't work in my company, then I will shift my company to India", - Bilgates. This shows the real power of us the Indians. 20% of the doctors in England are Indians. 10% of the engineers in China are Indians and 33% of the American scientists are Indians. Then he narrated an inspiring story of Mary Curie. She had no way to live so worked as a maid in a house. The owner went abroad and returned after years and was pleased by the words of his son that he wants to marry Mary. The father listed the names of all the rich men's daughter Mary but the son said that he wants to marry maid Mary. The father said, "If you marry her I won't give you any share". The son was money oriented and said, "Then I don't want to marry her". Mary heard all these and went out of the house. She urged to God that she should lead a life which would be more successful. Thus she won two Nobel Prize and her family is the only family to win 5 Nobel Prize till today. We must also try working hard like her with a fire to achieve something in life.

Thomas Alva Edison failed nearly 1000 times and even then didn't lose hope. He worked harder and harder and finally was successful. Now our life style has changed tremendously and whatever it may be we shouldn't stop hardworking. Finally I, Dani, Edin Jijo, Jefin, Nishanth and Abina gave feedback.

Mr. Velaian was then welcomed to give the vote of thanks. He stated that the 2 and 1/2 session was very informative. Each and every ones' talk was inspirational in a way or other. He thanked all including Mr. Lazar, Er. Ramaseshan, Mr. Gopalan, Mr. Shibin Tad, Mr. Sajeev, Mrs. Babitha, Mrs. Krishnakumari and Miss. Lekshmi for their presence.

After a short refreshing break we sat down for the Tamil Muzhakkam. Miss.Lakshmi anchored this session. The first chance was Merishyas' to talk on the topic Rivers of south India. River Krishna is 1300Km long. Vijayavada is the largest city along this river. It flows along the states of Maharashtra, Karnataka and Andhra Pradesh. It originates in Mahaleswar. River Bhīma originates in the Westernghats and is about 795Km long. The Tungabathra River is a combination of the two rivers Tunga and Bathra. This river is regarded as a holy river and in the Ramayana this river is called Pambayar which is now the name of another river flowing in Kerala.

Godavari River is 1440Km long and it originates from the state of Maharashtra at Nasik. The Godavari River separates into the Gowthama Godavari and Vasishta Godavari. Kaveri originates in the Western Ghats in a region called Thalai Kaveri. It is 760Km long and its 5 main tributaries are Bomi, Kamini, Gomavathy, Ranki and Amaravathi. Mr. Gopalan and Mr. Johnson commented on her talk and included that, this meet is to develop our skills in Tamil Muzhakam so we must follow that too.

Then Argneshiya conversed on the theme Mullaiperiyar. It originates in the Western Ghats and diverted towards Mathurai. Due to the construction of this dam hydropower is generated here Rmanathapuram King joined both Mullai and Periyar for getting more water source. At the year of 1893, 60ft was constructed, 1894, 96ft, and at 1895, 196ft was constructed. Nearly 140 Mega Watt of electricity was generated by Kerala and Tamil Nadu. Manorama states that it is in danger so several steps were taken to protect it. Comments were given and she was advised to talk a bit casually.

Then Leena was called upon to talk on the theme North-East Monsoon. This occurs between September and January or till the end of February. It is greatly helping to improve the agriculture. This rainfall is diminishing in Tamil Nadu. The crops that believe this monsoon are Kampu and Kezhvaragu. The average rainfall is 181mm. She was recommended not to repeat the words and trim down the usage of paper.

Then Edin Jijo shared some important facts about the Vaigai River. The Vaigai is a river in Madurai, Tamil Nadu state of southern India. It originates from the Western Ghats. The Vattaparai Falls are located on this river. He then narrated the story behind the Vaigai River. Meenakshi, the daughter of a Pandyan king, was an incarnation of Parvati. From a very young age, she made up her mind to marry Lord Shiva and none else. Her family was initially against this but eventually consented to her wish and arranged the wedding. Sundareswara (Siva), being an ascetic, came to the wedding without any family or relatives accompanying him. Disappointed at this, the Pandyan king angrily showed Siva the huge amount of food prepared for the bridegroom's relatives. Siva pointed to a friend he had brought with him saying 'He will consume all the food that you've made'. This friend was a Rakshasa named Kundodhara. After Kundodhara finished all the food that was prepared, He became very thirsty and started asking for water. All the wells and canals in Madurai were not sufficient to quench his thirst. Then, Siva asked Kundodhara to put his hand out and opened a small part of his hair lock and Ganga began to flow into his hand. After quenching his thirst, the rest of the waters began flowing in Madurai as the Vaigai River. Vaigai means 'put your hand out' in

Tamil. Andipatti Dam is one of the dams constructed across this river he stated. During சித்திரா பவரணமி the Hindus dissolve the statue of Lord Vishnu in this river. The advice that was given to him is that, using Aar Aar or dragging the words means that we are lacking confidence.

Abirami gave a short and informative talk on the topic Chennai. She stated that it is the capital Tamil Nadu and was called Madras because Muslims inhabited that place in the past. It is regarded as the gateway of Tamil Nadu. Some of the best universities are located here. The average rainfall is 1300mm and the temperature is high here moreover. The famous lake Chembarapakam is there at Chennai. The population is about 7.45 million. There are nearly 80 different species of animals here. At present this capital is greatly polluted and is unhygienic due to pollution. There is scarcity of water as well. On August 22, 2014 Chennai celebrated its' 375th anniversary. Er. Benziga Rajan added the Chennai is the Detroit of Asia, as it manufactures a large amount of cars. Two major rivers flow through Chennai, the Koovam through the centre and the Adyar River to the south. Koovam is one of the most polluted rivers in the South of India and health hazard to the people living in and around the river.

Imaculate Rishvi conversed on the subject South-West Monsoon. This occurs between June and September. It is greatly helping improve the agriculture. It blows against the Western Ghats. States like Kerala, Maharashtra and Kanyakumari district is greatly benefited by this monsoon. Er. Benziga Rajan further added information that for rain we use weeks not by days. Vijay Raj of Yellow team spoke on the topic காவேரி ஆற்றுப்பாசனம். The Kaveri is a large Indian river. The origin of the river is traditionally placed at Kodagu in the Western Ghats in Karnataka, flows generally south and east through Karnataka and Tamil Nadu and emptying into the Bay of Bengal. The waste of nearly 5000 factories mix with this river and this river is greatly polluted and is not in a suitable condition to use. The sharing of waters of the Kaveri River has been the source of a serious conflict between the Indian states of Karnataka and Tamil Nadu. Er. Benziga Rajan added that there is a dam which is about 120ft called the Stanly Dam erected against this river. And the 5 major tributaries include Bomi, Kamini, Ranki, Gomavathi and Amaravathi. Mr. Gopalan added that the famous waterfall on this river is the Hakanakal Falls.

Ragul was then call for to talk on the theme Thamirabarani River. The Thamirabarani River originates from the famous Agastyarkoodam peak in the hills of the Western Ghats above Papanasam in the Ambasamudram taluk and flows through Tirunelveli and Tuticorin districts of the Tamil Nadu state of southern India. As it flows along the Western Ghats the water was considered to be

medicinal but at present it is greatly polluted. The river drains into Gulf of Mannar near Punnaikayal. There are many dams and reservoirs on the Thamirabarani river along with those on the Manimuthar River, provide a large proportion of the water for irrigation and power generation for Tirunelveli District. One of the main tributary is Pachayaru. Mr. Gopalan added that Thirunelveli District is fertile only because of Thamirabarani River.

The last member of Yellow team, Vishal shared his views on the topic jkpof ney;tsk;. Rice is a vital staple food for most of the Indians. This is also considered as a cash crop. During Pongal they dedicate rice to God for providing them with better harvest. Er. Benziga Rajan added that Thanjavoor and Kanyakumari district are known for its Rice resource in Tamil Nadu. The main types of rice are the Chamba and there are nearly 15 types of Chamba rice and nearly 20 different types of other rice are harvested in Tamil Nadu. He was given an opinion to research well on topics for even better result.

The next turn was green team members' to exhibit their talents. Haritha was welcomed to converse on the subject Brahmaputra River. Brahmaputra River originates from the Angsi Glacier, located on the northern side of the Himalayas in Burang County of Tibet as the Yarlung Tsangpo River, and enters Arunachal Pradesh with the name of Dihang. It flows southwest through the Assam Valley as Brahmaputra and south through Bangladesh as the Jamuna. About 2800km long, the Brahmaputra is an important river for irrigation and transportation. The average depth of the river is 124 feet and maximum depth is 380 feet. The river is prone to catastrophic flooding in spring when the Himalayan snows melt. The average discharge of the river is about 19,300 cubic meters per second.

Ageesha then conversed on the subject Ganges. The Ganges flows through India and Bangladesh. The 2,525 km river rises in the western Himalayas in the Indian state of Uttarakandh and it empties into the Bay of Bengal. It is the third largest river by discharge. The Ganges is the most sacred river to Hindus. It is also a lifeline to millions of Indians who live along its course and depend on it for their daily needs. It is worshipped as the goddess Ganga in Hinduism. The water has the ability to kill bacteria's.

Next was my turn to share some interesting ideas on the theme Indian water bodies. Water is the major source of life and a life without water is nothing. “நீர்இன்றி அமையாது உலகெனின் வான்இன்று அமையாது ஒழுக்கு”,- Thiruvalluvar. We get water from rain and rivers which flow along our states. We can mark a nation's development using the water resources found in the state. The rivers that flow along India are of 2 categories; Northern Rivers and the Southern Rivers.

The Northern Rivers include Sind, Ganges and Brahmaputra. They receive water due to the South-west monsoon and the glaciers all throughout the year. These rivers are used for inland water transport and for electricity generation. Sind is considered as one of the longest river in the world. It is 2900 km long and 709 km of it is in India. The water from this river is used for irrigation and hydro electric projects. Ganges is the holy river of India and it originates from the Gangotri in the Himalayas'. It is nearly 2510km long and one of its major tributary is Yamuna. Brahmaputra River originates from the Angsi Glacier, located on the northern side of the Himalayas in Burang County of Tibet as the Yarlung Tsangpo River, and enters Arunachal Pradesh with the name of Dihang. It flows southwest through the Assam Valley as Brahmaputra and south through Bangladesh as the Jamuna.

Among the Southern Rivers, Narmada, Tapti, Loony and Sabarmati flows from East to West and drains in the Arabian Sea. The other rivers flow from the West to East and drains in the West of Bengal and form a delta. Narmada flows from the East to West. It originates from Amarkandh in Madhya Pradesh. Tapti originates in Madhya Pradesh and is 724km long. Godavari is one of the biggest rivers in South India and is 1440km long. It originates at Maharashtra in a part called Nasik. Krishna originates in the Magaleshvar, and Kaveri is regarded as the Southern Ganges. It is 760km long. There are about 25 major rivers and 200 miner rivers. Nearly 170 lakes are located in India and some of the important ones in Tamil Nadu are Cholavaram Lake, Singanallur Lake Ooty Lake Kodaikanal Lake and Chembarambakkam Lake. The water resources are greatly polluted due to the waste from factories and houses which are directly merging in the water bodies. The possible measures are to treat the waste before being blending with the water bodies and recycling and using it again. I halted by saying that we must preserve our water resources for a better future.

Soorya was then called upon to talk on the topic Himalayas. Himalaya means ice melting zone. The Himalayas lie in the border of Tibet, India, Bhutan, Pakistan and Afghanistan. It is 50002km. Everest is the highest peak. We can find plenty of spices and fragrance items. Nearly 4 crore people live in and around Himalayas. About 5000 rivers originate from the Himalayas and all these rivers have water all throughout the year. Er. Benziger Rajan added that the Himalaya is famous for Bengal tiger and it stops cold wind blowing towards India. Mr. Edwin Sam stated that the Himalayas are famous for saints and religious beliefs.

Kavya then shared some facts about the Sindh River. The Sindh River, a tributary of the Yamuna River, flows through the Indian states of Madhya Pradesh and Uttar Pradesh. The Sindh originates on the Malwa Plateau in Vidisha

district, and flows north-northeast through the districts of Guna, Ashoknagar, Shivpuri, Datia, Gwalior and Bhind in Madhya Pradesh to join the Yamuna River in Etawah district, Uttar Pradesh, just after the confluence of the Chambal River with the Yamuna River. It has a total length of 470 kilometers, out of which 461 kilometres are in Madhya Pradesh and 9 kilometres are in Uttar Pradesh. The Pahuj, Kwari, Mahuar, and Parbati are its tributaries. Manikheda Dam has been constructed across the Sindh River in Shivpuri district.

Jisfia then was called upon to share some facts on the subject Indian Ocean. The Indian Ocean is the third largest of the world's oceanic divisions, covering approximately 20% of the water on the Earth's surface. It is bounded by Asia on the north, on the west by Africa, on the east by Australia, and on the south by the Southern Ocean. The ocean is nearly 10,000 km wide at the southern tips of Africa and Australia, and its area is 73,556,000 km<sup>2</sup>, including the Red Sea and the Persian Gulf. The Indian Ocean's volume is estimated to be 292,131,000 km<sup>3</sup>. Small islands dot the continental rims. Island nations within the ocean are Madagascar, Bahrain, Comoros, Maldives, Mauritius, Seychelles and Sri Lanka. The archipelago of Indonesia and the island nation of Timor-Leste border the ocean on the east.

Ayana was then welcome to give a talk on the topic Indian Marshy lands. Where land and sea meets or where sand and water meets muddy land or marshy land is formed. There are nearly 60 marshy lands in India. Kerala is known for its Mystica marshy land, Sundarban, Andaman and Manakudy are some of the well known ones. Sundarban 10000 2 km. Marshy land which is in Madhya Pradesh is home to verities of birds and fishes besides.

With this the turn of green tem members to exhibit their talents. Reshma, Maroon tem leader came forward to talk on the topic Indian Industrial Cities .If the cities and villages of our nation will develop Chennai, Mumbai, Kolkata and Delhi are some of the metropolitan cities. Delhi is a good tourist spot and is known for its hydroelectric power plants; Mumbai for its sea trade, textile industry, airports and ports, TATA company vehicles and banks; Kolkata for its salt lake and Alahabad Bank; and Chennai many earn by being tourist guides, and is named for its information technology and toys. Cities like Goa is famous as tourist spot and for mining jobs; Poona for communication and information technology; and Bangalore is known as the Silicon Valley and named for companies like Bicorn, Wipro, and Infosys.

Prabinkumar then conversed on the theme Indian Sea Transport. Indian coast is 7514km long and there are 13 major ports along it. Major ports are at Cochin, Chennai, and Kolkata. In Gujarat there are 43 small ports, Tamil Nadu 10

small ports and in Kerala 17 small ports. Kandaloor harbor exports textiles and petroleum. As there are 3 seas' surrounding our country sea transport can be done without any traffic. The problems are that it takes quite a lot of time and repairing is very difficult. Mr. Edwin Sam added that sea transport is cheaper; it joints continents and is the reason behind the discovery of many continents.

Dani came forward to converse on the subject Godavari River The Godavari is the second longest river in India after the river Ganges. It starts in Maharashtra and flows for 1,465 kilometers into the Bay of Bengal via the states of Telangana and Andhra Pradesh. It forms one of the largest river basins in India. Gowthama Godavari and Vasishta Godavari are the 2 rivers which Godavari split into. Kendai, Prawn and Keluzhti are the most common fishes found in this river. Upper Sileru, Lower Sileru, Upper Kolab and Upper Indrivathi are the major dams constructed over Godavari. The major tributories include Manjira, Sabri, Wardha and Thubana. Nearly 150 factories blend their factory waste water in this river. Many sewage treatment plants are set up for this reason. Er. Benziga Rajan added that Godavari River is the only river from which petroleum is extracted.

Then Shifi spoke on the topic Thanjai Rice Resources. Shifi shared her views on the theme Thanjai Rice Resource. RajaRaja Choza built the Thanjai Temple. Thanjavoor is filled with paddies and this region is named for its' rice resource. Now as the sea level is increasing the salt is blending with the soil. Thus the soil is salty and is not very suitable for agriculture. Er. Benziga Rajan added that there are 20 different types of rice and the Kaveri and Kalanai is providing water for the plants.

Then was the turn of Abila to talk on the theme Indian Exchange. If we produce products in excess of our needs we export it to other countries. Similarly if we have shortage of other products we can import from other countries also. Fish and metals are greatly exporting. Aluminium, , rubber and petroleum are imported to other countries.

Jerishya shared some interesting facts about Indian foreign companies.

- Microsoft Company: here they develop software; head office is at Washington 300 employees are employed at this company in Hyderabad.
- Nokia: Finland has the head office; its branch is in Chennai. Sep 13th, 2013, Microsoft took over the company by paying 48 crores.
- Ford car: Head office in America
- Branch in Chennai.
- Nestle: IN the year 1867 two swiss companies joined and begun this.

Head is in Swizerland, Branch in 8 parties of India among that 4 is in Tamil Nadu. Merged and took over several other companies

Mr. Gopalan added that near Marthandam there was a Thumps up company which is now closed because once this company started functioning it used the water from the pond and the water started reducing. Many companies are closed as they are not ready to accept a small lose.

Aruna began her talk on the theme Indian Road Transport. She stated that befor the means of transport was by horse drawn carts, bull drawn carts and by walk. Now we move through land, water and air. The first motor was found by Sir Henry Ford. Later on it developed and it was because of his invention that we are using cars today. She halted by saying that the signals must be easy and understandable. Mr. Edwin Sam added that road transport is connecting people and even business and asked her to include about the National Highways.

'Mahanadi' was the theme on which Mary Sushimija conversed. For the formation of a river slop is needed. As there is a slop in the form of a mountain range in Sathpura, Amarkandh the Mahanadi originates and flows 860km. The Hirakud dam is constructed out of mud and is 24km and was constructed for power generation. Water transportation is available for 150km. This river makes the surrounding land fertile and is helpful for agriculture. Er. Benziga Rajan added that the rainfall amount is high. Katak harbor is a named one and the force of water along this river is high and vigorous.

Jenisha then conversed on the subject Disputed Border of India. Along the Indian border are Pakistan, China, Bhutan and Thailand. The Indian border is the MCMohan line border. After the war between India and China in the year 1962 China lawlessly took 200002km from parts of Kashmir. Pakistan is growing in its terrorism.

Mejalin Aron of red team conversed on the theme Fkup ePH ghrdk;. Kanyakumari River is 18482km. Kanyakumari is a fertile place. Against the Valiyaru is the Mampazhathurai dam, and there are 5 main cannels. AVM canal the Anantha Victoria Marthandavarma canal runs from Mandaikadu to Neerodi and thus the ground water is high. At present AVM canal is considered as a dustbin and is a zone where diseases spread easily. Before in each village there were three to eight ponds, and in the past there were nearly 4400 ponds which have shrunk to 1750 ponds today. Er. Benziga Rajan further added that Chozhanthittai, Kutti dam, Kumari dam, Misson dam, Puli dam are the dams which are erected along the Pazhayar River.

Induja then shared her views on the subject Mumbai. Mumbai is the capital city of the Indian state of Maharashtra. It is the most populous city in

India, most populous metropolitan area in India, and the eighth most populous city in the world, with an estimated city population of 18.4 million and metropolitan area population of 20.7 million as of 2011. During the British rule it was known as Bombay. It is considered as the Manchester of India. Mumbai is also a small bay. Many kings ruled this region in the past. The first railway track was laid here from Mumbai to Thanai. It has both dry and wet climate. This is the birth place of Congress. The common languages which are spoken here include Hindi, English, Marathi, Konkani and Gujarati. The national highways here include National Highway 3, 4, 8, 17 and 217. Nearly 30 lakh people travel by train every day.

Vinoj shared some important facts on the subject Indian states. We the Indians got Independence on 15th of August 1947. India got its name from the River Sind. It also got the Paartham because of the King Parathan who ruled parts of India. There are 29 states and 7 Union Territories in India.

