

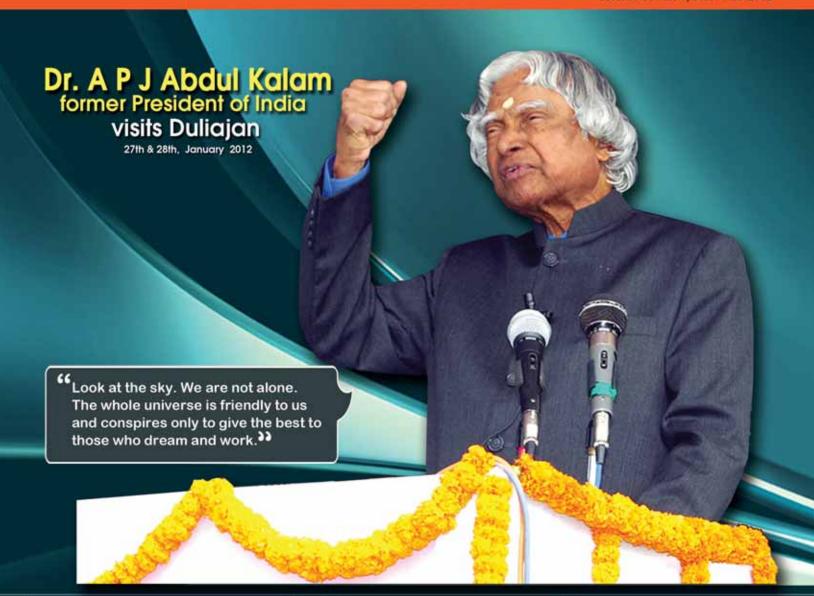
Conquering Newer Horizons

অইল নিউজ

ऑयल न्यूज़



Volume 39 No. 6, Jan - Feb 2012









Volume 39 No. 6 Jan - Feb 2012

#### **COVER:**

Dr. APJ Abdul Kalam, former President of India visits Duliajan.

PREVIEW	
Cover Story	4
Spotlight	5
Focus	6
News	7
Events	8-10
CSR	11
Technology	12
Sports	13
Initiative	14
Sphere News	15
Training & Development	16
Awards & Accolades	17
Assamese Section	18-26
Hindi Section	27-31
Process And Constitution	
	of the same

#### **ARCHIVES**

The photo feature is an excerpt from 'Batori-1963'. The first Prime Minister of India Late Jawahar Lal Nehru visited Duliajan and laid the foundation stone of OIL Higher Secondary School in the year 1963.



#### **CORRIGENDUM**

In November-December 2011 issue, in page No. 5, the name of CMD of GAIL was mentioned in the photo caption which should have been Shri A K Purwaha, CMD of EIL. OIL News regrets this inadvertent error.

#### **EDITORIAL**

#### Dear Reader,

The highlight of the last few months has been the much awaited visit of the 'People's President', Bharat Ratna, Dr A P J Abdul Kalam to the Oil Township of Duliajan. His visit to Duliajan on the occasion of the Golden Jubilee Celebration of the OIL Higher Secondary School will be treasured for a life time not only by the students and faculty of the School, but by the people of the Township. The lively interaction sessions with the students and his inspiring speeches touched the heart of all who were fortunate to have seen and heard the great humanist in person. Dr Kalam encouraged the students to "Dream, Dream and Dream...Dream transforms into thoughts...Thoughts results into action." I was fortunate to have anchored one of the interactive sessions of Dr Kalam at Duliajan Club where everybody present was mesmerised by his wit, knowledge and humility. The OIL News Team is indeed very proud to chronicle this memorable visit of one of India's most revered icons and distinguished scientists.

Wishing you a healthy year ahead.

- Tridiv Hazarika

#### Address for communication

PR Department

Oil India Limited, Duliajan

Dist. Dibrugarh (Assam) Pin - 786 602 Tel: (0374) 2808495, Fax: (0374) 2800427

email: tridivhazarika@oilindia.in

The views expressed by the authors in the articles are their own and the Company does not subscribe or take responsibility for any part or whole of the views.

- Editor, OIL News

#### **Editorial Family**

Advisor : Pranjit Deka
Editor : Tridiv Hazarika

Associate Editors : Dr. V. M. Bareja (Hindi)

Beena Purkayastha (Assamese)

Assistant Editor : Jayant Bormudoi

OIL News is the bimonthly trilingual house journal of OIL India Limited brought out by Public Relations & Corporate Communication Department. Company related news / features may be reproduced only with the permission of the Editor.



#### From Resident Chief Executive

Dear Oilindian,

"When we heal the earth we heal ourselves."

- David Orr

In my earlier communiqués, I have touched upon the significance of the proverbial "OIL Culture" and the impact it has had on us Oilindians. I have

always believed that the safety culture and climate plays a decisive role on the fortunes of the organization. As per a widely used definition, developed by Advisory Committee on the Safety of Nuclear Installations (ACSNI), safety culture is defined as: "The product of individual and group values, attitudes, perceptions,

competencies and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management."

The trend around safety culture originated after the Chernobyl disaster brought attention to the importance of safety culture and the impact of managerial and human factors on the outcome of safety performance. The term 'safety culture' was first used in INSAG's (1988) 'Summary Report on the Post-Accident Review Meeting on the Chernobyl Accident'. Experts also opine that Organizations with a positive safety culture are characterized by communications founded on mutual trust, by shared perceptions of the importance of safety and by confidence in the efficacy of preventive measures.

Health, Safety and Environment (HSE) has always been an integral part of OIL's organizational culture. For an extractive industry like ours, HSE must always be a focal point to ensure that we can negate the possible adverse impact on environment, prevent work site accidents and ensure sound health of the employees.

In this context, it is pertinent to mention that amongst the various physical targets, HSE related MoU targets have been assigned a significant weightage of 4 points. In recent times, we have been able to inculcate a safety culture by incorporating regular practices like making mandatory safety announcements prior to the beginning of any event or function. On the occupational health front, the worksite fitness program has become very popular amongst the employees. In fact in a recent Human Resource conference amongst the Oil PSUs, OIL's work site fitness initiative was presented as a case study and appreciated by all.

I think it will be relevant to make a mention about some of the noteworthy achievements and initiatives in the HSE front like SOPs (Safe Operating Procedures) for various operations been made. New HSSE policy manual has also been prepared and adopted by the Company. Mock drills (both onsite & off-site) to familiarize work persons with Disaster control are being done regularly. Each major accident is analysed & enquired into to find out cause & accordingly remedial actions are taken. Findings of the enquiry committee recommendations are disseminated to all employees through various forums. Crisis Management Team (CMT) has been formed to deal with well blow out and major fire incidents & procurement of various vital equipment for Crisis Management is in progress.

On the environmental front, OIL has successfully carried out a project on Bio-Remediation of oily sludge in collaboration with TERI. This technique is also now applied in fields wherever applicable. The new initiatives such as bioremediation of oily sludge, phyto-remediation of oil contaminated soil, disposal of MSW in a scientific way has brought encouraging results in controlling pollution and maintaining better environment in OIL's operational areas. OIL has obtained ISO-9001, ISO-14001, ISRS, OHSAS-18001 for a number of its installations. Actions are also in hand to obtain these certifications for more number of installations. A project on carbon footprint mapping and GHG emission has been taken up by OIL. This will help in reducing GHG emissions in our operations. OIL has taken up this step proactively as a progressive organization.

These proactive initiatives have also helped the Company to win prestigious awards like the Greentech Environmental Excellence Award and Golden Peacock Environment Award for its efforts in green movement and environmental protection in its oil fields.

While these are very encouraging developments, I must also express my concerns. At the end of the day most of the policies and practices boils down to the commitment of each and every employee. It is indeed very sad when a worksite accident or a near miss happens. But it is even worse when one realises that the accident could have been avoided if the concerned person or his colleagues could have followed basic safety norms. The tendency to be casual as regards to HSE practices can not only create misery for the individual concerned but can adversely impact others as well.

An organization's safety culture is ultimately reflected in the way in which safety is managed in the workplace. It is important to note that an organization's safety management system cannot consist of a set of policies and procedures on a bookshelf.

I would therefore appeal to each one of you to ensure that HSE becomes a way of life and not merely a compliance of set policies and practices. Let us also ensure that together we sustain a unique organizational HSE culture, which adds more luster to our coveted "OIL Culture."

(N K Agarwal)

Resident Chief Executive



### Bharat Ratna, Dr. APJ Abdul Kalam visits Duliajan Inaugurates Golden Jubilee celebrations of Oil India HS School



ormer president and renowned scientist of India Dr.
APJ Abdul Kalam inaugurated Golden Jubilee
Celebrations of Oil India Higher Secondary (HS)
School, Duliajan on Jan. 27, 2012.

The event had fulfilled a long cherished dream of the school. Dr Kalam also laid the foundation stone of a Botanical Garden of Oil India Higher Secondary School, and planted a sapling along with Shri Nayan Moni Borah, Chairman and Managing Director of Oil India Limited. Former President, Dr Kalam in his deliberation stated that setting up of a quality school in this part of the country is an important corporate social responsibility mission.

Highlighting the necessity for improving the quality of primary education, Dr. Kalam stated that education cannot be a business product. He stressed that primary education is one of the most important phenomena for nation's growth. In his deliberation on 'uniqueness', the Missile Man of the country said that uniqueness comes only through hard work, knowledge and sheer perseverance.

He also expressed happiness that the school is imparting education in Assamese, Hindi and English which would definitely enable the local students to learn and understand the subjects.

Shrimati Kalpana Baruah Kachari, Principal, Oil India HS School in her welcome address, expressed gratitude to Dr APJ Abdul Kalam for his benign presence on the occasion and for inspiring the students with his informative speech.

Dr. Kalam also visited Duliajan Club wherein he had an interaction with OIL's officers and employees. Children from various schools accorded welcome to Dr. Kalam through some captivating cultural performances showcasing the rich tradition of Assam. Shri Phanidhar Gogoi, Secretary of Duliajan Club welcomed Dr. Kalam with traditional Assamese Gamocha and a bouquet. In his welcome address, Shri N K Bharali, Director (HR&BD) accorded greetings to Dr. Kalam and expressed heart full thanks for his kind presence. Students from St. Xaviers and Kendriya Vidyalaya, two premier schools of the Oil Town in the presence of employees of OIL, teachers of these schools and guardians of the students attended the programme. In the interactive session Dr. Kalam answered the curiously asked questions sharing his experiences. In his vote of thanks, Shri R K Saikia, GM- HR, expressed

gratitude to Dr. Kalam for encouraging the students with his enlightening speech. Shri N M Borah, Chairman and Managing Director, OIL and other dignitaries were also present on the occasion.

Dr. Kalam visited Zaloni Club wherein he addressed the officers of OIL. In his speech Dr. Kalam talked about 'Technology leading to non-linear growth' and discussed about 'Linkage between national economic development



and creative leadership'. He further illustrated that for promoting continuous innovation one needs to built research and enquiry, creativity and innovation, use of high technology, entrepreneurial and moral leadership. Dr. Kalam's speech was followed by an interactive session with the OIL officers.

Thereafter, Dr. Kalam visited Delhi Public School (DPS), Duliajan. He was given a warm welcome by the management, staff and students. The front field echoed with the cheering and excitement of the children who gave him a rousing welcome. Dr Kalam then interacted with the students and answered all the queries that were put to him. He in his speech entrusted the children with the responsibility of making India a self sufficient and powerful nation.

The highlight of Dr. Kalam's visit to all the different places in Duliajan was his interactive sessions, especially with the students from various institutions who got an opportunity to ask questions to the 'People's President'.



# Spotlight

#### Oil India Limited hosts

#### The 16th Foundation Lecture of the Indian Geological Congress

he Sixteenth Foundation Lecture of the Indian Geological Congress (IGC) was held under the aegis of OIL at Duliajan on 3<sup>rd</sup> of March, 2012. The lecture was delivered by Sri Y.B.Sinha, Former Director (Exploration), ONGCL, on the topic "Opportunities and Challenges in Upstream Sector", in the elegantly decorated Zaloni auditorium. The talk was inaugurated with a welcome speech by Sri N.K.Agarwal, Resident Chief Executive, OIL and was followed by an address by Sri S.Rath, Director (Operations), OIL where he highlighted the growth of the Company during the last couple of years and on behalf of the Chairman and Managing Director of the Company wished the long awaited lecture a grand success.