State	Capital	No. Districts	Year Capital was established
Andhra Pradesh	Hyderabad	13	2014
Arunachal Pradesh	Itanagar	16	1987
Assam	Dispur	27	1947
Bihar	Patna	38	1912
Chhattisgarh	Raipur	18	2000
Goa	Panaji	2	1987
Gujarat	Gandhinagar	33	1960
Haryana	Chandigarh	20	
Himachal Pradesh	Shimla	12	
Jammu & Kashmir	Srinagar (Summer), Jammu (Winter)	22	1947
Jharkhand	Ranchi	24	2000
Karnataka	Bengaluru	30	1956
Kerala	Thiruvananthapuram	14	1956
Madhya Pradesh	Bhopal	50	1956
Maharashtra	Mumbai	35	1960
Manipur	Imphal	9	
Meghalaya	Shillong	7	1072
Mizoram	Aizawl	8	
Nagaland	Kohima	11	
Orissa	Bhubaneswar	30	1939
Punjab	Chandigarh	20	
Rajasthan	Jaipur	33	
Sikkim	Gangtok	4	1975
Tamil Nadu	Chennai	32	1956

Telungana	Hydrabad	10	2014
Tripura	Agartala	8	
Uttar Pradesh	Lucknow		
Uttarakandh	Dehradun	13	
West Bengal	Kolkata	20	

Er. Benziga Rajan added that Goa is the smallest state and Rajasthan is the biggest state. Andhra Pradesh has the longest coast. Mr. Gopalan cited the 7 sisters, Meghalaya, Assam, Mizoram, Manipur, Nagaland, Tripura and Sikkim. According to the languages the states were separated.

After an interesting talk by Vinoj, red team leader, Abina conversed on the subject Effects of Artificial Fertilizers Nitrogen and Phosphorous is fed to the plants and it affects not only the plant but also human. This fertilizer affects the soil and kills the microorganism which helps the plant grow better. This also pollutes the soil, affects the underground water. Pesticides spoil the leaf and fruits which we consume. The only solution for this is practicing organic farming.

Nishanth then spoke on the topic Western Ghats. In his talk he told that India is endowed with a variety of natural resources. One among it is the Western Ghats. The Western Ghats are a mountain range that runs almost parallel to the western coast of Indian peninsula, located entirely in India. The range starts near the border of Gujarat and Maharashtra, south of the Tapti River, and runs approximately 1,600 km through the states of Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala ending at Kanyakumari, at the southern tip of India. It is the hottest spot in India and ranks 10th in the world.

The Western Ghats are very important to peninsular India. They are home to the sources of major rivers like the Krishna and Godavari. Most of the plant and animal species found only in India are found in the Western Ghats. It has important horticultural and agricultural species and rich bio-diversity that helps in climate-proofing the region. This will cause not just the loss of species and the degradation of unique biodiversity but will also affect rainfall patterns, river flow, water supply and climate across large swathes of the country. Er. Benziga Rajan included that the entire Western Ghats is known for its biodiversity, richness and endemism of different species.

Indian Harbors was the topic on which Jaslin Nels spoke. The Indian coast is 7600km long with 14 big harbors and 180 small harbors.

- Kandila : natural harbor, 10ft developed after freedom, petrol is exported.
- Paruthi :metal is exported
- New Mangalore : oil and fish is exported

- JNPD :Jawaharlal Nehru Harbor
- Karaikal : entrance to Tamil Nadu
- Cochin : tea, coffee and spices are exported
- Chennai : artificial harbor
- Mumbai : natural harbor, cotton and dress is exported
- Vishagapatnam : metal, wood coal is imported

Natural harbors are formed naturally and the artificial harbors are formed artificially. In fishing harbor, fishes are caught and sold. In travel harbor people travel and in goods harbor things are exported and imported. Er. Benziga Rajan added that Cochin, Mumbai and Vishagapattinam harbors are named for Navy force.

Sabrina then shared with us her views on the topic 'Wide spreading Organic Farming'. Organic farming is the practice of farming without spoiling the existing resources. This kind of farming never disturbs the soil, plant, human and even the animals or microorganism. Present farming method increases the yield for a short time and later on causes' great ill effect. 20 acres of the land in Tamil Nadu, organic farming is practiced. In the view of scientists organic farming is spreading more rapidly. Er. Benziga Rajan added that Finland is excelling in organic farming and then Mr. Gopalan added that Namazhvar is a named person in the field of organic farming.

Then Ragul spoke on the theme Delhi. Delhi officially known as the National Capital Territory of Delhi is the capital territory of India. It has a population of about 11 million and a metropolitan population of about 16.3 million, making it the second most populous city and second most populous urban agglomeration in India. Delhi has been continuously inhabited since the 6th century BC. Through most of its history, Delhi has served as a capital of various kingdoms and empires. It has been captured, ransacked and rebuilt several times, particularly during the medieval period, and modern Delhi is a cluster of a number of cities spread across the metropolitan region. The city is believed to be the site of Indraprastha, the legendary capital of the Pandavas in the Indian epic Mahabharata. According to this epic this land was initially a huge mass of forests called 'Kandavaprastha' which was burnt down to build the city of Indraprastha.

Niveth Shankar was then called for to share some facts on the theme Climate changes and India. Weather changes from place o place and time to time and climate changes over a long period of time. The factors that determine the weather are altitude, location and pressure. Due to the increase in pollution the environment is being destroyed. The heat is increasing due to global warming. This reduces the usable water, fertility and causes many natural disasters like tsunami.

18th October 2014 cyclone Hudhud attacked Andhra Pradesh and Orisa. If the temperature is not controlled then by 2050 all the people will starve for water. For a sustainable future we must cycle to short distances, grow enough trees and try using CFL bulbs for outdoors.

Then was the turn of blue team members and the first turn were given to Shyamini. She spoke on the subject Space Technology and its Uses. Information transfer, communication, disaster management, weather forecasting, fish resource prediction are some of the major use of Space technology. Not all know the benefits of space technology thus awareness must be created about this among the common men. Er. Benziga Rajan added that the hydrogen bus was invented due to the development in space technology.

Then Shyam conversed on the topic Indian Education System. Education is for bringing out what we have within us. Now most schools are following சமச்சியர் கல்வி which is activity based. Er. Benziga Rajan added that now education is regarded as business. Mr. Gopalan included that now exams are conducted in order to check our memorizing skills but the questions asked in our exams must be in a way which makes us think. Johnson sir added that SSI is focusing on the education of all and now activity based learning is spreading rapidly just like a forest fire.

Blue team leader Jefin R. Vensli then spoke on the subject Thar Desert. Thar Desert is the fourth largest in the world. About 85% of the Thar Desert is in India, and the remaining part in Pakistan. In India, it covers about 320,000 km<sup>2</sup>, of which 60% is in Rajasthan and extending into Gujarat, Punjab, and Haryana. About 40% of the total population of Rajasthan lives in the Thar Desert. The main occupation of the people is agriculture and animal husbandry. There are a variety of salt in this region. We can also find numerous sand dunes which keep drifting due to sand wearing away. There is a lot of water scarcity and is recognized as a tourist spot. Black deer and camel are the common animals found here.

Indian Weaving Industry was the theme on which Navin spoke. He stated that dress, mats, carpets are made through this. There are many types of weaving and it differs from place to place. Gandhi, Periyar wore hand loomed cloths, so we must also inherit this characteristic. Er. Benziga Rajan added that in Coimbatore and Thiripoor. The people do less farming when compared with weaving industry. Banaras silk are some of the famous weaved saris.

Aglin Bala spoke on Indian Occupation. India is an agriculture land and thus farming in an important occupation of the people. The major works involved in farming are plugging, fertilizing, planting, weeding, watering and harvesting. Then

comes the fishing occupation. Along the 7400km long Indian coast many fishermen live and their occupation is catching fishes and selling them. Nearly 500 million people are fishermen. Then comes the weaving works. Dresses, mats, blankets and carpets are made through weaving.

Akshya was then welcomed to talk on the topic Indian Harbors. The Indian coast is 7600km long with 10 big harbors and 180 small harbors.

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Ruthra then shared her views on the topic Information Technology. We receive information through talks, culture, phone, television, internet and writings. Phone in Greek means 'talking to people who are away'. Phone was invented by Alexander Graghambell. Cell phone can be carried anywhere and everywhere and we can access internet through it as well. Television was invented by John Lok and we can watch live programme through it. Computer was invented by Charles Babbage which was later modified as laptop. Er. Benziga Rajan added that in the part the usage of fax machine was high and now 'what's up' and 'Facebook' are also faster and preferred by many.

Siyana spoke on Climate information. The climate depends according to the position of the mountain and the location. When we go higher and higher the temperature goes higher and the pressure goes high as well. In article the temperature will be -40 to -10o C. Summer, Winter, Manson and spring are the 4 climats. Average temperature in Shimla is 22o C. In the North Pole, December will be dark and in June sun will shine more than that of December. The opposite occurs in South Pole. Sivagangai in Tamil Nadu gets least rainfall and Kanyakumari has 3 different climatic conditions.

Shalomi spoke on the Mangrove Forest. This forest prevent sand from being wearied away. The wood of these trees are also used to make boats. Sunderban is the largest Mangrove forest in the world. The Sunderban is along the River Jamuna. The plants grown here are Avicenna and Heritaria. In Kadaloor, between 2 estuaries there is a mangrove forest. Avicenna and Rizophobia are the common varieties of trees grown here. In Manakudi Avicenna and Rizophobia are commonly found. In most Mangrove forest there are a lot of rare lives and mudskipper is one among them. Er. Benziga Rajan added that there are a lot of bird and fish breeding in the mangrove forest. The word Mangrove forest in Tamil means அலை ஆற்றுகூடிய காடுகள் ஸ்ரீ அலையாததிக்காடுகள்

Then Meera was called to share some facts on the theme Electricity Generation and Distribution. Alexandra Sandra gave a start to the electricity. As we human need energy to work, machine also needs electricity to work. Renewable energy is the energy which will never get extinguished like solar, hydro, wind and tidal. 2018.8 mega watt of electricity was generated last year using wind mills.

Non renewable energy is the energy that gets used up or extinguished or takes millions of years to get formed like fossil fuels. Fossil fuels like coal is burnt which heats the water and the stem turns turbine to generate electricity. Nuclear energy source like uranium is split which produces heat. This heat boils water and the stem turns turbines finally generating electricity.

We cannot use electricity directly so it must be distributed. A house uses from 220V-240V. If the energy leakage is prevented then many will be able to use energy. She insisted us to use electricity properly and to conserve it. Thus we must use it appropriates.

Aashmi then spoke on the theme இந்திய தேசிய ஒருமைபாடு. We have more culture and the population. So there is a lot of diversity and even then we are united and India is regarded as Unity in Diversity. But now there is a lot of problems like border fight, river water fight and even there is no unity among our family members. We must avoid this and keep the name of India high. For creating awareness among the people regarding this issue there was a walk from Kanyakumari till Kashmir which is 6500km long. The song Vanthematharam was sung with an inner reason to create awareness among people. Thus we must also try to follow this and be united in all means.

All the students were given a chance to exhibit their talent in their Mother Tongue Tamil and finally was the turn of the organizer to talk. Mr. Velaian stated that speaking will increase our memory power and each and every one of us leant something new. We even have the power to rule India. He quoted that the members of the library cared, served food and took care if us with so much of love

and care. He cited that the next is expired to be on 21st or 23rd of January at IIST. Our reports must be excellent with all the information.

After this meet I got a hope that I can even do well in Tamil, because till this meet I always hesitate to talk in Tamil and didn't give importance to it. But this meet made us all realize the importance of Mother Tongue Tamil. We found that we are not only good at English but also in Tamil. All were satisfied at the end I thank the organizer Mr. Velaian and Mr. Tamilmaaran who is the head of the library, Mr. Mathavan Thambi and Mr. Kavintha Raj the members of this library, Er. Ramaseshan, Er. Benziga Rajan and Mr. Lazar the guest speaker, Mr. Sajeeve, Mr. Shibin Tad, Mr. Johnson, Mrs. Babitha, Mrs. Krishnakumari and Miss. Lekshmi for their presence which made this a grand fete.

**R.J.RESHMA,**

The young scientists' programmes were conducted by giving priority to English language. I was eagerly waiting for a turn to speak in our Mother tongue and the Mother of all languages, Tamil. As we all wished, we young scientists got a chance to speak Tamil in a young scientists programme called 'Arivial Tamil Muzhakkam'. Our joy had no limit at all. The day we expected came on 17th of January. We were given topics for each to prepare and present it in Tamil. On 17th January, 2015 Arivial Tamil Muzhakkam was held at Painkulam library at 8:00 am. The compeering was done by R.J.Reshma, the leader of maroon team. She first welcomed all the dignitaries including the members of Painkulam library to the Dias. A good welcoming was given by her. First Mr.Mullanchery M.Velaian, the organizer and brain of KAP was invited to give a hand of welcome to the gathering. He emphasized the importance of time management. Arivial Tamil Muzhakkam programme is one of the important programmes of KAP, he said. Tamil is an important language. Nowadays, we give more priority to English, a foreign language than our mother tongue. Tamil language should be respected by us. It's the first language to be found in this whole world. Library is a place where books are kept to enrich our knowledge by reading them. The head of the library, Mr.Tamil Maaran was glorified by him. He then welcomed all the dignitaries which include Mr. Maathavan Thampi, Mr.Sigamani, Mr.Govinda Raj, Mr. Muzhankuzhi. P. Laser, Er.A.Benzigar Rajan and others. Next a cheque of Rs.5000/- was given to the library by Er.A.Benzigar Rajan. The library consists of about 4000 members and

about 330 writers and poets. The place which has a library is a place where there will be peace. People live in unity in such places. He thanked the librarians and the head of the library for giving us a wonderful opportunity to conduct KAP's Arivial Tamil Muzhakkam.

Next was the turn of an eminent personality and the head of Painkulam library, Mr. Tamil Maaran to give a small talk. He began his talk in a rhyme scheme in Tamil. It really inspired us a lot. He thanked and appreciated Mr. Velaian for nurturing talents in students. He welcomed everyone gathered in the auspicious day. He was glad to see the young scientist in five different coloured uniforms. He quoted the words of Dr. A.P.J. Abdul Kalam

'You have to dream before your dream came true'.

The dreams which we dream shouldn't be jocular or terror. It should be or aim and ambition. He shared us a small story about an eight grade boy who kept on changing his ambition when he saw different people. The boy got into a bus with his mom. He saw the conductor blowing the whistle in his hand. The boy told his mom 'Mom, I wish to become a conductor'. The mom was very glad to hear his son's words. After the bus began to move, the driver of the bus blew the horn in the bus. The boy then told to his mom 'Mom, I don't want to become a conductor, but I wish to become a driver'. The mom felt glad again. The boy and his mom went to a hospital after getting down from the bus. He saw the doctor treating a patient with his stethoscope. The boy then told his mom that he doesn't wish to become neither conductor nor bus driver, but wasn't to become a doctor. These words made the little boy's mom very happy, because doctor is a very good profession. When he walked out of the hospital, he saw a gentle man who was dressed well. He questioned his mom that who was that man. The mom replied 'He is a civil engineer'. Then the boy told his mom 'I don't want to become a bus conductor or driver or doctor, I wish to become a civil engineer. His mom's face had a smiling appearance. Soon as he crossed the road, he saw a traffic police managing the traffic jam and showing signals. The boy again changed his ambition into a traffic police. This was the ending of the story. Mr. Tamil Maaran said that our dream shouldn't be like the little boy in the story. We should stand firm and should divert from our dream. Then he told about Mangalyaan which was Rs.450 crore expensive. This achievement was done by the ISRO scientists. The word 'we can' denotes self-confidence. Next he highlighted the importance of having libraries. The Painkulam library is one of the biggest libraries in Kanya Kumari district, he added. He concluded his speech by saying that we should improve our knowledge by reading books.

R.J.Reshma invited Mr. Maathavan Thampi to give a short speech. He felt very glad to see us. He began his talk by sharing a quote of Swami Vivekananda. The development in science and technology has brought India into a global village. The superstitions found in the society have been decreased nowadays. He glorified Er.A.Benzigar Rajan and his talk given in another meeting about science and literature. He then concluded his talk.

We were eagerly waiting for the next person to talk. It was none other than Mr.Govinda Raj. He welcomed everyone gathered for the programme. He told few things about Painkulam library. First, there were some obstacles for the development of the library. But now its running successfully. He felt happy about Arivial Tamil Muzhakkam being conducted in Painkulam library. We heard a happy news that Mr.Velaian had joined the library that day. By saying this, he ended his speech.

Next talk was given by Shri.C.Sajeev. He welcomed the gathering. Birth, life and death are common to all living beings. Selecting students from Kanya Kumari district and providing training to them without any fee is really fabulous work done by KAP. We all speak good and fluent English but we struggle to speak Tamil fluently, he said. He mentioned Thirukkural no: 260. In 1871, Nelson Rutherford from New Zealand splitted the nucleus of atom in 1919. He told us the methods how he remembered the two years- 1871 and 1919. He glorified Muzhankuzhi P.Laser, Mr. Ramesheshan and Mr.Benzigar Rajan. He told about Mr.Maathavan Thampi who was a cashier who then became secretary and now he has retired. He ended his talk once again by welcoming everyone.

Shri.P.Gopalan gave a small talk. He said that Kootalmoodu is famous for bursting crackers which go high in the sky. Painkulam library enriches the knowledge of people who often come there to read or borrow books. He told the proverb 'Pen is mightier than sword'. The great personalities have become great success only by reading books. Some information related to French revolution was told by him. During the revolution, they found machines which killed many people. Suffering from hunger, the French people surrounded the king's palace for getting law. The people in palace were not steady and they were drinking. But the queen came out and asked the people 'What do you need?'. The people replied 'We don't have bread to eat'. The queen who was brought up in a rich family, she didn't know the seriousness of hunger. She replied 'If you don't have bread to eat, eat cakes'. The people flew into rage and entered the palace and destroyed everything. They killed everyone. The jail was too attacked. The book written by Voltaire and Rousseau are of great value. Many books tell us about the Russian revolution too. The Painkulam library creates more literature skilled people, he concluded.

Next Shri.S.Johnson spoke. He welcomed everyone and said that Abdul Kalam of KAP is Mr.Velaian. The people who spoke before spoke about the Painkulam library and its development. He then wished all the very best for Arivial Tamil Muzhakkam and ended his very short speech.

Shri.Shibin Tad spoke. We all give priority to English language. We should develop our Tamil language also, he added. We should know how to write, read, learn and talk Tamil in a correct manner, because its our mother tongue. He then concluded his talk.

Next eminent personality who spoke was Er.A.Benzigar Rajan, Dy. Manger, ISDRO Propulsion Complex, Mahendragiri. The Painkulam library has about 25,000 books and 3850 members. The Russians and Japanese don't know to talk English and they speak in their mother tongue. Five crore scientists are there in Russia, but they don't know English. Japanese and Chinese learn English only for marketing and they give more priority to their mother tongue, he added. We have four landforms. He mentioned few lakes and rivers. India is a subcontinent. Indian Ocean, Arabian Ocean and Bay of Bengal surround our country India. Punjab is called the 'Rice bowl of India'. The deltas present in India serves food to 128 crore people. We should know Tamil. English is a foreign language but we Tamilians should know to speak and write Tamil, he concluded.

Next talk was given by Mr.Rameseshan. He wished a very fine morning to all of us. Talking in pure Tamil is not easy for all of us, he said. We often speak in a language related to our place and culture. Tamil is our mother tongue. Translating text from one language to another language is a risky job. Gandhiji wrote his book in Gujarati which is was his mother tongue. The people all over the world give priority to their mother tongue. We too should follow it. Scientific words are tough to translate into mother tongue. Communication has been developed a lot. We can increase and enrich our knowledge through interactions. The development in space science has been gone very high. Launch vehicles like PSLV (Polar Satellite Launch Vehicle), GSLV (Geosynchronising Satellite Launch Vehicle) and GSLV MK- III (Geosynchronising Satellite Launch Vehicle Mark- III) have given more benefits to the mankind. The mars mission was achieved by PSLV. The thinking of the scientists behind this mission lead them to a great success. Most of the people criticized the work of scientist before it became successful but the scientists moved steps forward with confidence and finally they achieved. He mentioned about the mounatian climbers and the problems faced while climbing to high altitude. He told about vacuum. There should be some problems and then only solutions can be identified, he concluded.

The next talk was given by Mr. Muzhankuzhi. P. Laser. He began his speech by glorifying Tamil language. He appreciated our punctuality. He described the life his story of many famous personalities. Rabindaranath Tagore who was a Nobel prize winner wrote *Geetanjali* in his mother tongue, he said. He told the history of the name 'kangaroo'. The company Coca Cola which was brought by Americans was sold in China. The Chinese told that the product should be in their mother tongue. The Americans accepted it. This shows the importance of mother tongue of each country. He shared us an incident about Gandhiji and Mary Curie. The family of Mary Curie got five Nobel prizes. The history and achievements of Thomas Alva Edison was also told. He then concluded his talk. The feedbacks were given by Gby Atee, Dani Rovas, Edin Jijo, Jefin R.Wensley, Nishanth and Abian. Mr.Velain conveyed thanks to everyone. The first session by 10:20 pm. Then we had a tae break.

The Arivial Tamil Muzhakkam began by 10:25 am. We were eagerly waiting for our turn. First it was the turn of yellow team to begin the Arivial Tamil Muzhakkam. J.M.Mereshiya, the co-leader of yellow team gave her talk on the topic 'SOUTH INDIAN RIVERS'. She mentioned few important rivers such as Kaveri, Krishna and Godavari. The river Krishna is about 1300 km length. It passes through Maharashtra, Karnataka and Andhra Pradesh. It begins in Maharashtra and drains in Bay of Bengal. Vijawada is located near it. She told about the Beenna river and the west Beema Sankar mountain. The Tungabhadra river is a religious river and passes through Andra Pradesh and Karnataka. In Ramayana, this river is mentioned as 'Pamba river'. Tunga + Bhandra = Tungabhadra. It passes through the Deccan plateau. The length of Godavari river is about 1450 km. Gowdama Godavari+ Vaishista Godavari = Godavari. The river Kaveri starts from a mountain. It is 4400 m height and 800 km length. It drains in Bay of Bengal. Kabni river is 230 km in length. It begins in Wayanad and drains in Kaveri. Gomavathy river is aboput 245 km in length. It begins in Karnatka (Mysore) and drains in Bay of Berngal. The Airanchi River begins in Pushpa river and drains in Kaveri. It is about 50 km in length. The Amaravarhi river begins from a valley and drains ointo Kaveri river. She then ended her talk. The comment was given. The judges were Shri.S.Johnson, Shri.P.Gopalan, Shri.P.Balakrishana and Shri.Shibin Tad. Some English words were involed in her talk, so that should be avoided, said Shri.S.Johnson. Her talk was good. T.S.Argineshya spoke on the topic 'MULLAIPERIYAAR'. It passes through a tunnel. Suruli and Vaiagi rivers are important ones. It begins in Western Ghats. It has transportation facilities. Electricity began to be produced here in 1955. In 1970, there was a treaty between Kerala and Tamil Nadu. Now, the mullaiperiyaar is in problem. The remarks

were told. S.Leena Saju spoke on the topic 'NORTH- EAST MONSOON'. Tamil Nadu has North-East Monsoon. It helps in irrigation. Now it has been decreased. Many crops have grown and more profit was earned due to this monsoon. It comes between October to November. It rains in Andhra Pradesh, Maharashtra and passes through Bay of Bengal. Collection of data was good. J.S.Edin Jijo spoke on the topic 'VAIGAI RIVER'. It is located in Madurai. It passes through Kamban valley and ends in Ramanathapuram. It is 258 km in length. He told the history of the river. A dam was built over this river in 1865. Remarks were given. Personalities like Lord Shiva should be given respect, said judges. 'CHENNAI CITY' was spoken by B.Abhirami, the leader of yellow team. Chennai is the capital of Tamil Nadu. It was earlier known as Madras. It has a harbour. It covers about 154 sq. km. It has great economy. She told few important cities and business in Chennai. Then she concluded her talk. It was known as Detroit city, said Er.A.Benzigar Rajan. Immaculate Rishvi spoke about 'SOUTH -WEST MONSOON RAIN'. It occurs from June to September. It passes through Konkan coastline. Arabic Ocean and Bay of Sea play important role in this. It helps in farming and economic development. It begins from Western Ghats. It passes through Kerala, Karnataka, Maharashtra and Gujarat. She concluded her talk and the remarks were given. The next talk was given by Vijayaraj. He spoke on the topic 'KAVERI DELTA'. It passes through Karnataka. It drains in Bay of Bengal. It is being polluted nowadays. Okanakkal falls is located in it. It passes through Erode, Namakkal, Salem, Trichi, Karur, Thanjavur and Thiruvavoor. Ragul spoke about 'TAMIRABHARANI'. It has herbal water. It is 125 km in length. The Madurai industry was found here. It never dries. It begins in Agasteeswaram in Pothigai. Tamirabharani = Tamirabharani. Many dams are being built here. Vishal spoke on the topic 'Indian rice source'. Farming is seen in Tamil Nadu. Rice is cultivated here in large amount. It gives us health and energy. He told about Pongal festival. The remarks were given.

Next it was the turn of green team. First S.Haritha spoke on the topic 'BRAHMAPUTRA'. It begins from China. It passes through a Buddhist temple. It has Himalayas as its border. She told about its uses and importance and then concluded her talk. The next talk was given by A.G.AGEESHA on the topic 'GANGA RIVER'. She began her talk with Thirukkural words. She told its origin and where it drains. She listed its uses and importance. The remarks on her talk were given. Gangotri and Yamunotri are very important and these should be mentioned. Its sub rivers are Chammal, Yamunai, Paakirathi, Gomathy and Goshi. It has another name 'Vanaathi'. Shri.P.Gopalan told us the history of it. Its places are very fertile. The grammatical errors in her talk were corrected. The next talk was given by Gby Atee, the leader of green team. She spoke on the topic 'INDIA'S

WATER SOURCES'. Water is one of the five elements. She told a kural. Water is precious. We get water through rivers, mountains etc. Rivers like Sind, Ganges, Brahmaputra has large amount of water in it. They are also used for transportation. There are about 170 big lake sin India. There are more athn 2700 rivers in India. Due to over population, industrial waste and pollution, water pollution has been caused. Water should be treated properly. It's our duty to preserve water bodies. The remarks were given. The data collection was good. Some points related to dams and lakes should be also included in the talk, said Er.A.Benzigar Rajan. There are two types of rivers. One type is that which gets dried during the summer and the other one is teat which doesn't get dries during summer. The grammatical errors were corrected. Sourya Vijay spoke on the topic 'HIMALAYA'. Himalayas is a natural barrier. It has ice on it. It is about 2600 km long. It separate India from Tibet. It extend from Sind to Brahmaputra. It's a young mountain. It was formed when Europe and Asia joined. Mt.Everst is the highest peak in Himalayas. The third highest peak is Kanjunchanga. About 4 crore people live here. Nepalese, Bhutanese, Lexpas and other race of people live here. Crops like barley, corn and sugarcane are cultivated here. About 5000 river originate from here. Sind and Brahmaputra are very big. Er.A.Benzigar Rajan told that Himalayas is famous fro Bengal Tiger. It giver fertility to the surrounding areas. Ganges is a very important river. Himalayas are mentioned in the puranas. Some saints were also living in Himalayas. The next speech was given by A.Kaviya Shree. She spoke on the topic 'SAIND RIVER CIVILIZATION'. Sind is an important rover of Pakistan. It is about 2900 to 3300 km in length. Sind civilization began at the banks of Sind river. China, Mesopotamia and Egypt civilizations were well known. People lived in small cities around B.C.6000. The Harappa civilization flourished between B.C.2600 to 1900 B.C. Some granaries and big walls were built here. One great bath was found here. A Sind script was found in Mayiladuthurai. A person named Iravathar Mahadevar researched about the Sind civilization. Some rivers like Sutlej, Chenab, Beas, Ravi and Jhelum were very important rivers of Punjab which make it fertile. Very good remarks were given. J.Jisfia Shifany, the co-leader of green team spoke on the topic 'INDIAN OCEAN'. It covers about 20% of the world. It extends about 6 crore km. It has island like Madagascar and Maldives. It has about 3890 m deep. Its deepest point is the Java falls. Petroleum and hydrocarbon has been taken from here. Varieties of sand is found. Cities like Chennai, Mumbai and Kolkata are located near to the Pacific Ocean. It's our responsibility to save Pacific Ocean from pollution. The comments of her talk were given. About 40% of the petroleum is extracted from Arabic Ocean. Melbourne, Jakarta and Sydney are the important cities. Few

English words which were included in her talk were corrected. Next chance was that of S.Ayana Tressa Raj. She spoke on the topic 'INDIA'S MARSHY AREAS'. She mentioned the important marshy areas of India. These marshy areas are suitable for the life of mangroves. She described few important places and concluded her talk. The remarks were given and the errors were corrected. Her preparation was very good. The next chance was that of maroon team. The first talk was given by R.J.Reshma, the leader of maroon team on the topic 'INDIA'S BUSINESS CITIES'. She mentioned the important business. Cities like Chennai, Mumbai, Kolkata, Pune, Cochin, Vishakapatnam and so on. She listed the important business of each cities. Mostly, all the places were famous for Information Technology. Goa is a best tourist spot. Chennai is known as Detroit of India. Mining is found in Goa. The remarks were given for her talk. Prabin Kumar spoke on the topic 'SEA WAYS TRANSPORT'. There are 13 main harbours in India. Harbours in Chennai, Kolkata., Mumbai. Cochin, Vishakhapatnam were mentioned. He also listed the products which are imported and exported from each harbour. S.Dani Rovas spoke on the topic 'GODAVARI RIVER'. She spoke well. It is an important river in India. Rivers like Puran, Indravati mix in this river. It drains in Bay of Bengal. It's the second largest river in India. Its length is 1465 km. She described well about it. The next talk was given by Shifi. She told about the Thanjavur which is called the rice bowl of India. Indian economy was told by Abila. She listed the importance of import and export. Then we had lunch break.

At 1:40 pm, we again assembled in the hall. The talks were continued by the maroon team members. J.M.Jerseha spoke about 'INDIA'S COMPANIES'. She listed the important companies of India like Microsoft, Hyundai, Nokia, Ford and Honda. She told the places where their companies are located. The next talk was given by Aruna on the topic 'INDIAN ROAD TRANSPORT'. She began her talk with the discovery of wheel. She told about the vehicles and fuels which are related to road ways transport. The remarks were that the highways and important roads that connect two cities must be told. Next Mary Sushmija.X.M.spoke on the topic 'MAHANDAI RIVER'. It is located in the east of India. It originates from Satpura. It gives fertile to Chhattisgarh and Orissa. Hirakud dam is built. Ghatatak is located near it. Finally, R.J.Jenisha spoke about 'INDIA'S BORDER PROBLEMS'. She listed the countries to which India has enmity. Sri Lanka, Pakistan, Nepal were included. Bangladesh is also included.

Next it was the turn of red team. B.Mejalin Arno gave his talk on the topic 'KUMARI RIVER DELTAS'. We have four types of lands namely kurinchi, mullai, marutham and neithal. The AVM canal starts from Mandaikadu and ends in Neerodi. The level of underground water here is 3 to 8 ft. There were

about 4400 ponds in our district but now it has been reduced to 1750. The present lakes are also in a polluted condition now. People are treating the ACM canal like a dustbin. Some extra points were given to us by the judges. Panthiri river and Pambaar river are very important rivers. Pazhayaan has 10 small dams. Some of them are Chozhanthittai dam, Veeranangulam dam, Kumri dam, Kutti dam, Mission dam and Puli dam. Shri.S.Johnson told that his talk was good, fluency and data collected must be improved. The remarks given by the judges helped us to correct our mistakes and speak better without errors. A.S.Indhuja, the co-leader of red team, spoke on the topic 'MUMBAI CITY'. Mumbai is the capital of Maharashtra. During the reign of British, it was known as Bombay. It has about 2.7 million populations. It has small islands such as Mahi, Columba, Sinallco and others. It spreads about 21,000 sq km. The people who live here are from the hereditary of Chalukyas, Maurays and other people. The first railway line was laid from Mumbai to Thane. The congress in Mumbai began in December 1885. People here spoke Gujarati, English, Hindi and Konkani. There are many tourist places in Mumbai. Er.A.Benzigar Rajan gave us some additional data. About 35 lakhs travel in train each day in Mumbai city. The city is located between Vindhya and Arabian Sea. Petroleum is extricated in a large amount from Mumbai. The other judges gave good remarks and said the road way transportation should be covered in a detail manner. V.G.Vinoj from red team came forward and spoke on the topic 'INDIA'S STATES'. He began with India's independence in 1947. We were under the control of British for 150 years and finally got independence. About 845 languages are being spoken in India. Only 22 languages among them are accepted by the government. India has 29 states and 7 union territories at present. Then he listed us the following things:

NO:	STATES	CAPITAL	NO.OF DISTRICTS	LANGUAGE	FOUND YEAR
01	Andra Pradesh	Hyderabad	13	Telungu	1956
02	Arunachal Pradesh	Idanagar	16	Hindi and English	1987
03	Assam	Dispur	27	Assami	1947
04	Bihar	Patna	38	Urdu and Hindi	1912
05	Chattisgarh	Raipur	18	Chattisgari	2000
06	Goa	Panaji	2	Konkani	1987
07	Gujarat	Gandhinagar	33	Gujarati	1960
08	Haryana	Chandigarh	20	-	-
09	Himachal Pradesh	Shimla	12	Hindi	1971
10	Jammu & Kashmir	Srinagar	22	Urdu	1947
11	Jharkhand	Ranchi	24	Hindi	2000
12	Karnataka	Bangalore	30	Kanada	1956

13	Kerala	Thiruvananthapuram	16	Malayalam	1956
14	Madhya Pradesh	Bhopal	50	Hindi and Urdu	1956
15	Maharashtra	Mumbai	35	Marathi	1960
16	Manipur	Imphal	9	Manipuri	-
17	Meghalaya		7	English	1971
18	Mizoram		8	English	
19	Nagaland	Kohima	11	English	1963
20	Orissa	Bhubaneswar	30	Odissa	-
21	Punjab	Chandigarh	20	Punjabi	1966
22	Rajasthan	Jaipur	33	Rajasthani	-
23	Sikkim		4	Kanada	1975
24	Tamil Nadu	Chennai	32	Tamil	1956
25	Telangana	Hyderabad	10	Telugu	2014
26	Tripura	Agartala	8	Bengali	-
27	Uttar Pradesh	Lucknow	-	Hindi	-
28	Uttarakhand	Dehra Dun	13	Hindi	-
29	West Bengal	Kolkata	20	Bengali	-

He concluded his talk by saying that Gandhiji followed ahimsa and non-violence to fight against British for freedom. We should keep the freedom fighters in mind and respect them. We should be true citizens to our nation. He told the tabulated details listed above fluently without any reference. His memory power was extraordinarily good. The remarks were given by the judges. Everyone appreciated his memory power. Er.A.Benzigar Rajan told him that India's largest state Rajasthan and smallest state Goa should also be told. Some important features of India could also be told, he added. Shri.P.Gopalan reminded us about the states which have same capital. Punjab and Haryana had Chandigarh as their capital. He gave some additional information about the seven sisters of north-east India. They are Nagaland, Meghalaya, Manipur, Mizoram, Assam, Sikkim and Tripura. In 1956, India was separated into different states on the basis of the languages spoken by the people. Other judges gave idea to remember the geographical area of each state so that it could be useful in future. Next came S.Abina, the leader of red team to speak on the topic 'MODERNIZED UREA AND THE EFFECTS OF INSECTICIDES'. Fertilizers such as nitrogen, phosphorous, potassium and given to plants for high yield. These fertilizers have both advantages and disadvantages. Abundant usage of fertilizers kills the microorganisms and other creatures present in the soil. They exploit the level of underground water. They give us disease when we consume the plants to which fertilizers are added. Land, water and air gets

polluted due to artificial fertilizers. To overcome all these disadvantages, organic farming is practiced. Organic farming reduces the usage of fertilizers and helps to protect us from diseases and ensures a good health. The remarks were given for her talk. Few examples of natural manures like vermi compost can also be mentioned under this topic. The impacts on human health due to the usage of fertilizers could also be mentioned. Her talk was good and had a well audible voice. The demerits of the fertilizers were told detail and the same manner its benefits should also be included, the judges added. It was the turn of S.Nishanth to speak on the topic 'WESTERN GHATS'. The Western Ghats begins from Gujarat and ends in Kanyakumari. It blocks the cool air from the Arabian Sea. It gives rain in Kerala. There are about 5000 flowering plants and about 508 varieties of birds in this mountain. About 176 species of amphibians are also found here. Its height is about 176 m. Aana mountain, Sayathi mountain, Aana mudi are all part of this Western Ghats. This mountain range was linked with America, Madagascar and some other countries in the beginning. Due to the separation of continents, this mountain range joined with Asia continent. Many rivers which flows in west direction originates from here. Rivers like Godavari, Krishna, Kaveri, Vaiga, Tamirabharani originate from the Western Ghats. At present, the condition of these mountain ranges is polluted. It's our duty to preserve the mountain which is a natural source gifted by God. The judges' remarks were given. They gave us some extra information about the topic. These information were very useful to us. Some rivers like Pazhayar, Pambai and Periyar flow from east to west. The fish source is high near this mountain. There are about eight bio-diversity hotspots and one among them is the Western Ghats. The grammatical errors of his speech were corrected by Shri.S.Johnson. N.Jaslin Nels expressed her views on the topic 'INDIAN HARBOURS'. A harbour is a place where the ships rest. There are about 42 harbours in India. Harbours are of two types- natural and artificial. The Chennai harbour was constructed in 1983. It is a private harbour and is the second biggest harbour in India. It is a well- known tourist spot. It is located in Bay of Bengal. She next told about Thoothukudi harbour. It is constructed in 960 acres of land. It exports products like fish, fruits and rubber. Vishakhapatnam harbour is known for both import and export. It gets income of about 660 crores. It is also located in Bay of Bengal. The Cochin harbour is located in Kerala. It is a tourist spot and exports spices and fish. It lies in Arabian Sea. Paradi harbour is an artificial harbour and lies in Bay of Bengal. It is located in the place Jagadhsingpur. The Mangalore harbour is located in Karnataka and lies in Arabian Sea. The Mumbai harbour is located in Arabian Sea. Its old name was Bombay. It does both import and export. The Marmagoa harbour is located in Goa. It exports different kinds of

metals, because mining is done in Goa. It is a natural harbour which is also a tourists spot. It was constructed in the year 1963. The Kolkata harbour was built; by the English government. It lies in Bay of Bengal and exports coal. The Kantal harbour was begun by the Kutch. It export petroleum and clothes. Good comments were given the judges. Shri.P.Gopalan instructed her to avoid reading and presenting the concept. The definitions of natural and artificial harbour should also be included, said Shri.Shibin Tad. The grammatical errors were corrected and apt Tamil words were given for the errors. Next M.Sabrina Lynette Fernando gave information on the topic 'ORGANIC FARMING'. Organic farming aims at improving our health. About 20,000 acres of land are cultivated by the method of organic farming in Tamil Nadu. She told few places where it is done. P.R.Ragul shared his views on the topic 'DELHI CITY'. It is the second biggest city in India. It has about 11 million population. Delhi is located near the river Yamuna. People began to live here from B.C. 6th century. During the 18th and 19th centuries, Delhi and Kolkata were alternately considered to be the capital of the country India. After the independence in 1947, Delhi permanently became the capital of India. Red fort built by Shah Jahan is located here. The Prime Minister of India hoists the Indian national flag at Red fort during the day of independence. There are other tourist spots like the India gate, Jantar Mantar, Humayun's tomb, Qutub Minar etc. The comments were given by the judges. Delhi was created by the Mughals. The Mughal empire ruled Delhi during the olden days. Emperors called Delhi Sultans reigned the Delhi kingdoms. New Delhi was first found by a French Artist. The name history of Delhi can be included in the talk, said Shri.P.Gopalan. Next it was the turn of C.J.Nivedh Sankar to speak on the topic 'CLIMATIC CHANGES AND ITS EFFECTS'. Our environment is greatly affected due to pollution. The poisonous gases which are liberated from the Earth deplete the ozone layer. Increase in global temperature leads to melting of ice glaciers in polar regions. Due to the melting of ice glaciers, the water level in seas and oceans increase. Rise in temperature also reduces the fertility of the soil. Freshwater pollution and tsunami attacks are caused due to the change in temperature. Tsunami attacked southern India on 26 December, 2004. A flood occurred in Kanya Kumari district in July, 2005. In the month of March, 2005 again there was a flood in our district. Uttarakhand was affected by floods in 15 June, 2013. The Hudhud cyclone destroyed Andhra Pradesh and Orissa in 10 October, 2014. He listed few ways to avoid the pollution in our environment. Use public transports and reduce the private ones. Plant more trees to make Earth green. Avoid the usage of plastics. If we control the change in temperature, we and our generations can live peacefully, he concluded.