The speaker, Sri Sinha, highlighted the burning problem of the growing energy hunger of the world and India in particular, both in terms of gas and oil demand. Though coal would continue to be the leading source of energy in the country, trends indicated that hydrocarbon would continue to be the preferred energy source with 45% consumption share of the primary energy basket till 2025. On the supply front he mentioned that, the global exploration discovery volumes had been on a downward trend since the 1970s and during the last two decades of licensing regimes there have been a smaller number of winners but a much larger



Sri Y. B. Sinha, Former Director (Exploration), ONGCL delivering the foundation lecture

number of losers. However, he stated that oil and gas business is not in crisis due to the shortage of potential resources. The Middle East, Russia and CIS countries, the southern Gulf of Mexico, Artic belt and the Far East still hold huge volume of undiscovered hydrocarbon. The areas were however challenging because of stringent policies, their environmental, geopolitical and logistical situation.

Based on his four decades long rich experience in the hydrocarbon industry, Shri Sinha elaborated on the options for bridging the demand and supply gap. He stressed that the critical factors for successful exploration consisted of aggressive exploration pursuit in today's frontiers



particularly in the deep water domain to convert them to tomorrow's giants as well as the concomitant focusing of potential realization from the producing and "yet to produce" basins. Collaboration and knowledge exchange between academia–institute–industry consortiums would be required for upgrading the hydrocarbon potential in these basins. Better strategies and innovative technologies for unconventional hydrocarbon exploitation as well as reservoir management and recovery improvement are also required. Globally the impending serious shortage of fully trained, seasoned professionals require generating more interest in the study of geosciences and enhanced stress on knowledge management.



Sri O. P. Verma giving away memento to Sri Y. B. Sinha, Former Director (Exploration), ONGCL

The eminent doyen of Indian geosciences, Professor O.P.Varma, who was also present during the lecture described the journey of IGC till date and while stating the objectives of the Congress expressed support of IGC to the hydrocarbon industry.

Prior to the vote of thanks offered by Sri R.Borgohain, General Manager (G&R), OIL, there was an active interaction between the speaker and the audience, which consisted of industry personnel as well as the academia. The entire programme was supported generously by Oil India Limited and managed efficiently by the company's personnel.



focus

## Visit of Parliamentary Standing Committee of Petroleum and Natural Gas to Kakinada (KG Basin)







13-member Standing Committee of the Parliament on Petroleum and Natural Gas visited Kakinada (KG Basin) on 23<sup>rd</sup> February, 2012. Shri N M Borah, CMD, OIL, Shri B N Talukdar (Director-E&D), Shri S Rath (Director-Operations) and Shri T K Ananth Kumar (Director-Finance) along with other dignitaries of OIL received the 13 member team of the Standing Committee at Kakinada.

The committee, headed by Shri V Aruna Kumar, Member of Parliament, Lok Sabha, comprised senior officials of Ministry of Petroleum and Natural Gas and Parliament secretariat besides the other Standing Committee members visited the offshore exploration project on 23<sup>rd</sup> February. It was to obtain the first-hand view of how the mega exploratory operations take place in the coastal area and how companies are dealing with hydro-carbons, observe and maintain the standards of safety and environment protection.

The committee held meeting with the officials of Oil India Limited headed by Shri N M Borah, CMD, OIL and other Functional Directors. Discussion on OIL's operations in east coast took place during the meeting.

The Parliament constituted Standing Committees to give close consideration to all the legislative and other matters that come up before it. A good deal of its business is, therefore, transacted by what are called the Parliamentary Committees.

A full-fledged system of 17 Departmentally Related Standing Committees came into being in April, 1993. These Committees cover under their jurisdiction all the Ministries/ Departments of the Government of India. The Committee on Public Undertakings consists of 15 members elected by the Lok Sabha and 7 members of Rajya Sabha are associated with it. The term of the Committee is one year.

The newly constituted departmentally related Standing Committee System is a path-breaking endeavour of the Parliamentary surveillance over administration. With the emphasis of their functioning to concentrate on long-term plans, policies and the philosophies guiding the working of the Executive, these Committees is in a very privileged position to provide necessary direction, guidance and inputs for broad policy formulations and in achievement of the long-term national perspective by the Executive.



# REME TO THE STATE OF THE STATE

Shri N K Bharali, Director (HR&BD) (centre) receiving the award from Professor R K Mishra, Director, IPE (left) along with Shri Bhaskar Chatterjee, Ex Secretary, DPE (right)

#### **IPE HR Leadership Award**

The Jury and Council of Board Members of the Institute of Public Enterprise (IPE) have conferred Oil India Limited with 'IPE HR Leadership award' on 16th Feb 2012 at World HRD Congress held at Taj Lands End, Mumbai. The award was given by Professor R K Mishra, Director, IPE along with Shri Bhaskar Chatterjee, Ex Secretary, DPE. Shri NK Bharali, Director (HR&BD) received the award on behalf of OIL



#### **Best** Enterprise Award

OIL INDIA LIMITED bagged the prestigious prize for BEST ENTERPRISE AWARD in Public Sector Undertakings by SCOPE. Shri Narendra Modi, Chief Minister of Gujarat gave the award to OIL in the 22nd Annual National Meet of the Forum of Women in Public Sector (WIPS), functioning under the aegis of Standing Conference of Public Enterprises (SCOPE) on 11-12 February, 2012 held in Ahmedabad, Gujarat. This award was given for activities of WIPS CELL and company's contribution to women employees.

#### **OIL Security Department donates to Moran Blind School**

The personnel of security department of Oil India Limited (OIL), Duliajan donated `24,000.00 (Rupees Twenty Four Thousand) to Moran Blind School (Janamangal Adarsha Andha Bidyalaya), Moran recently.

The school is working as voluntary organization in the state with a mission to empower the blind children for their inclusion in the mainstream.

Capt. Ananda Baruah, Head (Security), OIL, accompanied by senior officials of the department, donated the amount to Sri Victor Banerjee, noted and eminent actor, who is also the President of the School Committee, in a colourful function organised at the school. Sri Mohini Mohan Buragohain, Principal of the School was also present in the function.

It is noted that the entire amount was collected by performing Bihu Hussori during the last Bihu, by the security personnel. This gesture of the security department was appreciated by all sections of people.



Sri Victor Banerjee, President of the School Committee greets Capt. A. Baruah, Head (Security)



#### North East OIL & COAL MINES Safety Week 2011-12

Under the ages of Directorate General of Mines Safety, Oil India Limited concluded 'The North East Oil &







Coal Mines Safety Week 2011-12' with internal prize distribution function on 3rd February 2012 at Duliajan Club auditorium premises. On this auspicious occasion the Chief Guest of the function Shri N K Agarwal, RCE spoke on the importance and continuous improvement of health and safety standards in OIL. Also in line with the theme of safety, Sri Rajen Gogoi, President, IOWU (Recognized Union) and Sri Diganta Borah, General Secretary, OIEEA (Executive Association) addressed the gathering.

The celebrations flagged off with acknowledging the longest accident free employees followed by awarding the installations under various operational boundaries of OIL. To spread the safety messages; slogan writing, poster making and quiz contests were conducted and prizes were distributed respectively. Competitions like safety song and safety skit which were composed, enacted by the employees were presented during the function and were highly appreciated.

The Celebration was organized by Safety & Environment (S&E) Department of OIL. Sri Chitrabhanu Bose, Head S&E, highlighted many initiatives that have been newly taken up during this year like carbon mapping of operational areas to reduce GHG emissions, E-waste disposal, bioremediation of oily sludge and HSE awareness programme for employee and their family members. Besides these initiatives, OIL has also conducted number of Safety Audits, disaster management mock drills etc.

Oil India Limited will be hosting the final day function of The North East Oil & Coal Mines safety week 2011-12 in the month of April 2012 in which Coal India Limited, ONGC (Asset- Sibsagar, Basin-Jorhat, Agartala, Silchar), GeoEnpro Petroleum Limited -Kharsang and Arunachal Pradesh Mineral Development and Trading Corporation Limited will take part. The function will be held after the external inspection of all the collaborated partners have been carried out.

#### **OIL Celebrates 63rd Republic Day**

63rd Republic Day was celebrated in a befitting manner at Nehhru Maidan, Duliajan. Chief Guest Shri K.K. Nath, Resident Chief Executive(i/c), OIL hoisted the National flag, followed by the National Anthem, Guard of Honour, March past & Cultural Programme. Shri N.K. Bharali, Director (HR&BD) and Shri V. K. Sibal, Executive Director was also present in the function as Guest of Honour. In the March Past, a total of 10 nos. of platoon took part, CISF - 2 platoons, OIL Security / Home Guard - 1 platoon, Fire Service - 1 platoon, OIL HS School - 3 platoons, Kendriya Vidyalaya -2 platoon and Delhi Pubic School - 1 platoon. Cash award of `2500 was conferred to three best march past platoons of each group. A cultural programme was also organised where children from various school participated. Children from Mrinaljyoti School and dependants of CISF personnel also performed on the occasion. Sweets were distributed to children of LP School, OIL HS School, DPS, Kendriya Vidyalaya, Tiny Tots, St. Xavier's HS School, Bishnujyoti and Mrinal Jyoti School. Essay and drawing Competition were also organised amongst the school children of Duliajan where more than 2500 children partricipated.





#### Oil & Gas Conservation Fortnight - 2012

he Oil Gas Conservation and Fortnight-2012 was celebrated with great enthusiasm at Fields' Headquarter, Duliajan from 15<sup>th</sup> to 31<sup>st</sup> January, 2012. In pursuant to the directive of Ministry of Petroleum and Natural Gas, Government of India, this event is celebrated every year to create awareness for conservation of Oil and Gas. As a part of the fortnight celebration, various programmes and competitions were conducted to spread the message of conservation. The programs were initiated in work places, education institutions, etc where everyone actively participated.

Sri N. K. Agarwal, RCE, OIL flagging off the publicity tableau

In the inaugural function of OGCF-2012 at the Fields Headquarters, Duliajan, started with hoisting of OGCF flag, pledge taking, flying of balloons, street play (at Duliajan Club & OIL Market), cycle rally and launching of publicity van with a tableau depicting the judicious use and conservation of petroleum products. As part of the event and to encourage children to understand the need for conservation, various competitions like drawing/painting, debate, on the spot slogan and essay writing were organised for the students at educational institutions located in and around Duliajan. Number of students participated in the debate competition on the topic 'Sustainable development possible through hydrocarbon conservation and energy efficiency'. An



Pledge taking at one of the installations

exhibition of models and posters on energy conservation was also organised at Delhi Public School, Duliajan.

Technical meet on the topic 'Substitution of Petroleum products with alternate sources' was organised at Drilling locations. Awareness programs on conservation of Oil and Gas were organised at schools and ladies forum in and around Duliajan, which evoked a good response. Two Auto Fuel Efficiency Check Camps were put up in collaboration with regional dealers of Maruti and Hyundai made vehicles, where about 150 numbers of vehicles were examined and serviced.



Active participation during the Technical Meet at Dulajan

OGCF-2012 was also observed at OIL's other field areas in Pipeline Headquarters Noonmati (Guwahati), Moran, Digboi and Arunachal Pradesh. It was also successfully organised in other spheres across the country including its corporate office at New Delhi with pledge taking and displaying of posters/slogans at the installations/offices.

On the Concluding day of the Fortnight, valedictory functioncum-prize distribution ceremonies were organised at Duliajan, Moran, Digboi, Noonmati (Guwahati) including all pump stations and at other OIL's spheres Headquarters, where winning participants of various competitions/events were awarded prizes with certificates of proficiency.



Debate competition at DPS, Duliajan



#### OIL participated in Tinsukia Knowledge Fair - 2012

il India Limited participated in the Tinsukia Knowledge Fair - 2012 held at Bordoloi Nagar playground, Tinsukia from 17th to 22nd January, 2012. OIL also extended financial support to this six day event besides putting up a pavilion in the exhibition, showcasing OIL's journey with focus on areas that cater to the main target audience - the students.

Organized by Tinsukia District Administration in collaboration with social organizations and intelligentsia, this annual event aims to provide an opportunity to the students from educational institutions from all over the District to take part in various competitions like Quiz, Debate, cultural programs, science exhibition, career counseling etc. A large number of students from OIL's operational areas in the district participated in this six days event.



Sri M. Sundaram, DC Dibrugarh visits OIL's pavillion

This year, a new concept of "Career Counseling " was introduced in OIL's pavilion, wherein young officers of the Company representing different disciplines (Chemical, Drilling, F & A, Field Engineering, G & R, Geophysics, IT, Prod (Oil), Prod (Gas), Public Relations) interacted with the students, sharing their personal experiences and guiding the students in pursuing different careers like Engineering, Geosciences, Finance, IT, Management, Corporate Communications etc.

This special initiative of OIL became a major attraction and was being appreciated by all. OIL's pavilion team also organized on the spot events like quiz, brain teasers etc amongst the students visiting OIL's Pavilion.