We were eagerly waiting for the talks of the blue team members. First Shamini spoke on the topic 'SPACE TECHNOLOGIES AND ITS USES'. The space science has played its role in various places, especially in education. The satellites involved in space technology has been used for communication, transmitting radio and television signals and other purposes. Er.A.Benzigar Rajan gave told that the major uses of space satellites like to identify the place where forest fire has occurred and cyclone has occurred should be told. The grammatical errors and other remarks on her talk was told by other judges. Next was the turn of V.Shyam Sagar to express his ideas on the topic 'INDIAN EDUCATION' He first told us the meaning of education and what does the words like E and Uco mean. The Indian education mainly do its role in the kind of books and syllabus. It also verifies the selection of teachers for each grade and schools. A mission named Sarvashiksha Abhiyan was began to improve the education system in India. At present, the Indian children get education which is named as 'Samachir Kalvi'. The comments on his talk were given. His collection of information was god. Now, education has become a business. People buy education with money. Its not fair. The question pattern which is prepared for the exams should be related to scientific thinking. There is no relation between the subject which one had studies and the job which one had got. The children shouldn't be made to learn only from book. Practical learning should be done by students. Jefin.R.Wensley, the leader of blue team gave his talk on the topic 'INDIAN DESERT' The largest desert of India is the Thar desert which is located in Rajasthan. It is also the fourth biggest desert in the world. It covers about 4,46,000 sq.km area. It is nearly 10,000 years old. It passes through Punjab, Haryana, Gujarat and Rajasthan. The important cities it links include Jodhpur and Jaisalmer. The wets part of India has Indus rivers. Small sand dunes which are about 16 km height are found in north of India. Salt content is present here. Mainly two varieties of trees are found in this region. Indira Gandhi canal is found here. Luni river which is found here is used for agricultural purposes in Rajasthan. About 40% of people live in Rajasthan. Water scarcity is found in Thar desert. Animals like Indian forest donkeys, wolves, black deer and camels are found here. Herbal plants and about 140 species of birds live here. Crops like corn and bajra are cultivated in this region and are consumed as food by the people. Animals like sheep and camels are kept as pet animals in Rajasthan. Rajasthan is also a bets tourist spot. He then concluded his talk. Some unknown datas were given to us. Oasis is found in Thar desert near to Jaislamer. Shri.P.Gopalan appreciated him for his collection of datas and information. Shri.Balakrishana told him that the definition of desert should be given first, because it is one of the important land forms. India is a farming country. Many

products are manufactured here and are exported to foreign countries. Business related to different technologies are found here. The markets play a major role in selling goods and products. Jewells is also made here. Agriculture is widely practiced here. Agriculture refers to the cultivation of crops and raising of livestock. Fertilizing the soil, weeding, irrigation, sowing, planting are few important steps in agriculture. Fishing is a major business in coastal areas. About 500 million people in India live depending upon fishing. They [preserve fish and sell in markets which are then bought by us. Jobs like weaving are also done in India. Clothes are woven here using clay spindles and other new machines. Handicrafts are done here and are exported to countries like America. Good comments were told on her speech. She covered almost all the important business in India. S.S.Akshaya came forward to share a few points about the topic 'INDIAN HARBOURS'. The coastline of India extends about 7,600 km. It has 13 big harbours and 187 small harbours. Some of them are Kandla harbour, Paradip harbour, JNPT harbour, Mumbai port, Cochin port, Chennai port, Vishakapattinam port, Marmagosa port, Tuticorin port, Ennore harbour, Kolkata harbour and Mangalore harbour. The Kandla harbour is developed after the freedom and is 10 m deep. Food, fuels and wool are exported from this port. The Paradip harbour is in the state Orissa. Metals are exported from this port to Japan. Export is more in this place than import. The Marmagosa harbour is another port in India. It is located in Goa. It is near the Suveri estuary. It exports products such as cococnuts and metals. Import is less here. After the formation of Konkan coastline, it developed more. The JNPT harbour is known as the Nava Sheva port. The Cochin harbour is in Kerala. It export tea, coffee and perfumes in large amount. The Chennai harbour is aa artificial harbour. Cyclone attacks have been found here. Next she told us about the Cochin harbour which was begun in the name of Babu Sidambaranar. It exports various products to countries like China and Europe. The Mumbai harbour is a beautiful and natural harbour. It exports materials like clothes and metals. The harbour in Vishakapatnam is located in Andra Pradesh. Wood is important in large amount from this harbour. Harbours in Mumbai, Cochin and the Kandla harbour are few examples of natural harbours. Harbours in Chennai and Tuticporin are artificial harbours. Fishing harbours are famous for fishing business. She described few varieties of harbours and then concluded her speech. The remarks were given. Her data collection was very good. Vishakhapatnam, Cochin and Mumbai harbours are very famous in India. Grammatical errors were corrected. Rudra Sathish shared us few information about 'INFORMATION TECHNOLOGY'. New technologies are ruling the present world now. Machines like fax, telephones and cellular phones are found everywhere

in the world now. The Greek meaning of the word 'Telephone' is 'Communication with distant people'. Telephone was found by Alexander Graham Bell. Mobile phones were then introduced. It is widely used by the people, because it is very easy to carry from one place to another. Internet facility is available in mobile phones which helps people to access information from any spot in the world. Computer was found by Charles Babbage. He is known as the 'Father of computer'. It provides us more information and helps us to do projects and other school and college works. Television provides information about wildlife, science and technology and others. It is mainly used for entertainment. It helps us to update our brain with current affairs by showing the daily news. Laptops and palmtops were then introduced. It seems to be like a mini- computer which is carriable. Artificial satellites play a major role in space technology. They are used for communication widely. As a coin has two sides, Information Technology (IT) has both merits and demerits. It depends upon the way we use it. Her talk was good with more datas. Social networking sites like facebook, whats app can also be included, said Er.A.Benzigar Rajan. Pronunciation and grammatical errors that was found in her talk were corrected. M.Seanna spoke on the topic 'CLIMATE CHANGE'. Many factors are responsible for climatic change. Polar regions are very cool. Antarctic region is cooler than Arctic region. The Arctic region has about  $-81.5^{\circ}\text{C}$  temperature. Climates are of various types. Dry climate, wet climate, cool climate, hot climate are some of its classifications. Rainy and summer seasons and west- east rains are found in India. Less rain is found in Sivagangai. The remarks were given. Some more datas should be told, Er.A.Benzigar Rajan said. Next it was the chance of Shalomi, the co-leader of blue team to give her speech about 'MANGROVE FORESTS'. Mangroves are found in marshy areas. Sunderbans is the largest mangrove forest in the world. The mangrove trees help to prevent soil erosion by holding the soil firm. In Kanya Kumari district, mangrove forest is found in Manakudy. We visited mangrove forest in our coastal awareness camp. Sree meera Subramaniam spoke about 'ELECTRICITY PRODUCTION IN INDIA'. She described about renewable and non- renewable sources of energy. Then Ashmi spoke about 'INDIA'S UNITY'. By this, the theme talks got over. Mr.Velaian concluded the meeting. He told all spoke well. He told us to visit the library. The program got over by 04:35 pm. Then we visited the library. I express my deep sense for gratitude to KAP for nurturing talents in us.

MY SINCERE THANKS TO KAP.....

**P.K. Raghul**

“ tPo;tJ ehkhf ,Ue;jhYk;> tho;tJ jkpohf ,Uf;fl;Lk; ”

These lines were the base of that day's meeting. I reached Paingulam Government library about 7.45 am in the morning for a splendid meeting of “mwptpay; jkpo; Kof;fk; ” which was based on the association of science with Tamil. Tamil is believed to be the mother of all Dravidian languages and there is a talk among historians that the world's first man is a Tamilian. It can be easily stated by the quote of great poet Bharatiyar;

“ ahkwpe;j nkhopfspNy jkpo; nkhopNghy; ,dpjhtnjq;Fk; fhNzhk; ”.

The meeting started punctually at 8.00 am in the morning in a closed hall in the library. Reshma, the leader of Maroon team compered the meeting. She invited all the dignitaries to the stage. Mr. M. Velaian, organizer of KAP gave the introductory address. He said that the meeting has started punctually on time and this serves as a good beginning. Everybody thinks that science is based on English but this is unfair because many poets of Tamil literature had mentioned scientific truths in their poems and stories. He welcomed all the active members of library include Mr. Tamilmaran, head of the library, Mr. Madhavanthambi, Mr. Govindaraj, Mrs. Irin Rani and Mr. Thanapal. He also invited Mr. Benzigar Rajan, Deputy Manager, ISRO and Mr. Ramashesan, retired Chief General Manager of ISRO and Mr. Mulangudi Paulasar. At last he welcomed all the guide teachers and team coordinators. He added the achievements done by the library which has about 4000 people as its members and is the second largest library of Kanyakumari district. He insisted that we should have a scientific vision of everything around us. Then Mr. Benziga Rajan donated a cheque for an amount of Rs. 5000 to the library development.

Mr. Tamilmaran was the next speaker. He appreciated KAP for all its activities. He said that we should have scientific temper. He also thanked Mr. Benziga Rajan for providing them with a cheque. He also advised us to act according to our dreams and aspirations. He added that we should have a specific goal in life. He requested us to make scientific developments and lead India towards the successful path. He then told the necessity of libraries.

Next it was the turn of Mr.Madhavan thambi to deliver his talk. He said that science revolves around What, Why and How. Science has a lot of advantages. It makes our life comfortable so that we live happier than our forefathers. It also destroy untruth beliefs which are present in the society.

Mr. Govindaraj told that they are proud to conduct the meeting of KAP here and said that its their privilege. He also added that the library was turned into a full time library on December 14, 2014. He also said that we should raise awareness among the people on the need of books in shaping the society.

Mr. Sajeev, an active member of KAP who resided in Paingulam spoke that the library was a good one and has many books based on different topics. He said that science is deeply associated with Tamil. He also gave an example as follows; Nelson Rutherford found atom in the 19th century. But the great Tamil poet xsitahh; mentioned it in the earlier period as “ அணுவைத் துளைத்து எழுகடலைப் புகுத்தி குறுகத் தரித்த குறள் ”. He also welcomed all the dignitaries and KAP members as well as the students.

Then Mr. Gopalan, coordinator of Yellow team discussed his views about the meeting. He said that Paingulam is a beautiful region. Then he stated the necessity of books by the famous phrase “A pen is mightier than a sword”. He continued by giving a few examples such as the book “ Capital ” written by Carl Marx which was the reason behind the Russian revolution. He added that French revolution was started by the influence of another author Rousseau who wrote about the grievances of the people. His talk was based on the influence of books over the people.

Mr. Johnson told that Tamil and science should be promoted with care and maximum effort. We should hold them as our two eyes. Then Mr. Sibin stated that a lot of us don't know proper Tamil and this should be reduced and we should join hands to protect Tamil.

The next speech was made by Mr. Benzigar Rajan. He said that the library has about 25,000 books which is a huge amount. This library was also started by the people. He continued that the day's meeting is all about geographical, political and economical conditions prevalent in India. India is a region with different landforms and culture. Then he insisted that we should use our language without hesitation. Chinese, Japanese and Russians are the supreme powers only because that they use their own language in all aspects including science. His talk clearly indicates the necessity of learning our mother language properly.

Then the most awaited speech of the meeting was given by Mr. Ramaseshan who talked about the needs of using our mother language. We can learn other languages only if we learn (read, write & talk) our mother language fluently & properly. Mahatma Gandhi had written his autobiography in Gujarati which was his language. There is no importance in the language we speak, but it

depends on communication of data between each other. Language should not be a barrier. When ISRO had the ambition of sending spacecrafts to the red planet (Mars), we have adopted simple method & available launch vehicle. However we have done it successfully and made a world history. Then he finished his talk by advising us to follow three things wherever possible. They are;

- Think differently from others.
- There should have the thirst for knowledge. We should not stop learning.

- Think simple and do simple.  
Follow these three steps and be patriotic to the nation and lead it in the better way.

Mr. Mullanghuzhi Lazar spoke next. He seemed to be a store house of knowledge by the views and ideas that he expressed. He started by appreciating us for being punctual and being quiet. Then he told about using our mother tongue. Rabindranath Tagore wrote his book "Gitanjali" in the memory of his wife in his mother language Bengali. However it won him the Nobel Prize in literature. Tamil is the best language in the world and the books in Tamil have the best data ever collected. Science can be seen in olden Tamil texts. Then he advised us to strive hard towards a specific goal. He narrated a few stories including;

I. Dr. A.P.J. Abdul Kalam was one among the 12 candidates who were interviewed for the piloting test. Except him all the other 11 were selected. However he worked hard and worked in DRDO and ISRO and was quite successful in all his missions and became popular for his innovations in the field of missile and rocket launching.

II. Once Mahatma Gandhi had a surprise test in his class. An education inspector came to his class and told the boys to write five words and young Gandhi spelled one wrong. His teacher requested him to copy it from the near boy and he refused. This clearly indicates that he was a strong upholder of truth which makes him the father of our nation.

III. Dr. Radhakrishnan met a few British people when he was in England. The British teased him by saying that they are white in colour because they are loved by God. Dr. Radhakrishnan replied that God decided to make humans. First he took some flour and slightly heated it. It was pale but not properly cooked. They are the white people. Then God took another spoonful of flour and heated it in high flame. It was very burnt and this turned to be the people who have dark skin such as in Africa. Then God took another spoonful and

cooked it with maximum carefulness. This turned to be brown in colour and was properly cooked. They are Indians. The British was astounded by his brilliant reply.

IV. Marie Curie's life history was also based on her hard work. She was a poor girl who worked in the house of a rich merchant. The merchant went abroad and returned to his home 5 years later. His son told him that he wanted to marry Marie who was the servant in the house. His father replied if he marries her he will not give him any riches. So his son refused the marriage. Marie was heartbroken and went out of the house with courage and determination to become famous in the world. She won 2 Nobel Prizes and her family won a total of 5 Nobel Prizes whose record is never beaten so far.

V. Thomas Alva Edison, the inventor of electric bulb is another person well known for his perseverance. He failed nearly 1000 times before he found the electric bulb. He also had the patent of inventing other range of electronic goods.

We should not be just ordinary like others; Born, Live and Die. We should embark our names in the history of the world. He ended by again requesting us to work towards a straight and specific goal with confidence. He talked in clear Tamil and his speech was a feast to our ears. He made us realize that one can succeed in his life only through his everlasting hard work.

Then Reshma called out a few students to give feedback. Gby Atee, Edin Jijo, Dani Rovas, Nishanth, Abina and Jefin.R.Weasely gave the feedbacks. Soon Mr. Velain gave the vote of thanks by thanking everyone for giving support to the meeting.

Soon it was the time for us to speak up in Tamil which was the main objective of the meeting. The first team to present the talks was the Yellow team which made a good beginning to the meeting. Mr. Johnson cleared all the language errors in the speeches while Mr. Sibin, Mr. Edwin Sam, Mr. Gopalan, Mr. Benzigarajan, Mr. Balakrishnan gave additional information to the speech.

The first talk was given by Mereshiya on the topic " South Indian rivers ". Krishna, Godavari and Kaveri are the important rivers and several other tributaries join them. Krishna separates into two near Vijayawada as Beemanathi and Thungapathra. Godavari measures 1450 Km in length and originates in Nasik. It has several boating facilities. Kaveri which is called as Ponni river has 5 tributaries whose length covers 800 Km.

The topic " Mullaiperiyar dam" was made by Argeeneshya who said that its length is about 365 m and breadth ranges from 3 m to 40 m. The idea of its construction was given by a minister of King Sethupathy. The mission was

started successfully in 1887 by Penniquick who was the chief architect. It provides water to both Kerala and Tamil Nadu. In 1970, a hydroelectric power plant was built here to produce electricity.

Leena Saju spoke on "North-East seasonal rainfall ". It provides livelihood for the farmers around the southern regions. Crops such as rice and wheat are grown in this period. It comes from the Bay Of Bengal. Mr. Benziga Rajan gave additional details like it measures 181 mm and occurs between September and January.

" Vaigai River " was presented by Edin Jijo. It measures about 258 Km in length and flows around Madurai. The word " Vaigai " means put your hand out in Tamil. It is believed to be a part of Aagaya Ganga. In Madurai Chittira Poornami is celebrated by the people to remember the religious story.

Abirami made a good speech on " Chennai ", the capital of Tamil Nadu. It has an artificial harbour and several other tourist attractions such as Marina beach. The population is about 7.45 million and it has a Vandalur wildlife sanctuary which has 80 different animal species. Mr. Benziga Rajan added that it is also called " The Detroit of Asia " because a lot of cars are manufactured here everyday.

Immaculate Rishvi shared her views on " South- West monsoon ". it occurs between June and September and it plays a major role in economical development and the cultivation of crops. It causes rainfall in Karnataka, Kerala and Gujarat.

" Irrigation by River Kaveri " was the topic on which Vijayaraj spoke. Kaveri originates in Kudangu Mountains and drains into Bay of Bengal. It flows through Erodu, Salem and Karur in Tamil Nadu and it nurtures nature and greenery as it goes.

Vishal made his talk on " Rice production in Tamil Nadu ". He told that rice is the main food of Tamilians. It is harvested in abundance in Thanjavur, the rice bowl of Tamil Nadu. Pongal is an important harvesting festival and usually people give up pongal made from rice to the son god. Their talks were very interesting and carries a lot of knowledge that enhanced our brains.

Their talks were followed by the talks of Green team members who proved that they are a match to the Yellow team. The first talk was made by Haritha who spoke on the river " Brahmaputra ". This originates in the Mansarovar lake in China and enters India in the name of Brahmaputra or the son of Lord Brahma. Brahmaputra and river Ganga meets together with a new name

of Jhamuna which feeds the Sunderbans mangrove forest reserves with clear water.

Ageesha made a wonderful talk about river " Ganga ", the most holiest river in India. It is the longest river in India. It provides water to the states of Uttar Pradesh, Bihar and West Bengal. It measures 2500 Km and some of its tributaries include river Chambal, Yamuna, Kosi and Gomathi. At present it is being polluted and " River Ganga action plan " was implemented by the government to protect it.

" Water sources in India " was the next talk made by Gby Atee. She mentioned that North India is fed by rivers like Sindhu and Ganga while South India is fed by Narmada, Tapti, Godavari and Kaveri. There are 170 huge lakes in India. Our district has about 1700 ponds. However the water resources are depleting in a faster way and let us preserve them to have a secured future.

The next speech was made by Sourya Vijay on " Himalayas " which when translated in Hindi means the " Abode of snow ". it is a natural barrier that protects us from the cold winds from the north. It spreads across India, Bhutan, Bangladesh, Nepal, Pakistan and Afghanistan. The world's largest peak mount Everest is situated here. Godwin Austin and Kanchenjunga are some of the other highest peaks. About 5000 rivers originate here and it is rich in biodiversity. 4 crore people live in the foothills of Himalayas.

" River Sindhu " was made by Kaviya. She conversed that it is 3300 Km long and Sutlej, Jhelum and Beas are some of its important tributaries. The Harappa and Mohenjadaro civilization originated in its banks about 6000 years ago. Karachi and Peshwar are some of the important cities that are situated in its bank.

Next Jeshviya spoke on " Indian ocean " which is the third largest ocean in the world. It is bound by countries like Indonesia, India, Australia and several others. Its average depth is 3790 m and the deepest part is located in Java which nearly measure 7450 m. Hydrocarbons like petrol, diesel and kerosene are taken in this sea. It also has a rich content of fishes. The 2004 tsunami which occurred in this ocean causes huge loss of life.

Iyana was the last member from the green team and she discussed a great deal about " Marshy lands ". Amazon and Mississippi forests are well known to have marshy lands. However the biggest marshy land in the world is Sunderbans mangrove forest located in India. Kerala has 0.004 % of marshy lands out of its total and Andaman and Nicobar islands have 4.09 % marshy lands in it. About 62 marshy lands are found in Karnataka. In Tamil Nadu it is found in Chennai and Chidambaram. Several medicines are made from the trees

that grow in these marshy lands. The green team had put on their effort to make their talks marvelous.

The next talks were made by maroon team. Reshma spoke on " Industrial towns of India ". she described each town with its importance. Chennai is a place where people practice different occupations and educational institutions are found here in plenty. Kolkata is well known for its information technology. Mumbai is the place where the headquarters of TATA and Reliance is located. Goa is a tourist spot and mining is carried out here. Delhi, the capital of India is well known for every type of occupation. Pune manufactures lots of two wheeler. Bangalore is the Silicon city of India and has the headquarters of WIPRO and INFOSYS.

The next topic " Sea transport in India " was made by Prabin Kumar who spoke magnificently. Some of the important ports of India are Thootukudi, Cochin, Chennai, Vishakapatnam, Kolkata and Mumbai. Gujarat has a total of 42 ports, Andaman and Nicobar islands have 23 ports, Tamil Nadu has 20 ports and Kerala has 10 ports. The advantages of sea transport are it costs a little money and helps in boosting the economy of a country. The disadvantages are it takes a lot of time, in case of damage it is difficult to repair and oil spills from the ships degrades the aquatic environment.

Dani Rovas gave a brilliant speech on river " Godavari " which originates in Western Ghats and flows through Maharashtra, Andhra Pradesh and Telengana. It provides water for drinking and other household and industrial purposes. Upper Indravati powerplant and Upper Godavari powerplant are two famous hydroelectric powerplants. Its temperature varies between 27 Celsius to 36 Celsius. There are about 72 factories in its bank which pollute the river. So we should save the river from pollution.

" Thanjavur rice granary " was the topic given to Shify. The river Kaveri provides water to the fields and results in large production of crops like rice. From 2007 about 4,00,000 tons of rice are produced and stored. Large varieties of rice stored here is exported to many other places.

The next speech was made by Abila on " Indian trade ". Indian trade mostly depends on share markets located in Mumbai. They deal with all the financial issues. Export and import are the two factors in which modern marketing depend. Aluminium, glass and oil is imported from other countries and food crops, fruits and fishes are exported to other countries. The national income is about \$ 950 billion.

Jershiya was the next speaker who spoke on " India's various companies ". She mentioned the name of the companies with enough detail. She told

that many companies have their branches and networks in India which are controlled by a national headquarters. The headquarters of Microsoft which creates software for computer is located in Hyderabad. Nokia's headquarters is located in Chennai. Ford whose headquarter is in America has its Indian headquarter in Chennai. Nestle, a famous sweet company was formed by the coalition of two swiss companies in 1967 and it has its headquarter in India and it bought Nova medicals and harbor which were once the famous Indian companies.

" Road transport in India was the next speech given by Aruna who explained that roads make an integral network to connect people in India. The total area covered by road network in India is 37,87,240 sq feet. Once we used steam engines and then vehicles that run by petrol and diesel and now there are modern vehicles that utilize renewable energy like solar power to work.

Mary Sushmita spoke about river " Mahanadi ". The total length is about 860 km and it originates in Amarkand in Madhya Pradesh. The largest dam of India, Hirakud is built across here. It is also suitable for inland water transportation and now it is being polluted at an alarming rate and it's our duty to protect it before it dries up.

The topic of " Indian border disputes was presented spectacularly by Jennisha. India and China share a common border of 4500 km and it is known as Mathmohar. Both of these countries are fighting for the border. The war occurred in 1962 in spite of agreeing the Panchasheel principles which mention to have peace. The next dangerous border dispute is with Pakistan who induce the militants to work against our country.

Soon it was the time for the red team to exhibit their speaking skills. The first talk was made on " River irrigation in Kanyakumari " by Mejalin Arno. Kanyakumari is a place which has all the landforms except a dry, terrain region. Paraliyar, Kothaiyar and Palaiyar are some of the major rivers of Kanyakumari. AVM canal also provides irrigation to the fields. We should conserve water resources to protect the greenery of our district. A few extra points were added by Mr. Benziga Rajan who said that dams like Cholathitu dam, Kumari dam, etc provide water to our district.

The next talk was made by Indhuja on the topic " Mumbai ". She stated that Mumbai is known as the " Manchester of India ". It is the capital of Maharashtra. In olden days it was named Bombay and was a famous site for cotton cultivation. The first train in India was started in Mumbai and ended in Thane in 1853. Two international airports are present here; Chattrapatti Shivaji international airport and Navy Mumbai international airport. The people of this city speak Gujarati and Hindi.

" Indian States " was the topic presented by Vinoj. He had a very good memory power because of his ability to recollect the enormous amount of data that he stored. He declared that India got independence in 1947 after which the states were portioned. The people including the tribes speak about 845 languages, however only 22 languages are official in the working of government. Then he described all the Indian states along with their capital, languages, number of districts and the year in which it was formed.

Abina was the next speaker who talked about " The effects of fertilizers and pesticides ". fertilizers and pesticides are chemical substances that are made in factories to increase the crop productivity. They play a major role in modern agriculture. But although they give advantages for a short period, their disadvantages live long. They reduce the fertility of the soil and makes it unfit for cultivation. The crops sprayed with pesticides proves to be the death-eater for humans. They also pollute air, soil and water to the maximum effort.

Soon, Nishanth gave a talk on " Western Ghats ". It prevents the cool air from the Arabian sea and causes rainfall. It is one among the 8 biodiversity hotspots of the world. 139 species of mammals and 5008 bird species are found in this mountain range. Its measures 1600Km in length and 900 Km in breadth. Anamudi is the highest peak of this mountain measuring 2670 Km. Godavari, Krishna, Tamirabarani and Tapti originates here. We should save Western Ghats which is a elegant gift from god.

Then it was the time for Jaslin Nels to make her speech which was about " Indian harbour ". Harbour is a place where the ships are kept. Some of the important harbours in India are Chennai, Kolkata, Mumbai, Thootukudi and Vishakhapatnam. The Chennai harbour is maintained by a private company and fruits, fish and rubber are exported from here. In Cochin spices and fishes are exported. Importing and exporting can be both found in Mumbai.

" Organic Farming " was the topic given to Sabrina. It is a method of agriculture which does not pollute land, water, plants and animals and can be shortly defined as eco-friendly farming. In Tamil Nadu 20,000 acres of land is used for organic farming. Finland is ther country where organic farming is present vastly.

P.R. Rahul made his talk about the capital of India " New Delhi ". the entire population is 11 million. The famous Mughal dynasty made it as their capital. Historians believe that Indriraprastanam, the capital of Pandavas is present here. Edwin Lutanice is the chief architect behind the making of New Delhi said Mr. Benziga Rajan.

The next speech was made by Nivesh Shankar on " Seasonal changes and its effects on India ". He told that increase in temperature leads to infertility of soil. Farmers will lose their livelihood if the seasonal rains fail to occur. Due to seasonal changes the coastal areas of Andhra Pradesh was strongly affected by the Hud Hud cyclone which occurred in October 10, 2014. So we should devise some ways to meet the needs of the people if the seasonal rainfalls don't happen.

The last team to exhibit the talks was the blue team. the members done it perfectly. The first talk was made by Shamli who shared her ideas about " The uses of space technology ". space technology has connected millions of people across the globe by making communication possible. A lots of people were benefitted by this method. Space technology is used to study various landforms enabling to understand better about the origin of earth. The invention of Hydrogen fuelled cars is deeply associated with space technology.

The next topic was a good one which deals about " Modern educational system ". It was presented by Shyam Sagar. Education means to bring knowledge out of our mind. Modern education focuses on the structure of books and intelligence of teachers. The government of India provides education for all through the system of " Sarva Shiksha Abiyan " or the education for all. However education has became a business and this should be prevented.

" Indian desert " was the topic given to Jefin who stated that it was none other than the Thar desert which is located in Rajasthan. A desert is a place with a dry and arid condition. It receives very little rainfall. Sand dunes are commonly found in this region. Animals like Black deer and fox are common. Nearly 145 species of birds are found here. Domestic animals like Camel and Donkeys help to travel across the desert. Luni river and the Rajasthan canal irrigate the farmlands which are cultivated with Jowar and Bajra.

Naveenjith spoke on " Indian weaving occupation ". some of the types of weaving followed in India are Floor weaving and Finger weaving. Thirupur, Coimbatore and Kanchipuram are well known for this kind of occupation. China and Taiwan is also known all over the world for its occupation of weaving.

The next speaker was Aglin Bala who spoke about " Indian Occupations ". India is known as a farming country because agriculture is done by over 70% of the population. Food production, making of Jewelries, Textile industries and making handmade crafts are some of the famous occupations. The coastal people's occupation is fishing and selling the fish whuich they get.

Soon, Naveenjith made his speech on " Indian harbours " which was already done by Jaslin Nels. But she gave a lot of information such as the

coastline measures 7600 Km which consists of 13 Big Ports and 123 small ports. Kantilla port in Karachi exports food. Mangalore in Karnataka exports goods like tea, coffee seeds, rice and rubber. Ennur and Karaikal in Tamil Nadu exports coal and fish respectively. Cochin in Kerala exports tea and coffee. Mumbai exports cotton while Vishakhapatnam exports iron and other metals. Natural harbours are Mumbai and Kantilla and artificial harbours are Chennai and Thootukudi.

The topic " Information technology " was made by Rudra. Information Technology of a country decides the economical profits gained by that country. Some of the innovations made in this field are, Telephone by Graham Bell was modernized into cell phones. Television was invented by John Logie Baird. Computer invented by Charles Babbage was updated to laptops. Fax used in earlier days was restructured to the present world as social media.

Seanna talked her views on " Weather forecast ". Air pressure and force determine the climate and temperature of a region. India has five major seasons; Spring, Summer, Monsoon, Winter and Autumn. Ramanathapuram receives less rainfall. Kanyakumari has all the seasons and has a pleasant temperature.

Shalomi spoke on " Mangrove forests ". It reduces the force of air and water and helps in tsunami prevention. The largest mangrove forest is Sunberban mangrove forest which got its name from the Sundari trees. In Tamil Nadu it is found in Picchavarm and Manakudi where trees like Rhizophora and Avicenna found. Several endangered bird and animal species are found here. So we should conserve them.

" Production and distribution of electricity in India" was presented by Meera who declared that electricity is the food for machines. Electricity is of two types; Renewable energy and Non-renewable energy. Solar power, wind power and tidal power are some of the forms of renewable energy. The electricity produced in nuclear reactors and from coal are non-renewable sources of energy. Electricity produced is sent to a main station from where it is sent to sub-stations and to houses through electrical cables. We should conserve electricity to secure our future.

The last speech was made by Ashmi on the topic " Unity in India ". India is a place with different cultures, languages, dresses, religions, etc. It is necessary to have unity among the Indians for the smooth functioning of the government. For the development of the country political parties should join their hands to promote the livelihood of the people.

Soon, all the talks were over. Mr. Velain gave the Vote of thanks and thanked the library members for supporting them to conduct the

meeting successfully. He also appreciated the work done by the students and said that it is a great event which we will remember all through our life. The meeting has improved my knowledge to a great extent, especially the landforms and climatic conditions present in India and the usage of Tamil was made easier in the meeting. I am really glad to be a part of the meeting. We were later announced that we would visit Indian Institute for space science and technology in the following week. Then we visited the library which was a huge storehouse of books. It created me a desire to read books and I understood that knowledge is a huge ocean which has no end. Some of the lines written in the library which inculcates the need of reading books include,

“ பாலூட்டி வளர்ப்பது தாய், அறிவை வளர்ப்பது நூல். ”

“ வயிற்றுப்பசியை தீர்க்க உணவு, அறிவுப்பசியை தீர்க்க நூல். ”

**J.M.MERESHIYA**

“A book is a dream that you hold in your hand”

-Neil Gaiman

The 8th meeting of Kumari Ariviyal Peravai (KAP) was held on 17.01.14 in a library which is located in Painkulam. The program started sharply at 8:00 a.m. Miss. Reshma, leader of Maroon team compeered the session. At first she welcomed all the KAP faculties, the chief guest and the students who assembled in the hall.

In the beginning the program was started with an opening speech of Mr. Mullanchery M. Velaian, the Organizer of KAP. He welcomed the chief guests, advisors of KAP and the students gathered there. In his introductory speech, he categorically explained the significance of time management. He advised us to manage time appropriately. He asked all the students to consider the meeting as a research meeting. Then he introduced his friends to us. He then appreciated Mr. Benzigar Rajan Dy. Manager, ISRO Propulsion Complex Mahendragiri who donated Rs. 5000 to the library. He also said that library is a symbol of peace. He then introduced Mr. Rameshan, Chief General Manager [RTD] of ISRO who was a former IIT student gets in contact with KAP and support it in future a lot. Since Mr. Rameshan is the current advisor of Green team the students from that team greeted him with a golden shawl. Mr. Gopalan, Headmaster Rtd presented him a memorable gift. By introducing everyone Mr. Velaian concluded his speech.

After his speech Mr. Tamilmaran, chief of Government library, began to give away his speech. He appreciated Mr. Mullanchery M. Velaian in such a way that he is the one who develops scientific skills among the students that helps them to achieve lot of success in the future. He said that the library where we had the meeting has 2,500 useful books in it that improve the knowledge of students. He also appreciated Mr. Benzigar Rajan, who donated Rs. 5000 for the improvement of library. He said that he is a scientist and not a politician because only politicians lie in public meeting not a scientist. He said stories about being truthful. Then he concluded his speech.

Then, Mr. Mathavan Thambi, joint secretary of Govt. library started his speech. He said some of the thoughts of Vivekananda. He also appreciated the involvement of Mr. Velaian towards the school children in developing their talents. He concluded his speech by welcoming everyone gathered there in the library.

Following him Mr. Govindraj, member of the Govt. library, started his speech. He said that he felt proud by seeing the KAP students in the library. He encouraged all the students gathered there. And then he concluded his talk by welcoming everybody.

Then Mr. Sajeev began to give away his speech. He said birth, life and death, are common to all living beings. He quoted the quotes of Tamil poet. Avaiyaar. He also mentioned some of the historical experiments on nuclear energy and invention of atom. Also he spoke about various inventions. He then concluded his speech by encouraging us to achieve a lot more in future.

Subsequently Mr. Gopalan started his speech. He said during his childhood he would come to visit Painkulam area to watch display of fireworks. He said that library is so powerful that it helps students to improve their knowledge. He also quoted one of the thoughtful quotes such as 'The pen is mightier than sword'. He also said a story about the French Revolution and the fate of the rulers. The event he described was once a great famine struck France and the French people were so hungry. They went to the palace to see the king and queen to get help for their provisions. The king and queen were enjoying their life dancing and without considering the situation of the nation. People said that they don't have even bread to consume. "You can eat cake then", the queen replied. The people got angry and destroyed the palace. Finally he thanked one and all and concluded.

Then Mr. Johnson, Headmaster Rtd began to give a talk. He said about the importance of the knowledge in Tamil. He said that we should not think that technology development is possible only when we have knowledge in English. Rather we can also make technology advancement with our Tamil knowledge. And then he concluded his advisory talk.

And then Shri. M.C.Shibin Tad, NI University ,Kumarakovil started his talk. He also talked about the importance of Tamil language. He told us that we should respect our mother tongue more than the other languages. Saying this he then concluded his talk.

Following him Mr. Benzigar Rajan started his speech. He also said that the library has 2,500 books in it that helps us to learn unfamiliar facts. He also said about the importance of Tamil language. Over twenty Crore of people in world never know English language. Even the developed nations such as Russia and Japan respect their own language. Their official language is their own mother tongue. They developed the nations even without the help of English language. He also spotted the rivers of India such as the Narmada, the Krishna and the Godavari. He also said that Udhayagiri fort is such a wonderful place that located in our nearby area. And then he concluded his talk.

After that Mr. Rameshan started his speech. He said that he felt difficult to talk in Tamil and felt sorry to talk in English. He said that we should never be afraid of talking in English before someone. He said we should be confident in speaking our own mother tongue. He also said we can gain more knowledge by travelling to many nations. Then he told about Mangalyaan project ad explained about its success story. He said the scientists strive hard to make it successful. He concluded by wishing KAP to achieve success in its entire doings.

And then Mr. Lazar, Head of Kumari Muztamil Mantam started his speech. First of all he welcomed everyone gathered there. He started his talk with saying some quotes. He then said that a student's nature can change throughout a period of his/her entire study period. Then he said that he was in prison before. Hearing this, students got shocked. Then he said that he had worked as a teacher in prison. After that he said Mr. Mullanchery M. Velaian had acted in a female role while he was acting in a drama at the age of thirteen. Then he said the topic of the meet 'Ariviyal Mulakam'. Then he said a story about Rabindranath Tagore. The wife of Rabindranath Tagore is Geetha. When his wife died he was so sadden and distressed and wrote a book named 'Geethanjali'. Then he said another story about the name of Kangaroo. He said that some foreigners looked at kangaroo and asked some of the tribes in India the name of the animal. They said 'kangaroo' which means 'don't know' in their language. The foreigners understood that the name of the animal as kangaroo. He said this is how the name of kangaroo was born.

Furthermore he said the name of Coco-Cola came from Chinese language. He also said we should have a good ambition as target to achieve our success. He said a story regarding this. Once a little boy was traveling with his mother and they got into a bus. By watching the conductor the little boy said to his

mother that he wants to become a conductor. Then by watching the bus driver the little boy said to his mother that he wants to become a driver because the bus stops only when the driver stops it. And then they get down of the bus. They went to the hospital. There by seeing everyone respected the doctor the little boy said to his mother that he wants to become a doctor. And then by watching the traffic police the little boy said to his mother that he wants to become a traffic police because all the vehicles obey his command. Finally Mr. Lazar said that we should have one ambition as a goal and work hard to achieve it.

In addition he also said a story how to be hard hearted towards achieving the goal. Once there was a school that conducted a competition in which twelve students were participated. But only eleven students were selected and one was rejected. The rejected one was so worried. He went and asked a faculty the reason for his rejection. The faculty said that he should improve a lot to get selected. The rejected student tried hard, worked hard to learn and finally he became a successful scientist. His name is A.P.J. Abdul Kalam. Saying these stories, Mr. Lazar encouraged us to become victorious in future and concluded his speech.

Finally Mr. Mullanchery M. Velaian said Vote of Thanks. He thanked everyone such as faculties, scientists such as Mr. Rameshan, Mr. Mathavan, Mr. Sajeev, Mr. Govindraj, Mr. Benzigar Rajan, Mr. Gopalan, Mr. Johnson, Mr. Sibin and Mr. Lazar and students gathered there and finally concluded.

Subsequently the talk of all the students was started and initially the talk was commenced with Yellow team. Then I, co-leader of Yellow team Miss. Mereshiya started her speech. I talked on a topic "Theninthiya Nadhigal". I said about rivers of south India. I particularly explained the east and west flowing rivers of south India.

#### The West-flowing Rivers of South India

##### 1. The Narmada (1,282 km)

It rises from the Amarkantak Peak of the Mahakala Range and flows through the rift valley in between the Vindhya and the Satpura range towards the West and drains into the Gulf of Khambat. It passes through Madhya Pradesh, Maharashtra and Gujarat. It makes a beautiful waterfall on the marble rocks named Dhuandhar a Bhedaghat in Jabalpur.

##### 2. The Tapti (740 km)

Tapti is also known as Tapi River. It rises from the Mahadeo range and flows in a rift valley lying between the Satpura and Ajanta range towards the west. It passes through Madhya Pradesh, Maharashtra and Gujarat. It drains into the Gulf of Khambat.

### 3. River Mahi (503 km)

It rises from the Vindhyan Range. It flows northwards at first and then takes the south-western course to join the Gulf of Khambat. Most of its course lies in the Gujarat state.

### 4. The Sabarmati (416 km)

It rises from the Aravalli Range and drains into the Gulf of Khambat flowing in the South-west direction. The major portion of its basin lies in Gujarat state.

### 5. The Luni (450 km)

It rises from Anasagar near Ajmeer and drains through the desert of Rajasthan towards south-west. It merges into the Rann of Kachch.