During his visit, Shri S S Meenakshi Sundaram, IAS, Deputy Commissioner, Tinsukia District thanked OIL for all the support and especially complimented OIL's Pavilion and the efforts put in by the young Oilindians.

Shri K K Nath, RCE in-charge also visited the pavilion on the concluding day and spent a lot of time with the OIL Team. He also complimented the team for the great show and opined that such activities not only helps the student community but also provide a potent platform to the young officers of OIL to develop team spirit and also an understanding of the aspirations of the people from OIL. Shri N K Das, GM (Planning) also visited the pavilion and encouraged the Team.



OIL contingent at Tinsukia Knowledge Fair

Shri K K Nath, RCE in-charge was the guest of honour in the valedictory function of the Knowledge Fair. Speaking on the occasion in the presence of a large audience and



Sri K. K. Nath, RCE(i/c), OIL looking through the panels displayed at OIL's pavillion

representatives of various organizations, he complimented the Tinsukia District Administration for taking up such a noble venture under the able leadership of the Deputy Commissioner. Shri Nath also made a mention of the various CSR activities that OIL has undertaken and continues to implement in the area of education.



Active participation of children in Quiz Competition

Sri N. K. Das, GM(Planning) felicitates a quiz winner





#### Credit Disbursement Programme under Project Rupantar



Shri Binanda Deka- GGM(Production), Shri Rohini Pran Sangkakati Consultant SIRD & Shri Biswanarayan Gogoi, General Secretary (IOWU) addressing members of SHGs & JLGs at the disbursement function

s a part of the ongoing Project Rupantar for creating avenues for sustainable self employment, Oil India Limited extended financial support to 150 Self Help Groups and 100 Joint Liability Groups with a total investment of `1.85 Crore in the financial year 2011-12.

Implemented by project partner SIRD, Assam, around 900 families comprising of 77 Self Help Groups and 26 Joint Liability Groups were ceremoniously extended financial assistance of `33.10 lakhs in the first phase, at a disbursement function held at OIL's Handicraft Training and Production Centre at Tipling in Duliajan on 30<sup>th</sup> January, 2012. The total credit mobilization of the project is `51.35 lakhs, out of which `19.25 lakhs has come as loans from nationalized banks.

The economic activities covered under the project in the first phase includes Duckery, Goatery, Dairy farming, Power tillers (under farm mechanization) and Weaving.

Shri Binanda Deka, Group General Manager (Production), OIL graced the function as Chief Guest, while Shri Dipayan Barua, Head – Training & Development Department, OIL and Shri Rohini Pran Sangkakoti, Consultant from SIRD were the guests of honour. Shri Sanglap Nahar Deka, Senior Manager (PR), Shri Tridiv Hazarika, Secretary of Project Rupantar and Manager (PR), Shri Tajnoor Hussain, Officer-in-Charge of SIRD's Project Rupantar Extension Centre at Duliajan, Shri Biswanarayan Gogoi, Honorary Secretary, IOWU were also present on the occasion.

While addressing the gathering Chief Guest Shri Binanda Deka reiterated OIL's commitment to support the Self Help Group movement through Project Rupantar and complimented the SHG members for making the Project such a huge success. Renowned social worker and facilitator of Project Rupantar, Shri Moni Manik Gogoi appealed to the SHG members to acknowledge the great help that has been extended by OIL and SIRD, Assam and implement their projects in real earnest.

It may be noted that Project Rupantar was recently recognized by World Petroleum Congress as one of the twelve most successful CSR initiatives undertaken by the global oil & gas sector and was showcased in the 20<sup>th</sup> World Petroleum Congress Exhibition held at Doha in December 2011.



Shri Binanda Deka- GGM(Production) handing over a cheque to one of the SHGs



One of the succesfull beneficiary of Project Rupantar sharing her experience



Taznur Hussain, Officer In-Charge, SIRD spekaing about the agenda of the disbursement function



SHG members arrives at the Disbursement function at HTPC Complex, Tipling, Duliajan



Shri Biswanarayan Gogoi, General Secretary (IOWU), handing over a cheque to one of the SHGs



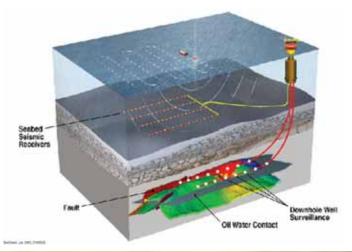
#### **PASSIVE SEISMIC**

AS DIRECT HYDROCARBON INDICATOR

- A New Technology

he upper layer of our Mother Earth, known as earth's crust, is always in motion. Earth, on one hand, is continuously creating new masses, whereas, on the other, some of the old and existing earth surface masses gets disappearing within the Mother Earth. This continuous creation and destruction of Earth's surface is a source of tremors, big or small, which we know as earthquakes. The minor tremors of Mother Earth is happening every moment and may be we got habituated with it.

Today, in the entire world the seismic waves generated from these earthquakes are recorded at seismic observatories and stations located at nook and corner of the earth. These wave motions are studied by seismologists everywhere to understand the earthquakes phenomenon of Mother Earth. In the course of their motion, the waves also travels through upper layers of earth. Recent studies suggest that the low frequency components of wave behave differently while travelling through rocks containing hydrocarbons. This property of changes low-frequency seismic waves (earthquake generated) due to presence of hydrocarbons is now exploited to provide indications of hydrocarbon resources deep within the earth. This technique of direct hydrocarbons indication by using the low-frequency seismicity of Mother Earth is above called "Passive Seismic as DHI". The technique was first invented in Russia in 1980s, and thereafter, has now been commercially deployed in different parts of the world.



Normally, in our industry we are very much accustomed to seismic survey (2D & 3D). We are well aware that in such seismic surveys, seismic waves which are generated by man-made earthquakes are measured by



Rahul Dasgupta Head - NEF

sensors placed on the surface of the earth. The traditional seismic survey uses artificial source and hence is now termed as "Active Seismic". The "Passive Seismic" is therefore, different because no artificial sources are involved and earth's natural vibrations are measured and inferences are drawn from there.

It is a fact that Oil India's main area of operation is in Assam and Arunachal Pradesh. This is one of the most seismically active regions of the country. Thus, it is felt prudent to test this novel technique here in our main areas of operations. After detailed study by geophysics department and following the process of tendering, a contract was awarded to a Russian company, MSU Geophysics, Moscow to carryout a pilot project for Passive Seismic as DHI. As a part of the contract, MSU Geophysics mobilized there sophisticated equipments and personnel and thereafter, acquired, processed and interpreted the data. Thereafter, the result was presented to our geoscientists at Duliajan and a detail report on the work was submitted.

Through this contract, around data was acquired as 480 data points in two blocks. It took around four (04) months to acquire data. The acquired data was processed and interpreted by the experts of M/s MSU Geophysics at there main center at Moscow. The work was supervised by our geophysicist and geologist who at the end are excited by the results obtained.

This new technology now has been introduced in our organization. The role of such technology is to reduce risks in exploration of hydrocarbons. It is more pertinent now because our exploration effects are mainly continued to logistically difficult and geologically complex thrust-fold belts areas. This will definitely be an useful tool for exploration in the coming days.





# XXXIInd PSPB INTER UNIT VOLLEYBALL TOURNAMENT, 2011-12

il India Limited (OIL) hosted the XXXIInd Petroleum Sports Promotion Board (PSPB) Inter Unit Volleyball Tournament 2011-12 at Duliajan from 15th to 18th January 2012. To promote volleyball in this region and to enable talent to be spotted, Public Sector Promotion Board organises this tournament every year. Tournaments organised under the aegis of PSPB goes a long way in sharing goodwill and mutual trust among different petroleum companies. Oil India Limited got the proud privilege to host this year's tournament.

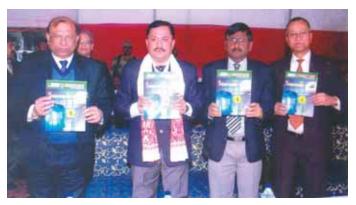


This time a total of seven teams took part in this prestigious Volleyball tournament- ONGCL, BPCL, GAIL, CPCL, MRPL, IOCL (AOD) and OIL. It was a great opportunity for the people of Duliajan to watch some of the finest volleyball players in action.

Chief Guest of the inaugural ceremony, Shri N K Agarwal, RCE, OIL unfurled the flag and in his speech spoke about the popularity of volleyball as a sport in North-east and encouraged the participating teams to play the tournament with great spirit. He further spoke how PSPB and OIL has been taking initiatives to promote sports in this part of the country and encourage latent talents to come forward and participate in state and national level tournaments. Secretary of Assam Volleyball Association (AVA), Shri Munin Nobis was also present during the inaugural ceremony. As a part of the inaugural ceremony, a colourful cultural programme was performed by children from various schools.



Winner Team - ONGCL



Four matches were played during the inaugural day on 15th January, 2012 at Nehru Maidan, Duliajan. Some high quality matches were witnessed during the four days tournament. It was interesting to see how fast the players turned the games and how the teams played-high level volleyball. Teams that won their respective matches finally played semi finals: ONGCL vs OIL and BPCL vs GAIL.

ONGCL clinched the 32nd Petroleum Sports Promotion Board (PSPB) Inter Unit Volleyball Tournament at Nehru Maidan. In the final match, ONGCL outplayed BPCL 3-1 (25-27, 25-20, 26-24, 25-20). Host OIL secured the third position by defeating GAIL 2-0 (25-12, 25-11).

The chief guest of the closing ceremony Shri Arabinda Kalita, Superintendent of Police, Dibrugarh, handed over the champion's trophy to the winning team and also released a souvenir published on the occasion. Shri N K Agarwal, RCE, OIL handed over the trophy to the runners-up team. Tom Joseph of BPCL was adjudged the Best Volleyball Player of the tournament and was awarded Rs 7,500. The concluding function was attended by Shri Arabinda Kalita, SP Dibrugarh as Chief Guest, Shri N K Agarwal, RCE and Shri K K Nath, Executive Director (E&D) as Guests of Honour, Shri A N Baruah, GGM (Technical & also President of Organising Committee) and other dignitaries of OIL.



Runners Up - BPCL



#### **MORNING STAR Tiny Tots School**

#### An initiative of Ladies Club of Narangi

INY TOTS as a school believes in a holistic approach to education. Education that helps in the blossoming of the physical, mental, intellectual, social, emotional and spiritual dimensions of a child. It has been TINY TOTS motto to see every child grow from a tiny bud into a beautiful blossom.

The Morning Star TINY TOTS was opened in the year 1984 at Pipeline Headquarters, Narangi. The school has grown very rapidly and entitled as the "The Morning Star" as it is like stars that twinkles and spreads light in darkness. It is home away from home where the child loves to spend their day. TINY TOTS offers classes from the Pre - primary to primary with CBSE/ICSE syllabus.

TINY TOTS believes that the first five years in a child's life are most important because they lay the foundation for the future development. The play group children are full time exposed to free and informal games without any restrictions and inhibitions.

Over the past 27 years, the Morning Star TINY TOTS has established a solid curriculum, delivered by caring and experienced teachers. Small class sizes, great adult to child ratios, and a safe, loving environment mean that kids at Tiny Tots grow in confidence, happiness and success.

Tiny Tots teachers are not only aware that children are present, they also take time with each child personally

to compliment good task completion, reinforce positive behavior, offer suggestions, give directions and consistently implement behavioral adjustments to each child's personal needs.

The School has blossomed under the care and guidance of the Ladies Club of Narangi. Children who started their elementary education in this school have now prospered in their respective fields. The teachers have left no stone unturned in guiding the children coming from varied economic background to facilitate them to gain their foothold in the prestigious institutions of Guwahati. This has immensely benefited the children of the neighbouring areas outside the colony. Apart from the academic pursuits, children are also exposed to various extracurricular activities.

The constant patronage from Oil India Limited has made this possible so far. The constant help support and guidance from the Pipeline and Oil India Limited has encouraged the school management to integrate new changes and innovations to implement modern day teaching methods in their endeavour to bring the school at par with the leading schools of Guwahati.

Lots of activities are being planned for the future and once implemented, will be beneficial for the students in the times to come.





#### **Obituary**

Shri Angsuman Mookerjee, Ex-DGM, OIL passed away at Apollo Hospital Bhubaneswar. He has left behind his wife and two daughters. Shri Mookerjee joined Oil India Limited (formerly Burma Oil Company) in 1962 as Asstt. Labour Officer. He retired from sevices in 1994 as Deputy General Manager from Bay Exploration Project, Bhubaneswar. He was an outstanding sportsperson and participated in many state level games in Assam. OIL News prays for eternal peace to the departed soul.



#### **CALCUTTA NEWS**

#### **Metro Club Meet - 2011**

Metro Club organised its mega event 'Metro Club Meet - 2011' on 28th & 29th January, 2012. The Metro Club Meet was inaugurated on 28th January, 2012 by Mr. B N Talukdar, Director (E&D). Mr. N K Bharali, Director (HR&BD), former CMD, Mr. R K Dutta and the Founder President and Founder Secretary of Metro Club i.e. Mr. J K Talukdar & Mr. D P Sen respectively and many other senior officials of OIL including ex-OIL Indians and also from other Govt. / Non-Govt. organisations. On this occasion Souvenir of Metro Club Meet - 2011 was released by Sri B N Talukdar, D(E&D). The inaugural function was followed by dance with Live Band and sumptuous Dinner. On 29th January, 2012 Jam session for Children with live Band and the programme was followed by Lunch. After Lunch, Prizes were distributed to all winners & runners up of all the Games competition held during the Annual Sports Meet - 2011.





#### **51st Annual Cultural Programme**

On 25th January, 2012 OIL Recreation Club organised the 51st Annual Cultural Programme at Uttam Mancha Auditorium, Kolkata. Shri Dilip Sengupta, the then General Manager (Technical Services) of Oil India Limited was the Chief Guest and released the Souvenir. On this occassion, OIL Recreation Club staged a Drama "Ami Madan Bolchi".

The Drama was performed by in-house talented artists of OIL Recreation Club Members and it was quite entertaining and humorous one which kept the audience spell bound. The Drama was followed by a spectacular Dance performance by renowned actress 'Indrani Dutta' and her troup "Sristi". The entire programme was a grand success and a memorable one.





#### PHQ NARANGI

#### **PHQ Dispensary Inaugurated**

A physiotherapy unit at Pipeline Head Quarter Dispensary was inaugurated on 3<sup>rd</sup> February 2012 by Shri. D Phukan, GM (PLS), in presence of Dr. Chandan Baruah, Head (MS), OIL, Shri. Tapan Duarah, Head (PLS), Executives, IOWU Officials and Employees of the Pipeline Head Quarter. While inaugurating, Sri D Phukan requested all to resourcefully utilize the services of this unit. In his speech Dr. Chandan Baruah stressed on the importance of physiotherapy in rehabilitation and fitness and highlighted as how the unit will fulfill a long need of PHQ.

Dr. D K Talukdar, Deputy Chief of Physiotherapy unit, Duliajan Headquarter, demonstrated the application of the electrotherapy and exercise therapy equipments. Shri Phani Kalita, President, IOWU Pipeline appreciated the effort of Head (MS) and GM (PLS) in establishing the unit and underlined its benefits to the executives, employees and their families.







#### TRAINING Snapshots



A program on Self Awareness, conducted by Aurobindo Society, Pondicherry from 7th to 8th Feb 2012 at MTDC, Duliajan



"Society of Petroleum Geophysicists Conference" held on 13th Feb 2012 at MTDC, Duliajan



Program on "Well Control during Well Intervention" conducted by Global Energy Talent from 16th Jan to 21st Jan 2012 at MTDC



Program on "IT Security Awareness" from 21st to 23rd Feb 2012 at MTDC, Duliajan



A program on "Keep in Touch" on 29th Feb 2012 at MTDC, Duliajan



A program on "Contract & Purchase" conducted by faculty from IIM Bangalore from 2<sup>nd</sup> to 4<sup>th</sup> Feb 2012 at MTDC, Duliajan



Awards &

Kalyan K. Das, Officer-on Special Duty (Security), OIL, bagged Double Crown by

winning the Senior Doubles (+35) title partnering Rajiv Bora of Guwahati and also won the Senior Doubles (+50) title partnering Dipak Kumar Das of Guwahati in the 14<sup>th</sup> India Club Open Tennis Championship - 2012 held at India Club courts at Guwahati from 25<sup>th</sup> January to 29<sup>th</sup> January, 2012.



**Suranjam Majumdar**, Chief Manager (Vigilance) PL has successfully passed M.Sc. (Environment & Ecology) in first class from Sikkim Manipal University under distance learning programme.

During his association with OIL, he also passed company sponsored Diploma in Industrial Safety (DIS) from Regional Labour Institute, Calcutta and LLB from Dibrugarh University.

Migang Migom Pegu, Executive Trainee of IT Department has participated in the recently held UKAA (United Karate Association Assam) 6th State Championship and bagged silver in 84 Kg individual Kumite (Sparring) category and bronze in team Kumite (Sparring) category.



Deben Bordoloi, Mechanic II, OIL, was awarded with "Appreaciation Certificate" Shram Veer Award by Assam Productivity Council. in recognition towards exemplary and innovative job performance. Assam Productivity Council confers Sharm Veer Award for Workmen employed in industrial units with a view to accord recognition for their commendable performance.



#### Oil India All Assam Junior Tennis Championship 2011-12



The Oil India All Assam Junior Tennis Championship 2011-12, sponsored by Oil India Limited (OIL), organised by Zaloni Club, Duliajan at Zaloni Club and Duliajan Club Tennis courts, from January 19-23, 2012, completed successfully. All together 170 players from various parts from the region took part in it. The championship was held in Boy's Singles- Under 12, 14, 18 years and Girl's Singles- Under 14 and 18 years.

Amlanjyoti Barua of Guwahati clinch the Boy's Singles (Under 18 years) by defeating Arnab Duwarah from Duliajan 6-3, 6-2 in the final while in the Boy's Singles (Under 14 years) Zaputsho Khate from Nagaland won the title beating Kritartha Hazarika of Nowgong 6-1, 7-6 in the final. In the Boy's Singles (Under 12 years) Pratyush Poddar from Golaghat won the title by defeating Kunal Sutradhar of Duliajan 4-1, 4-2 in the final.

Murchana Saharia of Guwahati bagged the Girl's Singles (Under 18 years) title by defeating Jyotishmita Khaund of Duliajan 6-1, 6-1 in the final while in the Girl's Singles (Under 14 years) Naziya Ahmed of Guwahati won the title by beating Shrestha Barua of Jorhat 7-5, 6-4 in the final. In the closing ceremony, the prizes with scholarship money were distributed amongst the winners by Kulendra Kumar Nath, Executive Director (E&D), OIL, Abani Barua, Group General Manager, OIL and Ranjit Kumar Saikia, General Manager (HR), OIL and Chairman of the Organising Committee. All the winners and Runner-Ups were also awarded with sports-gears gifted by international famed sports-gear manufacturer "HEAD" for further development of the game in the region. Debasish Bora, Organising Secretary offered the vote of thanks. Kalyan K. Das was the Tournament Director while Chandrasekhar Mohanty was the Chief Referee of the championship.



#### ] Fî %ç%ça Eõ {\b\rangle c} EccY» Y»ç



\*/ W+\_ +\*/ (XaEo\_, %(G» ×\_F\*Xa]ÉŦö]+ %+\_» ae•ĨĸŦö%ç»Ó%+\_ +%1ΰÇX» CY»TöTip» YÕ(iệ%» \*{\bai^ a]ç» ]Tic]Tiö[ŷN\b Eõ»\*Kā\_ç\* ]+ aV¢ar ×{ṽ ţa Eōo>ç â^ aş l up> ae•Brö%ç>Ó [¢r q[v>ās Yðrönqxx> ×{yEōç` %ç>Ó YÔc x ō> al ùy Tōm >Ōrō \bi] Ēōç Yç\_X Eōō>\* Advisory Committee on Safety of Nuclear Installations (ACSNI) %Und Y»] (\$ 4/E ) YOT WILL A 1/E » a 6 I ic / 1/D LE =YāVrû; a×J×Tö» ]āTö"a@lic; ae•BīTöécāK÷[ŷAVbGTö%ç»Óa]ÉĤrc; YÙÊî, %çôòŚ, WiçX Wiç»Sc, VluTi; %ç»Ó[ŷ¾ce» √yWi» Zōōzō \*à\* ØøØø %ç»Óaş I iç ÝQúiX» Yðrö AāĒóQiç YðröæiX» Vð\*[ý útiç %ç»Ó%cðfæEö »Ö/ç/\*TöÉab» (safety culture is defined as the product of individual and group values, attitudes, perceptions, competencies and patterns of behavior that determine the commitment to, and the style and proficiency of an organization's health and safety management)\*

KKĘSĸĮ́į\_VŖION¢» ∖Ďrq́į¢∓i¢+ al§lik; ae•Būtis YBČr¢ĹXlŶTi¢» YBTi; %ç»Óʻal§lik; %çMósS» CY»TöY»Moc\_X¢ %ç»Óʻ]çX[ylŶ =YçŪçX» YÖLi¢¾ a¶0ďāEiŏ aEā\_ā» ]Xā^ōG %ÉtbS Eā»\* a&i iç ae•lāTō(Safety Culture) `ŒāÔt KÉSHÝ VỆIĐXÓ ¾\$āTōINSAG (1988)à ^ŌţāTōXÇ VỆIĐXÓ Đa¶iệ ÌbS é[PŒő YŸŦā[VXTőYÙ][ý»[ŷ¾cé» Éő»ç cl\*\* ¼ŷ bpûaEő\_»]áTőWXç±ÁEő á§Tűç áe•Éfő]çX \$ô\_ç YŸTöbŸXā[ý»Tő Yç>&×»Éő ﴿ŷ Çá» å\ö00Tő [íywin» %QUQX - YDQX c+, a&lip YBrcLXIPTop a3V\dro=e]c+drc(shared) WpScGAbato\_cc+ %pó+rp YOTop QUV fixWor4\_1/9 Eor1liftop CY>ToaEor\_ob √lý ka UçãEở

Øl¢cî, alşliç %ç»OY»alfî \*AloxVaX+ %+\_\_+%lfç» Yeli deleXEõ ae•liktis %xfyiKHî %eG éc÷%çxakt\* xXxqbS Yeli deleX x\$4qalfy%ç]ç» Eqc^iEō\_çY» Yȍ Y»ā[ŷ » CY»Tö Y» [ŷ Y»ç %£\ö Yð\æ¾ %c>ó Eð] ØæXTö c‡[ŷ Y»ç VGIOÁLc YðTæŦö Eð>ç, TóJç Eð] AðæVÍ» aðÆVði X×JðTö Eð>ç %ç]ç> %xîTð] YðÆX

YÉSMIXÃ GĞÎ Â YÜTÜRÜX Â LÜYTÜMÇ Î EĞÇ XIX E A] %' += (MoU) Â NA TEĞ LÜÜ» (physical target) XOTÖNTÖHSE LÜÜ» [VÂ SEĞX EĞ AĞ LÜÜ += a (MoU) Â NA TEĞ LÜÜ» (physical target) XOTÖNTÖHSE LÜÜN [VÂ SEĞX EĞ AĞ LÜÜN EĞ LÜN EĞ LÜÜN EĞ LÜN EĞ LÜN EĞ LÜN EĞ LÜÜN EĞ LÜÜN EĞ LÜN EĞ LÜÜN EĞ LÜÜN EĞ LÜN EĞ LÜN EĞ LÜÜN EĞ EőaEő\_c¾ %d/ā»ā» GÐŚ Eő»äK÷%c»Ó»çL§¾çF‰» eTö\_YeTömeXa]É÷(ÖilPSU)» ]çĹTö%\_YáTö%XemTöåce¾ç]çX¾ a¶oYV a¶oYEdh`a]ç[wöAFXTö %+\_ +¾n^c» Worksite Fitness Program» √yodh`case study YodföEó» Yoeaç \_cvöEówäK\*

A+x+XáTöHSE ál ùyTö%czl \_c\öEòxc aZō\_Tic %c>0 GĐ\$ Eòxc XTOX %dòxa]E>> x|bár x=dKeEdUc = a{F Eòxc a] ½dX c+[ý[k]]+ \ciavx\* x|ýXö Eōc]>> EōxāS SOP(Safe Operating Procedure) YOOTÖEōxc éc aK+%c>0 aEōc floy (Xfar XTOX XTOX HSE Y× 100 a] X644\_ YOOTÖEōx GÐ\$ EòxaK\* V¢^îçG YÖyüX» a³V\dīō EōJtôp›YaEō\_Eō× xl útō Eō» T6\_[ý» Eōp>āS EōJÖtōX» [ýsēā» - xlōtōp» xl^]YrœEō V¢^ïçG xl^U6S» %çEoxçce\*\* Yetrālog Oōjtos VÇIOXç» Eōp>S a¶d/EōTō xl fi bs Eō» Tōp» Yetrētōp»» xl filly Gb\$ Eōp; c+\* Td/UðEōJ xotr xl filop» =×\_C¾; Eōp>Sā[ýp» %çp0 %X6] çl Xa] E÷ xl filop Box Eōp; c+\* atō\_EbyTō\_G; L\$ %çp0 [yl c=0) Yetrō tōl; Yetrētōp» Eōp»[ýp Eōp>āS Crisis Management Team GPd/Eōp;