### 6. Other Rivers

Other notable streams which flow westwards are Ulhas, Baitarani, Amba, Sabitri, Vashistha, Sharavathi, Saraswati, etc. They rise from the western flank of the Western Ghats and drains into the Arabian Sea. Jog falls of Sharavathi River is famous in India. It is the largest waterfall in the country and it presents most exquisite natural scenery.

### The East Flowing Rivers of South India

#### 1. The Mahanadi (840 km)

It rises from a place near Amarkantak of the Mahakala Range and drains eastwards through Madhya Pradesh and Orissa to join the Bay of Bengal. The Brahmani and the Baitarini are its main tributaries. They together form a large delta on their mouth. The Hirakund Dam lies on the Mahanadi near Sambalpur.

#### 2. The Godavari (1,450 km)

The Godavari rises from the Western Ghats near Nasik and drains eastwards through Maharashtra, Madhya Pradesh and Andhra Pradesh. Near Rajmundry; it divides itself into a number of distributaries and after forming a great delta; it joins the Bay of Bengal.

#### 3. The Krishna (752 km)

The Krishna rises from the Western Ghats near Mahabaleswar peak and drains to the east through Maharashtra, Karnataka and Andhra Pradesh to Join the Bay of Bengal. Its delta lies just in the south of the Godavari's delta. The Bhima and the Tungabhadra are its major tributaries. Vijayawada and Amaravati are the important towns on the bank of the Krishna.

#### 4. The Kaveri (800 km)

The Kaveri (Cauvery) raises from the Brahmagiri hills of Western Ghats near Coorg of Karnataka. It flows eastwards crossing the Gahts. A series of

rapids and water-falls are found on its upper course of which Sivasamudram Falls is famous. The Himavati, Bhavani, Bedavati are the main tributaries of the Kaveri. After forming a delta, it flows into the Bay of Bengal. The Kaveri delta is very much fertile and known as the granary of the south. Tiruchchirappalli and Kumbakonam are two important towns on the bank of this river.

#### 5. Other Rivers

The other east flowing rivers of the South India are Palter, Penner, Ponnaiyar, Vaigai, Chittar and others. These rivers flow into the Bay of Bengal.

Then Miss. Argneshiya, member of Yellow team talked about "Mullai Periyaru". She said the Mullaperiyar Dam is a dam on the Periyar River in the Indian state of Kerala. She also said that,

- The Mullaperiyar Dam is located 2,890 ft above mean sea level, on the Cardamom Hills of the Western Ghats in Thekkady, Idukki District of Kerala, South India.

- It was constructed between 1887 and 1895 by John Pennycuik to divert water eastwards to the Madras Presidency area.

- It has a height of 176 ft from the foundation, and a length of 1,200 ft.

- The Periyar National Park in Thekkady is located around the dam's reservoir. The dam is located in Kerala on the river Periyar but is operated and maintained by Tamil Nadu state.

- Periyar River has a total catchment area of 5398 km<sup>2</sup> with 114 km<sup>2</sup> in Tamil Nadu the catchment area of the Mullaperiyar Dam itself lies entirely in Kerala.

- The Periyar River which flows westward of Kerala Arabian sea was diverted eastwards to flow towards the Bay of Bengal.

Next Miss. Leena Saju, talked about "Vadakizhakku Paruva Mazhai". She defined Monsoon and started explaining about Northeast Monsoon. She said the period October to December is referred to as Northeast Monsoon season over peninsular India. Earlier this period was also referred to as "Retreating southwest Monsoon Season" or "Post-Monsoon Season". She also said that,

- Northeast Monsoon season is the major period of rainfall activity over south India, particularly in the meteorological subdivisions of Coastal Andhra Pradesh, Rayalaseema and Tamilnadu-Pondicherry.

- For Tamilnadu this is the main rainy season accounting for about 48% of the annual rainfall. Coastal districts of the State get nearly 60% of the annual rainfall and the interior districts get about 40-50% of the annual rainfall.

- The increase in rainfall activity over Andhra-Tamilnadu coasts which takes place sometime around middle of October is generally considered as the "setting in of Northeast Monsoon".

- It generally occurs during night and early morning hours. Maximum rainfall mostly occurs between 21:00 and 03:00 hrs (IST). When there is a low, depression or cyclone close by the rainfall occurs throughout the day.

She also said that Northeast monsoon rains occur in a period of about 3 to 4 days duration. There are at times long times of dry weather with little or no rain. Finally she concluded her speech.

Next Miss. Immaculate Rishvi, talked about "Thenmerkkku Paruva Mazhai". She said about southwest monsoon. She said that the southwestern summer monsoons occur from July through September. She also said that, the Thar Desert and bordering areas of the northern and central Indian subcontinent heats up considerably during the hot summers. This causes a low pressure area over the northern and central Indian subcontinent. To fill this void, the moisture-laden winds from the Indian Ocean rush in to the subcontinent. These winds, rich in moisture, are drawn towards the Himalayas. The Himalayas act like a high wall, blocking the winds from passing into Central Asia, and forcing them to rise. As the clouds rise their temperature drops and precipitation occurs. Some areas of the subcontinent receive up to 10,000 mm of rain annually.

Moreover she said, the moisture-laden winds on reaching the southernmost point of the Indian Peninsula, due to its topography, become divided into two parts: the Arabian Sea Branch and the Bay of Bengal Branch.

- The Arabian Sea Branch of the Southwest Monsoon first hits the Western Ghats of the coastal state of Kerala, thus making this area the first state in India to receive rain from the Southwest Monsoon.

- The eastern areas of the Western Ghats do not receive much rain from this monsoon as the wind does not cross the Western Ghats.

- This monsoon accounts for 80% of the rainfall in India.

- Indian agriculture is heavily dependent on the rains, for growing crops especially like cotton, rice, oilseeds and coarse grains. A delay of a few days in the arrival of the monsoon can badly affect the economy.

She concluded by saying, the monsoon is widely welcomed and appreciated by city-dwellers as well, for it provides relief from the climax of summer heat in June.

Next Mr.Vijayaraj talked about "Kaveri Aatrupasanam". he said about river Kaveri (Cauvery). First he said the origin of river Kaveri. he said,

- The Kaveri rises from the Brahmagiri hills of Western Ghats near Coorg (Kodagu) of Karnataka. It flows eastwards crossing the Ghats.

- A series of rapids and water-falls are found on its upper course of which Sivasamudram Falls is famous.

- The Himavati, Bhavani, Bedavati are the main tributaries of the Kaveri. After forming a delta, it flows into the Bay of Bengal.

he concluded by saying The Kaveri delta is very much fertile and known as the granary of the south. Tiruchchirappalli and Kumbakonam are two important towns on the bank of this river.

Then Mr. Edin Jijo talked about "Vaigai Aaru". he said that the river Vaigai is the major river in Madurai, Tamil Nadu state of southern India. The Vaigai flows 240 km southeast. Then he said,

- Rising in the Varushanad Hills of western Tamil Nadu, it initially flows northeast through the Kambam and Varushanad valleys. In its central reaches the Vaigai flows eastward into the Vaigai reservoir at Narasingapuram.

- The main tributaries of the river Vaigai are, the river Suruliyaru, the river Mullaiyaaru, the river Varaganadi, the river Manjalaru and river Kridhumaal.

- Vaigai gets major feed from the Periyar Dam in Kumuli, Kerala. Water from the Periyar River in Kerala is diverted into the Vaigai River in Tamil Nadu via a tunnel through the Western Ghats.

he concluded by saying over the summer season, the Vaigai river ends up dry very often.

Next Mr. Raghul, member of Yellow team talked about "Thamirabarani". He said that the Thamirabarani River originates from the famous Agastyarkoodam peak in the hills of the Western Ghats. He also said that,

- It flows through Tirunelveli & Tuticorin districts of the Tamilnadu. It was called the Tamraparni River in olden days, a name also associated with Sri Lanka. The old Tamil name of this river is Porunai.

- The total length of the river is about 125 km.

- The river descends down the mountains near Papanasam, where it forms the Kalyanatheertham falls and Agasthiar falls. The river flows on the plains eastwards from Papanasam.

- The first tributary to join Thamiraparani in the plains is the Manimuthar River, which originating from Manjolai hills and joins Thamiraparani near Aladiyoor village.

- The other tributaries are Gadananathi, Chittar.

And finally he concluded.

Then Miss.Abhirami, leader of Yellow team talked about "Chennai Manaharam". She described the great pride of Chennai city. She said, "Chennai is the capital city of Tamil Nadu. It is located on the Coromandel Coast off the Bay of Bengal. She also said that,

- Chennai is the biggest industrial and commercial centre in South India. Chennai is known as the 'Detroit of India' for its automobile industry.

- Chennai is the fifth-largest city in the world. She also said that Chennai is referred as the "Gateway to South India.

- Chennai has a tropical wet and dry climate. The city gets most of its seasonal rainfall from the north-east monsoon winds, from mid October to mid December.

- Chennai city is governed by the Chennai Corporation. The Chennai Metropolitan Development Authority (CMDA) is the nodal agency responsible for planning and development of Chennai Metropolitan Area.

She also said that, Chennai remained the centre of politics in the southern region of India during the British era. After Independence, it remained the centre of political activities of the state of Tamil Nadu.

- Chennai is the birthplace of the idea of the Indian National Congress, commonly known as the Congress Party.

- The city's water supply and sewage treatment are managed by the Chennai Metro Water Supply and Sewage Board. Water is drawn from Red Hills Lake and Chembarambakkam Lake. These lakes are the primary water reservoirs of the city.

She then expressed that, the majority of the population in Chennai is Tamils. Tamil is the primary language spoken in Chennai. Saying much about Chennai she concluded her talk.

Next Mr. Vishal talked about "Thamizhaka Nelvalam". He said about paddy resources in Tamilnadu. He said that,

- Tamil Nadu has been an agricultural state from the history period. It is a leading producer of agricultural products in India.

- Tamil Nadu was India's fifth biggest producer of Paddy in India.

He said rice is also called as paddy. The Cauvery delta region is known as the Rice Bowl of Tamil Nadu.

- Agricultural development assumes priority in our developmental efforts.

- Government of Tamil Nadu is according highest priority to agriculture sector.

He concluded by saying we should support agriculture to improve the farm productivity and substantially increase the income of the farmers.

Then Miss. Ageesha, member of Green team talked about "Gangai Nadhi". She talked about River Ganges. She said the Ganges River rises in the western Himalayas of Uttarakhand, and flows south and east to Bangladesh, where it empties into the Bay of Bengal. Moreover she said,

- The Ganges the biggest river in the Indian subcontinent in terms of water flow.
- The length of the Ganga is 2,510 km.
- The followers of Hindu religion consider the Ganges to be the most sacred of all the rivers in India.
- The river also has significant historical values - a number of royal capitals like Kannauj, Patliputra (modern day Patna), Allahabad, Kara, Baharampur, Murshidabad, and Kolkata are situated on the riverbanks of the Ganges.

Saying more about the Ganges she concluded her speech.

Next Miss. Haritha member of Green team talked about "Brahmaputra". She talked about River Brahmaputra. She said, Brahmaputra River is the major river of Central and South Asia. It flows some 1,800 miles (2,900 km) from its source in the Himalayas to its confluence with the Ganges (Ganga) River. She also said that,

- For most of its length, the river serves as an important inland waterway.
- The river causes disastrous and frequent floods.
- Also it deposits huge quantities of fertile alluvial soil along its banks.

Saying all such things she concluded her speech.

Next Miss. Kaviya member of Green team talked about "Sindhu Nadhi". She talked about River Sindhu. She said River Sindhu is also called as River Indus.

- The Indus River is one of the longest rivers in Asia. It flows through Pakistan, Jammu and Kashmir and western Tibet.
- It originates in the Tibetan Plateau and runs through the Ladakh region of Jammu and Kashmir.
- And then it flows in a southerly direction along the entire length of Pakistan to merge into the Arabian Sea near the port city of Karachi in Sindh.

- The total length of the river is 3,180 km. It is Pakistan's longest river.

The Sindh River, a tributary of the Yamuna River, flows through the Indian states of Madhya Pradesh and Uttar Pradesh. Saying this she concluded.

Next Miss. Sooriya Vijay member of Green team talked about "Imaya Malai". She talked about Mount Himalayas. She said The Himalayas, is a mountain range in South Asia which separates the Indo-Gangetic Plain from the Tibetan Plateau. The Himalayas span five countries, India, Nepal, Bhutan, China, and Pakistan, with the first three countries having sovereignty over most of the range.

She concluded by saying the Himalayas prevent frigid, dry winds from blowing south into the subcontinent, which keeps South Asia much warmer than the regions of other continents.

Next Miss. JISFIA SHIFANY, member of Green team talked about "Arabi Kadal". She talked about Arabian Sea. The Arabian Sea is a northwestern part of the Indian Ocean. It covers a total area of about 3,862,000 square km and forms a part of the principal sea route between Europe and India. Then she concluded by saying India, Pakistan, Sri Lanka, Iran, Oman, Yemen, France, the United Arab Emirates, South Korea, Japan, and the Maldives are the principal fishing countries of the Arabian Sea.

Next Miss. Ayna member of Green team talked about "Inthiya Sathupu Nilangal". She talked about the Indian wetlands. She said that,

- Wetland helps in supporting directly and indirectly millions of people in India including supply of clean water, food and raw materials.

- Wetlands are also important as resting sites for migratory birds. Wetlands in India occupy 58.2 million ha, including areas under wet paddy cultivation.

She concluded by saying restoration of wetlands will be very difficult once it is used for other activities.

Next Miss. Gby, leader of Green team talked about "Inthiya Neer Nilaiikal". She talked about the Indian water resources. She said that water resources of India are Lakes and lagoons, rivers, pools and wetlands. Rainfall in India is dependent on the South-West and North-East monsoons.

She said India is blessed with many rivers such as The Ganges, Brahmaputra River, Hooghly River, Mahanadi River, Godavari River, Krishna River and Kaveri River.

She also added that, on an average, India receives about 4000 Cubic Kilometers of precipitation every year. Precipitation means rainfall and snowfall

together. In India groundwater also flows in the underground that helps land wet in all seasons. Finally she concluded.

Followed by the Green team the Maroon team members started speaking their topics. Miss. Shifi, member of Maroon team started her talk on "Thanjai Nel Kalanchium". She said with reference to the paddy barns and repositories in Thanjavur district of Tamilnadu. She said that "Thanjavur is called the Rice bowl of Tamilnadu because the district is the main rice producing region in the state. Kaveri River and its tributaries irrigate the district. Saying this she concluded her talk.

Next Miss. Aruna, member of Maroon team started her talk on "Inthiya Salai Pokuvarathu". She said about the Road transport of India. She said bus services are known to operate in all the cities, towns, villages. Buses take up over 90% of public transport in Indian cities, and serve as a cheap and convenient mode of transport for all classes of society.

- Transport Services are mostly run by state government owned transport corporations.

- An auto rickshaw is a three-wheeler vehicle for hire that has both side doors. The color of the auto rickshaw is also determined by the fuel that it is powered by.

- Traffic in Indian cities generally moves slowly, where traffic jams and accidents are very common.

She also spotted a record saying India has very poor records on road safety. Around 90,000 people die from road accidents every year.

Next Mr. Prabin, member of Maroon team started her talk on "Inthiya Kadal Pokuvarathu". He said about the Marine transport of India. He said that,

- There are many major ports in India. Maritime transportation in India is managed by the Shipping Corporation of India, a government-owned company.

- It also manages offshore and other marine transport infrastructure in the country. India has an extensive network of inland waterways in the form of rivers, canals and backwaters.

- Some of the National waterways are Allahabad-Haldia stretch of the Ganga - Bhagirathi - Hooghly river system and Kollam-Kottapuram stretch of the West Coast Canal along with Champakara and Udyogmandal canals. Saying this she concluded.

Next Miss. Dani Rovas, co-leader of Maroon team started her talk on "Godavari Aaru". She said about Godavari River.

- The Godavari is the second longest river in India after the river Ganges.

- It originates from Maharashtra.
- It forms one of the largest rivers in India.

She also said that major tributaries of the river include the Purna (South), Pravara, Indravati, Manjira River, Bindusara River, Sabari River, Wainganga, and Wardha River. And then she concluded.

Next Miss. Jereshea, member of Maroon team talked about "Inthiyavil Panaatu Niruvanangal". She said about various foreign international companies operating in India. She said about various companies such as Microsoft, Honda, Nestle, Hyundai, Intel and Nokia. She said,

- Microsoft India Private Limited is a subsidiary of American software company Microsoft Corporation, headquartered in Hyderabad, India. The company first entered the Indian market in 1990.

- Honda operates production facilities at Greater Noida in Uttar Pradesh and at Bhiwadi in Rajasthan. The company's total investment in its production facilities in India as of 2010 was over Rs. 16.2 billion.

- Multi-National Corporations (MNCs) are huge industrial organizations which extend their industrial and marketing operations through a network of their branches.

Then she concluded by saying more about the other multinational companies and their operation and production in India.

Followed by her the other members of Maroon team talked about 'Inthiyavin Ellai Prachanaikal' (Border problems of India), 'Inthiya Varthakam' (Indian Business), 'Inthiya Thozhil Nagarankal' (Industrial cities of India), 'Mahanadhi' (River Mahanadhi), 'Inthiya Iruppu Pathaikal' (Rail Transport of India) and 'Inthiya Vimana Maarkam' (Air Transport of India).

After the talk of Maroon team the Red team started their talk. Mr. Mejalino, member of Red team began to give a speech on "Kumari Nadhi Pasanam". He talked about River Irrigation practices followed in Kanyakumari district of Tamilnadu state. He said that,

- The Kanyakumari district is gifted with a number of canals and conveyance channels.

- Besides the major rivers such as Kothaiyar, paraliyar, Pazhayar and Chittar, there are other small rivers such as Alathuraiyar, Valliyar, Mampazhathuraiyar and Mullaiyar are seen in Kanyakumari.

- Rivers provide the important source of irrigation in Kanyakumari District. Some of the major rivers that supply water for irrigation are the Tambaraparani, the Pazhayar, the Valliar, the Ponnivaikal and the Paraliyar.

- The major river in the district is the Tambaraparani locally known as the Kuzhithuraiar. This river has got two major tributaries namely the Kodayar and the Paraliyar.

There are many tributaries to the Kodayar river of which the Chittar is the major one. The origin of Tambaraparani River is Western Ghats and the river confluences with the Arabian Sea near Thengapattanam after running a distance of 56 km. By saying this he concluded.

Next Miss. A.S.Indhuja, Co-leader of Red team started her talk about "Mumbai Nakaram". She talked about Mumbai city. She said,

- Mumbai is the capital city of the Indian state of Maharashtra. It is the most populous city in India.

- Also it is the most populous metropolitan area in India. Besides it is the eighth most populous city in the world.

- Mumbai is the financial, commercial and entertainment capital of India.

She concluded her talk by saying some of the nicknames of Mumbai as 'City of Seven Islands', 'City of Dreams', 'Gateway of India', and 'Hollywood of India'. Moreover, Mumbai's business opportunities, as well as its standard of living attract migrants from all over India, making the city a confluence of many communities and cultures.

Then Mr. P.R.Ragul, member of Red team talked on "Delhi Manakaram". He talked about Delhi city. He said Delhi is the capital territory of India. The city is officially known as the National Capital Territory of Delhi. The people of Delhi are referred to as Delhiites or Dilliwalas. The temperatures in Delhi usually range from 5°C to 40°C. He also said that,

- Delhi is the most polluted city in the world. According to an estimate, air pollution causes the death of about 10,500 people in Delhi every year.

- Many environmentalists have criticized the Delhi government for not doing enough to curb air pollution and to inform people about air quality issues.

- Most of Delhi's residents are unaware of alarming levels of air pollution in the city and the health risks associated with it.

- Indira Gandhi International Airport, situated to the southwest of Delhi, is the main gateway for the city's domestic and international civilian air traffic.

Delhi is connected by Road to various parts of the country through several National highways. Delhi is a major junction in the Indian railway network and is the headquarters of the Northern Railway. By saying all such details he ended his speech.

Then V.G.Vinoj, member of Red team talked on "Inthiya Manilangal". He talked about the states of India. He said that,

- India is a federal union of states comprising 29 states and 7 union territories.

- The states and union territories are further subdivided into districts and further into smaller administrative divisions.