écäk÷%ç»Ócrisis management» EçiväS XçXçIJVV^¶AYçxTöyŐ^» Eçij %çG[çxHüK\*

%+\_ +%I^c+ Tata Environment Résearch Institute ( TÉRI )» ac#^cGTöaZō\_Töä» åTö\_Töl^c %c¾LDc» éL¾EōY»ä`dWX Y^ùTö %ç¾ ō> Eō>äK÷%ç>Ó [ýwō] cāX YÊ^çLX %X6> %ç] 0> Eō] 1 i vya] £3 i Yû£o Tō ]¢lib Étip»āS phyto-remediation, éfipûçxket Yîktar msw. xxatbs» zöttők+\_» kytar Azettő yvibs» xi Üs kçxó =~Tö yçxyyç Etite ŢŶĹĊŧ »ĔĊāĠŶéĊäĸŧ [ŊãĔĠŪĊţ+³aŌā\_\$ĸijX VĬĬĬĸ ØŶĔŶĬŎĸ\$ĸĸĠĬŶĸĊŧ Aĸŧĸ' - 9001, %Ċŧ Aĸŧ\' - 14001, %Ċŧ Aĸŧĸc» Aĸŧ % A+sôAĸŧA Aĸŧ -18001 YÜÇS Yy \_ç\\ö Eō»älk\* %çXāEō+0ç]çX +³a0ā\_JòX» Eō;>āSC ā^çGîTō;> ØbEbTö & shōā[ý A+ YÜÇS Yy \_ç\ō;> Yèbhōi; shè\_ %çalk\* Yüs¬Tö Ý\_ =āVîçG \*XGi]S» Y»)[cS alka Yc[v\*

A+ Eðjijfý %ájóxajóc÷åEögjþýcXláðójeð \við äEð+ðic axlóXLXEð Yló-ðix afðáX Glósäðeð +X\vi+>Sājä300 A×jā 3a A34QD åGæðóX Ylédeð

AX\\c+>Sã]300 A34Q\\circ \\\o`Eo>cTo`ace\\`Eo>\\\\\

Ā+a]É÷%√Tö=daçc£XEő%GGG√Tö^\C AÆEőa]ĥãTö]+ [v§ Y»]çãS =¾GÔC\* aEçã\_ç XÝ√Tö- ¾ĥ] %¾ã bTö éG Eð]ÞôpvÍaEð\_» Vçħ[ý úTipv %cCTip» ×dTip×Tipåac]c+ Yā»\* Eðji VGIOXc [ýc áTiaX VGIOXc» Y»c ÉðJÍ×Y »Tic áYç¾c Wi>S» Y»Þýðtö = àð4 ác €¼a0ic VELXEð EðJ¢\* TigaTicTièEð VELXEð EdUç â^¾Ô°ç=Y\_xîÛEō>çci+ â^ aex Âô[ŷÑþLāX [ý åTiCop acĒō]ÞaĒōō\_ aŷl lù [ŷŴōt]çX \$ō\_çcē\_ åTōX VÇV∮°Eō Y»>ØŏTō> afrōh Xc÷åcojToX\* HSE \*(ÁNÍ)\* Y ĐT Ö \*\*) Xā^ç GT Č; ae \* Àô [ý AlþL Xế\_ 'Eð ô Eð ÁÐ c; \* ŠXç \*\* \_ GāT ö % ÇXā[ý » āĒ Č; Y Ò Č Ž Alþ Ö Eð \*\*)

EðĪØtiXTő als Í úç XÍxTő åEtiXVa» Yç\_X Eðsç éc álk; Tús» Y»ç åc÷A áEtiÓtic YeltideiX» als I úc ae•Bit is a Zō\_Túc - xízzō\_Túc Yeltizōs\_Töci+\* ]XTö»çx [ý

ÆðT¢Y» aK÷Žō» CY»TöT6£ åUç¼ς ΧίνΤο- «ΧΙ΄) %U[ýς Υθςς Ι΄» CY»TöΥθΤάσάΧ» a6 l iç ΥΦίμιΧ «Χ\θ ΧΕδω»\*

åaai^]+ aEōo\_çône\_āEō%çâneX LXçfākke, aðóndón, alşliç %ç»óaky×å[v] EōåEð4\_ Ædke[cx xkxtö-xki^]» Yc\_x [ne\_xc\inj&xc\inj&k Lk/xx Wic>s Ybc\_k/s %eG Eō» åTic\_Eō\* \_GāTō Y9TiciciXEō a& lic- aQicQō-aty.»ā[ý] » ae•bTō A&b [wir+ »çFý %+\_ ae•bTōEō %vNEō \$ce-ct Eō» T& [ve\_ %v] 'X Jò` Eō»ç %œ€ø\*

a`Oùã»,

Øc lù /-(ÁX åEő%çGMc\_) %ç%ç×aEő]¶çî×TJbh`ç



#### <u>∖</u>iç»Tö»±ö0ö0 A ×Y åL %çŒÇ Eõç\_ç]» VÇŶr¢LçX }]S



%+\_ +%\(\hat{\mathcal{n}}\ccirc = \forall \text{io} \] \( \lambda \righta \cdot \cdo

+^c> \( \sqrt{\text{sto}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text{v}}\frac{\text{v}}{\text

$$\begin{split} &z\bar{\mathfrak{a}}[\dot{y}a\dagger\dot{\gamma}\bar{\mathsf{T}}\ddot{\mathsf{G}}\ddot{\mathsf{G}}\bar{\mathsf{G}}\ddot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\ddot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G}}\dot{\mathsf{G$$

28 LÇXVQV TQVĀF YVÇ \QGĀTO QO EÇ ĀJ LÇ XÝ ZŌŢTÖV+\_» {IDI YQGEO AĀTQVX EĞN\* \QDS YAĞTO ATQFĀTO Technology leading to non - linear growth a³V\QO EÒ VQVO Linkage between national economic development and creative leadership a¶VĀEO VĀ CĀXÇ EĞN\* ÅTĞEĀTO EÒ Å = AQVX



`\*Nþ %ç>Ó =à@A E@^î %[yîç;∃ö »çF[yê\_ c+ã\_ GâAb\$ç, \*Lpûçaç, aLX`Y\_T@, XTQX YÖQN|p> [yî4c+>>> \_āG \_āG DāNîç;GEö%ç>Ó]çX>aEö åXTʱM Yðn°çLX %çãK\* +h°ç> ×Y\$öTö%+\_> \*{ybn°ç}yö> éaāTöåTãFāTö \@A> %UX- YÜX Eã>\*



#### YÐLkô »ÖYÇÜÜ»» @S %ç»Ó aç]GÐ ×[yTö»S %XÇüçX

VÍHI] ÍÇIÝ %ÇÓ [JTÓKÍÝ ØÉXÂŤÇLX» EÕÞÄS %+\_ - AK÷%Ç+ %ÇÞ ÐÐÞ ^QÐŤÇ YÐŤŌ& YÐŤLKÓ »ÖYÇÜÐÐÞ ^QħTŒ+ %CĘ %GÓÐX %ÇÓ EÃÇŤI AKÓ » ÖÜNGTÖ 2012 ﴿ywơ [yððð ] ÇLTÖ ] ÇÖ 1.85 ÅEÆÐÐ ŒĞÞ açÇŤI ÆÐÐÐ AÇÆÝACÇŤE Õ ÅGÇÐÐ %ÇÓ 1000% ^QĐŤÇ VỢŤ [YĨ Là GÇÐÐÐ ] ÇLTÖ ] ÇÖ 1.85 ÅEÆÐÐ ŒĞÞ açÇŤI ﴿JTÖÐS %XQŒX A¶ÐÝ ~ ÉC÷^ÇŤ\* ÅA+¾XÇÞ %XÇŒXTÖ ] ÇÖ 104 ÛÇ ÅGÇÐÐ \_ (770 ÇÞÆÁACÇŤE Õ ÅGÇÐÐ %ÇÐÓ 270 Ç^QÐŤÇ VỢŤ [YĨ Là GÇÐÐ) ] ÇÖ 51.35 \_ÇF ÛŒÇ ] É ÍÐ (+Ì ÞÞÐ ] ÇLÃÐÐ 19.25 \_CF ÛŒÇ »ÇÐÐ EÐTÖ Å [YEÐÐ @S) açÇŤI %ÇG [YÐÐÐÁÐÇ CŤ ^ÇÞ ÅTÖÐ TÖ ÆKKÇA EFÎE Õ ÅGÇÐÐ ÖUÐ AÇÇŤI %ÇÐ [YĒÐ A] ÁC÷AÐLE » açÇŤI \_ÇÖ EÃÐÞ \*YÐÐ ] Y^ŸÐŤ » EÐÍ I %GÐÐÁN » ÅTÖÐ TÖ %ÇÆK÷COÇ ÷- EÆÐÞÇ YÇ\_X, KÇG\_Ý YÇ\_X, VÇÙ = dYÇNX, ĀFĀÐÞ ^QÐÐÆÐEÐÐ S %ÇÐ [ÝŤX = ĀNÍÇĞ\*

%+\_ +%I^ç» a]É÷]cţYQjuEō(=dY¢XX) `VdjX³V åQŒç+ ]ţî %\TöU» %\cax %\_eEBTÖ
Eōsçåa+\Xx\cop %X\cup\TöäEqq\dy\cx\n Y\cop\Tib C \{jEç\ \dagger \dagger \dagger \n j\q\cop\Tö\ \dagger \d

#### ×TöX\$ÆðÎ^ç pûçXã]\_ç, 2012

«/YXYóffjōlsöt'^ \_=¾+3;4°5flōffoq^ôd\$A XqqX% «ol\_xs&=jōl «q´fkōfloffx (xják+ \_\_+%foqloffx «xqfkoqloffx «xjql+ A jóld jóldik «xjóldik xyúx xgyva kaj kaj xyúx (xjúx) «jáldiqók» (xjóldik kaj xídyk kaj xídyk kaj xídyk kaj xjól

+×t×Xl^c,»e, \begin{align\*} +xt xll^c, we, \begin{align\*} +xt xll^c, \begin{

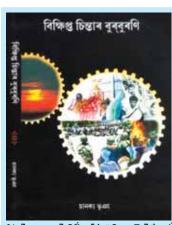


 $aE\tilde{q}^{\prime}V_{c}X_{c}$   $*X^{\prime}V_{c}$   $*X^{\prime}V_{c}$ 

EΦ) A+[K+» 15 L¢XΦννίν Υ»ς 31 L¢XΦννί Τιρνν Fê\_āEō ΥνηθννοςΤο Υ΄ριτον åΕσηθνάχνίν κλὶ] Ν'ς Εσς îakt åΤο - åGK+ae» Lús ΥάδΕξ 2012 = V'¢ΥΧ Εδνς cɨ'\* åΥ'θε\_l'c] %ςνό ΥξΕβτίεδο åGK+] ÜΨ VŠ»» κλάπου Χς %Χρινν åΤο %ςνό ΥξΕβτίεδο åGK+» ae» Lús αηθνεότο α L¢GTτρ GκδάΤτρ γκλύ Υΰνςα κελομίς Υθτίς καν άΤο - åGK+ae» Lús ΥάδΕξ = V'¢ΥΧ Εδνς cɨ'\*

%XQmpX» %e` xs\$qā[ý Eō] ØqpX, x l qpXQmpX %çVTö-{jx\ë Eqc^î albó %ç»Ó YQTōr^çGTop» %qir^çLX Eō»ç éc\*k; \_ ^qaTō YQX» X[yYEō»S Eō»[ý åXç³/»ç %ç»Ó yQ] qGTō \qia% alba Yç+ %c; YQLX½ \_GaTō YQX + µuX Fç»Øx; åTō\_ %ç»Ó YQEBTŒō aGX; ae»l uS a¶ov EōTō [ywō] çX YQLX½ \_GaTō XTQX YQLX½ ]cLaToc a LoGToc GxbTQ\$ [ý Y»c ^dr\*

F) F×X a&lic atic Ec (Directorate of Mines Safety) »  $\times \sqrt{1000}$  ]ā]i %+\_ +%lic  $\times \sqrt{10000}$  %X&c [c = wo - Y[ý åTö %%0 Ec c F×X a&lic aŠc; 2011-12 F×X 03 åZīJVA, 2012 To sāF %ç\õUB\S Y& \overline{0} \overline{0}



%ç]ç» aç]GÑ \*{j\@G » Eō]Bû;»Ý
`MaSEō \KAÜ;» Eō[jTiţ YQU "\*{j\dis \*AÜJU» [j\s[j\ws' %\_YāTō Y)Tō;` Yḍ^\* %+\_ Eō]Bû;» \AX Y)Tô\ţ %ç]ç» [j\ā[j G[j\ws \*{jb}^\*



%+\_» \*[jKç]É\_ÎÎ^ç \*ÎôEtîdaç åa¾;» %(jÎôXTö%;X A\*Xô aeã^çLX -X¾LcTiEō ]Îζ;» c+;» âliaEõ;S» YDca\*



VÇ\_Î^çLçX z@[ý» =āVîçGTö23-25 åZd[yb/q»Ý, 2012 T@;»FTö%X@dTö %äXİbç GÜğ] ç\*



#### %+\_ +¾6ç> Yç+Y\_ç+X Eö]\$6ç>Ý> 41 aeFîEő [ý;bEő yÔÓ¢ a]çã>çc> aZō\_ a]çŠ



41 aeFîEō Yç+Y\_ç+X EōJ**ti**pN» yÖÜ**l**ç a]çi»ç:»Tö YÜÜLEō- "äc¥YEō V`Eō» ]çLTö ]Çō\_ Eōxç» {jñ`b ]ÉbhúTō]cçYÜyüEō(Yç, \_ç åa¾ç) åV¾jVöZÇEX %ç»Ó%XiçXîaEō\_\*

[¤[=āl/qN|pcaEo\_Eo=Yx0dTöaEoi\_ca4\`\_cG\_\_h\* %;>=\$\%X(\$\text{pip}X\\)] \$\fine \text{Eoi} a \text{vital Eoi} A+ y0\text{vital Eoi} a \text{vital Eoi} \\ \text{A+ y0\text{vital Eoi} a \text{vital Eoi} \\ \text{vital Eoi} \\ \text{A+ y0\text{vital Eoi} a \text{vital Eoi} \\ \text{vital Eoi}

a] $\vec{q}_{0}$  $\vec{$ 

\(\frac{\(\psi\)\circ\(\frac{\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\(\psi\)\circ\

aVÇ^ %ç`ç» å»lø\$ c{ý [y}\_ ]TöåYçb\$ Eão\*

Ä+ yÖÖliç a]çä»çc» Y»¾wob =VEçYX ØqX =wob[jeG» åaçXçYç arqtXe\_ YTqEçç cÐqW@bas yÖÖliç %XçqxX» aç]»&]»ç cF\*



yŰOli; a]çã»çc» A×lôVE î

#### å\cccide a cccide a c

Vṛḍ» A[¼» Þ¢ AEōVH\_Þ¢ +¾ tö ṭa - Þiệ» GgC ĐốT Ö%+\_ +% Þ¢ ç ×\_¾ 300 ö> Eð] Þiệ» Ýa Eō\_> %¾a> √giX ÇVX å Eð VÐ å \ üÇêV zữ, [ý> %c »c ÷ Yðhriệ» aç l Ú ""å \ üÇêV zữ, «> 41 ae Fî Eō [ý; b Eō y Ô O b; a] çã» çc ; "\*

22 LçXÇx, 2011 åVC[ý» \*VXç \*VXā^ç»ç Eōç^ahóā» 41 aeFîEō [ykā»Eôl°ç yð0úp a] çā»ç÷F\*X zōc[ý» a] É÷aVaî-aVaîç, × £-ābō] XVÎ^ç aEō\_» %ÜðNQNDĀ» %XQœōTöéc÷^çÎ^\* »ç7ðYÇxç 9 [yLçTözōg¾» a\ōçY\*Tö`V] Ç£O\_a\$bNJŷ\ál^ YTōcōç =āwoc\_X Eōsç» \*YkāTözōg¾» aVaî %ç»Ó%+\_ Eō\_XÍ»]\*\*\*£; aEōa\_\ioc å\_ç¾; %çEðbSVÎ^ ""A+ Y£U¾ AEō yð00þ;†S, yð00þ;c÷\_`çÜðB" Y∮†S...'` YbEō GÝTĕðāÎ^ = YÐðTöaEōa\_çãEō = daçæŦöEōa»\* +Î^ç» \*YkāTē = āViçNþ; aEōa\_LŶxx» %Y\*\*c\*çî %ç»Ó LŶfç+ UEōç» \$ôç\*\_Eōç`\*Nþ» %çNþ;» ""coc €ō %ç»Ó c§¾;CEō copåæ÷copåæ÷LŶĨ^ç+ UçĒcēa...'` YbEō copåæ\* AÐô aQN» %Xçhōxã» åF\_» \*Vxãðþēō Øölfðā» aLçG Eōs» åTōc\_çTö EōS-EōS × £-ābō] XŶÎ^ç, zōç¾» aVaî-aVaîç» \_GāTö = YÐðTö ]\*£÷ç aEōa\_%e` GÐ\$ Eōa»\* ]ÇöAEØ;» {ý×lē yð00þē`\_Y° × kōTō\*Tö × £ aEō\_» %çā]çV LXEō xōx XaPlðÎ^ç åNì», å\ō \$òX YÐTōr^çGTō; ]\*£÷ç» xý×lē åF\_ %çãÎ^çLX Eōsç c²\*\*







# $^{\circ}$ daçSç\_Ý LÌTÜÝ $^{\circ}$ $^{$



Y (èGSTÖ  $\sqrt{y}$ )  $\sqrt{y}$   $\sqrt{$ Eďkę» Vár\* åacSc\_Ý Lìruď a]cã» cc.» YTöjec = ãwoc\_X eão a]cã» cc÷ ax|x|o> a\|c|x|x|o|t|u|c|x+ +x||a>c|x|x|a>00|o> E|c|x||c|c|x|a|t|c|E|o|t| åEő åEő XŒU\* ØÖÑTÖTÖYS Eî %+\_» ](FÎ %;%;\@EŐ \\p)\c `Ø AX. åEő %çGÐ⁄çā\_, AāEōVXç+ ×[Víc\_í^» ×XLç å¾[Víc+06 www.oilindiahsschool.in ] [ E E E E E W + + » ] (X [ ý a ¶ V = ~ Î X % » Ó [ ŷ 4a ç Î E E =wo>S <[/\jugarting/a a tûc\_Eō `VAX. åEō \osc\_Var\* åaçSc\_Y LÌ`UVa]çã>ç>  $H_{c}+YUa]\hat{b}c\hat{a}$   $AE\tilde{o}$  % $CE\hat{o}S\hat{h}$   $\hat{a}$   $\hat{c}\tilde{c}$   $\hat{c}$   Wil Liu Eo'' Xç [y>O'Aç Edke>Ys axtê dro%qG [ybir A+ a`ç\ir\cyçtox[vlîc\_l`s [JTÔJCX» Kẹy-KẹyÝ TôUÇ × I Eỗ× I Đ YÝ, YỆNÞX Kẹy-KẹyÝ %ç»Ó ĐặXÝ ȍ+āLC %e` GÐS Eã»\* å`ç\ir\cyçTö%e` GÐS Eã»ç YQNþX Key\$KeyÝ aEō\_» V\_x0Eō åXTÊ£Ø4Vå^ x[vlîc\_^) » 4Uï [vk\*» Y@V|X kkęy %ç+ A Ak÷ EOJ ¢» Vçãa\* %XQuiXxXOTő x|Vlîc\_l^» [v§ YÖNDX KX+y\$K+yÝ» %e` GÐÆS YÐTörör, ×V¾a» åa윾 [v͡kî ù Éõō»\*



 $(F) \ 25 \ L_{C}X_{C}^{W}_{C}^{O}, \ 2012 - 25 \ L_{C}X_{C}^{W}_{C}^{O}, \ T_{C}^{O}, \ T_{C}$ 









\[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[ \frac{1} \] \[ \frac{1} \] \[ \frac{1}{2} \] \[ \frac{1}{2} \] \[





åaçSç\_Y L^UU"[ybi> %ç>>>BS %XQmxTöQnO A. ×Y. åL %qŒç\_ Eōc\_ç]>>%e` GD+S %ç>Ó x[ylîc\_l^ Yetionip> [ybi 1963 \$xxtö Tovçx'ÜUX YÜyçx]Ü¥Y:%nTö L¾çc>>\_c\_ åxc>>O> x[ylîc\_l^ V`X x[ylîc\_l^F>X> [yā[ý VQiç% Tö-a{Fā^cGî HOXc\*

(H) 29 LçX(%c»Ý, ØöŘTö XýL-QÓTÖ Y(X)» ×]\_X 29 L¢X®⁄c»Ý Top»ãF YÔNÞX K¢y-K¢yÝ, YÔNÞX × LiEō× LièryÝ %¢»Ó [vī d cx» × l ieē× l ie/yý, key-keyý %c»Ó Eð kôvý aeð » Áeð Øðêt ö L¢X¢v×ÝTov×ãF Y¢v× \ojGTö¬(v)îç\_i^FX» Y¢NþX × I iqm»ÓaEō\_Eō''''åc÷ ]c\(\dagge\)\(\bar{c}\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\alpha\)\(\ \(\bar{Y}\) \(\right) \(\hat{Y}\) \(\right) \(\hat{Y}\) \(\right) \(\hat{Y}\) åc¢¼, √löX acÐþYÒNþX K¢y-K¢yÝ» Øölflö√jLÆlflöYK» ×1\_X a]çã»ç;÷ aZō\_Tœã» %XœdTöéc÷^d^\* YðNþX Key »å[vVÐEð]ç» Vça» a‡ûç\_XçTö %X@dTöa\@TöY@NbX Key-KeyÝQoO]t&cSÝåV[ý, \_Iis Vca E@XGc, ]X×Ld ×aXce, Y6x+io[/w64c, Y{[/E6] c> \indac^i, %>65 E6] c> Vca, ]d\\\\\\\\\ GêG, QiO »×tTöEf](» [v) V/c, åEð Éð] »çL %çV `TöHNEð YÖNDX × I iðUhð^ ØÖĒTÖÅ»c]ÜİX EÃD»\* %cXcrāTö^`ØV× LIEÕ× £ acc;×TÕEÕ YÕNDX %WÎLU ^(tőPVÐXdJ Z(EðX, Y6NbX %WiliuxEó»S \$6VÐEóEðTð, af xFEóc XYx ]c åG¢ØtējÝ, %X&¢dlýc Vça, EBTö×´1 tiPYÝ \$4jjðYç Vça, åLîç7tētēç åV[Ý, Y87tö [v/vle %cv [v/s LX» = Y-80/4T ar Nastalgic Reunion aacstoal/Gc \$\$\$d^\* X`c» \#GTöaœ•BTÆő%X&#X %X&#Töc+^\*

 $\begin{array}{lll} & A \bar{a} X V \bar{a} x + 3 \hat{b} x + 3$ 









#### %çãYçXçã $_$ çEõ» %4a» LÝ4X ] Wç» %ç»Ó açF] $^{\land}$ c÷CcEõ...





10] Tử %'+Qb+G\_ãZō\_X, Y0 ça Xō \[\\@G

lato Vça, YO çaX xi viğG

PlaāU関b åaX, Y0 çaX xy/jogG

#### आवासी मुख्य कार्यपालक की ओर से.....



ê|é'é + é'é±é <**à**bªfæé,

INSAG(1988) util Stanta-t not of each to the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the comment of the commen

"É&" TZÉIÉ YNDEÒ + PÉLÉ < BOªÉ ÉLÉ ÉJO÷EÒ BSÉ B°É < Ç TÉSÉXÉME EÒ NÍ<Ç (PALÉ ÉLÉ EJÉA TÉ ÉLÉ ÉLO + PÉLÉ < BOªÉ ÉLÉ ÉLO + PÉLÉ < BOªÉ ÉLÉ ÉLO BSÉ B°É B°É < Ç TÉSÉXÉME EÒ NÍ<Ç (PALÉ ÉLÉ E EXPÉTITE XPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTITE EXPÉTIT EXPÉTITE EXPÉTITE

{EMCLESSES VILLES (ESTA LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES LES VILLES V

<= CHE B "Ee+EE" Tâ\* Câ\* YAND BEO Edia + (CDE EXAME WATE) + EE BSEB\*C<CEdia + (Extavidi fot Edi + E; Lee + E + E + Extension of Examendation of Examendat