He listed out the states of India as Andhra Pradesh with its capital as Hyderabad, Arunachal Pradesh with its capital as Itanagar, Assam with its capital as Dispur, Bihar with its capital as Patna, Chhattisgarh with its capital as Raipur, Goa with its capital as Panaji, Gujarat with its capital as Gandhinagar, Haryana with its capital as Chandigarh and so on. By saying all the state details of India he finished his speech.

Then N.Jaslin Nels, member of Red team talked about "Inthiya Thuraimukangal". She talked about the ports and harbors of India. She said,

- India has a coastline spanning 7516.6 kilometers. Therefore it forms one of the biggest peninsulas in the world.

- Maritime transport is administered by both the Central and the State governments.

- While the central government's shipping ministry administers the major ports, the minor and intermediate ports are administered by the relevant departments or ministries in the nine coastal states Andhra Pradesh, Odisha, West Bengal, Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra and Gujarat.

She concluded by saying all major ports, except one Ennore Port are government administered, but private sector participation in ports has increased. Millions of cargo and goods are transported through Indian ports. She spotted some of the famous ports of India such as Kochi port, Kolkatta port, Chennai port, Vishakapattinam port and so on.

Then Miss. M. Sabrina Lynette Fernando member of Red team talked about "Paravi Varum Eyarkai Vivasayam". She said about the spread of Natural farming. She said,

- Natural farming is also known as Do-nothing farming or No-till farming. This farming was popularized from Japan.

- The most essential aspect of natural farming is to let nature play a dominant role to the maximum extent possible.

She also said that Natural Farming is a sustainable farming. Natural Farming makes all inputs from natural materials, observes the law of the Nature and respects the rights of crops and livestock.

- Natural Farming heals the soil slashed by chemicals, herbicide and machines.

- When Natural Farming is practiced, the soil and water become clean and ecology is recovered.

- It is even being used as a tool to fight desertification. Saying this she concluded.

Then the other members of Red team talked about 'Kumari Nadhi Pasanam' (River Irrigation in Kumari), 'Thamizhakathin Thaniya Payirkal' (Grain crops of Tamilnadu), 'Thamizhakathin Moolikai Valam' (Herbal resources of Tamilnadu), 'Kolkata Nagaram' (Kolkata City), 'Paruvanilai Matramum Inthiya Pathipukalum' (Impact of climate change in India), 'Naveena Urangal Poochikolli Takangal' (Pesticide impacts of modern fertilizers,), 'Merku Thodarchi Malai' (Western Ghats).

Following the red team the blue team began to talk on their topics. Miss. J.S Ashmi, Co-leader of blue team started her talk on a topic "Inthiya Dhesiya Orumaipaadu". She talked about National integration of India. She said,

- India is a country of diversity. The diversity in India is unique.
- Race, language, religion and caste etc., constitute the major forms of diversity in India.

- Being a large country with large population, India presents endless varieties of physical features and cultural patterns.

She also said National Integration Day is observed every year on 19th of November all over the India. It is celebrated as the birthday anniversary of the first woman prime minister of the India Indira Gandhi. Then she concluded her talk.

Then S.S Akshaya, member of Red team talked about "Inthiya Thuraimukangal". She talked about the ports and harbors of India. She said,

- Maritime transport is administered by both the Central and the State governments. While the central government's shipping ministry administers the major ports, the minor and intermediate ports are administered by the relevant departments or ministries in the nine coastal states in east, west and south.

- Millions of cargo and goods are transported through Indian ports. She spotted some of the famous ports of India such as Kochi port, Kolkatta port, Chennai port, Vishakapattinam port and so on.

She concluded by saying all major ports, except one Ennore Port are government administered, but private sector participation in ports has increased.

Following her Miss. M. Seanna, member of Red team talked about "Kaalaniyai Vibarangal". She said about Climate Information. She said that,

- The whole part of India has a tropical monsoonal climate, since the greater part of the country lies within the tropics, and the climate is influenced by the monsoons.

- The position of the mountain ranges and direction of the rain-bearing winds are the two main factors that determine the climate of India. She also said about the climatic seasons all over India.

- The winters fall between Novembers to mid-March. The summers fall between from April to June. Northern India remains dry, dusty, and unpleasant during the summer months.

- The nature of monsoon, which lies between mid-July and September, is unpredictable where some areas experience heavy rains the others experience drought and still others get flooded. By saying these descriptions she concluded.

Next Miss. Rudra Sathish, "Thakaval Thozhilnutpam". She said about Information Technology. She started saying that, Information technology in India is an industry consisting of two major components: IT Services and business process outsourcing (BPO). She also said that IT sector increases the Gross Domestic Product of India.

She also said that Bangalore is considered to be the Silicon Valley of India because it is the leading IT exporter. By saying this she concluded her speech.

Then Mr. Algin Bala member of Red team talked about "Inthiya Thozhilgal". He said about Indian Jobs and Occupations. He said India has its Jobs and Occupations in three main sectors namely agriculture, industry and services.

- Agriculture includes crops, horticulture, milk and animal husbandry, aquaculture, fishing, sericulture, aviculture, forestry and related activities.

- Industry includes various manufacturing sub-sectors such as Petroleum products and chemicals, Pharmaceuticals, Engineering, Gems and jewelry, Textile, Mining and so on.

• Services sector of India includes its construction, retail, software, IT, communications, hospitality, infrastructure operations, education, health care, banking and insurance, and many other economic activities.

Over 94 percent of India's working population is part of the unorganized sector. He also defined Unorganized sector that refers to all unlicensed, self-employed occupations such as owner manned general stores, handicrafts and handloom workers, rural traders, farmers, etc. By saying this he concluded his talk.

The other members of Blue team gave their talks on 'Inthiya Paalaivanam' (Indian Deserts), 'Alaiyathi Kadukal' (Alaythi Forests), 'Inthiya Minurpathiyum Pakirmaanamum' (Production and distribution of Electricity in India), 'Vinveli Thozhilnutpamum Payanpadukalum' (Space technology and applications), 'Inthiya Kalvi Murai' (Indian education system), 'Inthiya Nesavu Thozhil' (The Indian textile industry).

Finally the Judges namely Mr. Gopalan, Mr. Johnson, Mr. Benzigar Rajan judged all the speech of the students and said comments accordingly. All the team students who gave speech were able to recognize their flaws from the remarks and instructions of judges and assured to perform better in the coming programs. The meeting concluded at 4:30 pm. We returned home around 5:30 pm.

From this program I was able to know the value of our mother tongue than other languages. I understood the importance of having a worthy goal and ambition in order to achieve my success through the stories of the speakers. I got useful thoughts, views and ideas from the talk of the students who spoke on various topics. I thank all the dignitaries, faculties and experts for their valuable time to teach various topics.

"You gave me your time the most thoughtful gift of all!!! Thank you KAP"

**J.M.JERESHEA  
MAROON TEAM**

"Whenever you read a good book, somewhere in the world a door opens to allow in more light"

-Vera Nazarian

The Eighth meet of Kumari Ariviyal Peravai (KAP) after the selection process of Young Scientists was scheduled on 17th January 2014. The meeting was

held in a library which is located in Painkulam. The program started sharply at 8'O clock in the morning. Miss. Reshma, leader of Maroon team welcomed all the KAP faculties including the chief guest and the people who gathered in the hall.

Initially the program started with an introductory speech by Mr. Mullanchery M. Velaian, the Organizer of KAP. He welcomed everybody gathered there. In his introductory speech, he noted the importance of time management. He advised us to manage time properly. He asked everyone to consider the meeting as a research meeting. Then he introduced his friends to us. He also appreciated Mr. Benzigar Rajan, Dy. Manager, ISRO Propulsion Complex Mahendragiri who donated Rs. 5000 to the library. He also said that library is a symbol of peace. He then informed that Mr. Rameshan, Chief General Manager [RTD] of ISRO who was a former IIT student gets in contact with KAP and support it in future a lot. Mr. Rameshan is the current advisor of Green team and students from green team greeted him with a golden shawl. Mr. Gopalan, Headmaster Rtd presented him a memorable gift. Finally Mullanchery M Velaian, KAP Organizer concluded his speech.

After that Mr. Tamilmaran, chief of Government library began to give speech. He appreciated Mullanchery Mullanchery M Velaian such a way that he is the one who develops scientific skills between the students. He said that the library has 2500 useful books that improve the knowledge of students. He also appreciated Mr. Benzigar Rajan, who donated Rs. 5000 for the development of library. He said that he is a scientist and not a politician because only politicians lie in public meeting not a scientist. He said stories about being truthful. Then he concluded his speech.

Then Mr. Mathavan thambi, join secretary of Govt.library started his speech. He said the moral thoughts of Vivekananda. He also appreciated the contribution of Mullanchery M Velaian towards the school children in developing the talents of them. He concluded his speech by welcoming everyone gathered there in the library.

Following him Mr. Govindraj, member of the Govt.library started his speech. He said that he felt proud by seeing the KAP students in the library. He encouraged all the students gathered there. And then he concluded his talk by welcoming everybody.

Then Mr. Sajeer started his speech. He said birth, life and death, are common to all living beings. He quoted the quotes of Tamil literate Avaiyaar. He also mentioned some of the historical experiments on nuclear energy and invention of atom. He then concluded his speech by encouraging us.

Subsequently Mr. Gopalan started his speech. He said that he would come to visit Painkulam area to watch display of fireworks. He said that library is so powerful that helps students to improve their knowledge. He also quoted 'The pen is mightier than sword'. He also said a story about French people. Once a great famine struck France and the French people were so hungry. They went to the palace to see king and queen to get help for food. The king and queen were enjoying their life dancing and partying without considering the situation of the nation. People said that they don't even have a bread to eat. You can eat cake then, the queen replied. The people got angry and destroyed the palace. Finally he thanked everyone and concluded.

Then Mr. Johnson, Headmaster Rtd began to give a talk. He said about the importance of the knowledge in Tamil. He said that we should not think that technology development is possible only when we have knowledge in English. Rather we can also make technology advancement with our Tamil knowledge. And then he concluded his advisory talk.

And then Shri. M.C.Shibin Tad, NI University ,Kumarakovil, started his talk. He also talked about the importance of Tamil language. He said we should respect mother tongue more than the other languages. He then concluded his talk.

Following him Mr. Benzigar Rajan started his speech. He said that the library has 2,500 books in it that helps us to learn unknown facts. He also said about the importance of Tamil language. Many people in the world, over twenty Crore don't know English language. Even the developed nations such as Russia and Japan respect their own language. Their official language is their own mother tongue. He also spotted the rivers of India such as the Narmada, the Krishna and the Godavari. He also said that Udhayagiri fort is such a wonderful place that located in our nearby area. And then he concluded his talk.

After that Mr. Rameshan, started his speech. He said that he felt difficult to talk in Tamil and felt sorry to talk in English. He said that we should never be afraid of talking in English before someone. He said we should be confident in speaking our language. He also said we can gain more knowledge by travelling to many nations. Then he told about Mangalyaan project ad explained about its success story. He concluded by wishing KAP to achieve success in its entire doings.

And then Mr. Lazar, Head of Kumari Muztamil Mantam started his speech. First of all he welcomed everyone gathered there. He started his talk with quotes. He then said that a student's character can change throughout a period of his/her entire study period. Then he said that he had worked as a teacher in prison. After that he said Mullanchery M Velaian had acted in a female role while

he was acting in a drama at the age of thirteen. Then he said the topic of the meet 'Ariviyal Mulakam'. Then he said a story about Rabindranath Tagore. The wife of Rabindranath Tagore is Geetha. When his wife died he was so worried and wrote a book named 'Geethanjali'.

Then he said another story about the name of Kangaroo. He said that some foreigners looked at kangaroo and asked some of the tribes in India the name of the animal. They said 'kangaroo' which means 'don't know' in their language. The foreigners understood that the name of the animal as kangaroo. This is how the name of kangaroo was born.

Furthermore he said the name of Coco-Cola came from Chinese language. He also said we should have a good ambition as target to achieve our success. He said a story regarding this. Once a little boy was traveling with his mother and they boarded into a bus. By watching the conductor the little boy said that he wants to become a conductor. Then by watching the bus driver the little boy said that he wants to become a driver. And then they get down of the bus. They went to the hospital. There by seeing the doctor the little boy said that he wants to become a doctor. And then by watching the traffic police the little boy said that he wants to become a traffic police because all the vehicles obey his command. Finally Mr. Lazar said that we should have one ambition as a target and work hard to achieve it.

In addition he also said a story how to be hard hearted towards achieving the goal. Once there was a school that conducted a competition in which twelve students were participated. But only eleven students were selected and one was rejected. The rejected one was so worried. He went and asked a faculty the reason for his rejection. The faculty said that he should improve a lot to get selected. The rejected student tried hard, worked hard to learn and finally he became a successful scientist. His name is A.P.J. Abdul Kalam. Saying these stories, Mr. Lazar encouraged us to become successful in future and concluded his speech.

Finally Mullanchery M Velaian said Vote of Thanks. He thanked everyone such as faculties, scientists and students gathered there and finally concluded.

Then Students Talk was started and the talk was initiated with Yellow team. The co-leader of Yellow team Miss. Mereshiya started her speech. She talked on a topic "Then Indiya Nadhigal". She said about the three major rivers flowing in south India namely the Krishna, the Godavari and the Kaveri. She said, the Krishna rises from the Western Ghats near Mahabaleswar peak and drains to the east through Maharashtra, Karnataka and Andhra Pradesh to Join the Bay of

Bengal. Its delta lies just in the south of the Godavari's delta. The Bhima and the Tungabhadra are its major tributaries.

Following that she said about river Godavari. The Godavari rises from the Western Ghats near Nasik and drains eastwards through Maharashtra, Madhya Pradesh and Andhra Pradesh. Near Rajmundry it divides itself into a number of distributaries and after forming a great delta. It joins the Bay of Bengal.

And then she said about river Kaveri. The Kaveri (Cauvery) raises from the Brahmagiri hills of Western Ghats near Kodagu of Karnataka. It flows eastwards crossing the Ghats. A series of rapids and water-falls are found on its upper course of which Sivasamudram Falls is famous. The Himavati, Bhavani, Bedavati are the main tributaries of the Kaveri. After forming a delta, it flows into the Bay of Bengal. The Kaveri delta is very much fertile and known as the granary of the south. Thus she concluded her speech.

Then Miss. Argneshiya, member of Yellow team talked about "Mullai Periyaru". She said the Mullaperiyar Dam is a dam on the Periyar River in the Indian state of Kerala. It is located 2,890 ft above sea level, on the Cardamom Hills of the Western Ghats in Thekkady, Idukki District of Kerala, South India. It was constructed between 1887 and 1895 by British engineer John Pennycuick to divert water eastwards to the Madras area. It has a height of 176 ft from the foundation, and a length of 1,200 ft. The Periyar National Park in Thekkady is located around the dam's reservoir. The dam is located in Kerala on the river Periyar, but is operated and maintained by Tamil Nadu state. Although the Periyar River has a total catchment area of 5398 km<sup>2</sup> with 114 km<sup>2</sup> in Tamil Nadu, the catchment area of the Mullaiperiyar Dam itself lies entirely in Kerala. Saying this she concluded her speech.

Next Miss. Leena Saju talked about "Vadakizhakku Paruva Mazhai". First of all she defined Monsoon and started explaining about it. She said Monsoon is a wind that affects large climatic regions and reverses direction of wind seasonally. Monsoon creates changes in atmospheric circulation. Monsoon wind blows from the south-west between May and September and brings rain.

She also added that around September because of less sun light over south, the northern land mass of the Indian subcontinent begins to cool off rapidly. With this air pressure begins to build over northern India, the Indian Ocean and its surrounding atmosphere still holds its heat. This causes cold wind to sweep down from the Himalayas and Indo-Gangetic Plain towards the vast spans of the Indian Ocean south of the Deccan peninsula. This is known as the Northeast Monsoon or Retreating Monsoon. She also mentioned some points such as,

- Cities like Chennai, which get less rain from the Southwest Monsoon, receives rain from this Monsoon.
- About 50% to 60% of the rain received by the state of Tamil Nadu is from the Northeast Monsoon.
- In Southern Asia, the northeastern monsoons take place from December to early March when the surface high-pressure system is strongest.

Finally she concluded her speech.

Next Miss.Immaculate Rishvi, talked about "Thenmerkku Paruva Mazhai". She said that the southwestern summer monsoons occur from July through September. The Thar Desert and adjacent areas of the northern and central Indian subcontinent heats up very much during the hot summers. This causes a low pressure area over the northern and central Indian subcontinent. To fill this void, the moisture-laden winds from the Indian Ocean rush in to the subcontinent. This is the cause of Southwest Monsoon. Saying this she concluded her talk.

Next Mr.Vijayaraj talked about "Kaveri Aatrupasanam". First he said the origin of river Kaveri. She said Kaveri is a sacred river of southern India, rising on Brahmagiri Hill in the Western Ghats in Coorg (Kodagu) district of Karnataka state. Secondly she said about river irrigation. he defined river irrigation is a method of supplying water to crops by means of pipes, sprinklers, channels, or streams. he said the water for the Kaveri is primarily supplied by monsoon rains. It provides water for irrigation purposes through dams, canals and streams. he concluded by saying the river Kaveri also serves as the main drinking water source for many towns and villages.

Then Mr.Edin Jijo, talked about "Vaigai Aaru". He said that the river Vaigai is the major river in Madurai, Tamil Nadu state of southern India. It originates in the Periyar Plateau of the Western Ghats and flows northeast through the Kambam Valley. Then he said about the boundaries that surrounds river Vaigai. Vaigai basin is surrounded by Aandipatti hills, Palani hills, Varushanadu hills, Cardaman hills and Palk bay on the east. He concluded by saying the Vaigai dam was one of the prime sources of water for people living in Madurai, Dindigul, Theni, Sivaganga and Ramanathapuram districts.

Next Mr. Raghul, member of Yellow team talked about "Thamirabharani". He said, "The Thamirabarani River originates from the famous Agastyarkoodam peak in the hills of the Western Ghats. It flows through Tirunelveli & Tuticorin districts of the Tamil Nadu. The old Tamil name of the river is Porunai. The total length of the Thamirabarani River is about 125 km. Then he said the major tributaries of Thamirabharani River such as Karaiyar, Servalar

River, Manimuthar River, Gadanathi, Pachaiyar River and Chittar River. He also said many dams and reservoirs on the Thamirabarani River, along with those on the Manimuthar River, provide a large proportion of the water for irrigation and power generation for Tirunelveli District. He concluded by saying the Thamirabarani River is fed by both the monsoons namely the south west and the north-eastern monsoons.

Then Abhirami, member of Yellow team talked about "Chennai Manaharam". She described the great pride of Chennai city. She said, "Chennai is the capital city of Tamil Nadu. It is located on the Coromandel Coast off the Bay of Bengal. It is the biggest industrial and commercial centre in South India. Chennai is known as the 'Detroit of India' for its automobile industry. Chennai is the fifth-largest city in the world. She also said that Chennai is referred as the "Gateway to South India. Chennai has a tropical wet and dry climate. The maximum temperature of Chennai is around 35°C to 40°C during late May to early June. This maximum temperature is called as Kathiri veyil or Agni Natchathram. The coolest temperature of Chennai is with minimum temperatures around 15°C to 22°C during January. The city gets most of its seasonal rainfall from the north-east monsoon winds, from mid-October to mid-December. Chennai city is governed by the Chennai Corporation. The Chennai Metropolitan Development Authority (CMDA) is the nodal agency responsible for planning and development of Chennai Metropolitan Area.

She also said that, Chennai remained the centre of politics in the southern region of India during the British era. After Independence, it remained the centre of political activities of the state of Tamil Nadu. Chennai is the birthplace of the idea of the Indian National Congress, commonly known as the Congress Party. The city's water supply and sewage treatment are managed by the Chennai Metro Water Supply and Sewage Board. Water is drawn from Red Hills Lake and Chembarambakkam Lake. These lakes are the primary water reservoirs of the city.

She then expressed that, the majority of the population in Chennai is Tamils. Tamil is the primary language spoken in Chennai. Chennai is home to many museums and galleries. The "Fort Museum" is one among them. Chennai is a major centre for music, art and culture in India. An arts festival called the Chennai Sangamam, which showcases not only various art of Tamil Nadu but also from the neighboring states, like kalari, which is a major attraction, is held in January every year. Marina Beach runs for 6 km along the shoreline of the city between the deltas of Cooum and Adyar, and it is the second longest urban beach in the world.