निर्मल कुमार अग्रवाल

आवासी मुख्य कार्यपालक



#### 

nůtéřtívítké Eð +{txtá nútřa Eð nútřáké bá. Eðtít ktá nÔLEPÉVÉXÉ CLÉÉ "É3 +ÉPÉLÉ <ÎLDPÉÉ ÊLÊ É1 ÎD ÷ E8 +ÊVÉE CÊPOÉS + feo Eò isiti ottà é félipté féttétététa ota + fb féttélifeta Eda °ÉAÉÉNÉIÉ ÉEXTÉ\* ÉTÉTÉILÉTÉAUÉTÉ +°ÉTÉ EXÒ °ÉTÉDFÙ {ÉTÆTÉ EX <°É + ´É°É®{É®nԱɰÉVÉxÉ C±É≈É Eŏ °ÉSÉ´É \_ÉD ¡ÒhÉVÉ®NÉMÉ&C ulfa =x/3{Equence + °E fe ME EDV6 + Ex Me for diff | Eq ô E & E NíªÉ\* +{ÉxÉaº ÉÁNÍTÉ ¦ÉPÍTHÉ "Éå ¸ÉÒ BXÉ. Eŏ ¦É¶É±ÉÒ, ÊxÉH¶ÉEÒ ("ÉxÉ É CÉAÉÉVÉXÉ + É& "ªÉ É Cɪ É Î TÉ CɰÉ) XÉ BÉ E CÀEÉ É E CÉ VAÎNTEÒ +ʦÉXÉTRIÉ ÊEỜÉ +É®INÔŁÉÉVÉXÉ C±É€ (ÉVÉ®IÉÄEРʱÉB =xÉEdČävÉxªÉTÉnù YÉÉTÉ!É ÊEďÉ\* nԱɪÉVÉxÉ xÉNÉ® Eð ÊŤŧť±ÉªÉå °Éä(EvÉE® UGjÉtáiÉIÉ =xÉEŏ +ʦɦÉÉTÉEČťáuɶ (ÉÚBNÍB |ɶxÉtåEčť =kť@lbk.Eò±fťť uť@i +{fxťa′fb/mù+xť@t´ť Eŏ +fvfť@i{ť@ifnðfť NíªÉ\* vÉxªÉ ÉÉnù | ɺ iÉÉ É | ɺ iÉÖÉ Eð¶iÉã¼B ¸ÉÒ +É®. Eð. °ÉÐEðªÉ, "Él⁄ÁJɤÉDEEÒ ("ÉÉXÉÉ °ÉAEÉVÉXÉ), xÉA bÉ. Eò±ÉÉÉ Eð |ÉÉIÉ +ɦÉÉ% +ʦɰªÉHÒ ÊEở°É\* <°É + ´É°É® {É® \_ÉÔ BxÉ. B¨É ¤ÉÐÁ, +vªÉIÉ ~a£Hò ¦ÊÒ °É¦ÉENÉ®; "Éå={ʰIÉiÉ IÉð

{EÛ(EʰÉ | LʰÉD} ÕE Ö XÉ 'É °ÉA|ɰÉ rù bÉ Eò±É 'É E Ö nԱɰÉVÉXÉ nɮE CÉ ''ÉD°É +ÉE Ở EÐÉ = XÉE Ö UɶÉ Ê 'ÉL¦ÉZÉ °ÉAI É+É ª E Ö UÓJÉ ª VÉ {ɰG {ʰE Ò < JEBC¶ÉXÉ ° VÁ\*



#### ETEKÉ PÉDE PÉÉ YÉÉKÉ "ÉZÉÉ - 2012

<°É "Éæfä EðÉ + fªÆVÍXÉ ÊİÉXɰÆEðÆ ÊVɱÆ |ɶưÉXÉ UжɰÉXÉ UжÉ</p>
°É "ÉæVÉEÒ °ÉNÉ ŒÆÅ + ÉÆV ¤ÆV TVÉČ TªÆÅE Ö °ÉVÞÆMÉ °ÉÄÊEÐÆ NªÆ\*
<°É nÆMXÉ Ê TÉT Û I ſªÆÅ EðÆ VªÆXÉ "ÉÅ °Ð ÉÍÆ 1/B |ɶXÆKɰÖ, TÆN Ù
ÉT ÆN Ù °ÉÆELÊÍÆÐ EðÆÇÖ"É, Ê ÍYÆXÉ |Én¶ÆÇÖ, EæÆ¶É® {ɶɶÉÇ</p>
<ïªÆN Ù EðÆÇÖ"É + ſªÆÐVÉIÉ ÊEðB NB\*</p>

"ɱÉä EðÉ "ÉÖ ªÉ +ÉEð ÍÐÉ "Eð ÐÚÉM {ÉM ɶÍÇ ÞVÁ\* <°ÉEð ʱÉB +ɪɱÉ <ÎD ªÉ ɱÉ ÉJ ÎD ÷Eð ªÉÐÉ <VÆÐÚXͪÉMáauÍM {ÉÆÉÉÉÉ "Éå+ÉxÉã É£ÉÎ Í Í Í Í ÉÉÅE ČÁ3<VÆÐÍXÁÐÉÍMÍ, ¦ÆÍÝYÆXÉ, ÊÆKÉ, °ÉÐÉXÉ | LEGET ÉBNÍE ÀC), | LEGET É LÉLÉE ÉNÉMÉ ÉLÉ °ÉTEACHÉ VÉRÉA LÉJÉÉA E À SÉALÉÉÉ | Beo egergégy en °ü{é "éa expréa valéo" lénárajagéé ée à léjééa logée

#### MÉMAD "ÉMHÉɱɪÉ EÐ LÉÐJÉÖÐÉ ®ÁTVɦÉÉTÉÉ °É'"ÉÐJÉKÉ "ÉÐJKÉ®ÁEÐɰÉ, nÖбɪÉÉVÉÉKÉ °É'"ÉÉÉKÉJÉ





#### {ÉÊPHÉÉNEKÉÉ °Ü{ÉÉNEPÜ EĞ İÉNDE @NHÉ Ê ÉİÉPHÉ EĞEAĞÖ'É

{ÉPHÉVÍXÉ °Ü{ÉMÉV EŎ IÉVÁE °ÉPÁVÍNÉV EŎ + ÉVÉV ÞÁÉB VÚXÉ °ÉPÁVÍNÉV EŎ + ÉVÉV (ÉRÉ EÒPÁÉE Ď ÉTÁKÉV É VÉVÁFÉIÉ |ÉRÓKÉ Eð ££B +£££ <£b\$£££££££££££££££££\$6. EÒTIC÷ (CÉTEC) É TKÔ É OÉ VÁPÉTÉ 150 ° TE LAPÉVÁPÉTÉ °É DÁTE + ÉP 100 °ÉAÉBIÒ NALLIÉ °É ÉVANA E CÉA | ÉNÉKÉ E CÒ VIÉ ®VAD 1/8†

 $+\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}}\hat{\mathbf{H}$ +°É'É BEÒ ¦ÉNÉONÉ® Eð °Ü{É "Éð EðɰÉÇ Eð® ®MÁ MF ÊNNÉÆÐ 30.1.2012 Eďá+ÉPɱÉ <ÎBO¥É ʱÉ É] io÷E io ¼P iÉPɱÉ |ÉPÉI ÍhÉ + £80 = i{Ænù£ Eðxpù £7 **6**£±£N£, nÔ±£2£V£x£ "£å BEò °£ £6\$\$\$ EŒ + ÉMÉNTAL ÉLEIGHE NIGHE É ÉVÉGÉLÖ IÉMBÉ JÉTÉ SÉGIGÉ "ÉA77 ° ÉGÉA °ÉVÁPÉIÉE °É ÉVÁBÁ + ÉRÁ 26 °ÉALÉIN NA ÉIÉE °É ÉVÁBÁ E & ±ÉMÍ; ÉMÉ 900 °Éä19.25 ±ÉÉJÉ ¶ÉT] **Ì**PÉEDIÉ ¤ÉEČÉå°Éä|ÉÉ(IÉ ¼Á-É ¼5

{ÉVALÉBSÉTINÉ "ÉBÂ(ÉETIÉVÉVÉKÉ EĞ IÉVADÉ ¤ÉKÉJÉ {ÉÉLÉVÉ, ¤ÉEVTI) {ÉÉLÉVÉ, baten) Jtato, {tetent] @tent (; det complete de ormé en i et/ple) + ten ¤ÉMÉ<ÇVÉPÊD +ÊTÉEÒ MÉTÉ ÉVÉPÉTA E CÉA E Ò ÉPTÉE ÀPÉ MPÉ 1/8

30.1.2012 Edá + É ÉDVÉ °É É É ÉDAN É É É D E D E É, °É ÉDAN "ÉVÁJÉRÁMETO (=i{ÉNNÉ), +ÉPÉTÉ <ÊDªÉ ÊTÉPÉTÍD; "ÉÖPÉ +ÊIÉHÉ Eĕ °Ü{É 'ÉåiÉIÉÉ \_ÉÒ nÒ(ɪÉxÉ ¤É°Ü ´É, |É ÉÖÉ |ɶÉIÉhÉ B ´ÉxÊ ÉE&ɰÉ Ê'ɦÉNÍ, +Ê'ɱÉ <ÎBOªÉ ʱÊ É|Îb÷iÉIÉ \_ÊO +É® {ÊO SÉMIE Œ ŒÎÊO, °É±ÉMÆČÉ®; B°É+É<Ç÷É®bè, ʴɶɹ]õ+ÊİÉİÉ Eŏ°ü{É ¨Éå={ÊΰIÉİÉ IÉT ÉD B°É. BXÉ. ÞÆĞE, TÉTÐI Ö JÉTÁMEÐ (VÉXÉ °ÉMEE), ÉÐ JÓ NAVÉRTEČÉ, °ÉSÉ É {ÉRPÉKÍKÉ °Ü{ÉMÉR) + ÉRM |É×ÉMÉE Ó (VÉKÉ °ÉMÉE Ó), \_£07**0.** 1964, |£¦£90, B°£+£<&£900, {£90£964£4£ °ü{£4£96£6 Eœpùn**ô**±fa€VExé, fò ¤fò. **Némé**aç "Éxénù°ÉSé é, +é<ç+éb;×±afótí <°É + TÉ É É LÉ E GÉ É GÖ É E BÒ PÉ A É PÁGÁ PHÁ LÉ

={ÊΰIÉIÉ Ê ÉUVÉXÉLAIÉIÉ ° ÉPÉAPÉVÁPÉIÉ °É ÉVÁPÁ °ÉAÉDIO MAÉIÉ °É ÉVÁPÁ °ÉAVECTA (ÉLPIÉMÁ E CÁB °ÉALÉAVÉTÉ E DOMÉAVAR "ÉD"É + ÉTÉLTÉ ÉD DÆCÉ xťa+ťří±ť do÷ť 屝říjío÷Eď °ťOB°ť+ť® aťďvíxíť Eď iťVøť Sť±ť 940 {É964XXÉ °U{ÉAÉ96 Eð |ÉÍÉ +ÉPÉÉ <Â64É É±É É] io÷ Eò | lei letri le Edan likk per li li le Ed/f leo | le fre lea | lo < co | le de leo | le de leo | le de leo | le de leo | le de leo | le de leo | le de leo | le de leo | le de leo | le de leo | le de leo | le de leo | leo de leo | leo de leo | leo de leo de leo | leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de leo de

EÒMÉ VÉTO TAMÉ\* LÔ B'É.B'É. MÉMÉRÇ XÉRO TOTAPO ÉVÉPÉTÉ O ÉTÉMB Eð °fn0°ffå Edá + frf±£ < fb. f±f£ f1jb÷if1f£ B°£+f<C + f. fb. ð +°É'É UжÉ NÒ VÉÉ ®YÐ ÊTÉKÊPÉ °ÉVÆPÉIÉÉ EĞE ¦É®ÇÉÐ6±ÉɦÉ =`ĞĸÉä  $E \partial \partial + \{f \partial b f E \partial b f \}$ 

°ÉxÉnù¶YAEÒYAÉÉ YÀ Éå+ÉPɱÉ <ÃĐªÉ Ê±Ê ÉÌ 61-6-EÒ<°É {É®MÉYÉXÉ Eð  $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$  =  $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$   $\hat{\mathbf{L}}$  |Énglékéd Eð nélékké ¤Évájé |Égéalé É É±Éd léd\*

#### JÉÉÉÉ

ÉWÉNMÉGÓSÉRÉ ZÁRÉF® IÉNÉZÉR ZÉF BÉÖLL FÉFŐXÉCÉÓ if®ä nfàfxé àfå àf®ä ´ff°ifä BfÐff BfÖU fffÓxfcfÓ? +ÉMÉ® SÉÉCả IÉÉä <xÉ CÉ IÉÉå BÉEÉÒ IÉÃÉɶÉÉÒ ÃÉä ÃÉå < XÉ CÉTÉÉÀ ÀÉÀ ÃÉBÉFÉÐÉÀ BÉEÄ ÉPÉ ÉÉ BÉÖU ÉÉÉD XÉCÉÓ VÉÉxÉä BÉÐÉÉ BÉÐÉÉ ¤ÉÉIÉÅ {ÉE@ÉÉÒ Cé àÉ®ä xÉÉàÉ °Éä °ÉSÉ IÉÉÄ ªÉÄ CÈ ÉBÉE ÀÉKÉÄ ÉBÉEªÉÉ BÉÖU FÉÉD XÉCÉÓ aÉC ¤ÉÉIÉ +ÉÉ® CÈÉBÉE ÉC ®É°É XÉ +ÉɪÉ BÉÖUBÉE BÉÉÉÄ =°É ¶ÉJ°É àÉå A8Éä iÉÉä ¤ÉÜÉ BÉÖU ÉÉÉÒ XÉCÉÓ càÉxÉä näJÉÉ cè aÉcÉÆBÉÖU ABÉä JÉÖNÉ+ÉÉÆBÉFÉä °ÉEÀÉXÉ A ÉMÉXÉBÉE A °ÉSÉÀÉBÉ BÉEÉ KÉBÉ BÉBU EÉÉD XÉCÉD afé Kébé, <°é n}fe fbéeé ®ME bfeb +té<Ccè fcé® VÉNÇ CÉÒ VÉNÇ CÈ {Éð⁄2Éå {Éä c®É BÉÖU £ÉÉÒ XÉCÉÓ ÉĥãÉ cẻ VÉEª ¤ESSEªBÉEÉDªÉEÉBÉN +ɽÉ cè ÉDEN {É® aéé iééä<°éä°é¤é BéÖU SééécA aéé éŘéE® BéÖU Eéé0 xÉcÉÓ

ÉWÉNMÉÓ SÉRÉ ÃÉBÉE® IÉNÉÄÉѪÉÉ BÉÖU EÉÉÒXÉCÉÓ if®ä nfàfxé àfå àf®ä ´ff°ifä Bfðfé BfðU fffðxfcfÓ? cél®c® ¶ÉàÉÉC

àÉÖJªÉ +ÉÉÉɪÉÆÉ ({ÉÉ<{ÉãÉÉ<XÉ °ÉÄÉÉAÆ



#### itat B'EARRE °EANTHE (EJETECE 2012

|ÉiªÉEò É!ÉÇEÒ ¦ÉÉÉÉ ÎnÀÉEÈ 15 °Éä31 VÉXÉÉ®Ò, 2012 IÉEÒ NPÉ IÉÉEÒ IÉÆÉ B'ÉÆNÉE °ÉÆNÉE EÖ |ÉEIÉ VÉÉN°ÜEÒIÉ (ÉÐÓ 1/Áð <°É {ÉJÉ ÉGªE 8 nG®GNÉ EGGªÉPTÉLÉ TÉTÉ É ÉÉTÉ ÉTÉ PÉPTÉE 0 °ÉRTÉNÉS "ÉåÊ´IʦÉzÉ |ÉEŒ®Eð EðŒÇÖ"É +ɪŒVÉIÉ ÊEðB NÍB\*

(ÉJÉTÉCÄETÉ PÉDÉTÉ V TÉVÉTÁKADÉ EĞ "ÉHÉ 1/B-É\* = °É ÎNVÊ İFÂÉ B´ÉANÚRÉ °ÉARITHÉ VÁTÉÖ¶É(ÉIÉ ±ÉÒ NÍ<ÇIÉIÉ NÍÖFÉ®A UĞEXÉZEĞ °ÉIÉ nůtřetvěxé ctét +tem eatkád ¤évém ťabed xédedc;xátjæd eð + PENTAL | 10 EE PE NPE OE LEELE PLO + LEO | ESE OF LEON Eð "ÉЪÉ +ÉEð'ÉÐÉ ¶VÆT {ÉJÉTÉC#Eð nÉ®fwÉ ÊTʦÉZÉ ¶ÉÐÉÐhÉEð °ÉRIÉXÉBE BÊÉT Û IÉBÉBE BÊÉB ÞÁNN, (ÉB) VÁ, TÉMEÊTÉTÉME IÉITÉMÉ °±ÉMNÉ B´ÉAÊXÉÉME ±ÉJÉKÉ |ÉÉIÉÉMÍTÉBÆ+ÉTÉNÉTÉ EÒ NÍ<È <°É ÉJ Ê´ÉtÊlfaŒaxEa+{ExŒ =i°Œ¼bênùŒiEa¼B ¤£gøS£gøEò¾¦ŒM££±faŒ\*

Ênù±Ê) (ʤ±ÉE) °EÚ£É, nԣɪÉEVÉKÉ "Éå ÉEnùÊ É TÉNÌ "ÉED£É |ÉnQIÉÇÉ) +£600>0VEC;°EADE ÉNÉ °ÉALAED (ÉA]AN |ÉNÌMÉIÉ ÉE B NÍB\*

TEBÉXÉ ±ÉKKE AMEKÉRA ÉPOLÍTE OXÉCE Ó PÉ "TEBÉXÉ E ČÉ + ÉPÉKVÉXÉ ÊE PÉ MPÉ\* {ÉJÉ′ÉGªEð nÓÐÁNÉ "ÉF ŒÎÉ +ÉÐÍYÐЬ <ÇEÆEÐÁTÉLAÚÐÁ ĒNÊ"ÉIÉ ´ÉÐÁDÉLð EÒ +Ú JÁZ<ÌÉXÉ IÉ ÉIÉ EÒ VÉBÉ VÁĞO IÉXÔ É bÀÉGÁ Eð °ÉVÁÐÉM °Éänfäitglétégá±fénfB N/B\* <xé typetégá\*få\*få Eö±é 150 ´fél/þóféå Eòð VÉBÉ B ÉÆPÊ ÉPÉ EÒ NÍ<C

nů±ťaťEvféxé Eð + ĉifÉ®Hò {É£<{é±fé<xé "ÉÖaf鱝aé, xévé"Éf]ð (NIÔÉ!/ $\hat{p}$ ] $\hat{o}$ ), "ÉEMINÉ, ÊDAI=ÉE $\hat{a}$ Ç + ÉE $\hat{u}$  + "thÉESɱÉ |Én $\hat{q}$ E "É $\hat{a}$  ¦E $\hat{0}$  <°É (ÉJÉTÉC#EdÉ °É; Ò±ÉIÉK(ĐÚÆ)Ò +ɪŒWÍXÉ ÊEðªÉ NæÉ\* xÉ<ÇÊnì±£ÎÒ ΰléié ÊxÁNÊ Éié Exé¤ÉÉÉaé "Éa¶É(Elé CÉVADÉ iÉlÉÉ +xªÉ |ÉÉiɹ` ÓxÉÉa/ {ÉJÉTÉC#EdÉ °ÉTÉ(ÉxÉ {ÉÖREDÉ®ÉTÉTÉMÉ EĞ °ÉTÉ 1/Ð-É\*

#### +ÊPʱÊ <ÎD\$E ʱÊÊ'Ê]ÎD÷'Êå{ÊÛÊÊÆÊ°ÛÎÊÆÊ BÊÆEŒÎʱÊÊ JÊÊXÊ °ÊÛÛÎÊÊ °Ê{ÎÊʽD2011-12 EŒ +ʪÊEYÊXÊ

JÉXÉ °ÉÐVÉ "ÉMÉXÉNÐJɱɪÉ Eð °ÉÐVÉNÉ "Éð+ÉPɱÉ <ÎЪÉ Ê±É "ÉJ Ð÷ |ɶÉÆÉ Ê É±ÉÐ" uế¶ 3.2.2012 EďanÔ±PŒVÉxÉ C±É€ +ÊĐ₹Ô₽ĐÊÉ "ťa{ĐÚĐÆ® ifat B TATE CLAFTÉ JÉKÉ °ÉGNÉ °ÉGIÉVA 2011-12 iÉIÉ (ÉGGY E CÉGN ÊTEÎFÎNÊ °Ê ÎFÎND EVÊ +ÊPÎNDÎNÊ ÎEVÎÊ NÎPÊ\* <°Ê + ʰÊN (ÊN Edi (DI ± (E), + 6 (± ( < 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 (± ( + 16) + 6 ( utigi ° Téo laé + teo céduté "téxte da tale db vié gyaixtaté tié cidégia EÒ ÉMHÉ (ÉMIÉEÓNÉ DÉHÉ\* <°ÊD GÖ É "ɪ ÉÐ ÝNÍKÉANNÍÆC + vªÉI É, +£<££b#±°EEÚIÉIÉÉÉB DÀ ¤ÉMÉÉÉÉÉÉ +É#É<ÇÇB UÉMÉ ={ʰIÉIÉ ±ÉMÉB E CÉB°ÉBVÉIÉ Ê E CHÉ MªÉ\*

°É'ÉGÁNDEÒ ¶ÉÖÜ+ÉIÉ "Éå=±±ÉJÉ ÉEÐÉ NPÉ ÉEÒ +PÉ£É <ÎDÆ ʱʰÉ1Ď÷°É¤É°É3±ÉAÉ3°É°ÉªÉ IÉEÒ NÖÉQÃÉ "ÉÖIÒ°ÉAIÉÉ ®YÓ VÆ <°É {ÉPSɱÊxÉEò °ÉÆIÉ+Éà Eďã {É®PEDIÉ ÊEďÉ NªÉ\* °ÉɶDAD Éå |ɺiHÖÉ ÊEÒB NÍB ºÉPROJÉ NÍCIÉ IÉIHÉ ºÉPROJÉ 1/50ºªÉ XHÉE] ÆJÉ ÊVɺÉEJÉ (É) é Édlék i Éllék + Ê; ÉxÉé ° TélAE ő ÉSÉÉ GÚÉ a UÉGÉ ÉE JÉ Mélé, Edőa

EďPÍGÖ É EďE + PÉMÍKÁ PÁÐI É + ÉÐI (PÉCÉTHÉ É Í; ÉNÍ UÍFTÍ ÉEÐ É ¤ÉBÉ, |É'ÉÖÉ °ÉADÉ B'ÉA{É'ÉÉÇÉ'ADÉ XÉB +ÉPɱÉ <ÂDªÉ ʱÉÉ'É] b÷ uếTổ ÊTÊ; ÉTÉ TÉÁTÉ TÉÁTÉ TÁ BÀ NÍ < Ç (ÉTÆ EÐ) VÍÐ VÆ TÉ TÉ TÉ VÍÐ ÉT TÍ TÍÐ VÍÐ É Eò<C°ÉANÉ ±ÉBÉ {ÉÑNÉ IÉIÉ +É{ÉNÉ |ÉÉAÉXÉ °ÉBVÉÖ#"ÉEÒ ÊbÅÉ ÊEi∂B\*

<°Ê) Eòc ð "Éå+ÉřɱÉ <Îb¾É ʱÉ É] Îb÷uɾÉ +|ɱÉ 2012 "ÉУþЕŏ ntenté (tithet vitat B tae dat ti Jéxt °tim é °t(iév)2011-12 Eð +ÂLÉTÉ ÊNVÉ EĞ °ÉTÉ®ÁKADEĞ +ɪÉKVÍXÉ ÊEÖTÉ VÉÉBNÉ ÊVɰÉTÉ3EĞZE <ÎD $\stackrel{\mathcal{L}}{=}$ Ê £±Ê £J ÎD $\stackrel{\mathcal{L}}{=}$  + ÊBXÊVÊDÊD (B°ÊJÕ-ʶ£ £°ÉHÎN $\stackrel{\mathcal{L}}{=}$ ) =ÊPÊXÊ-VÉERVÂJ, +NÍ9Í£É, ĈºĹ£ŚĹŶ), ĈVĆŰä<ŅÉä|É<´ĹĴÕűÉŤĹĴĎ; JÉŶŶŰM BŤÆ + "thếSɱÉ |Énglé JiếxéVế Ê'ÉEởC°É +ɮO "TẾ(ÉE®) ÊxÂVÉ É Ê±Ê É]  $\dot{\mathbf{b}}$ ÷ ¦ÉÍNÉ ±ÉMÉZ °É ÉGGERDE CÉ +ÉPÉRVÉKÉ °É¦ÉD ¦ÉÍNÉCHÉGÉAE ÉKÉGIÐI ÉHÉ EÖ ={ɶÁFÉ ÊEďÉ VÉBNÉ\*





# BRIDGING THE DIGITAL GAP

Special avenue for Computer education

Computer Education Centre at Extension Centre, SIRD, Duliajan an OIL-SIRD initiative under Project 'Rupantar'

Founded in 2004, aimed at generating alternate employment through imparting Computer education at minimum costs. Over 50,000 students have successfully passed out from the Computer Centre till date.