Moreover Chennai ranks second for Indian metropolitan city centre literacy with a 90.33 percent literacy rate. Saying much about Chennai she concluded her talk.

Next Mr.Vishal talked about "Thamizhaka Nelvalam". He said about paddy resources in Tamilnadu. He said that Tamil Nadu has been an agricultural state from the history period. It is a leading producer of agricultural products in India. Tamil Nadu was India's fifth biggest producer of Paddy in India. She said rice is also called as paddy. The Cauvery delta region is known as the Rice Bowl of Tamil Nadu. Saying thus he concluded His talk.

Then Miss. Ageesha, member of Green team talked about "Gangai Nadhi". She talked about River Ganges. She said the Ganges River rises in the western Himalayas of Uttarakhand, and flows south and east to Bangladesh, where it empties into the Bay of Bengal. The Ganges is the most sacred river to Hindus. It is also a lifeline to millions of Indians who live along its course and depend on it for their daily needs. She also said that it is worshipped as the goddess Ganga in Hinduism. The Ganges was ranked as the fifth most polluted river of the world in 2007. Pollution threatens not only humans, but also more than 140 fish species, 90 amphibian species and the endangered Ganges river dolphin. She then concluded her talk by saying that we should respect nature and preserve rivers pollution-free.

Next Miss. Haritha member of Green team talked about "Brahmaputra". She talked about River Brahmaputra. She said that The Brahmaputra is one of the major rivers of Asia. It originates from Angsi Glacier, located on the northern side of the Himalayas. it flows across southern Tibet and into Arunachal Pradesh where it is known as Dihang or Siang. It flows southwest through the Assam Valley as Brahmaputra. And it flows south through Bangladesh as the Jamuna. The waters of the River Brahmaputra are shared by China, India, and Bangladesh. During the spring season (June to October) floods are a very common occurrence in Brahmaputra. Deforestation in the Brahmaputra has resulted in increased flash floods, and soil erosion. She concluded by saying that we should never harm nature by our mischievous behavior.

Next Miss. Kaviya member of Green team talked about "Sindhu Nadhi". She talked about River Sindhu. She said River Sindhu is also called as River Indus. The Indus River is one of the longest rivers in Asia. It flows through Pakistan, Jammu and Kashmir and western Tibet. It originates in the Tibetan Plateau and runs through the Ladakh region of Jammu and Kashmir. And then it flows in a southerly direction along the entire length of Pakistan to merge into the Arabian Sea near the port city of Karachi in Sindh. The total length of the river is 3,180 km. It is Pakistan's longest river. Saying this she concluded.

Next Miss. Sooriya Vijay member of Green team talked about "Imaya Malai". She talked about Mount Himalayas. She said The Himalayas, is a mountain range in South Asia which separates the Indo-Gangetic Plain from the Tibetan Plateau. Three of the world's major rivers — the Indus, the Ganges and the Brahmaputra — arise in the Himalayas. The flora and fauna of the Himalayas vary with climate, rainfall, altitude, and soils. The Himalayas have the third largest deposit of ice and snow in the world, after Antarctica and the Arctic. The Himalayan region is spotted with hundreds of lakes. Tilicho Lake in Nepal is one of the highest lakes in the world. She concluded by saying the Himalayas prevent frigid, dry winds from blowing south into the subcontinent, which keeps South Asia much warmer than the regions of other continents.

Next Miss. Jefia member of Green team talked about "Arabi Kadal". She talked about Arabian Sea. The Arabian Sea is a northwestern part of the Indian Ocean. It covers a total area of about 3,862,000 square km and forms a part of the principal sea route between Europe and India. The Indus River is the largest stream flowing into the sea. The Arabian Sea has long been an important trade route between India and the West. Its chief ports are Aden of Yemen, Karachi of Pakistan and Mumbai of India. Petroleum and natural-gas deposits have been discovered in the Arabian Sea. Then she concluded by saying India, Pakistan, Sri Lanka, Iran, Oman, Yemen, France, the United Arab Emirates, South Korea, Japan, and the Maldives are the principal fishing countries of the Arabian Sea.

Next Miss. Ayna member of Green team talked about "Inthiya Sathupu Nilangal". She talked about the Indian wetlands. She said that Wetland helps in supporting directly and indirectly millions of people in India including supply of clean water, food and raw materials. Wetlands are also important as resting sites for migratory birds. Wetlands in India occupy 58.2 million ha, including areas under wet paddy cultivation. She concluded by saying restoration of wetlands will be very difficult once it is used for other activities.

Next Miss. Gby, leader of Green team talked about "Inthiya Neer Nilaiikal". She talked about the Indian water resources. She said that water resources of India are Lakes and lagoons, rivers, pools and wetlands. Rainfall in India is dependent on the South-West and North-East monsoons. She said India is blessed with many rivers such as The Ganges, Brahmaputra River, Hooghly River, Mahanadi River, Godavari River, Krishna River and Kaveri River. She also added that, on an average, India receives about 4000 Cubic Kilometers of precipitation every year. Precipitation means rainfall and snowfall together. In India groundwater also flows in the underground that helps land wet in all seasons. Finally she concluded.

Followed by the Green team the Maroon team members started speaking their topics. Miss. Shifi, member of Maroon team started her talk on "Thanjai Nel Kalanchium". She said about the paddy barns and repositories in Thanjavur district of Tamilnadu. She said that "Thanjavur is called the Rice bowl of Tamilnadu because the district is the main rice producing region in the state. Kaveri River and its tributaries irrigate the district. Saying this she concluded her talk.

Next Miss. Aruna, member of Maroon team started her talk on "Inthiya Salai Pokuvarathu". She said about the Road transport of India. She said bus services are known to operate in all the cities, towns, villages. Buses take up over 90% of public transport in Indian cities, and serve as a cheap and convenient mode of transport for all classes of society. Services are mostly run by state government owned transport corporations. She also said Most of the traditional taxicabs in India are Hindustan Ambassador cars and other cars. An auto rickshaw is a three-wheeler vehicle for hire that has both side doors. It is painted in yellow, green or black color and has a black, yellow or green canopy on the top, but designs vary considerably from place to place. The color of the auto rickshaw is also determined by the fuel that it is powered by. For example Agartala, Ahmadabad and Delhi have green autos indicating the use of compressed natural gas, whereas the autos of Mumbai, Kolkata, Bangalore have green or black autos indicating the use of LPG. Traffic in Indian cities generally moves slowly, where traffic jams and accidents are very common. She also spotted a record saying India has very poor records on road safety. Around 90,000 people die from road accidents every year.

Next Mr. Prabin, member of Maroon team started her talk on "Inthiya Kadal Pokuvarathu". He said about the Marine transport of India. He said that there are many major ports in India. Maritime transportation in India is managed by the Shipping Corporation of India, a government-owned company. It also manages offshore and other marine transport infrastructure in the country. India has an extensive network of inland waterways in the form of rivers, canals and backwaters. Some of the National waterways are Allahabad-Haldia stretch of the Ganga - Bhagirathi - Hooghly river system and Kollam-Kottapuram stretch of the West Coast Canal along with Champakara and Udyogmandal canals. Saying this she concluded.

Next Miss. Dani Rovas, co-leader of Maroon team started her talk on "Godavari Aaru". She said about Godavari River. The Godavari is the second longest river in India after the river Ganges. It originates from Maharashtra. It forms one of the largest rivers in India. She also said that major tributaries of the river

include the Purna (South), Pravara, Indravati, Manjira River, Bindusara River, Sabari River, Wainganga, and Wardha River. And then she concluded.

Next I (Miss. Jereshea) member of Maroon team talked about "Inthiyavil Panaatu Niruvanangal". She said about various foreign international companies operating in India. She said about various companies such as Microsoft, Honda, Nestle, Hyundai, Intel and Nokia. She said Microsoft India Private Limited is a subsidiary of American software company Microsoft Corporation, headquartered in Hyderabad, India. The company first entered the Indian market in 1990. Then she said Honda operates production facilities at Greater Noida in Uttar Pradesh and at Bhiwadi in Rajasthan. The company's total investment in its production facilities in India as of 2010 was over Rs. 16.2 billion. Then I concluded by saying more about the other multinational companies and their operation and production in India.

Followed by her the other members of Maroon team talked about 'Inthiyavin Ellai Prachanaikal' (Border problems of India), 'Inthiya Varthakam' (Indian Business), 'Inthiya Thozhil Nagarankal' (Industrial cities of India), 'Mahanadhi' (River Mahanadhi), 'Inthiya Iruppu Pathaikal' (Rail Transport of India) and 'Inthiya Vimana Maarkam' (Air Transport of India).

After the talk of Maroon team the Red team started their talk. Mr. MEJALIN ARNO, member of Red team began to give a speech on "Kumari Nadhi Pasanam". he talked about River Irrigation practices followed in Kanyakumari district of Tamilnadu state. he said that the entire Kanyakumari district is gifted with a number of canals and conveyance channels. Besides the major rivers such as Kothaiyar, paraliyar, Pazhayar and Chittar, there are other small rivers such as Alathuraiyar, Valliyar, Mampazhathuraiyar and Mullaiyar are seen in Kanyakumari. Rivers provide the important source of irrigation in Kanyakumari District. Some of the major river that supply water for irrigation are the Tambaraparani, the Pazhayar, the Valliar, the Ponnivaikal and the Paraliyar. The major river in the district is the Tambaraparani locally known as the Kuzhithuraiar. This river has got two major tributaries namely the Kodayar and the Paraliyar. There are many tributaries to the Kodayar river of which the Chittar is the major one. The origin of Tambaraparani River is Western Ghats and the river confluences with the Arabian Sea near Thengapattanam after running a distance of 56 km. By saying this he concluded.

Next Miss. A.S.Indhuja, Co-leader of Red team started her talk about "Mumbai Nakaram". She talked about Mumbai city. She said Mumbai is the capital city of the Indian state of Maharashtra. It is the most populous city in India. Also it is the most populous metropolitan area in India. Besides it is the eighth most

populous city in the world. She also said that Mumbai is the financial, commercial and entertainment capital of India. The city houses important financial institutions such as the Reserve Bank of India, the Bombay Stock Exchange, the National Stock Exchange of India, the SEBI and the corporate headquarters of numerous Indian companies and multinational corporations. It is also home to some of India's premier scientific and nuclear institutes like BARC, NPCL, TIFR, and the Department of Atomic Energy. The city also houses India's Hindi (Bollywood) and Marathi film and television industry. She concluded her talk by saying some of the nicknames of Mumbai as 'City of Seven Islands', 'City of Dreams', 'Gateway of India', and 'Hollywood of India'. Moreover, Mumbai's business opportunities, as well as its standard of living attract migrants from all over India, making the city a confluence of many communities and cultures.

Then Mr. P.R.Ragul, member of Red team talked on "Delhi Manakaram". He talked about Delhi city. He said Delhi is the capital territory of India. The city is officially known as the National Capital Territory of Delhi. The people of Delhi are referred to as Delhiites or Dilliwalas. The temperatures in Delhi usually range from 5°C to 40°C. He also said that Delhi is the most polluted city in the world. According to an estimate, air pollution causes the death of about 10,500 people in Delhi every year. Many environmentalists have criticized the Delhi government for not doing enough to curb air pollution and to inform people about air quality issues. Most of Delhi's residents are unaware of alarming levels of air pollution in the city and the health risks associated with it. The Delhi metropolitan area lies within the National Capital Territory of Delhi (NCT), which has five local municipal corporations; North Delhi Municipal Corporation, South Delhi Municipal Corporation, East Delhi Municipal Corporation, NDMC and DCB. Delhi houses the Supreme Court of India, and the regional Delhi High Court, the Magistrate Court and the Sessions Court for criminal cases. He also told that The National Capital Territory of Delhi has its own Legislative Assembly, Lieutenant Governor, council of ministers and Chief Minister. Delhi is the largest commercial centre in northern India. Delhi's municipal water supply is managed by the Delhi Jal Board (DJB). Indira Gandhi International Airport, situated to the southwest of Delhi, is the main gateway for the city's domestic and international civilian air traffic. Delhi is connected by Road to various parts of the country through several National highways. Delhi is a major junction in the Indian railway network and is the headquarters of the Northern Railway. By saying all such details he ended his speech.

Then V.G.Vinoj, member of Red team talked on "Inthiya Manilangal". He talked about the states of India. He said that India is a federal union of states

comprising 29 states and 7 union territories. The states and union territories are further subdivided into districts and further into smaller administrative divisions. He listed out the states of India as Andhra Pradesh with its capital as Hyderabad, Arunachal Pradesh with its capital as Itanagar, Assam with its capital as Dispur, Bihar with its capital as Patna, Chhattisgarh with its capital as Raipur, Goa with its capital as Panaji, Gujarat with its capital as Gandhinagar, Haryana with its capital as Chandigarh, Himachal Pradesh with its capital as Shimla, Jammu & Kashmir with its capital as Srinagar during summer season and Jammu during winter season, Jharkhand with its capital as Ranchi, Karnataka with its capital as Bangalore, Kerala with its capital as Thiruvananthapuram, Madhya Pradesh with its capital as Bhopal, Maharashtra with its capital as Mumbai, Manipur with its capital as Imphal, Meghalaya with its capital as Shillong, Mizoram with its capital as Aizawl, Nagaland with its capital as Kohima, Odisha with its capital as Bhubaneshwar, Punjab with its capital as Chandigarh, Rajasthan with its capital as Jaipur, Sikkim with its capital as Gangtok, Tamil Nadu with its capital as Chennai, Telangana with its capital as Hyderabad, Tripura with its capital as Agartala, Uttarakhand with its capital as Dehradun, Uttar Pradesh with its capital as Lucknow and West Bengal with its capital as Kolkata. By saying all the state details of India he finished his speech.

Then N.Jaslin Nels, member of Red team talked about "Inthiya Thuraimukangal". She talked about the ports and harbors of India. She said India has a coastline spanning 7516.6 kilometers. Therefore it forms one of the biggest peninsulas in the world. Maritime transport is administered by both the Central and the State governments. While the central government's shipping ministry administers the major ports, the minor and intermediate ports are administered by the relevant departments or ministries in the nine coastal states Andhra Pradesh, Odisha, West Bengal, Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra and Gujarat. She concluded by saying all major ports, except one Ennore Port are government administered, but private sector participation in ports has increased. Millions of cargo and goods are transported through Indian ports. She spotted some of the famous ports of India such as Kochi port, Kolkatta port, Chennai port, Vishakapattinam port and so on.

Then Miss. M. Sabrina Lynette Fernando member of Red team talked about "Paravi Varum Eyarkai Vivasayam". She said about the spread of Natural farming. She said Natural farming is also known as Do-nothing farming or No-till farming. This farming was popularized from Japan. The most essential aspect of natural farming is to let nature play a dominant role to the maximum extent possible. She also said that Natural Farming is a sustainable farming. Natural Farming makes all inputs from natural materials, observes the law of the Nature

and respects the rights of crops and livestock. Natural Farming heals the soil slashed by chemicals, herbicide and machines. Where Natural Farming is practiced, the soil and water become clean and ecology is recovered. It is even being used as a tool to fight desertification. Saying this she concluded.

Then the other members of Red team talked about 'Kumari Nadhi Pasanam' (River Irrigation in Kumari), 'Thamizhakathin Thaniya Payirkal' (Grain crops of Tamilnadu), 'Thamizhakathin Moolikai Valam' (Herbal resources of Tamilnadu), 'Kolkata Nagaram' (Kolkata City), 'Paruvanilai Matramum Inthiya Pathipukalum' (Impact of climate change in India), 'Naveena Urangal Poochikolli Takangal' (Pesticide impacts of modern fertilizers,), 'Merku Thodarchi Malai' (Western Ghats).

Following the red team the blue team began to talk on their topics. Miss. J.S Ashmi, Co-leader of blue team started her talk on a topic "Inthiya Dhesiya Orumaipaadu". She talked about National integration of India. She said India is a country of diversity. Race, language, religion and caste etc., constitute the major forms of diversity in India. The diversity in India is unique. Being a large country with large population, India presents endless varieties of physical features and cultural patterns. She also said National Integration Day is observed every year on 19th of November all over the India. It is celebrated as the birthday anniversary of the first woman prime minister of the India Indira Gandhi. Then she concluded her talk.

Then S.S Akshaya, member of Red team talked about "Inthiya Thuraimukangal". She talked about the ports and harbors of India. Maritime transport is administered by both the Central and the State governments. While the central government's shipping ministry administers the major ports, the minor and intermediate ports are administered by the relevant departments or ministries in the nine coastal states Andhra Pradesh, Odisha, West Bengal, Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra and Gujarat. Millions of cargo and goods are transported through Indian ports. She spotted some of the famous ports of India such as Kochi port, Kolkatta port, Chennai port, Vishakapattinam port and so on. She concluded by saying all major ports, except one Ennore Port are government administered, but private sector participation in ports has increased.

Following her Miss. M. Seanna, member of Red team talked about "Kaalaniyai Vibarangal". She said about Climate Information. She said that the whole part of India has a tropical monsoonal climate, since the greater part of the country lies within the tropics, and the climate is influenced by the monsoons. The position of the mountain ranges and direction of the rain-bearing winds are the two main factors that determine the climate of India. She also said about the climatic

seasons all over India. The winters fall between Novembers to mid-March. The summers fall between from April to June. Northern India remains dry, dusty, and unpleasant during the summer months. The nature of monsoon, which lies between mid-July and September, is unpredictable where some areas experience heavy rains the others experience drought and still others get flooded. By saying these descriptions she concluded.

Next Miss. Rudra Sathish, "Thakaval Thozhilnutpam". She said about Information Technology. Information technology in India is an industry consisting of two major components: IT Services and business process outsourcing (BPO). She also said that IT sector increases the Gross Domestic Product of India. She also said that Bangalore is considered to be the Silicon Valley of India because it is the leading IT exporter. She also said that According to Gartner, an estimate report, the "Top Five Indian IT Services Providers" are Tata Consultancy Services, Infosys, Cognizant, Wipro, and HCL Technologies. By saying this she concluded her speech.

Then Mr. Algin Bala, member of Red team talked about "Inthiya Thozhilgal". He said about Indian Jobs and Occupations. He said India has its Jobs and Occupations in three main sectors namely agriculture, industry and services.

- Agriculture includes crops, horticulture, milk and animal husbandry, aquaculture, fishing, sericulture, aviculture, forestry and related activities.

- Industry includes various manufacturing sub-sectors such as Petroleum products and chemicals, Pharmaceuticals, Engineering, Gems and jewelry, Textile, Mining and so on.

- Services sector of India includes its construction, retail, software, IT, communications, hospitality, infrastructure operations, education, health care, banking and insurance, and many other economic activities.

Over 94 percent of India's working population is part of the unorganized sector. He also defined Unorganized sector that refers to all unlicensed, self-employed occupations such as owner manned general stores, handicrafts and handloom workers, rural traders, farmers, etc. By saying this he concluded his talk.

The other members of Blue team gave their talks on 'Inthiya Paalaivanam' (Indian Deserts), 'Alaiyathi Kadukal' (Alaythi Forests), 'Inthiya Minurpathiyum Pakirmaanamum' (Production and distribution of Electricity in India), 'Vinveli Thozhilnutpamum Payanpadukalum' (Space technology and applications), 'Inthiya Kalvi Murai' (Indian education system), 'Inthiya Nesavu Thozhil' (The Indian textile industry).

Finally the Judges namely Mr. Gopalan, Mr. Johnson, Mr. Benzigar Rajan judged all the speech of the students and said comments accordingly. Students were able to understand their mistakes from the comments and advice of judges and assured to perform better in future programs. The meeting concluded at 4:30 in the evening. We returned home around 5:30 pm.

Through this program I was able to know about the importance of our mother tongue. I understood the significance of being ambition oriented inorder to achieve my success through the story of Mr. Lazar. I got useful thoughts, views and ideas from the talk of the students who spoke on various topics. I express my sincere gratitude towards all the scientists, faculties of KAP and speakers who spent their valuable time to teach us unknown information.

"Would maintain that thanks are the highest form of thought, and that gratitude is happiness doubled by wonder!!!! Thank you KAP!!!!"